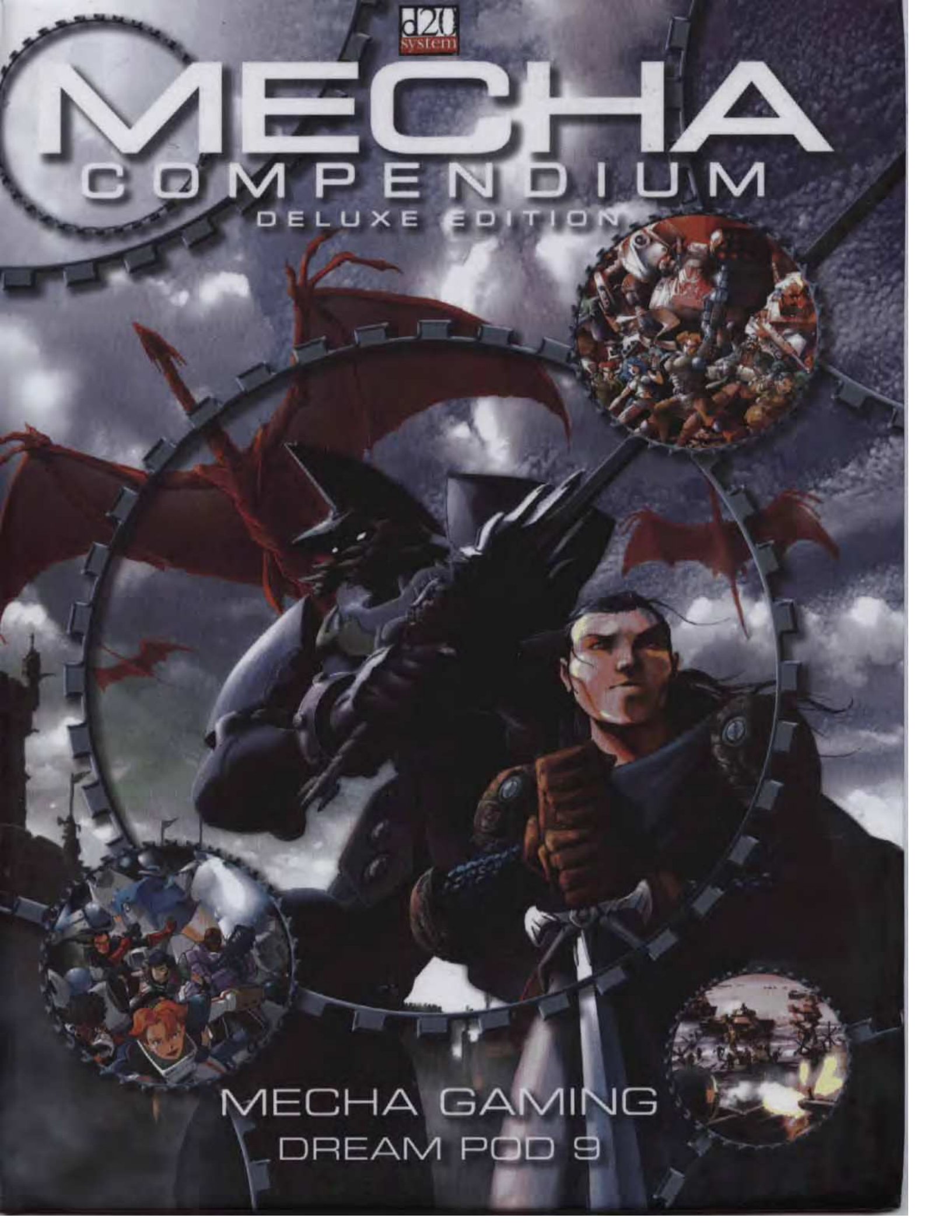


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MECHA

COMPENDIUM

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MECHA GAMING
DREAM POD 9

MECHA

COMPENDIUM

DELUXE EDITION

From epic magical fantasy to the high tech far future, the *Deluxe d20 Mecha Compendium* brings the mechanized action genre to life with detailed mecha design and combat rules, followed by fourteen adventure settings, complete with world background, campaign ideas and pre-designed machines.

The Deluxe d20 Mecha Compendium delivers the firepower and strength that players need to deal with those awkward situations where the party is running for their lives. Control a towering magical knight that can go toe-to-toe with dragons, a transformable superpowered aerofighter, or anything in between!

The Compendium holds more than a hundred mecha designs and variants spanning several genres, from magical fantasy to space opera by way of the present day. In addition to brand new, never-seen-before designs, the book contains d20 game statistics for **Heavy Gear™**, **Jovian Chronicles™**, **Gear Krieg™** and **Gear Krieg Modern™** mecha! Game Masters and players alike will find the Compendium an indispensable aid in populating their campaigns.

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Chapter One: Basics

The term "mecha" was originally shorthand for "mechanical design" in the Japanese animation world (also known as "anime"). Anything that wasn't a character or a background set was a mecha, from ordinary cars and motorbikes to robots and starships. Since they were needed in greater numbers on shows that featured lots of vehicles and weapons — most of them giant robots and science-fiction series — the term came to be identified with big piloted robots (though most shows adopt specialized term for them, like "mobile armor," "iron troopers" or "powered driver"). For the purpose of these rules, a mecha is any vehicle, suit, construct or giant robot built with Mecha Points (see page 9 and Chapter).

Mecha are not in themselves a pure genre — they are almost always combined with something else to create a brand new world setting. The style of the resulting game will thus depend on the mix of genres and technological levels (this chapter explore the topic at greater length). This Deluxe Compendium presents fourteen different game worlds to explore and play in!



CAMPAIGN STYLES

Mecha of any kind can easily be dropped in almost any kind of campaign available. As long as there is room for equipment or vehicles, there's room for mecha.

Fantasy: Mecha can be dropped in as magical artifacts in almost any standard fantasy world. If sorcerers can animate an iron golem, it is not too much of a stretch to make them bigger and controlled from the inside. They will often be either individually hand-crafted or be legendary items from a forgotten age. Their actual physical nature varies wildly: some will be made of enchanted metal, others are grown from flesh, others still are made of pure magic. Story-wise, fantasy mecha are often comparatively weaker than those in other genres, in order to give a fighting chance to the monsters and creatures that inhabit the rest of the setting, but this is not an absolute rule. *Guardians of Divinity*, page 20, and *Golemsuit Warriors*, page 32, are examples of Fantasy.

Steampunk: A term formed by the combination of "steam power" and "cyberpunk," steampunk usually describe an alternate world where Victorian Age society has mastered a greater technical level. Steampunk also covers the industrial age of many classic "sword and sorcery" fantasy worlds. Mecha from this genre are made of heavy iron plates and polished brass, with tons of rivets and a belching smokestack. *Cities & Empire*, page 48, is an example of Steampunk settings.

Alternate History: Similar to the Steam Punk genre above, the Alternate History angle lets Gamemasters field mecha wherever they wish. Perhaps aliens provided the necessary advanced technologies, or a genius scientist developed them on his own. Alternate History machines are sometimes clunky, sometimes advanced, but they all mix the familiar with the fantastic: UN mechatanks standing guard at the Korean DMZ border, or French Dragoons boarding their gleaming machines to march on Russia under the orders of Napoleon and his clockwork engineers. *Gear Krieg*, page 60, and *Great Machine Decander*, page 90, are examples of Alternate History.

Modern Day/Near Future: Research is currently ongoing in the field of human battlefield augmentations. The DARPA agency in the United States has several programs aimed at producing a battlesuit that will allow an individual soldier to carry as much firepower as a battle tank, for use in both open war and counter-insurgency operations. It is easy to imagine that certain shadowy organizations (governments, spy agencies, corporations, terrorist groups) are already equipped with them. *Phoenix Rising*, page 82, is an example of Modern Day mecha settings.

Far Future: As Mankind moves into space, the versatile mecha will certainly be part of its arsenal of tools. Thanks to advanced technology, they will be faster and more powerful, and be used for exploration, construction and defense. Most far-future mecha designs are both tough and fast, and carry a significant amount of guided weaponry. Many feature sophisticated control systems that makes them one with their operator. *Heavy Gear*, page 108, *Jovian Chronicles*, page 126, and *Outworld Changelings*, page 160, are all examples of Far Future mecha settings.

INTRODUCTION

Space Opera: This genre is very similar to the previous one, but tend more toward the “epic” stories, placing the emphasis on the characters and their fates rather than on the mechanics. As a result, the latter often have fantastic but under-explained capabilities, since the “how” of the technology is not as important as the “why.” As the name indicates, most Space Opera stories feature space travel of some kind. *Space Ranger Ouroboros*, page 150, is an example of Space Opera mecha settings.

Espionage: Mecha and the espionage genre don't tend to mix well, mostly because mecha are large and loud and this is the last thing one needs during a secret operation. Still, mecha can be used as a McGuffin to jumpstart an adventure (the new prototype is missing), or they could be used as a secret gadget to save the agent (who knew that Agent-X's sport car could transform into a battlesuit?). Most of the time, though, the operations will be to stop the development of mecha by the bad guys. *Phoenix Rising*, page 82, is an example of settings where mecha and espionage can intersect.

Horror: This is another genre that does not generally mix with mecha, simply because the latter allow the heroes to fight back against the monsters stalking them! Still, it can be done, especially if the monsters have access to mecha themselves. For this reason, horror/mecha stories often take place during an invasion of tentacled alien abominations.

Sentai: A Japanese specialty that has become popular when translated into children shows in the United States, the sentai concept is a team of warriors, usually young men and women, who can transform into a multi-colored battle squad to fight a force that threatens society or the Earth as a whole. Each team member has its own set of powers and distinctive uniform color, which is repeated on their personal machine(s) and robot(s). Many sentai teams can combine (either physically or through their mecha) into a giant mecha of great power. Sentai stories can be placed in any time period, though they often take place on present day Earth. *Beast Lords*, page 40, is an example of Sentai setting.

CAMPAIGN THEMES

Action: This is the easiest theme to work into a mecha-based campaign. The characters will likely be pilots of some sort, and will always be on the move, fighting, pursuing or escaping from the bad guys. Campaigns like this tend to be combat-heavy, and the Gamemaster must keep in mind the presence of the mecha themselves and craft the adventure appropriately (it's hard to fight one's way through the Dungeon of Doom in a 60-foot tall machine!).

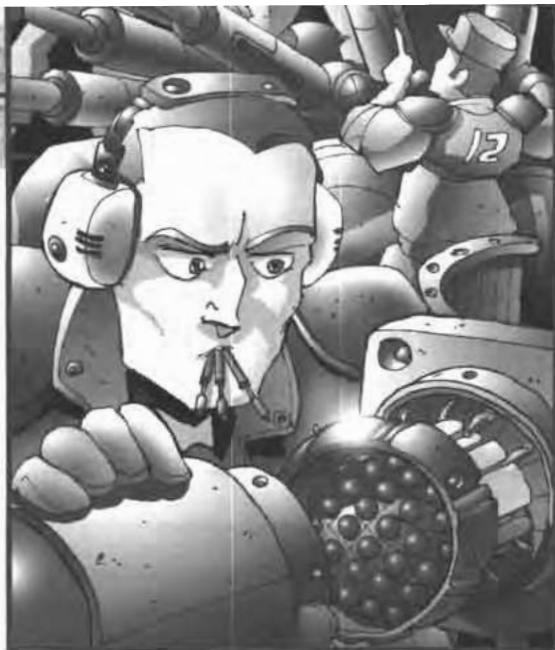
Adventure: This theme is similar to the pure action campaign, but features significant downtime outside of the mecha. There may be one major mecha battle every few sessions, and many combat scenes outside of the mecha. Some of the plot lines may well be completely resolved without resorting to the giant robots.

Intrigue: Intrigue-based campaigns generally feature mecha only as part of the background world, rather than as a common game element (unless the mecha are form-fitting infiltration battlesuits, of course). Spies visiting a factory may see a powered frame stacking cargo boxes, or they may even use it themselves as part of a daring escape, but they will generally not have one in their arsenal.

TECH LEVELS

Mecha are generally at the same level of technology as the rest of the campaign, or just slightly higher. There are exceptions, of course: magical mecha, for example, or machines built with advanced science provided by an outside agency (aliens, other country, etc.). Strictly speaking, there are three rough levels to consider.

Low: Mecha at low tech levels tend to be rare, clunky and underpowered. They add charm and atmosphere, and if they are big enough they might be a credible threat to a group of persons on foot, but that's about it. It usually makes more sense to build a dedicated machine to do the job, such as a wheeled car or a crane, rather than a legged transport-mecha.



Medium: Mecha are most commonly found in societies with medium to high technology. They have the resources needed to mass-produce machines with viable real-world capabilities. These still tend to be specialized, being controlled through standard computers and powered by internal combustion engines or early nuclear powerplants. They are tough, but not invincible — faced with a more specialized vehicle, such as a tank, they will fare poorly unless they manage to use the environment to their advantage.

High: Mecha built with high technology will be fast, powerful, and may even be mentally controlled — if they are not self-aware to begin with! They can be built at any size desired, and their weapons are often extremely powerful. At the higher stages of the technology curve, very advanced mecha will begin to move away from the humanoid layout, to be replaced by an armored hull supported by anti-gravity pods and equipped with tractor beam manipulators.

BOOK CONTENT

The Deluxe Compendium is divided into six chapters, including this one. The next three focus on Fantasy, Modern and Future worlds, respectively. Each chapter contains between three and four settings representing some of the possible genres within the same era. The entries for each setting feature some basic background and historical information, followed by a breakdown of the various factions and sides active within that world.

Each setting includes four or more mecha, each of which is fairly representative of the type of machines that exist in that particular world. Beyond a descriptive text and illustrations, the mecha entries have an Open Gaming License stats block and, in certain cases, a few variants of the basic chassis.

Chapter Five contains rules for designing and customizing mecha, including their weapon payload. This is a relatively simple step-by-step procedure — Mecha Point costs are provided for all the designs in this book, to facilitate payload modifications.

Chapter Six features complete action and combat rules to use the mecha showcased in this manual. They should be useable with any d20-based games, and contain a number of options to make adaptation to any setting easier.

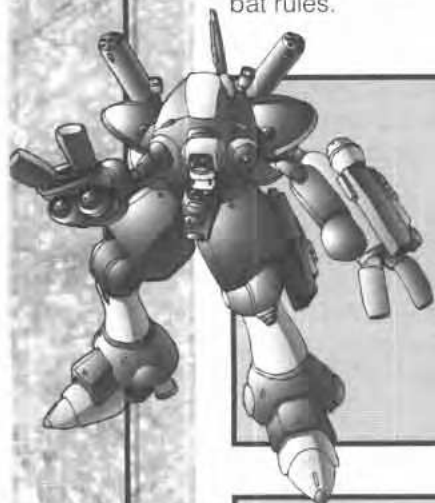
Using the Mecha in this Manual

The rules used in this manual are an effects-based system. They are concerned with what the vehicle does, not the nuts-and-bolts details of its construction. The next few pages contain explanations that will allow the use of all machines in this book. For all practical intents and purposes, mecha are simply used as big characters or monsters with some special abilities, which happen to use the game statistics, Feats and Skills of their pilot(s) instead of their own.

Each mecha design will cost a certain number of *Mecha Points* (MPs) depending on its statistics and qualities. Mecha Points are an abstract representation of the qualitative value of the mecha (they could be compared to a Challenge Rating for mecha). MPs are generally translated to a monetary value adequate for the setting or a minimum Level required to field it, both of which are also listed in the stats when applicable.

MECHA TYPES

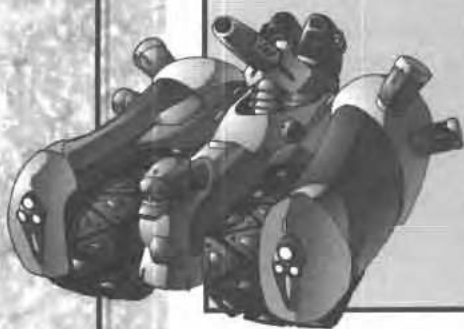
The mecha in this book are divided in three separate categories, Battlesuits, Giant Robots and Vehicles/Hybrids. Each has its own set of special rules, but they are all built with Mecha Points and operate under pretty much the same set of combat rules.



BATTLESUIT — Also called “mecha suit” or simply “suit,” this type of mecha is a form-fitting suit of armor. Instead of riding in a cockpit, the pilot wears the mecha as if they were clothes, activating the limbs with his own movements. Because of this control feature, a battlesuit has no room for extra gear or cargo of any sort. The operator must wear tight clothing, or none at all, and can carry no extra equipment on his person (most battlesuits thus include some sort of cargo storage or carrying capacity). It takes at least two rounds to enter and exit a battlesuit; some designs may require more time.



GIANT ROBOT — This is a piloted humanoid or animal-shaped vehicle that is larger (usually, far larger) than its operator. Its limbs provide both agility and manipulatory ability; in most anime, giant robot mobility is generally far in excess of other vehicles of similar mass. Giant robot designs range from the classic humanoid fighting machine to more exotic mechanical forms, such as animals or monsters, but they always have limbs. They are operated from a cockpit that is usually located in the head or main body of the machine. At the minimum, there is enough spare space for a small backpack's worth of items or weapons. In all but the tightest design, a small passenger can ride on the pilot's lap in emergencies if need be (at a -2 penalty to all tests and checks).



VEHICLE/HYBRID — This catch-all category include any mecha that does not fit in the previous two types. A vehicle may have some sort of tool arms (such as a crane), but cannot be described as a “limbed” chassis. It includes everything from standard cars to interstellar battleships. “Centaur” tank chassis with armless robot torsos are a good example of an hybrid — it fits in this category because it lacks the mobility and agility of a giant robot. Vehicles are controlled from a cockpit, subject to the same rules as a giant robot.

MECHA STATISTICS

Mecha have a number of "mecha statistics" that govern what the mecha is capable of. Most of them are pretty straightforward and need little explanation; in many ways, a mecha is similar to a Construct or Monster, albeit one that can be piloted, driven or worn.

Type: Whether the mecha is a Suit, Giant Robot, or Vehicle. The first is worn like a tight suit of armor, the second is the typical giant robot or monster, and the last is a catch-all category for any limbless mecha (like a tank or starship).

Class: The general category of mecha, like "sailing ship" or "main battle tank." This has no effect on the game and is up to the designer to specify. If a text description is provided with the stats, this is generally omitted.

Size: The mecha's physical size, which may range from Medium to Colossal. This entry also contains the largest dimension of the vehicle.

Hit Points: The mecha's capacity to take physical damage. Unlike high level characters, for which hit points represent luck, combat fatigue and wound capacity, mecha hit points solely represent physical structural damage. If the Gamemaster agrees, player characters can choose to take up to half of the incoming damage of each attack off their own hit points, representing near misses ("I'm a bit shaken, but the mecha's fine!").

Occupants: The number of Medium-sized occupants the mecha can transport. If both crew and passengers are present, there will be two entries (the second number is passengers). Passengers cannot affect the operation of the machine, but they can replace fallen crew (taking 1d6 rounds to do so). This also lists the cargo the mecha can carry, by mass. Naturally, it can't be bigger than the mecha if it's housed inside, no matter its weight.

Hardness: The mecha's hardness damage reduction: it is subtracted from any damage inflicted first, before anything is taken off hit points, but does not go down itself. If the mecha's armor gives an equipment defense bonus, it is listed in parentheses.

If armor varies by location, this will be noted as well (except for Optimized Armor, which is listed in Mecha Defects).

Defense: The mecha's defense modifier, factoring in the values from its Armor bonus (if any) and Size.

Strength: The mecha's Strength ability. This is only listed for giant robots and suits, not for vehicles (which have no limbs to apply strength with). The suit's Str entry is a bonus to the operator's, while the giant robot's value is its own Str.

Speed: How fast the mecha can move on Land, or Air, Burrowing, Water, or Underwater. There are two entries, one for maximum speed (in kph) on flat ground, such as a road, and tactical speed (in meters/turn). Air speed will also list a maximum flight ceiling. Fantasy settings use Imperial measurements, but work the same. A multiplier will be given instead of an actual speed for suits: these multiply the operator's own speed instead.

Handling: The mecha's Initiative and Maneuver modifiers, in this order.

Cost: The total cost of the mecha, in Mecha Points and local currency.

Special Abilities: Any other special capabilities possessed by the mecha, such as sensors or an ejection seat. Special abilities are listed one at a time in alphabetical order. They are usually fairly obvious in their use.

Exotic Abilities: Any exotic abilities possessed by the mecha, along with any restrictions. Again, their use and nature is usually fairly obvious.

Defects: This lists any overall flaws the mecha possesses, such as being flammable or a hangar queen.

Weaponry: The names of the weapons built into or carried by the mecha. Each weapon that is designed will be given its own stat line — see *Weapons*, page 14, for more details.

Mecha Special Abilities

These are innate gadgets and other capabilities that a mecha may possess. They are described more at length in both the individual machine's description and in the building and design chapter (Chapter Five).

Accessories: These are additional features which provide useful but mundane advantages, such as an airlock, alarm, lights, etc. Accessories implied by other capabilities (Space Travel requires some sort of navigational systems) or which are fairly ubiquitous (like seat belts) are not listed.

Booster: Any system that gives a temporary "kick" of speed. It works for one hour or 10% of the mecha's endurance, whichever is less. After that, it needs to be recharged at the base.

Chobham Armor: This advanced composite-laminate armor doubles its Hardness against attacks that have both the Blast and Armor-Penetrating Qualities, and weapons that are specifically listed in their stats as using shaped-charge or HEAT-type warheads.

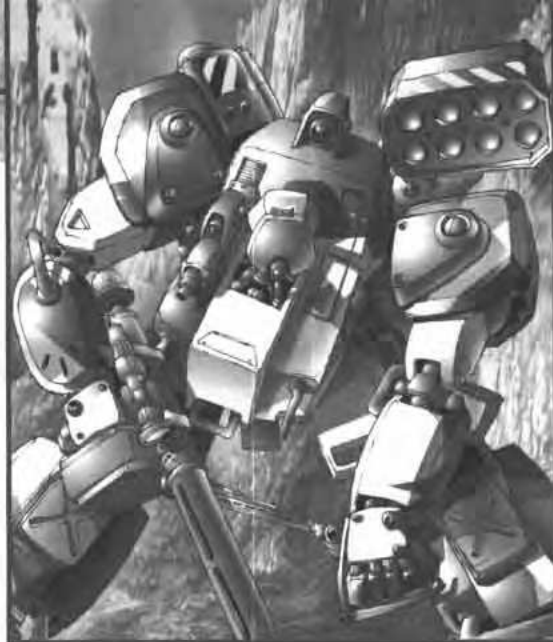
Communications: Beyond a basic system to be heard outside the machine, some mecha also have additional comm systems:

Long Range Radio — This is an ordinary high-frequency radio of the type used on aircraft, ships, etc. It has a range of a few hundred miles/km and is easy to jam or intercept.

Tactical Radio, Laser Com, Microwave Com — These are various types of line-of-sight comm systems used for encrypted transmissions. Range is usually only a few miles/km, but it is very hard to jam or intercept.

Secure — These comm systems are harder to crack, adding +3 to the DC of any interception check.

Countermeasures: These are items that warn the crew of incoming danger (such as a missile lock-on). They include Laser Warning Receiver (LWR), Radar Warning Receiver (RWR) and Electronic Emission Sensor (EES — like the previous one, but can actually locate operating radars).



Ejection Seat: A rocket-powered escape system that allows the crew to quickly exit the mecha. Note that it might be a rescue pod as well.

Electromagnetic Armor: This is a more advanced version of Chobham Armor, which triples the Hardness against the same kind of attacks. It also adds +1 Hardness against Ballistic weapon attacks.

Electronic Counter Measures: ECM is used when determining the DC of electronic warfare attempts. It may include radar, radio, or defensive (to use against missile lock-ons) jammers. See Chapter Six for electronic warfare rules.

Environmental Controls: These affect the interior of the mecha and protect the operator(s).

Climate Control — Basically, a combination of heaters and air conditioner unit.

NBC Filters — This protects against various kinds of contaminants, just like an environment suit and gas mask. Includes Climate Control.

Life Support — The mecha is sealed and can operate in space, at high altitudes, underwater, and on a world without a breathable oxygen atmosphere. Includes the two previous entries.

Explosive Reactive Armor: If hit by an Armor-Piercing Blast attack (see *Chobham Armor*), this negates the Armor-Piercing Quality of the attack with a counter-explosion (thus, anyone within 10' (3m) radius will take 1d10 damage). Any other attack

type that does 10+ points of damage (before Hardness) triggers the reactive armor on a 20 or less, providing +2 Hardness; each time, subtracts 1 from the activation roll, as the armor is gradually depleted.

Extra Arms: This is fairly self-explanatory. (Giant Robot only)

Firing Ports: Passengers can fire their weapons from inside the mecha, like arrow slits.

Hangar: A portion of the cargo capacity is designated as a hangar or vehicle bay. (Giant Robot or Vehicle only)

Headlights or Searchlight: Those are headlights similar to a modern car's (range 500'/150m), or a longer-ranged searchlight (5,000'/1,500m).

Jumping: This boosts the possible height of a jump. Multiply the existing jump distance by this multiplier. (Giant Robot or Suit only)

Laser Designator: A weapon-like system used to mark targets for laser-guided projectiles. It does not work through smoke.

Launch Catapult: Beyond allowing auxiliary vehicles to launch from a short deck, the catapult also provides a +1 Initiative bonus on the first round of combat.

Navigation Systems: These are in addition to the basic systems available on the mecha (+2 to Navigate checks).

Inertial Nav System (INS) — A gyroscope that provides +3 to Navigate checks.

Global Position System (GPS) — This system can locate its position anywhere in the world if a friendly satellite constellation (or similar) exists. This grants a +4 equipment bonus on Navigate checks.

Reflective Coating: This gives an extra defense bonus against any attack defined as laser-type. The same defense bonus is also applied to rolls to spot or locate the mecha.

Parachute or Re-entry Shield: These are systems that allow the mecha to soft-land if airdropped. They take one move-action to deploy.

Rooms: Gargantuan and larger vehicles may have internal rooms, some of which provide equipment bonuses. (Vehicle Only)



Remote Control: The mecha can be operated by remote control. *Basic* systems require the operator's full attention, and he can only run one mecha at once, using the operator's stats as if he was aboard. *Advanced* systems work the same, but the operator can also do other things (including operating his own mecha, or controlling more than one advanced remote mecha), taking a cumulative -2 penalty on all actions per mecha he is remotely controlling.

Sensors: These are various instruments that allow the mecha to perceive things at a distance, using Spot Skill checks with a penalty of -1 per (100m times the listed range in km) of distance. They work in a cone in front of the mecha, unless they are listed as "Global."

Infrared — This is effectively *Darkvision*, except that the range is much greater (typically 5,000' (1,500m) to 15,000 feet (4,500m)).

Optics — A telescope or long range TV camera. Generally include Low-Light sensors.

Radar — The mecha has active radar sensors. This is effectively *Blindsight* except that it does not work underwater, and does work in vacuum. In space, multiply the listed range by 10. Also available in high resolution version, which can "see" small details on the target.

Meta-Scanner (MS) — The mecha has super-sensors like a science-fiction starship.

Sonar — This is an underwater sensor. It may be used passively to "listen" for moving or noisy objects, or actively to resolve exact range and shape. An active sonar is easy to detect: adds its range to any passive sonar's listening in. Sonar does not work in space, and gets only 1% of its range if used in air.

Seismic — These are sensors that detect large moving objects by the vibration they produce.

Magnetic — These can detect large ferrous masses or powerful magnetic fields. They cannot be used for targeting, but are unaffected by cover.

Shield: A shield is a hand-held barrier that mecha can interposed to absorb damage, providing an Armor Bonus. At least one arm is required for use.

Stabilization Gear: Allow a mecha to fire its weapons on the move without a special pilot Feat.

Stealth: This system imposes a penalty to any checks to spot the mecha using non-visual sensors. It varies according to sensor types (radar, infrared, etc.).

Targeting Bonus: A mecha may have a targeting bonus as a result of a built-in ballistic computer or sighting system.

Wall-Crawling: The mecha can climb walls and ceilings as if it were an insect, using its land speed. It gets +8 on Climbing checks and can Take 10.

Mecha Exotic Abilities

Some mecha have exotic abilities that are the product of advanced superscience or magic.

Artificial Intelligence: The mecha can operate on its own. *Limited A.I.* have no self-initiative at all, and behave much like a golem. *Full A.I.* behave like living creatures and have their own ability scores, class(es), etc.

Force Field: A Force Field provides extra "Hit Points" to absorb damage. Damage is first applied to the Force Field, before Hardness is subtracted. If undisturbed, a field recovers 1 hp per round if a Medium-size mecha, 2 hp if Large, 5 hp if Huge, 10 hp if Gargantuan or 20 hp if Colossal. The field may not recover hp in any round it took damage. A Force Field can be up or down; when down, it does not stop any damage. Its status must be set at the start of the round and cannot be changed until the next round.

Invisibility: The mecha has some sort of chameleon system built into its skin. Use the normal rules for *Invisibility* (see the DMG).

Merging: Merging allows several mecha to combine into a single bigger mecha. The mecha cannot merge if any component mecha are reduced to 0 or less hp. If damaged mecha merge together, some damage carries over: the hit points of the combined mecha is based on their total hit points. If a merged mecha separates, divide the current (damaged) hp of the combined mecha by its original undamaged hp and multiply this by each mecha's undamaged hps to find their uncombined hit points remaining.

Mind-Interface System: When activated, a mind interface system provides an equipment bonus to maneuver, initiative, melee attack rolls and to

Reflex saves. If the mecha takes heavy damage (loses half or more of its hps from a single attack) or is disabled, the operator must make a Fortitude save (DC 15) or be stunned for 1d6 rounds.

Self-Repair or Regeneration: A mecha cannot regenerate if destroyed, otherwise each period the mecha will heal 1 hp. *Self-Repair* can heal hit points every day of rest. *Regeneration* can regenerate hit points every round, whether resting or not. Hit points that are part of a Force Field do not benefit from regeneration or self-healing.

Summonable: The mecha is linked to one special owner and can appear or disappear on command. There may be time or component requirements.

Super-Equipment: The mecha has some item of equipment that possesses special abilities that have a significant effect on game balance. See equipment entry for specific rules.

Transforming Mecha: the mecha can change shape or combine. It takes one round to go from one form to another during which time its crew cannot take other actions. *One Way* means the mecha cannot transform to a prior form without considerable hangar work (taking a few hours time).

Mecha Defects

These are defects that affect the workings of the mecha. Not all of them are actual physical defects, and are simply restrictions that must be obeyed.

Optimized Armor: The armor's full Hardness protects against attacks from one direction (usually front). Attacks from other directions (e.g., the side, rear, top and bottom) are protected at 2/3 hardness (round down).

Flammable: The mecha's Hardness does not protect against Fire damage, and any fire or incendiary attack is likely to cause the mecha to catch fire (see Chapter Six for fire rules).

Glider: The mecha can only take off if launched from a fast-moving vehicle or high place, and can only gain speed by diving or gain altitude by riding thermals.

Hangar Queen: The mecha requires extra careful maintenance to work properly. For every hour it was used, it should be given at least an hour of maintenance.



High Ground Pressure: The contact area of the wheels, legs, or tracks is slight compared to the mecha's weight. A mecha with high ground pressure will bog down in any swamp, deep snow, or mud (no movement!) and move at 1/2 speed when crossing sand, light snow, or soggy ground (or 1/3 if it has Wheels).

Hovercraft: The mecha cannot fly any higher than 6' (2m) above land or water.

Naked Operator: One or more of the crewmembers must be naked to pilot or crew the mecha.

INTRODUCTION

Noisy or Very Noisy: The mecha is noisier than an ordinary person is. A noisy mecha is also detected more easily by sonar, at double range.

One Arm/No Arm: A one-armed giant robot cannot hold onto something at the same time it punches someone or uses a hand-held weapon.

Open: The mecha's Hardness does not protect the crew or passengers, only the mecha itself. The mecha provides half-cover to its operator(s).

Poor Visibility: Small windows or poor sensors, the mecha has limited view (-2 to the front, -4 to the sides), unless a crewman sticks his head out.

Reduced Endurance: The default assumption is indefinite range, but here the mecha must refuel or recharge before then (something that takes at least half an hour of effort).

Restricted Path: The mecha cannot leave a narrowly restricted area (a specific guard route or a railway train or track system, etc.). Or, a mecha that is attached to a generator by a power cable: it can operate normally unless the cable is unplugged, then has only a few rounds reserve power.

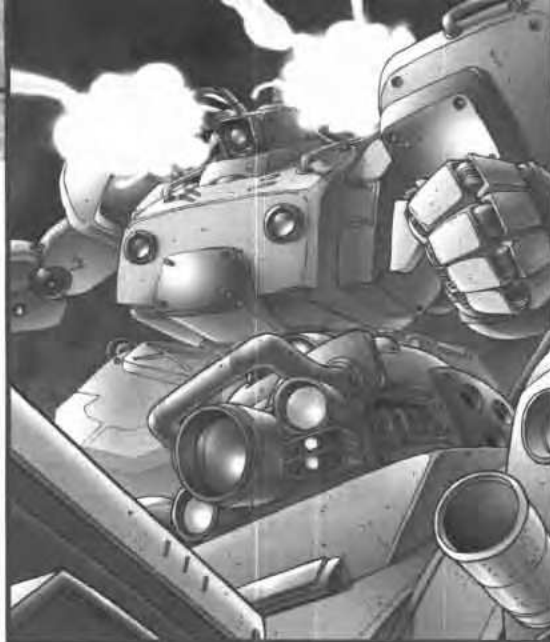
Road Vehicle: The mecha operates best on a road. A mecha with this defect moves at one-half speed when traveling off-road. These effects are cumulative with High Ground Pressure.

Service Crew: The mecha requires a crew to function. For each 25% of passengers missing, a -2 penalty is applied, or one system stops working.

Stall Speed: This is the minimum speed a flying mecha must maintain in order to stay in the air.

Start-Up Time: The mecha takes time to start up or get into, and cannot be used until ready.

Volatile: The mecha has fuel or ammunition aboard that may explode. If the damage caused, after armor hardness, is greater than half the hp total, the mecha blows up, causing 1d6 point of damage per starting hp it has to anything aboard and half that to anything within a radius equal to (1/3 starting hp) in meters.



Weak Point: There is a weak point in the mecha. A successful critical hit will ignore the mecha's Hardness. If an attacker knows about the weak point, an attack made at a -10 penalty may also deliberately target the weak point.

Windows: The mecha has large windows which do not protect against attacks aimed through them. An attack can deliberately target a window at -4 to hit.

Wind-Powered: The mecha is powered by the wind, and its top speed will never exceed the velocity of the latter, and it can't move against it.

WEAPONS

A mecha doesn't have to be armed, but if it does it may have one or more weapons. If the mecha has multiple weapons, each can attack if the pilot can make multiple attacks, or there are multiple crew aboard the mecha assigned as gunners. Most mecha attacks do normal damage, but some have other effects; all Special Attacks described on the next page have a base area of effect of 5'/1.5m, unless the attack is also Blast (see that particular entry).

Damage: The type and number of hit dice of damage inflicted per successful attack. If no damage, it list the Special Effect and level, e.g., Nerve Gas (level 5).

Special Attack — Flare: If hit, everyone looking in that direction must make a Fortitude save with a DC of 10 + attack's level or be blinded for 2d6 rounds.

Special Attack — Nerve Gas: If hit, this will kill individuals who fail a Fortitude save as above. Anyone wearing a pressurized suit, or in a mecha with NBC filters or life support is unaffected.

Special Attack — Riot Gas: If hit, this requires individuals in the area of effect to make a Fortitude save as above or be blinded and stunned for 2d6 rounds. Anyone using a gas mask, wearing a pressurized suit, or in a mecha with NBC filters or life support is unaffected.

Special Attack — Smoke: The level of the attack acts as a penalty on checks to see through the smoke cloud.

Special Attack — Tangle: Treat this as a *Web* spell, except that the DC to break the tangle is based on twice the attack's average damage. Thus, if an attack normally did 6d6 damage (average 21), the DC to break free is 42.

Rate of Fire: The default ranged weapon rate of fire is single shot (SS), or one attack per round. Some are faster or slower: S if semi-automatic, A if automatic, 1 or more if slow-firing or thrown (see *Weapon Qualities*).

Range Increment: How far the weapon can strike accurately. Generally, the more powerful the attack, the farther it will travel.

Ammunition: How many time the weapon can be used before running out of ammunition or power.

Qualities and Restrictions: Any special effects the weapons has (see further).

Cost: The Mecha Point cost, so that the weapon can be swapped out for other weapons if desired.

Type: The type of damage the attack does — Ballistic, Piercing, Slashing, Bludgeoning, Energy (Fire, Laser, Electrical, Cold), or Blast. Some armor or creatures may be resistant or immune to certain types of attack.

Weapon Qualities

Some weapons have additional capabilities or special effects beyond simply doing raw damage to their target.

Armor Penetrating: This weapon ignores the first 10 points of Hardness or half of it (round down), whichever gives the best effect. AP can be taken multiple times: two levels ignore the first 20 points of hardness (or divide hardness by 3), three levels ignore the first 30 points (or divide by 4), and so on.

Automatic: This weapon fires as long as the trigger is held down or they run out of ammo. Can be used with the proper modern Feats.

Blast: The attack affects not only the target but also anyone adjacent. Occupants of a mecha with the Open or Windows armor defect do not receive protection from damage. The base radius is 10' (or 3m), doubling this per additional level.

Burning: If the initial attack's damage penetrated hardness and Force Fields, the target will take damage each round, for the next 5 rounds or until neutralized. Armor or Force Fields do not protect against the extra burning damage.

Concealed: The weapon is hidden and not visible. It takes one action to "pop up" a concealed weapon so that it can be used in battle.

Cone: A cone attack shoots away from the mecha, starting in a square adjacent to it and widening out as it goes. A cone's width at a given distance equals that distance; its far end is as wide as the effect is long. A cone attack's maximum range is one range increment, but it hits automatically (everything in the area of effect gets a Reflex (DC 15) save, with success means they take half damage, failure means they take full damage).

Emanation: This attack has an area like a blast that continues to radiate from the point of origin for multiple rounds. The effect is the same as Burning, lasting five turns, but affecting everyone in the area.

EMP: The weapon has no effect on living things but will do subdual damage to any electrical or electromagnetic systems.

Extra Ammo: The magazine size is increased. This will be reflected in the Ammunition column.

Flexible: A flexible attack can be used to disarm or trip any opponents of equal or less Size than the weapon's own Size. A character can make a trip attack by succeeding at a ranged touch attack (the character does not provoke an Attack of Opportunity this way). A flexible weapon gives a +2 bonus on an opposed attack roll when attempting to disarm an opponent (including the roll to keep from being disarmed).



Guided: A ranged touch attack is required to lock onto the target. Success means that the missile can be launched; failure means the attacker gets no lock on (can try again next round, however). Once launched, the attack will automatically hit.

There are several means of locking on the target, and the right one must be used: Operator Guided (OG; require full attention), Laser Guided (LG; requires a laser designator hit), Semi-Active Radar

Homing (SARH; requires a radar or meta-scanner lock-on), Infrared Homing (IRH; tracks target's heat emissions), Active Radar Homing (ARH; the missile has its own radar), Sonar Homing (SH; the missile has its own sonar, and can only be used underwater), Emission Homing (EH; tracks target's electronic emissions), Inertial or Satellite Guided (only versus stationary targets).

Guided weapons can have multiple guidance systems, and can try to hit with each one. They may be shot at first: they have a Defense of 25, and 15 points of damage will destroy a projectile.

Hardpoint/Handheld: The weapon is held in a hand or mounted on a hardpoint. It may be swapped for a similar or smaller weapon in one round for a hand, in around ten minutes for a hardpoint. Handheld weapons can be disarmed or dropped.

Increased Critical: The increased damage caused by a critical hit with the weapon.

Increased Threat: The threshold range to cause a critical with the weapon.

Indirect Fire: The weapon can fire in a ballistic arc to shoot at targets hidden behind buildings, hills or other obstacles. If used to make an indirect shot, the target must be either visible or spotted by a friendly, and there is a -5 attack roll modifier.

Invisible: The weapons produce no visible muzzle flash or beam to reveal the position of the shooter.

Long Range: The weapon can fire far. This is reflected in the Range Increment column.

Muscle-Powered: This lets the mecha add its Str bonus to damage if this weapon is used as one-handed melee weapon, or 1.5 times Str bonus if used as a two-handed melee weapon, or half Str bonus if the weapon is thrown.

Semiautomatic: This weapon fires one shot per attack (acting as a single shot weapon). However, some Feats allow characters armed with semiautomatic weapons to fire shots in rapid successions, getting in more than one shot per attack.

Silent: This weapon is very quiet or silent.



Stream: The effect of a stream weapon is similar to a cone, except that the weapon's effect is narrow and linear (affecting everyone in a stream 5'/1.5m wide). Otherwise, use the rules for Cone attacks, with the exception that a successful save always negates damage.

Stun: The attack only inflicts subdual damage.

Trap: The projectile "sits and waits" until someone triggers it. If anyone is likely to blunder into it, they get a Reflex Save (DC 15) to avoid it. If not a Melee weapon, it can be deployed at range with a successful Ranged Touch attack.

Unlimited Shots: The weapon has no need for ammunition and will function as long as the mecha does. This will be reflected in the Ammo column.

Weapon Restrictions



Few weapons do everything equally well, and many have various disadvantages.

Arc of Fire: The weapon has a limited arc of fire — Front (Fr), Rear (Re), Left (L), Right (R), Top (T), Bottom (B) — and must be aimed by pointing the whole mecha. In a close-in battle, a maneuvering enemy who has a higher Initiative score can position himself so that it cannot be fired at.

Crew-Served: The weapon requires two or more people to operate it.

Less Ammo: The magazine size is decreased. This will be reflected in the Ammunition column.

Low Penetration: Hardness or Damage Reduction stops twice as much damage as usual. Any defense bonus is doubled vs. the attack.

Melee: The weapon can be used as a melee weapon. It can be used to attack or parry with, within the mecha's natural reach. It also lists the weapon's Size, if important.

Short Range: The weapon cannot fire far. This is reflected in the Range Increment column.

Slow-Firing: The weapon takes one entire round (to aim, charge or load the weapon) before making each attack. The weapon cannot be used to attack multiple times in a round. It is listed in Rate of Fire as the number of rounds required.

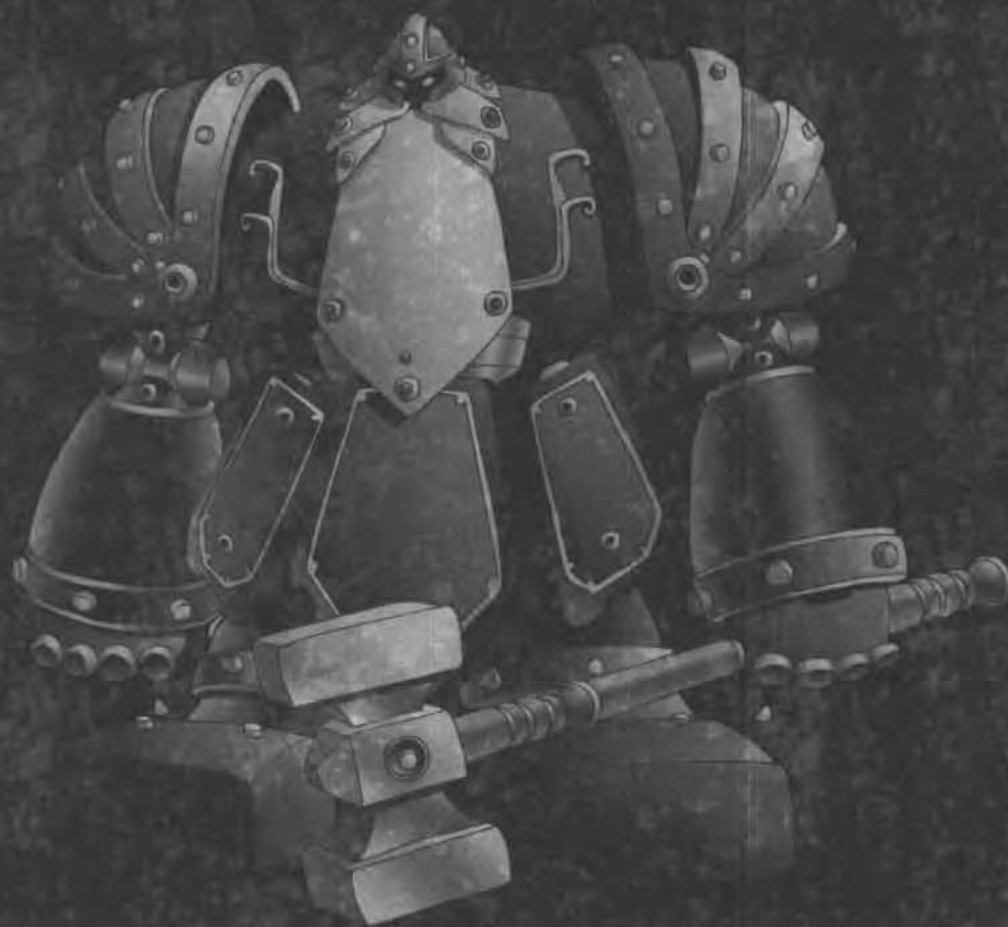
Space-Optimized: The weapon's energy is easily absorbed by atmosphere — its full range applies only in vacuum. In atmosphere, it has one-tenth its range increment, and cannot penetrate thick smoke, fog, water, etc.

Static: The weapon cannot be fired while the mecha is moving under its own power.

Thrown: Once thrown, the weapon is useless until retrieved. The weapon's range increment is divided by 10 (if the base is 500', it will drop to 50'), and it can be thrown a maximum of five increments.

Unreliable: Any time a "natural" 1 or 2 is rolled, the weapon fails and won't work until repaired.

Water Only: The weapon is only usable against targets on or under water.



Chapter Two: Fantasy Worlds

At first, giant robots and sword & sorcery epics seem to be on opposite ends of the scale. One is about high technology, the other about magic, which is about non-technological as it gets. It is said, however, that extremes sometimes meet...

Mecha have shown up in fantasy stories before, though they are usually known then as golems, animated statues or enchanted suits of armor rather than purely mechanical constructs. A notable exception has been the "steampunk" genre (from a merging of the terms cyberpunk and steam power), where Victorian-age technology is used to drive forward mighty engines of destruction. Still, they serve the same purpose as mecha do in other, more stories: they are avatars of the heroes and villains, enhancing their powers and protecting them from harm as they battle their foes.



USING MECHA IN FANTASY WORLDS

For the purpose of this discussion, we'll define "fantasy worlds" as places where the general level of technology is pre-20th century (and most often at the medieval level). Magic — or something similar, such as powerful gods that intervene on the behalf of mortals — is usually present at a fairly common level.

Very few fantasy settings feature modern advantages, such as mass production or democracy; building artifacts of great power (which is pretty much what any mecha are) is the domain of skilled master artisans or great wizards, and most of the population lies at the mercy of natural disasters and hostile forces.

Power Level

The power level of the machines present in the setting will greatly depend (and affect) the latter. A world where 60 ft tall invulnerable giants exist will probably be heavily scarred by their battles;

forests will show bare patches, roads will be cratered, cities will lie partially in ruins. Few towns will be surrounded by walls, since those are useless for defense against mecha.

Conversely, if mecha are vulnerable or not very powerful, they will cause less of an impact on the setting. If the machines are slow and ungainly, their use may be restricted to sieges or specific battle maneuvers; if they are restricted in size or power, they might be nothing more than fancy (yet terribly efficient) suits of armor for the soldiers.

Rarity

If mecha are items of great power, they will tend to be quite rare or restricted to the nobility. This, of course, offers a wealth of adventure ideas. Maybe a long-lost legendary machine needs to be found (and mastered!) in order to combat some ancestral evil that threatens the land. In this case, the mecha serves more as an excuse to move the plot forward and have an apocalyptic battle at the end of the campaign: it is so powerful that there is likely little challenge to it in the world, and good stories thrive on challenge.

Even if mecha are quite common in a given setting, they are still unlikely to be found in great numbers. Since each needs to be handcrafted (and more often than not, enchanted as well), this puts a practical limit to how many can be made every year, and thus they will end up in the service of the nobles and the wealthy.

Skills and Training

Fantasy mecha usually require little in the way of training for their operator(s). They are often magical devices, potentially self-directing or even self-aware, and take their commands directly from voice or gestures. Even the mechanical fantasy devices, such as the Coalsuits, require little pilot knowledge, since they have so few capabilities.

GUARDIANS OF DIVINITY

Towering magical knights are a staple of fantasy anime (and sometimes of science fiction anime as well). Often, these mecha are not works of Man, but rather divine representatives of the Gods themselves — or, if not that, then a legendary component of the very forces that originally shaped the world. In the Guardians of Divinity setting, the mecha are direct manifestations of divine power. One important question stands, however: are they agents of the gods, or are they agents of the forces that created the gods?

A LONG TIME AGO...

500 years before the present times, a small company of adventurers made its way into the heart of an ancient citadel thought to be impenetrable by those few who had found it before. The citadel, constructed by unknown hands countless millennia previously, lay at the very center of a trackless desert wasteland. When the company reached the innermost sanctum, it found a wondrous site: resting on an ornate pedestal and bathed in otherworldly light from a nameless plane of existence was an exquisite mithral circlet of obviously fantastic power.

Fearing nothing and sensing no evil presence, the paladin Laeon Nosterloch reached forth his hand to touch the artifact. At that instant, he felt in his mind a vast and awesome presence, and a booming voice rang out: "I am Faltrius, Divine Guardian of War. Are you worthy of me?" Before Nosterloch could respond, a powerful demon appeared and he was forced to fight it single-handedly, his companions held immobile by unseen forces. After a great struggle, he vanquished the foul creature. "You are worthy," boomed the voice, and Nosterloch became the bearer of an extremely powerful artifact of divine origin. During the company's return trip to its homeland in the north, the artifact — Faltrius — showed him all of its powers. Strangest, and perhaps greatest, was its ability to manifest as a Guardian Armor, a 30-foot tall armored "giant" that could readily defeat a great dragon.

Upon return to his homeland, the paladin learned that no one else could bear or even touch Faltrius while he himself lived. Branded traitors by a jealous and petty king, Nosterloch and his fellows were

hunted down. With his god and the Divine Guardian on his side, however, Nosterloch prevailed, though the cost to the realm was great. The paladin founded a new kingdom that day, amidst the ruins of the old.

Years passed. Nosterloch's neighbors launched a seemingly endless series of incursions into his territory, seeing weakness in the nation's young age. The kingdom's greatest sages and priests studied Faltrius, searching for a way to duplicate the Armor to bolster the nation's defenses. In due course, they divined a way to reproduce it, but it would be costly and the copy would always fall short of the majesty of Faltrius itself. King Nosterloch sent a military force of his own into one of the hostile neighboring territories, and though his forces were small, the Guardian Armor gave him an easy victory. Soon the small nation had absorbed all of the surrounding territories, and it continued to expand. With each expansion came new tithe, and with each new tithe came the promise of another man-made Guardian Armor to add to the Nosterloch Army.

Meanwhile, far to the south, a second Divine Guardian — Gurdiel, the Guardian of Fire — had been discovered. In similar fashion, its discoverer and sacred bearer, Gabrielle Llyerinees, founded a kingdom of her own amidst the burned-out husk of her home city-state after being branded a traitor. The Kingdom of Llyerinees expanded outward as well, absorbing its neighbors and adding man-made Guardian Armors to its legions. Now the two great kingdoms dominate the land, and at their shared border, the drums of war are pounding fiercely. No one knows what a battle between two Divine Guardians will be like, but few believe the outcome will be good for the world.

FACTIONS

There are two main factions in the world of the Guardians of Divinity: the Kingdom of Nosterloch, descended from the first bearer of Faltrius, and the Kingdom of Llyerinees, descended from the first bearer of Gurdiel. Outsiders usually refer to them together as the Two Kingdoms, even though they are not allied with one another.

The Kingdom of Nosterloch

Occupying the northern half of the continent, the Kingdom of Nosterloch is ruled by Laeon XV, a private man who rarely appears in public. Nosterloch society is dominated by its state religion, the chief god of which is one of justice, goodness and martial prowess. It is hardly a surprise, then, that the kingdom is highly regimented and martial, though fair and just, and that paladins occupy a large number of government roles. Nosterloch seeks to bring the entire continent under its control, for the good of all people, and it has been making steady progress towards that goal for the past five centuries. These expansionist policies are troubling to some members of the clergy, however, and there are those who wonder — privately, to themselves — if the leaders of the nation might not serve some other, darker force rather than the God of Justice.

The current bearer of Nosterloch's Divine Guardian, Faltrius, is Bruno Gyrfalcon (male human Ftr2/Pal13, LG). Gyrfalcon is honorable and noble, and he does his absolute best to live by the paladin code. He makes frequent public appearances, but he is always surrounded by a retinue of bodyguards.

The Kingdom of Llyerinees

Money buys rank and power in the Kingdom of Llyerinees, and only the Cinder Throne itself is not for sale. Even amongst the peasantry, what little wealth they can scrape together determines the pecking order. The nation has expanded across the southern half of the continent over the past 500 years, swallowing up smaller kingdoms and tribes, its armies leaving vast swaths of charred land in their wakes. The state religion was origi-

nally one that held nature in great respect, but over the centuries, it has gradually changed focus to a god of fire and greed. The monarch, King Varl III, reflects this focus, and his policies often seem spontaneous and arbitrary, shifting unexpectedly like a bonfire's flames in the wind.



The Llyerinees Guardian is Gurdiel, and its current bearer is Cassandra Ortesa (female human Ftr3/Rng12, CG). "Free-spirited" only barely describes her; some in the Llyerinees Court call her "wild" and even "savage." She often patrols the forests of her nation, accompanied by a band of fellow rangers (at least half of whom secretly serve the Court). She never neglects her duties, however, despite her carefree nature.

World Affairs

In addition to the Two Kingdoms, numerous smaller nations exist around the world. During the first few centuries after the discovery of the Guardians, few of them had ever heard of Nosterloch or Llyerinees. With a terrible, pan-continental war on the horizon, however, nearly every nation in the world knows of the Two Kingdoms. Most are deeply apprehensive.

Other factions watch the situation with interest, as well. Dragons and the greater giants are long accustomed to being at the top of the pecking order, and they see Guardian Armors as an affront to their dominance. If the humans ever set their sights on them, they will likely react with a terrible ferocity. The gods themselves are troubled by the Divine Guardians, though not because the mortals possess them or use them to wage war. Their chief concern is the Guardians' origins: though they are powerful divine artifacts, the gods do not know who created them. This fact is a closely guarded secret, of course.

CAMPAIGNS

The Divine Guardians are powerful representatives of divine power; indeed, some suggest they may represent powers older than the gods themselves. For this reason, campaigns involving the Divine Guardians will not be small, isolated affairs. They will loom large, and they will find their way into the stories told by bards long after those involved have crumbled into dust.

The Quest for the Third Guardian Armor

To all outside observers of the brewing war between the Two Kingdoms, it seems obvious that there must be additional Divine Guardians hidden away around the world. If they fit the pattern established by Faltrius and Gurdriel, they will most likely be found in remote, hard-to-reach locations and guarded by powerful forces. Fearing the consequences of all-out war between Guardians, other nations have launched expeditions to discover these artifacts. A high-level party of adventurers would be well suited to such a mission. Along the way, they will face strong opposition from all sides: rival expeditions, agents of the Two Kingdoms, and representatives of those threatened by the existence of the Guardians will all attempt to thwart the party's efforts.

Full-Scale War

The worst has come to pass: Nosterloch and Llyerinees have finally gone to war. Towering armored giants march across the land, laying waste by fire and sword to all in their way. At first,



the fighting will be confined to the fronts, but when one side decides to sneak its Guardian's bearer into the heart of the enemy territory to summon his or her Armor, all hell will break loose. For those on the outside, an even greater concern looms: what happens when one side defeats the other, the Two Kingdoms become One, and both Guardians are in the possession of an expansionist zealot? Fortunately, the rulers of the Kingdoms do not directly control the Guardians. It may be possible to persuade one or both bearers to turn away from the madness of war before it's really too late. Diplomacy is the order of the day, but the bearers are raised and trained to be loyal to the Crown, and they are often shielded from the outside by fanatical guards. Reaching them will be tricky.

Adapting to Your Own Campaign

The Divine Guardians can be added to any fantasy campaign in which divine magic is organized according to domains of power. Because the setting as presented here is so involved — an entire continent is on the brink of war between two sprawling empires! — the simplest way to introduce them to an existing campaign may be to take the story to its beginning. Start with the moment the first Divine Guardian is discovered; that can be the mecha's introduction to your story. Perhaps your player characters will be that party that braves the trackless wastes and discovers Faltrius.

These are extremely powerful artifacts, however, so care must be taken on two levels when allowing the player characters to come into their possession. First, when a powerful artifact comes into play, it is easy to lose track of character-driven story telling and roleplaying. Second, if one player character becomes the bearer of a Guardian and the others never have a chance as well, the imbalance in the party may threaten not just the player characters' roles but the players' feelings as well.

One simple solution might be to scale the Guardians' power down substantially — perhaps to minor artifact levels — and distribute one to each player character. Scaled down in power, Divine Guardians won't have quite the effect on the world that they do in this setting, but they will still be impressive.

MECHA DESIGN

There are two types of Guardian Armors: Divine and Mortal. A Divine Guardian Armor is an intelligent major artifact of immense power and unknown origin. It is incapable of being created by any means known to mortals, and some whisper that not even the gods themselves know how to create one. Mortal Guardian Armors are unintelligent minor artifacts created by craftsmen, mages and priests united in their belief and worship of a particular god. Mortal Guardian Armors, while splendid and terrifying, pale in comparison to their divine archetypes. Both types are controlled through mental interfaces with the magical forces that drive them.

Divine Guardian Armors

A Divine Guardian is a manifestation of a single divine magical domain, such as Fire, Water, Earth, Air, Destruction, War, etc. Believed to be created at the dawn of time, the Divine Guardians have lain dormant for untold eons, hidden away in remote and dangerous locations, awaiting the day when a worthy mortal might discover one and become its sacred bearer. Their goals, if any, are unknown, though from time to time, a Guardian will assert its will over its bearer to carry out a task of its choosing.

A Divine Guardian has two forms: in its first, it is piece of splendid jewelry that is immediately perceived by all to be incalculably priceless, and even a cursory glance by one trained in the magic arts will reveal it to be magical. In this form, the Guardian is easily worn, but none but the bearer may touch or hold it without making a Willpower saving throw (DC 37 — its Ego score; see below) for each minute of contact. Failing the saving throw, the person will immediately drop the jewelry and back away.

In its second form, the Divine Guardian is a 30-foot tall towering suit of glorious full plate armor worthy of the gods themselves. As a purely magical creation, it has no power source and no truly mechanical components.

A Divine Guardian imparts on its bearer the following abilities, whether he has physical contact with it or not:

1. At all times, the bearer has access to the Guardian's granted domain power, although he may not have the ability or the prerequisites to be able to use it. Gurdiel, the Divine Guardian of Fire, grants its bearer power over creatures of fire and creatures of water, for example. Any level-based parameters for the power use the bearer's total character level. This power is a spell-like ability (Sp).
2. The bearer has access to the Guardian's domain spells. He may cast spells up to a level equal to one half his character level (rounded down) plus one. He may cast these spells as bonus spells based on his Wisdom ability score according to the standard bonus spell rules. These spells are cast as though he were a divine spell-caster of level equal to his total character level. Saving throws are calculated using his Wisdom modifier.

These granted spells exist outside the bounds of normal spell casting, whether divine, arcane or otherwise. They do not count against the spell-caster's daily allotment. They are not affected by (nor do they affect) prestige classes' "+1 level of existing class" class ability, nor are they affected by any other class ability. Likewise, the bonus spells granted by the bearer's Wisdom ability do not count against his other ability-based bonus spells in any way. These spells may not be modified by metamagic feats, and the bearer need not memorize them ahead of time in order to cast them.

Casting these spells has a cost, however: in order to cast a domain spell granted by the Guardian, the bearer must sacrifice an amount of experience equal to the spell level times the caster level. This cost is added to the normal cost to cast the spell (if any), and it may not be avoided or mitigated by any means.

3. Finally, the bearer may call upon his Divine Guardian to manifest in its humanoid Guardian Armor form a number of times per week equal to his Charisma ability bonus (or at least once per week). If there is sufficient room for the Armor form to stand unimpeded, it will appear at his location, arriving from a sacred pocket dimension as though called by the *Gate* spell. If there is not sufficient room, the Armor will not manifest. If an effect can block the use of the *Gate* spell, it will also prevent the Armor from manifesting. In either case, the attempt is not wasted; the bearer may attempt the summoning at a later time. The Armor will remain manifested for a period of 24 hours, after which it will return to its sacred dimension. If it is prevented from returning, it will become inert until it can return.

To enter his Armor, the bearer need only come into physical contact with it. He and all of his carried possessions physically merge with the Armor. He may leave the Armor at any time, at which point it becomes inert and incapable of operation. When He departs, his possessions come with her. He may re-enter the Armor at any time.

Calling upon the Guardian to manifest requires an action, and the manifestation itself is instantaneous. Entering and exiting the Armor is a move-equivalent action. These effects are supernatural abilities (Su).

Domain Spell Example

Bruno Gyrfalcon is the sacred bearer of Faltrius, the Divine Guardian of War. He is a 2nd-level fighter and a 13th-level paladin with a Wisdom score of 17. As a high-level paladin, he has access to 3rd-level paladin spells. With his Wisdom score, he gains one bonus paladin spell per day for each of first, second, third and fourth spell levels (though he cannot cast 4th-level paladin spells). As a paladin, he casts these spells as a 6th-level spell-caster. As the bearer of Faltrius, however, he gains additional spell-casting ability. He can cast spells of up to 8th level from the War domain spell list, which he casts as a 15th-level spell-caster (his total character levels). His Wisdom bonus allows him to cast one spell per day each of first, second, third and fourth level from this list, but it is not great enough to allow him to cast fifth through eighth level War spells. Though they are granted by his Wisdom, the War spells he can cast do affect the number of bonus paladin spells that are also granted by his Wisdom score.

Intelligent Artifacts

As an intelligent magic item of great power, a Divine Guardian possesses mental ability scores and the ability to communicate as per the standard rules. All Divine Guardians have Intelligence scores of 24, Wisdom scores of 30, and Charisma scores of 24. They can speak and read any language and communicate telepathically. They can also read magic. A Guardian's Ego score, representing its willfulness, is 37; only a very powerful mortal will be able to resist a Guardian that asserts its authority. Finally, as intelligent beings with goals, Divine Guardians also have alignments. The exact alignment depends on the nature of the Guardian: most are neutral in some way or other. The effects of alignment mismatch between a Guardian and its bearer apply, although a Guardian will rarely choose a bearer with an inappropriate alignment.

The Bearer

A Divine Guardian cannot operate without a bearer: a living mortal to serve its will and to wield it in battle. Only one person may serve as the Divine Guardian's bearer at any time, and once the Guardian has chosen its bearer, only death may sever the bond. To become the bearer, the prospective candidate must make physical contact with the artifact. If the candidate has potential, he must pass a trial of worthiness. Each Guardian has its own trial; it may be a puzzle, physical combat, a test of skill, a test of wits, or a simple and arbitrary moral judgment on the part of the Guardian. If the candidate passes the test, he becomes the Guardian's bearer until her death. If he fails or if he never had potential in the first place, he is simply unworthy and the Guardian will communicate with him no more.

In theory, anyone whose alignment is not in direct conflict with the Guardian can become its bearer, regardless of character class. Because the Guardian is divine, however, candidates with divine spell-casting ability (such as clerics, druids, paladins and rangers) tend to show more promise than others. Only humanoid mortals can become bearers; candidates must therefore be of creature type Giant, Humanoid or Monstrous Humanoid.

Should the bearer ever become unworthy of the Guardian, a terrible fate lies in store. Since only death can sever the bond between the two, the Guardian will assert its will and drive the bearer to destruction.

Mortal Guardian Armors

A Mortal Guardian Armor is a comparatively cheap imitation of a Divine Guardian Armor that focuses on one or two aspects of its ability. Although not as powerful or elegant as its Divine archetype, a Mortal Armor is still a staggeringly mighty creation that can change both the literal and figurative landscape of battle with a single swing of its massive weapon.

As with the Divine Armors, Mortal Armors are magical constructions with no power supplies and with no mechanical parts — the sole exception is a

magically sealed hatch that leads to the control chamber within the Armor's chest. A Mortal Guardian Armor typically carries a gigantic weapon and can manifest one or two spell-like abilities from its archetype's domain spell list.

Mortal Guardian Armors are not easy to create, and they are monstrously expensive. Few nations can afford to construct even one, let alone the handful that the Two Kingdoms possess. Even they are only able to afford it by means of their centuries-long expansion and the taxation of their subjects. To create a Mortal Armor, a team of dozens of expert craftsmen, high-level clerics, and powerful mages must spend a year and a day working nonstop to forge and enchant the materials. Each member of the team must be a devout follower of a god with the Guardian Armor's divine domain as one of its own. To research a new design, a similar team must spend decades studying the Divine Guardian Armor archetype.

Uses in Other Settings

The Guardian Armors, being magical in nature, are best used in fantasy-like settings. They can be dropped in any of the ones presented here, though they will likely overshadow any mecha already present by their power.

Going by the idea that very advanced science is indistinguishable from magic, any of the Guardian Armors (Divine or Mortal) could be a guardian robot for ancient Olmonian facilities in Great Machine Decander or be a powerful invader from the Beast Lords setting (though they may have to be toned down for this. If their spell abilities are removed, they can stand in for Iriimnir ace mecha as well.



OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 30')
Hit Points:	240 (MP: 40)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	22 (MP: 110)
Defense:	18 (-2 size, +10 armor) (MP: 100)
Strength:	34 (MP: 72)
Speed:	Land 70 mph (MP: 154)
Tactical Speed:	Land 615'
Initiative:	+4 (MP: 30)
Maneuver:	+4 (MP: 30)
Total MP Cost:	2628 (2886 w/weapon)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
+3 Chaotic Flaming Burst Greatsword	4d6	SS	n/a	n/a	Increased Threat (19-20), Magic (+7), Muscle-Powered	Melee (Gargantuan weapon)	258

NOTE: The greatsword is a Slashing weapon. *Warm version only.

GURDIEL, DIVINE GUARDIAN OF FIRE

Discovered by Gabrielle Llyerinees in the heart of an ancient volcano that lies far to the south of the continent, Gurdriel, the Divine Guardian of Fire, appears as a brilliant gold armband set with a ruby the size of a man's fist. The whole adornment is constantly wreathed in dazzling, divine flame that burns bright. The fire does not harm the bearer or her possessions, but anyone else touching it will feel the heat of a torch. In its Armor form, Gurdriel is equally brilliant, and it may enshroud itself in similar flame at will or at its bearer's command. In battle, the Armor moves gracefully, like a dancer, though at times seeming to be without purpose. Its blazing greatsword remains slung across its back until it attacks, lashing out in an elegant arc that ends with the sword once more slung, perhaps with the point up, perhaps with it down, depending on its whim.

As the Divine Guardian of Fire, Gurdriel bestows upon its bearer access to the divine magic domain of fire; it may use most of these powers in its Armor form as well. Gurdriel is chaotic neutral, and it favors those of like mind who are free-willed and strong in spirit. Rangers and clerics seem particularly suited to it. Its test of worthiness for candidate bearers is one of skill: the candidate must escape a fiery labyrinth, unaided by comrades.

Total Money Cost: N/A

Special Abilities:

Life Support (MP: 12), Spell Effect (*Burning Hands*, CL 5, unlimited, MP: 50), Spell Effect (*Elemental Swarm (Fire)*, CL 20, 1/day, MP: 180), Spell Effect (*Fire Shield**, CL 20, 5/day, MP: 500), Spell Effect (*Fire Storm*, CL 20, 2/day, MP: 140), Spell Effect (*Incendiary Cloud*, CL 20, 2/day, MP: 320), Spell Effect (*Produce Flame*, CL 10, unlimited, MP: 200), Spell Effect (*Resist Elements (Fire)*, CL 5, unlimited, MP: 150), Spell Effect (*Wall of Fire*, CL 20, 5/day, MP: 160)

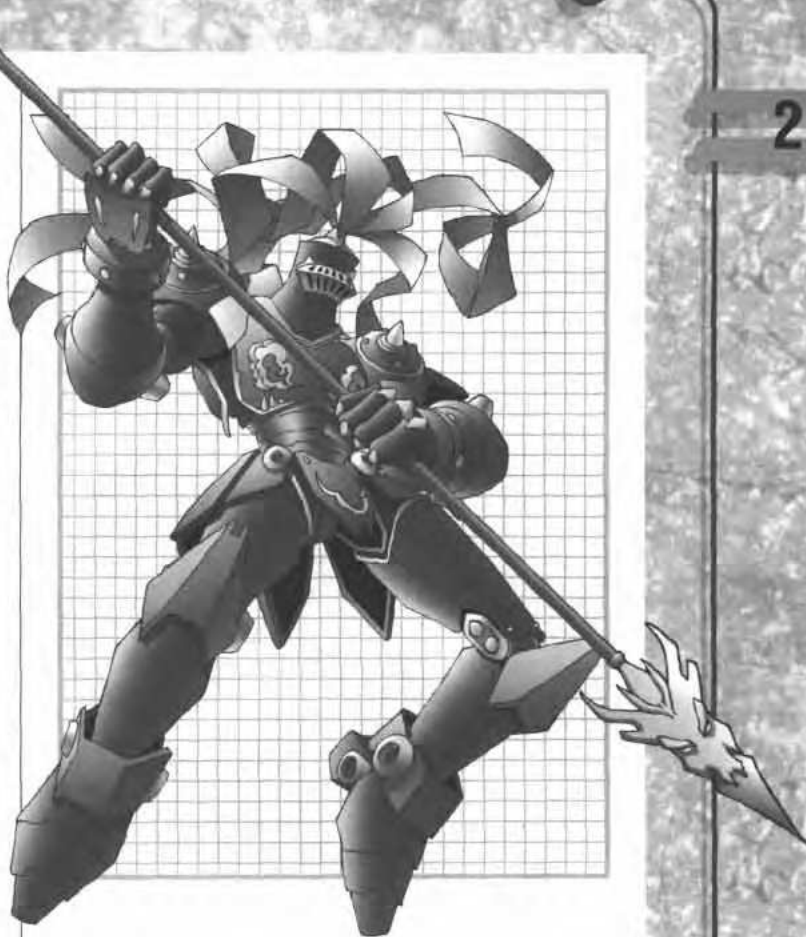
Mecha Defects:

Reduced Endurance (24 hours, MP: -20)

FIRELANCE GUARDIAN ARMOR

Those who witness the Firelance in action on the battlefield liken it to a tongue of flame, and it dances and darts through the enemy ranks in a manner no 30-foot tall mountain of adamantine should, setting the world ablaze with its fire-sheathed spear. When the spear is not enough, the giant can spout flames from its outstretched hands. The panic this action can cause in enemy soldiers is great, but it is mitigated (if only a little) by the fact that they have at least some warning of its imminent arrival: unless its targets are standing on the elevated battlements of a fortress, the Firelance must crouch near the ground in order for the 10-foot long sheet of fire to have much effect. For defense, the Armor can surround itself in flames of brilliant blue or violet, preventing enemies from attacking it directly without suffering terrible burns.

Llyerinees owns nineteen Firelance Guardian Armors. Their pilots fall into two categories: those who use their fiery tactics on enemy soldiers directly, and those who prefer instead to use the flames to herd them into prepared formations of Llyerinees troops. The latter group considers itself more humane, thinking the others to be merciless barbarians. The former scoffs at this attitude, arguing that a slaughter is a slaughter, whether by fire or by sword.



OGL Stat Block

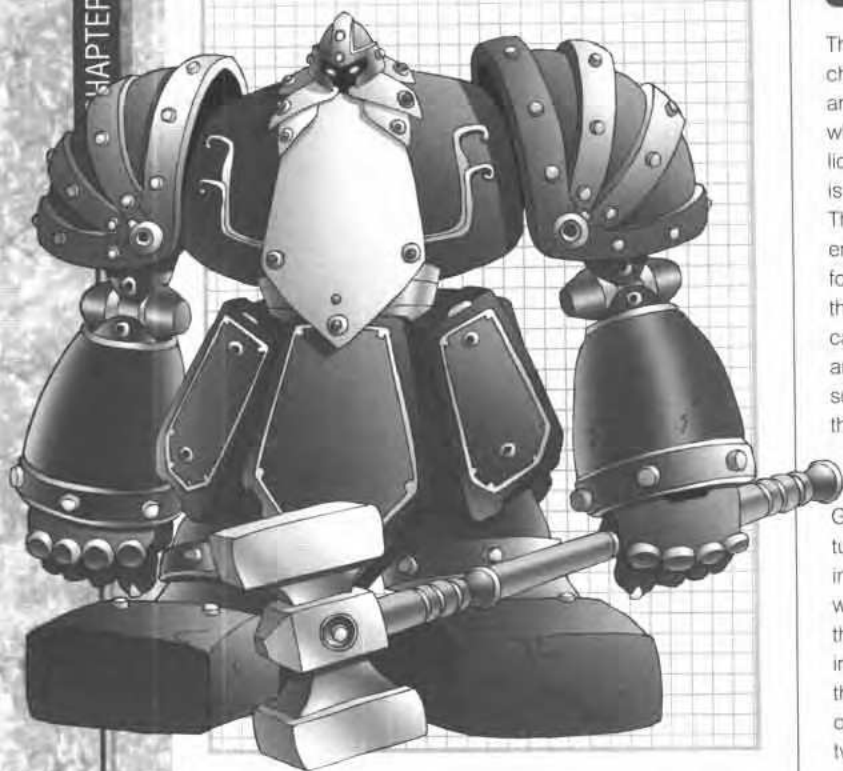
Type:	Giant Robot
Size:	Huge (Tall, 30')
Hit Points:	105 (MP: 170)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	20 (MP: 100)
Defense:	18 (-2 size, +10 armor) (MP: 100)
Strength:	28 (MP: 54)
Speed:	Land 60 mph (MP: 120)
Tactical Speed:	Land 530'
Initiative:	+2 (MP: 20)

Maneuver:	+2 (MP: 20)
Total MP Cost:	1006 (1125 w/weapon)
Total Money Cost:	2,024,072 gp
Special Abilities:	
Life Support (MP: 12), Spell Effect (<i>Burning Hands</i> , CL 5, unlimited, MP: 50), Spell Effect (<i>Fire Shield</i> *, CL 20, 2/day, MP: 200), Spell Effect (<i>Resist Elements (Fire)</i> , CL 5, unlimited, MP: 150)	
Mecha Defects:	
None	

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
+2 Flaming Longspear	2d8	SS	n/a	n/a	Increased Critical (x3), Magic (+3), Muscle-Powered	Melee (Gargantuan weapon)	119

NOTE: The longspear is a Piercing weapon. *Warm version only.



OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 25')
Hit Points:	165 (MP: 290)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	20 (MP: 100)
Defense:	18 (-2 size, +10 armor) (MP: 100)
Strength:	32 (MP: 66)
Speed:	Land 20 mph (MP: 40)
Tactical Speed:	Land 175'
Initiative:	-2 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
+1 Flaming Burst Warhammer	2d8	SS	n/a	n/a	Increased Critical (x3), Magic (+3), Muscle-Powered	Melee (Huge weapon)	119

NOTE: The warhammer is a Bludgeoning weapon.

BLASTFURNACE GUARDIAN ARMOR

The Blastfurnace presents an odd contrast with its lithe archetype, Gurdriel. Rather than thin and swift, it is massive and plodding. Llyerineesian scholars of divinity point out that while Gurdriel and the Firelance may be thought of as flames licking out at the forefront of a spreading fire, the Blastfurnace is like the entirety of the fire itself, steady and unrelenting. The Blastfurnace is not a frontline combatant; it is a siege engine. Its immense, fiery warhammer can smash through fortified walls, blasting aside stone and setting aflame anything that can burn. Like its archetype, the Blastfurnace can call down a conflagration of fire to engulf and utterly destroy any who might stand in its way. More than one fortress has surrendered unconditionally to the Llyerineesian Army upon the arrival of the slow-moving Armor.

The Kingdom of Llyerinees possesses seven Blastfurnace Guardian Armors. The last one was produced over a century ago, and most observers suspect there will be no more in the future. At present, all seven are slowly making their way across the southern part of the continent, heading for the front. The Kingdom of Nosterloch has a strategically important walled fortress near the shared border between the Two Kingdoms, and it is believed that this fortress — called Highbank — will mark the site of the first battle between the two sides.

Maneuver:	-2 (MP: 0)
Total MP Cost:	1068 (1187 w/weapon)
Total Money Cost:	2,281,248 gp
Special Abilities:	
Life Support (MP: 12), Spell Effect (<i>Fire Storm</i> , CL 20, 1/day, MP: 140), Spell Effect (<i>Resist Elements (Fire)</i> , CL 5, unlimited, MP: 150), Spell Effect (<i>Wall of Fire</i> , CL 20, 2/day, MP: 160)	
Mecha Defects:	
None	

FALTRIUS, DIVINE GUARDIAN OF WAR

In jewelry form, Faltrius is a harmless circlet of brilliant mithral, simple yet achingly exquisite. As a Guardian Armor, however, it is the very embodiment of War. Its blue-grey adamantine shell darkens the skies. Its baleful eyes gaze steadily from beneath an ornate helm. It bears a titanic shield that is the very visage of fear, and it wields a monstrous magical longsword that crackles with divine energy. While marching across the battlefield, it calls out to its bearer's allies, rallying them to victory in a deep, sonorous voice. When it meets the enemy, it rewards courage and honor with praise, and cowardice with swift and merciful death.

Faltrius imparts upon its chosen bearer the gifts of the divine magic domain of war, and it may access most of them directly in its Armor form, at its bearer's command. Although menacing in appearance, Faltrius is not an Instrument of chaos, petty strife or random violence. It represents martial prowess and careful planning, and its brand of warfare is regimented, not wild. Faltrius is a lawful neutral artifact; its bearers must likewise hold order and discipline in high esteem. Paladins often serve it, and martial monks could likewise, were they familiar with sword and shield. To test a potential bearer, Faltrius can summon a powerful demon for the candidate to fight, but this is the only condition under which it can do so, and no one may interfere in the battle.



OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 30')
Hit Points:	240 (MP: 440)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	22 (MP: 110)
Defense:	23 (-2 size, +10 armor, +5 shield) (MP: 100)
Strength:	36 (MP: 78)
Speed:	Land 50 mph (MP: 110)
Tactical Speed:	Land 440'
Initiative:	+4 (MP: 30)
Maneuver:	+4 (MP: 30)
Total MP Cost:	3135 (3405 w/shield and weapon)

Total Money Cost: N/A

Special Abilities:

Life Support (MP: 12), Shield (+5, MP: 25), Spell Effect (*Blade Barrier*, CL 20, 2/day, MP: 240), Spell Effect (*Flame Strike*, CL 15, 5/day, MP: 375), Spell Effect (*Magic Vestment*, CL 15, unlimited, MP: 450), Spell Effect (*Magic Weapon*, CL 20, unlimited, MP: 200), Spell Effect (*Power Word Blind*, CL 15, 2/day, MP: 240), Spell Effect (*Power Word Kill*, CL 17, 1/day, MP: 153), Spell Effect (*Power Word Stun*, CL 13, 2/day, MP: 182), Spell Effect (*Spiritual Weapon*, CL 20, unlimited, MP: 400)

Mecha Defects:

Reduced Endurance (24 hours, MP: -25)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
+5 Lawful Longsword	2d8	SS	n/a	n/a	Improved Threat (19-20), Magic (+7), Muscle-Powered	Melee (Huge weapon)	245

NOTE: The longsword is a Slashing weapon.



OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 30')
Hit Points:	120 (MP: 200)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	20 (MP: 400)
Defense:	18 (-2 size, +10 armor) (MP: 100)
Strength:	30 (MP: 60)
Speed:	Land 50 mph (MP: 110)
Tactical Speed:	Land 440'
Initiative:	+2 (MP: 20)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
+2 Keen Greatsword	4d6	SS	n/a	n/a	Improved Threat (19-20), Magic (+3), Muscle-Powered	Melee (Gargantuan weapon)	132

NOTE: The greatsword is a Slashing weapon.

LONGBLADE GUARDIAN ARMOR

The Longblade Guardian Armor is a deadly terror on the battlefield. Its massive, 35-foot long mithral greatsword can cleave through entire enemy formations with a single swipe. Even the sword's backstroke is deadly, and numerous enemy troops who thought they'd survived the downstroke have been crushed by the enormous clods of earth falling from the blade as it was pulled from the ground. If that weren't enough, the Armor can call down the fires of heaven to incinerate an enemy, and it can call into existence a whirling storm of blades from which few regular infantry can escape.

The Longblade has the distinction of being the very first Mortal Guardian Armor. The original unit was completed 465 years ago, and it still strides across the battlefields to this day. Its first pilot, King Laeon II himself, christened it "Mariel" after his firstborn daughter. She was murdered during a raid by a now-extinct tribe of goblins called the Frostpaws. They came down from the northern mountains and into the Nosterloch familial retreat, killing all in their path. Legend has it Laeon II wiped out the entire tribe with two swift strokes from his Longblade: one for the chieftain and the other for all the rest at once. Piloting Mariel is a great honor, and it often leads armies if Faltrius itself does not. The Kingdom possesses fifteen other Longblades.

Maneuver:	+2 (MP: 20)
Total MP Cost:	1433 (1565 w/weapon)
Total Money Cost:	4,106,978 gp
Special Abilities:	
Life Support (MP: 12), Spell Effect (<i>Blade Barrier</i> , CL 20, 1/day, MP: 120), Spell Effect (<i>Flame Strike</i> , CL 15, 2/day, MP: 150), Spell Effect (<i>Power Word Stun</i> , CL 13, 1/day, MP: 91)	
Mecha Defects:	
None	

STOUTHEART GUARDIAN ARMOR

With the Stoutheart design, the artisans and priests of Nosterloch have striven to match the defensive and support capabilities of its archetype, Faltrius. Like the Divine Armor, the Stoutheart bears a massive shield, which it can plant in the ground with a single swing of its mighty arms, providing a temporary barrier to protect foot soldiers from an enemy onslaught. More important, however, for the support of the troops is its ability to augment their gear with magic. In quick succession, the Stoutheart can provide magic armor and magic weapons to a squad of soldiers, giving them a major advantage against mundane foes. The Armor can hold its own in battle, as well, for it is equipped with a pair of swords — one long and one short. With its shield planted in the ground, the Armor can wield both swords at once, displaying the awesome martial expertise expected of a derivative of Faltrius.

Stouthearts are by far the most expensive Guardian Armors produced by mortals. Only eight exist in Nosterloch's armies. Six are stationed on the front lines at the border with Llyerinees, and the other two remain at the capital in the north. The two at the capital stand silent guard beside the main entrance to the city. They are the most recently constructed units, fewer than twenty years old each, and they have yet to see any combat.

OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 30')
Hit Points:	150 (MP: 260)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	20 (MP: 100)
Defense:	23 (-2 size, +10 armor, +5 shield) (MP: 100)
Strength:	28 (MP: 54)
Speed:	Land 60 mph (MP: 110)
Tactical Speed:	Land 440'
Initiative:	+0 (MP: 10)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
+2 Shocking Longsword	2d8	SS	n/a	n/a	Increased Threat (19-20), Magic (+3), Muscle-Powered	Melee (Huge weapon)	119
+3 Shortsword	2d6	SS	n/a	n/a	Increased Threat (19-20), Magic (+3), Muscle-Powered	Melee (Large weapon)	113

NOTE: The longsword is a Slashing weapon. The shortsword is a Piercing weapon.



Maneuver:	+0 (MP: 10)
Total MP Cost:	1502 (1759 w/shield and weapons)
Total Money Cost:	4,512,008 gp

Special Abilities:

Life Support (MP: 12), Shield (+5, MP: 25), Spell Effect (*Blade Barrier*, CL 20, 2/day, MP: 240), Spell Effect (*Magic Vestment*, CL 15, unlimited, MP: 450), Spell Effect (*Magic Weapon*, CL 20, unlimited, MP: 200)

Mecha Defects:

None

GOLEMSUIT WARRIORS

Golems and other animated creations are a staple of fantasy roleplaying games, and while the real world golem of legend was made of mud and clay, its fantasy brethren are made of all manner of materials, including metal. In every important way, these automatons of yore are the fantasy equivalent of robots. If one were to strip away the independent elemental force controlling a golem while leaving it magically animate, what gets left behind would be the fantasy equivalent of a classic science-fiction battlesuit.

In this setting, this process has already taken place, and the results — Golemsuits — rampage across the landscape, fighting battles both great and small.

A SLIGHT MISHAP...

Some one hundred years ago, the wizard Bathysite, all but unknown to the world at large, was commissioned to construct a powerful golem for a local monarch. She labored for many days and nights, and on the final night, she enacted the ritual that would bind an elemental spirit to her iron creation. At that moment, her assistant, Holrek, burst into her laboratory with an otherwise mundane and unimportant announcement for her. His action interrupted that final spell, which failed, ruining her efforts of the previous weeks and setting back the delivery date for the golem. So furious was Bathysite that in her rage, she teleported the bungling apprentice into the shell of the golem, intending to imprison him there as punishment. By that point, however, the magics to animate the iron figure had already been cast, and the wizard and her apprentice were quite surprised to find Holrek in complete control of the construct.

Over the next decade, the two worked to refine the process that had inadvertently taken place, until at last they had perfected their creation, which they called a "Golemsuit." They closely guarded their secrets, and for several years were the sole source of Golemsuits until a group of thieves successfully braved Bathysite's dungeon stronghold and made off with the magical formulae hidden in the center keep/laboratory. Shortly thereafter, Golemsuits began appearing far and wide, and Bathysite and Holrek faded into obscurity, their names now known only to a few historians of the arcane arts.

FACTIONS

Golemsuits are used by all manner of martial organizations, ranging from small adventuring parties to full-scale armies. Orcs and their ilk are even known to make use of Golemsuits from time to time as part of their raiding tactics, and it is whispered that the more isolated and successful hobgoblin tribes have themselves discovered (or stolen) the secrets to their creation. The prestige of operating a Golemsuit is great among the rank and file of the larger organizations, and they often serve as command units and elite fighters. In any case, they are not usually found in great numbers; at best, there will be one Golemsuit per ten regular infantry, though typically the ratio is closer to 1-to-100. While a Golemsuit is a powerful fighting unit, it is costly, and 50,000 gp can equip and outfit a great number of troops.

CAMPAIGNS

Golemsuits require no particularly strong background for their existence. Their origins are not tied to a cataclysmic event, nor was their arrival heralded by the heavens: they were simply developed — quite by accident — by a pair of otherwise unremarkable wizards. They are, therefore, quite easy to incorporate into a pre-existing campaign, since the golemsuits are really little more than wondrous items. Adding one is as simple as adding a magic sword. The main difference is that, as presented here, Golemsuits are relatively recent innovations, originally built within the past century or so. Otherwise, they should be more

The Black Hood Gang

Operating in the forests near a major trade city, the Black Hood Gang is a notorious group of bandits and thieves. Thirty men strong, the Gang preys on overland caravans that pass near its forests. Its leader, Maltor Threepence (male human Rog4/Ftr3, LE) owns a Grappler Golemsuit that he uses to good effect in overturning wagons during the band's assaults. The group is also in possession of a pair of Longbow Golemsuits, which always stand off in the deeper woods to pick off those who would escape its savagery.

It is unknown how Threepence came to own his Golemsuits, but he is rumored to be backed by a powerful merchant guild. Needless to say, there are many who wish to know...

numerous, to the point at which Golemsuits fighting against each other on the battlefield is a common event. In that case, they should be made more powerful than the examples shown. If one faction manages to improve its suits dramatically, by tapping into a previously unused power (such as infernal magic) for example, it might seriously change the status quo.

One important point to consider in introducing a Golemsuit to a campaign is how the Player Characters come upon theirs. They might see one in use by an enemy and commission their own design. They could be assigned to one or two as part of a mercenary company or a regular army. Perhaps they've inherited theirs, or simply found one as part of a dragon's horde.

MECHA DESIGN

A Golemsuit, at its core, is a golem that lacks a controlling spirit. Instead, while magic animates it, a living pilot must operate it, much like the fabled *Apparatus of the Crab* requires a crew. The operator is not permanently bound by any means — the operator can exit at any time he or she wishes to.

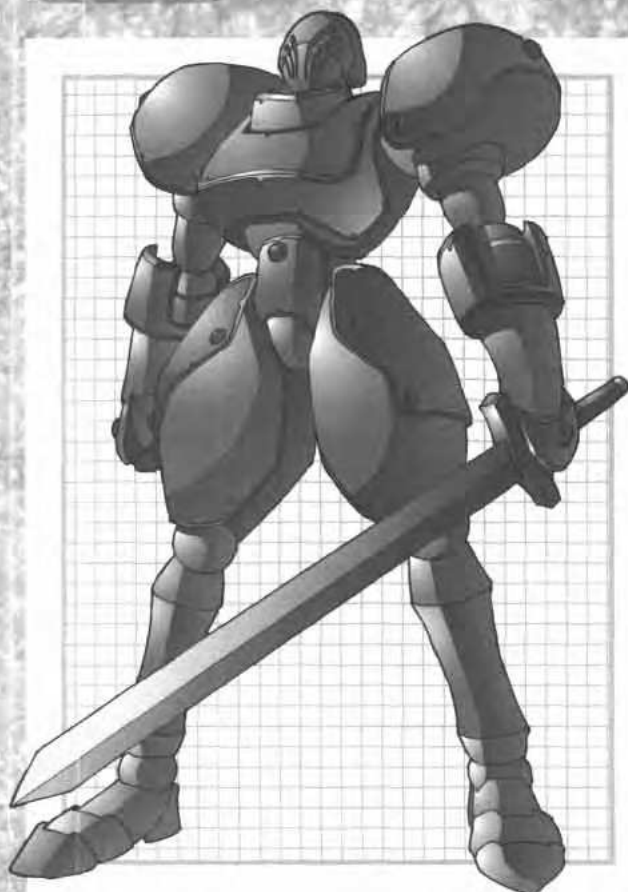
Golemsuits are most often created for medium-size humanoid operators, such as humans, dwarves, elves, orcs or hobgoblins. They can eas-

ily be fashioned for smaller or larger operators, but creatures of a particular size cannot operate a Golemsuit designed for another. (A halfling cannot pilot a human's suit, for example, nor can an orc operate an ogre's.)

These items are almost always created from iron, with other metals such as brass, copper, gold and silver used for details and ornamentation. Mithral is rarely used, and adamantite more rarely still — Golemsuits thus forged would be virtually indestructible, but also astronomically expensive. Because the suits are magical, they can be cast in a single mold with no moving parts; they are not clockwork mechanisms. Once cast and forged, a suit is enchanted in a powerful ritual that animates the metal and adds its magical abilities. These abilities tend to be supportive or utilitarian in nature rather than directly offensive, since the suits themselves are usually used in support roles on the battlefield. Furthermore, because a Golemsuit can wield any weapon that its operators can wield, they are rarely created with built-in armaments.

When a Golemsuit is created, the enchanter creates alongside it a magical control focus, which often takes the form of a piece of jewelry, such as a ring or a circlet. The possessor of this device is the Golemsuit's operator; without its control focus, a person cannot use a Golemsuit. A suit can have only a single control focus. If it is lost or destroyed, a new one can be created as a wondrous item with a cost of 2000 gp (and an experience cost of 80 XP). In order to be bound to the new focus, the Golemsuit must be present during the entire process of creation.

Golemsuits are completely sealed against the environment; magic supplies breathable air to the operator. There are no hatches to allow access to the suit's innards. Instead, the operator must enter and exit the suit with the aid of its control focus, which generates a limited form of the *Dimension Door* spell. The effect has a range of 100 feet. There is no limit to the number of times per day it may be used, and it takes one Action to complete. The operator must know the exact location of the Golemsuit to transfer into it. He may not carry anything into the suit other than the clothes on his back.



OGL Stat Block

Type:	Suit
Size:	Medium-Size (7')
Hit Points:	25 (MP: 50)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	7 (MP: 35)
Defense:	15 (+5 armor) (MP: 25)
Strength:	+4 (MP: 12)
Speed:	Land x2/3 (MP: 9)
Tactical Speed:	Land x2/3
Initiative:	+0 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Greatsword	2d6	SS	n/a	n/a	Muscle-Powered, Increased Threat (19-20)	Melee (Large weapon)	18

NOTE: The greatsword is a Slashing weapon.

GLADIATOR

The Gladiator, as it is known amongst the majority of humans, is the most ubiquitous Golemsuit found in the world, and it is one of the first types created. The overall style and craftsmanship varies from region to region and from creator to creator, but the core of the unit's ability and function remains the same: wielding a two-handed weapon, the Gladiator strides across the battlefield, laying waste to enemy infantry units as it cuts a swath through their front lines. A favored tactic is to rush an enemy's line and unleash the Golemsuit's devastating *Shout* attack while in the thick of the foe's ranks. Although it can only use this power once per day, doing so can wound and deafen an entire squad of enemy infantry, and it may leave them weaponless. The Gladiator's foot soldier allies usually follow close at heel, taking full advantage of the situation to vanquish those opponents left standing. As a backup, the Gladiator has available several uses of the weaker *Shatter* spell; although this attack cannot compare in devastation to the *Shout*, it can be quite useful in selectively destroying an adversary's weaponry.

Gladiators are used far and wide. Humans tend to favor greatswords, but greataxes, halberds, and heavy flails are not uncommon, especially amongst non-humans. Orcs that manage to field a Gladiator almost always arm it with an orcsish double-axe.

Maneuver:	+0 (MP: 0)
Total MP Cost:	191 (209 w/weapon)
Total Money Cost:	72,962 gp
Total XP Cost:	2918
Special Abilities:	
Life Support (MP: 4), Spell Effect (<i>Shatter</i> , CL 3, 5/day, MP: 30), Spell Effect (<i>Shout</i> , CL 7, 1/day, MP: 28)	
Mecha Defects:	
None	

CHARGER

Designed to rush through and break up enemy formations, the Charger is a cavalry unit. Already an unusually fast Golemsuit, the Charger can gain a tremendous burst of speed through the use of the ironically named *Expeditious Retreat* spell. When running at full tilt, it can even chase down horses, and its heavy lance becomes a devastating weapon against foot soldiers. Its strong armor allows the Charger to survive on its own amidst swarms of enemy units, and if the situation becomes too hostile, it can retreat to the rear of its own forces with the *Dimension Door* spell.

Virtually any army that uses cavalry units will field a Charger if it can afford one. Elven Chargers are particularly spectacular to behold, with their streaming banners of gossamer and the graceful curves of their armor. One common variant is the Redeemer; with lighter armor, it is not quite as able to withstand enemy attacks, but it does have a second use of the *Dimension Door* spell. This allows the Redeemer to appear instantly anywhere on the battlefield and depart just as quickly. Redeemers are often called upon to rescue an important ally — or to capture an important enemy. They normally carry longswords.

OGL Stat Block

Type:	Suit
Size:	Medium-Size (7)
Hit Points:	25 (MP: 50)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	9 (MP: 45)
Defense:	15 (+5 armor) (MP: 25)
Strength:	+4 (MP: 12)
Speed:	Land x1.5 (MP: 27)
Tactical Speed:	Land x1.5
Initiative:	+0 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Heavy Lance	1d8	SS	n/a	n/a	Muscle-Powered, Increased Critical (x3)	Melee (Medium-Size weapon)	12

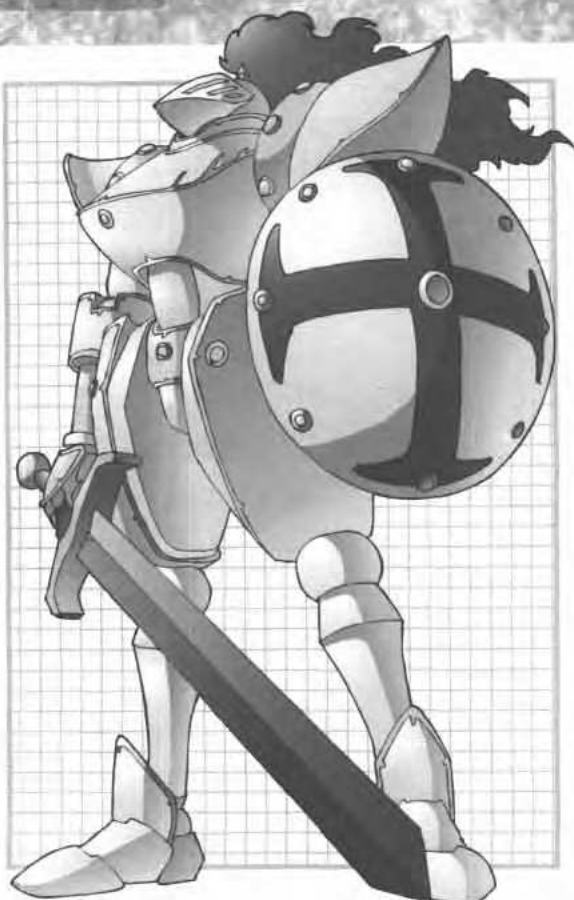
NOTE: The heavy lance is a Piercing weapon.

Variants

REDEEMER: The Redeemer is designed to move into a hostile territory and retrieve a Medium-size character.

Maneuver:	+1 (MP: 5)
Total MP Cost:	211 (223 w/weapon)
Total Money Cost:	89,042 gp
Total XP Cost:	3561
Special Abilities:	
	Life Support (MP: 4), Spell Effect (<i>Expeditious Retreat</i> , CL 1, 5/day, MP: 5), Spell Effect (<i>Dimension Door</i> , CL 7, 1/day, MP: 26)
Mecha Defects:	
None	

Stat Changes: Reduce Hardness to 7, remove heavy lance, add a longsword (MP 9), and add a second use of *Dimension Door*. Cost: 223 (232 w/weapon); 99,458 gp; 3978 XP.



OGL Stat Block

Type:	Suit
Size:	Medium-Size (7')
Hit Points:	35 (MP: 70)
Occupancy:	1 operator, no cargo (MP: 0)
Hardness:	15 (MP: 75)
Defense:	17 (+5 armor, +2 shield) (MP: 25)
Strength:	+8 (MP: 24)
Speed:	Land x2/3 (MP: 20)
Tactical Speed:	Land x2/3

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Longsword	1d8	SS	n/a	n/a	Muscle-Powered, Increased Threat (19-20)	Melee (Medium-Size weapon)	12

NOTE: The longsword is a Slashing weapon.

Variants

DIVINEHEART: Designed to fight armies of evil, the Divineheart includes holy spell effects.

Stat Changes: Add Spell Effect (*Magic Circle Against Evil*, CL 5, 3/day, MP: 45), Spell Effect (*Holy Smite*, CL 7, 1/day, MP: 28), Cost: 307 MP (319 w/weapon); 188,498 gp; 7539 XP.

PUREHEART

The resplendent Pureheart Golemsuit is forged from pure mithral, and its features are inlaid with ornate designs of gold and platinum. Its shield bears the consecrated holy symbol of a god, and its breast bears the coat of arms of the State or of the operator's family or noble house. If clad in a cape — always flowing and billowing and made most often of white silk trimmed with ermine or mink fur — it also bears the coat of arms. Purehearts are the paladins of Golemsuits, capable of powerful attacks while holding fast against an enemy onslaught and supporting its allies. Indeed, because a Golemsuit doesn't interfere with a paladin's divine abilities any more than plate armor does, paladins are often at the controls of these majestic creations.

The mithral of the Pureheart provides it with unmatched protection on the battlefield — and unmatched cost in the forge of those who create one. In contrast to most other Golemsuits, the standard Pureheart does not generate spell effects of its own. Some, such as the Divineheart, can generate a *Magic Circle against Evil* and deliver a *Holy Smite*, but these are of very limited practicality on most battlefields. Such spells are effective chiefly against evil, and it is a sobering truth of war that most enemy soldiers are just as morally neutral (or good) as one's allies. The Divineheart is only created to fight armies of demons and devils.

Initiative:	+0 (MP: 0)
Maneuver:	+0 (MP: 0)
Total MP Cost:	234 (246 w/weapon)
Total Money Cost:	109,512 gp
Total XP Cost:	4380
Special Abilities:	
Life Support (MP: 4), Shield (+2 Defense, MP: 6)	
Mecha Defects:	
None	

BLACKHEART: The Blackheart is an effective tool of evil.

Stat Changes: Reduce Hardness to 13, add Spell Effect (*Magic Circle Against Good*, CL 5, 3/day, MP: 45), Spell Effect (*Unholy Blight*, CL 7, 1/day, MP: 28), Cost: 294 MP (306 w/weapon); 172,872 gp; 6914 XP.

GRAPPLER

Hulking and powerful, the Grappler Golemsuit has one purpose on the field of battle: to disable or destroy enemy Golemsuits. A Grappler typically carries no weapons other than its huge reinforced metal fists. It can usually find a suitable weapon on the battlefield if it needs one, but more often than not, its pilot chooses to leave its hands empty and rely on the Golemsuit's tremendous strength — greatest amongst Golemsuits — to accomplish its mission. By engaging in a direct, unarmed attack, the Grappler can pin and hold fast an opponent, allowing the Grappler's allies to deliver the finishing blows. If two Grapplers are paired up, one can immobilize an enemy while the other literally tears it apart with its bare hands. Using its *Grasping Hand* power, a single Grappler can accomplish the same task on its own.

The Grappler is an expensive Golemsuit to construct and enchant, so it is not often fielded in large numbers, if at all. Humans and dwarves are its primary users; elves find its nature unappealing, and orcs and their ilk can rarely afford one. A variant of the Grappler, the Brute, leaves out the *Grasping Hand* power and adds the ability to cast *Bull's Strength* (CL 3) five times per day. Although this spell cannot affect the Grappler itself, it can provide quite a boost to its foot soldier allies. Hobgoblins are fond of Brutes, and large tribes can all too frequently afford one or two.

OGL Stat Block

Type:	Suit
Size:	Medium-Size (7')
Hit Points:	30 (MP: 60)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	8 (MP: 40)
Defense:	15 (+5 armor) (MP: 25)
Strength:	+10 (MP: 30)
Speed:	Land x2/3 (MP: 10)
Tactical Speed:	Land x2/3
Initiative:	+0 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Gauntlet	1d3	SS	n/a	n/a	Muscle-Powered	Melee (Small weapon)	4
Gauntlet	1d3	SS	n/a	n/a	Muscle-Powered	Melee (Small weapon)	4

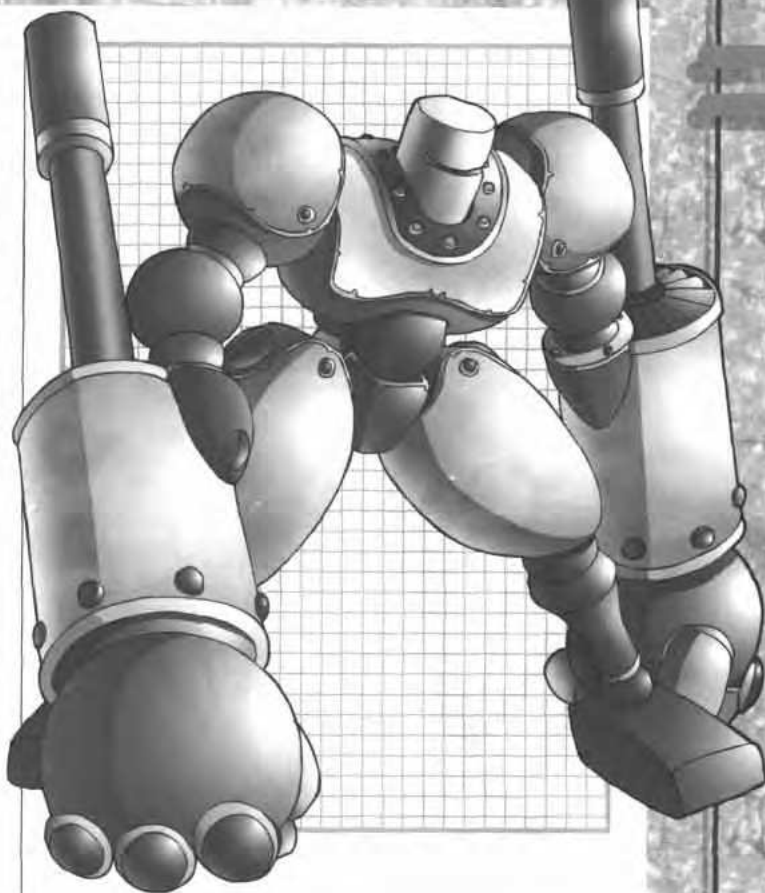
NOTE: The gauntlets are both Bludgeoning weapons.

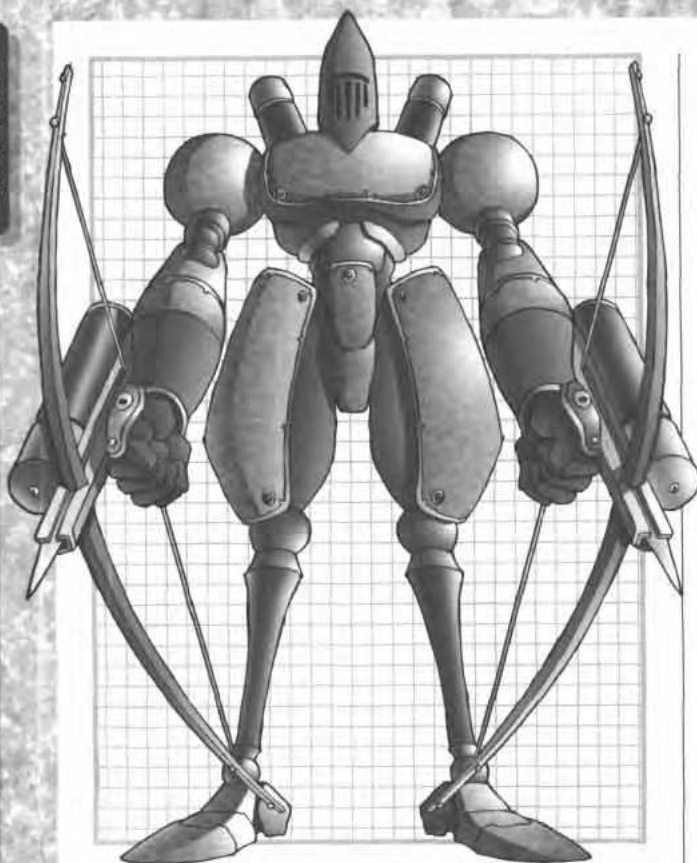
Variants

BRUTE: The Brute operates in concert with infantry warriors, whom it makes more powerful with the *Bull's Strength* spell.

Maneuver:	+0 (MP: 0)
Total MP Cost:	270 (278 w/weapons)
Total Money Cost:	145,800 gp
Total XP Cost:	5832
Special Abilities:	
Life Support (MP: 4), Spell Effect (<i>Grasping Hand</i> , CL 13, 1/day, MP: 91)	
Mecha Defects:	
None	

Stat Changes: Remove Spell Effect (*Grasping Hand*) and add Spell Effect (*Bull's Strength*, CL 3, 3/day, MP: 18). Cost 197 MP (205 w/weapons); 77,618 gp; 3104 XP.





OGL Stat Block

Type:	Suit
Size:	Medium-Size (7')
Hit Points:	25 (MP: 50)
Occupancy:	1 operator, no cargo (MP: 0)
Hardness:	7 (MP: 35)
Defense:	15 (+5 armor) (MP: 25)
Strength:	+4 (MP: 12)
Speed:	Land x2/3 (MP: 9)
Tactical Speed:	Land x2/3
Initiative:	+1 (MP: 5)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Longbow	1d8	100'	SS	30	Long Range x2; Increased Critical (x3)	—	27

NOTE: The longbow is a Piercing weapon.

LONGBOW

Most Golemsuits engage their opponents in direct, hand-to-hand combat of one form or another. The Longbow, however, usually stands a great distance off and showers its enemy with a hail of withering arrow-fire, rarely engaging its foe face-to-face. Longbow Golemsuits most often use mighty composite longbows in order to take advantage of their strength, although it is not unheard of to find one using a heavy crossbow or even manning a ballista unit atop a castle's battlements. The Longbow's primary advantage, aside from the tremendous protection afforded its operator, is its built-in magic, particularly the *Truestrike* spell. An archer with *Truestrike* in effect can split asunder targets too far away for an *unaided* Bowman to hit, and they can engage from afar enemies too well defended for even the best swordsmen to attack successfully while up close. A small barrage from a *Magic Missile* spell allows the Longbow an extra measure of versatility in its attacks; this spell effect is typically held in reserve for use against opponents who break past the Longbow's defenders.

Next to the Gladiator, the Longbow is the most common Golemsuit on the fields of battle. All races make use of them, but elves find them particularly attractive. An elf's Longbow is generally lithe and graceful, with delicate gold and silver filigree complementing deep blue or green enameled armor plating.

Maneuver:	+0 (MP: 0)
Total MP Cost:	170 (197 w/weapon)
Total Money Cost:	57,800 gp
Total XP Cost:	2312
Special Abilities:	
Life Support (MP: 4), Spell Effect (<i>True Strike</i> , CL 1, 5/day, MP: 5), Spell Effect (<i>Magic Missile</i> , CL 5, 3/day, MP: 15)	
Mecha Defects:	
None	

SEA RAIDER

Although Golemsuits generally operate on land in support of regular armies, such environments and tactics by no means limit the design and fabrication of these wondrous works of magic. The Sea Raider is a prime example of a Golemsuit that operates outside both parameters: it is meant for marine operations and frequently acts in concert with a small, light force only. It can operate underwater indefinitely, magically supplying its operator with air. With a maximum depth of 120 feet, however, it is only good for shallow-water operations and is not able to battle in the deep seas. Twice per day, the Sea Raider can cast *Water Breathing* on a group of companions; with up to ten person-hours of magical effect available with each use, it can easily support a small force in raiding or reconnaissance operations.

Twice per day, the Golemsuit can magically summon waterborne aid to its side in the form one or more extraplanar, water-dwelling creatures. The exact creature summoned is set at the time of creation of the Golemsuit; it may be a small water elemental or an extraplanar analogue of an underwater predator such as a shark. With the exception of the elemental, these creatures tend towards the fiendish rather than the celestial. The operator of the Golemsuit cannot usually communicate with them, but they will strike out to attack his enemies upon arrival without his command.

OGL Stat Block

Type:	Suit
Size:	Medium-Size (7')
Hit Points:	25 (MP: 50)
Occupancy:	1 operator, no cargo (MP: 0)
Hardness:	7 (MP: 35)
Defense:	15 (+5 armor) (MP: 25)
Strength:	+4 (MP: 12)
Speed:	Land x2/3 (MP: 9), Water 5 mph — Underwater 5 mph (120' depth) (MP: 72)
Tactical Speed:	Land x2/3, Water 45', Underwater 45'

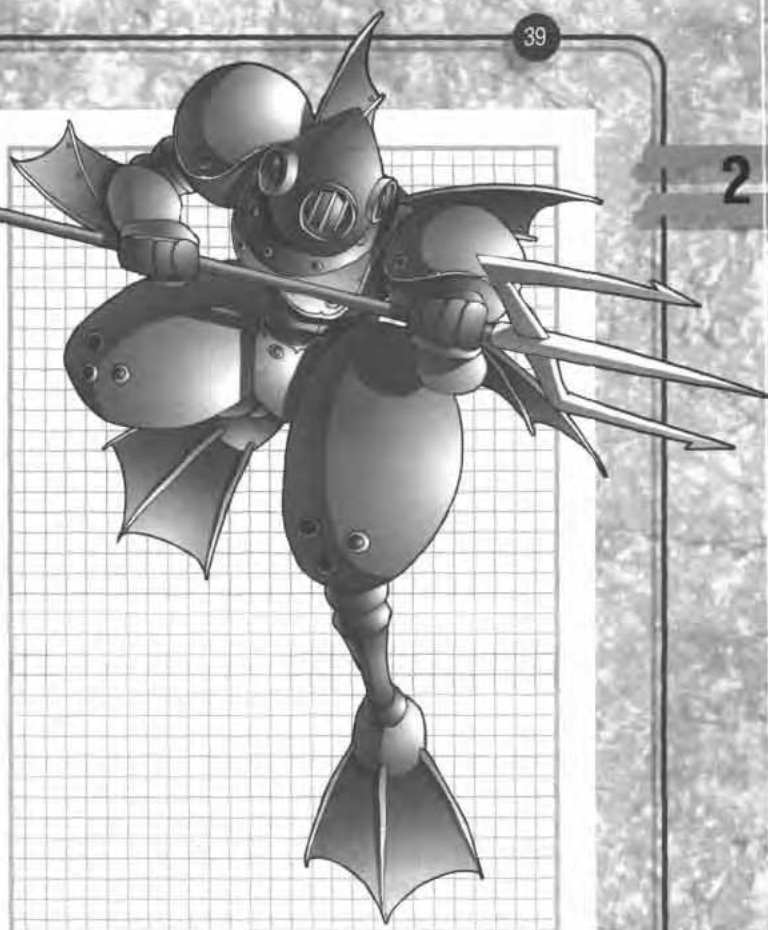
WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Trident	1d8	SS	—	—	Muscle-Powered	Melee (Medium-Size weapon)	9

NOTE: The trident is a Piercing weapon.

Summonable Creatures

The Sea Raider's *Summon Monster III* spell can summon from the following list: 1 small water elemental, 1 fiendish shark (large), 1 fiendish crocodile, 1d3 fiendish octopuses,



Initiative:	+0 (MP: 0)
Maneuver:	+0 (MP: 0)
Total MP Cost:	277 (286 w/weapon)
Total Money Cost:	153,458 gp
Total XP Cost:	6138
Special Abilities:	
Life Support (MP: 4), Spell Effect (<i>Water Breathing</i> , CL 5, 2/day, MP: 30), Spell Effect (<i>Summon Monster III</i> , CL 5, 2/day, MP: 30)	
Mecha Defects:	
None	

1d3 fiendish sharks (medium-size), or 1d3 fiendish squids. The summoned creature is chosen at the time of creation of the Golemsuit and may not be altered afterward. Other types of water-dwelling extraplanar creatures are possible within the limits of the spell.

BEAST LORDS

The Beast Lords were created as the defenders of the ancient world against a force of interdimensional invaders. A rift between dimensions, or perhaps a different universe, opened up, allowing armies of foul creatures to spill forth into this world. The situation looked bleak until humanity's greatest minds created the Beast Lords, metallic guardians that would serve fearlessly and untiringly in combat against the invaders. After many bitter battles, they were able to beat back the invaders and close the dimensional rift, but only at the expense of their own life force and after the destruction of the civilization they were designed to protect. The total devastation of cities and farmland threw humanity into a new dark age. The Beast Lords themselves fell dormant, buried deep beneath the earth.

THE NEW WORLD

Over time humanity rose again from savagery to form new societies, but the simple act of living was difficult enough by itself. Most knowledge of the ancient world had been lost, even more than wisest could guess at, and the descendants of the invaders' forces roamed free on the land, wild and deadly. Life was harsh and short, and many did not survive to adulthood. Small settlements survived as best they could, trading with each other for support and protection. Then one day, a group of young warriors exploring a series of caverns as part of their rites of passage, discovered the Beast Lords and awoke them from their slumber. Revitalized by their long sleep, the Beast Lords were shocked at humanity's predicament and vowed to restore civilization to its former glory. But the return of the Beast Lords has released other forces as well, and a new interdimensional rift has formed. Scout forces of the invaders have appeared and it seems humanity could be destroyed before it can rise again.

The Invaders

None have seen the masterminds behind the interdimensional invasion, but they are said to be beings of great power, to whom other life forms are mere playthings to be used and discarded. The disposition of their troops hints at their abilities, being composed of a bewildering variety of strange creatures of unwavering loyalty. It is thought by some that they are the denizens of other dimensions invaded by the overlords, enslaved

and twisted to their dark will. In the ancient times vast armies were sent through the rift to conquer the land, made up of humanoids, massive beasts, reanimated corpses and even stranger creatures. Many had powers beyond what human science thought possible, and had no choice but to dub 'magic.' After the discovery of the rift it was speculated that the creatures came from dimensions with physical laws different to those of this world and were somehow able to manipulate those laws in this dimension. Regardless of the enemy's nature, this world's militaries were overwhelmed and would have fallen completely if not for the Beast Lords.

Today, with the reopened rift not fully formed, only small scouting forces have been sent through and seem content just to test humanity's defenses, but another threat remains. A large part of the original invasion force was left behind when the rift was closed and humanity was not in any condition to act against it. The descendants of these creatures lack the fanatical devotion to their former masters that their ancestors had, but they still prove dangerous to those that leave the safety of the settlements. The only upside is the fact that they are just as willing to attack the new invasion forces as they are humans.

Humanity's Guardians

The Beast Lords are creations of the ancient world's most advanced technologies and are alive in any practical sense of the world, capable of thought, emotion and even healing any damage they sustain. Each has their own personality and

outlook; arguments between the Lords are not uncommon, but they are united by their common purpose to protect humanity. The closing the dimensional rift and their subsequent coma-like state has left the Lords without much of their power and memory, but they are still far in advance of human ability. They are working to pass on their knowledge of metalworking, medicine, agriculture, philosophy and other topics to improve the primitive culture that humans currently possess. One area of human endeavor did surprise them: people known as adepts have learned to harness the power of magic brought to the world by the rift to cast spells. Not afraid of new ideas, the Lords, with their calculating intellects and knowledge of dimensional physics, have subsequently been able to invent more powerful spells.

The Beast Lords' main concern has been to locate the new interdimensional rift and permanently close it, or at the very least stop more enemies passing through to this world. So far they have had no success: it appears the rift opens and closes randomly, and may even be moving, making detection difficult. Their other aim is to improve society and help humanity become self-sufficient, able to defend itself against whatever new hazards lie ahead. To further this goal, each of the Lords assembled their own group of humans to train and pass on their knowledge. Lion selected a group of warriors, training them in advanced combat techniques and leadership, making them humanity's most effective fighters. Wolf showed his group the ways of the wilderness, how to track prey and go for the killing blow; they soon became known as rangers. Cheetah coached her charges in using their bodies to their full potential through feats of athletics and self-discipline, they became known as monks for their asceticism. Eagle taught his followers secrets of history and arcane knowledge and how to pass this information on and raise people's morale through storytelling and music; they became society's heralds and bards. Finally, Bear entreated his followers to defend the people and look after their spiritual and psychological needs, teaching them how to fight and cast spells of healing, protection, strength and war to do so. Although the Beast Lords were careful not to present themselves to humanity as gods, Bear's followers became the clerics of a new religion that revered the Lords as saviors. While powerful by

themselves, the followers of the different Lords discovered they were even more effective together, where they could take advantage of each other's strengths and cover their weaknesses. Small mixed groups, called Packmates, have begun to explore outside the settlements and fight against humanity's foes, just as the Lords intended.

MECHA DESIGN

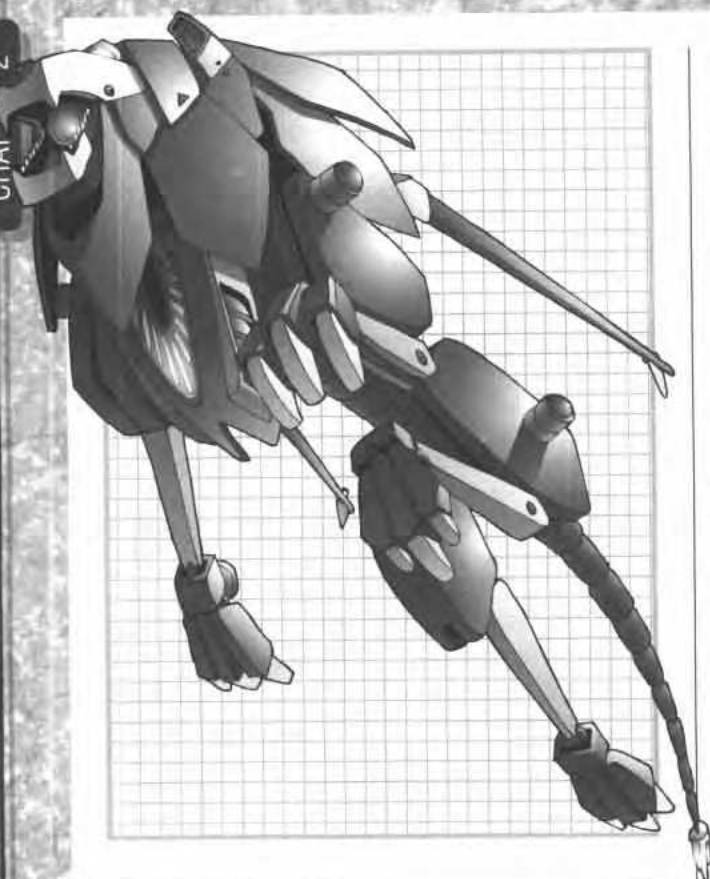
Each Beast Lord mecha is an intelligent major artifact of immense power. They were crafted by long-dead human scientists, and cannot be created by any means known to present-day mortals. Their goals is to protect and nurture human society, and destroy the invaders.

As an intelligent, highly advanced robot of great power, a Beast Lord mecha possesses mental ability scores and the ability to communicate as per the standard rules. All have Intelligence, Wisdom and Charisma scores. They can speak and read any language, and can also read magic.

As intelligent beings with goals, Beast Lords also have alignments. The exact alignment depends on the nature of the Beast Lord: all are good in some way or other. Lion and Bear are Lawful Good; Cheetah and Eagle are Neutral Good; and Wolf is Chaotic Good. The effects of alignment mismatch between a Beast Lord and its human teammates apply, although a Beast Lord will rarely work with humans of an inappropriate alignment.

Other Uses

The Beast Lords, minus their personalities, could serve as autonomous battlefield drones supporting battlesuit squads in the Outworld Changelings setting. Alternatively, with the addition of pilots, they could be an experiment in quadruped coalsuit design in the Cities & Empire world, or Guardian Armors of Nature in the Guardians of Divinity setting. The Beast Lord itself could be an ancient Olmonian guardian robot that many people would kill to get their hands on, leading to a fight with Great Machine Decander. The various mecha can also be used as modern day defenders of Japan in a setting that features giant radio-active monsters.



OGL Stat Block

Type:	Giant Robot
Size:	Large (Long, 13 ft)
Hit Points:	30 (MP: 40)
Occupancy:	None (MP: 0)
Hardness:	12 (MP: 60)
Defense:	17 (-1 size, +3 Dex, +5 armor) (MP: 25)
Strength:	25 (+7) (MP: 45)
Speed:	Land 23 mph (MP: 28)
Tactical Speed:	Land 200 ft.
Initiative:	-1 (MP: 0)
Maneuver:	0 (MP: 5)
Total MP Cost:	754
Total Money Cost:	n/a

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Claws *	1d6	SS	n/a	n/a	Increased Threat (19-20), Muscle Powered	Arc of Fire (Fr), Melee (Medium)	1
Roar **	2d8	1	80'	n/a	Cone, Unlimited Shots	Arc of Fire (Fr), Slow Firing	42

Note: * Slashing Weapon, ** Sonic Weapon

LION

Lion is the frontline fighter and leader of the Beast Lords. With his brilliant red bodywork, he is the most visible of the Lords and he is never far from the centre of action. Lion is confident and proud of his abilities, although he secretly harbors doubts about the Beast Lords' failure to save civilization during the last invasion. His judgement is sound, but sometimes lacks flexibility when things do not go as planned. He expects the other Lords to follow his lead and becomes impatient when they do not, although he respects their counsel, especially Bear's, if given time to digest it. Lion has not made any deep friendships with humans, although he respects those that fight and trains them to improve their martial skills. In return his troops are fiercely loyal and eager to fight along side him on the field of battle.

In battle, Lion leads from the front, leaping fearlessly into the fray. His teeth and claws can make short work of most creatures, while his ear-splitting roar is capable of wounding multiple opponents in one go. Lion's only failing in combat is his disinclination to break off and retreat when faced with a superior foe, and often carries on fighting even when a new plan of attack is in order. His usual strategy in such circumstances is to call for the formation of the Beast Lord, trusting in his superior abilities to carry the day.

Special Abilities:

Long Range Radio (Secure, MP: 4), Jumping (x2, MP: 4), Radar (Global, 2 miles, MP: 12), Tactical Radio (Secure, MP: 4), Infrared (1 mile, MP: 5), Inertial Navigation System (MP: 2)

Exotic Abilities:

Merging (Beast Lord) (MP: 47), Self Repair (MP: 6), Full AI (Abilities: Dex 16, Int 18, Wis 25, Cha 25. Level: Fighter 8. BAB: +8. Saves: Fort +6, Ref +5, Will +9. Skills: Climb +11, Craft (armorsmithing) +15, Craft (weaponsmithing) +15, Jump +11, Knowledge (history) +9, Knowledge (war) +9, Spot +12, Swim +13. Feats: Weapon Focus (Claw), Weapon Specialization (Claw), Improved Critical (Claw), Power Attack, Cleave, Improved Bull Rush, Expertise, Improved Trip.) (MP: 420)

Mecha Defects:

None

WOLF

Wolf is the loner amongst the Beast Lords and he is often not seen by the others for days on end. Even when present his grey coloration blends into the background. Lion is often frustrated by his penchant for ignoring orders, but Wolf continues to do what he thinks is best without regards to the others. Perhaps in response to his conflict with the other Lords, Wolf actively seeks out human company and tries to be involved in their lives. He can be usually found in the wilderness hunting with small groups of his followers, or in human settlements helping out where he can. He has several close human friends, and enjoys presiding over human ceremonies, taking them as proof that he is succeeding in his task of protecting humanity.

Wolf prefers feints and ambushes to headlong assaults, and strikes from cover whenever possible. His usual plan is to gain a superior knowledge of the terrain, then sneak up on the enemy and attack them unawares. If faced with a superior foe, he is more than willing to retreat, then ambush them if they press the attack. To these ends, Wolf saves his teeth and claws for obviously weaker opponents and attacks from a distance with his autocannon if possible. As Lion often points out, Wolf's methods leaves the other Lords without support and leaves Wolf isolated if he gets into trouble, but Wolf argues that the surprise value outweighs any drawbacks.

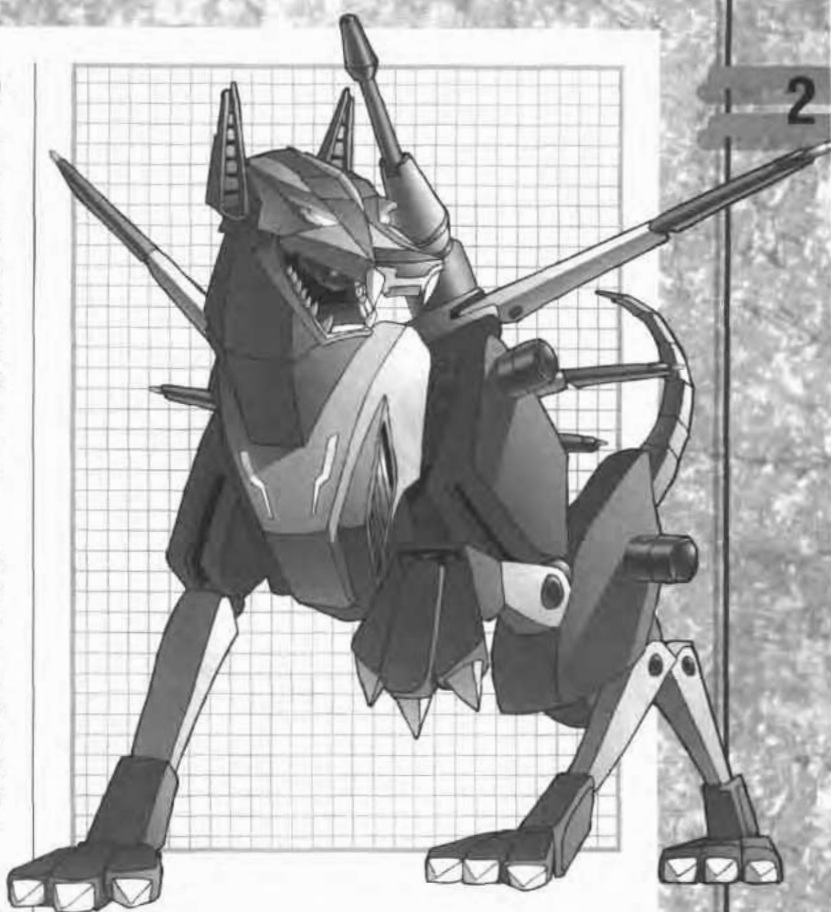
OGL Stat Block

Type:	Giant Robot
Size:	Large (Long, 12 ft)
Hit Points:	28 (MP: 36)
Occupancy:	None (MP: 0)
Hardness:	11 (MP: 55)
Defense:	18 (-1 size, +4 Dex, +5 armor) (MP: 25)
Strength:	25 (+7) (MP: 45)
Speed:	Land 23 mph (MP: 25)
Tactical Speed:	Land 200 ft.
Initiative:	0 (MP: 5)
Maneuver:	0 (MP: 5)
Total MP Cost:	764
Total Money Cost:	n/a

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Claws *	1d6	SS	n/a	n/a	Increased Threat (19-20) Muscle Powered	Arc of Fire (Fr), Melee (Medium)	1
Autocannon ***	3d10	A	150'	50	Automatic, Extra Ammo	Arc of Fire (Fr)	44

Note: * Slashing Weapon, ** Ballistic Weapon



Special Abilities:

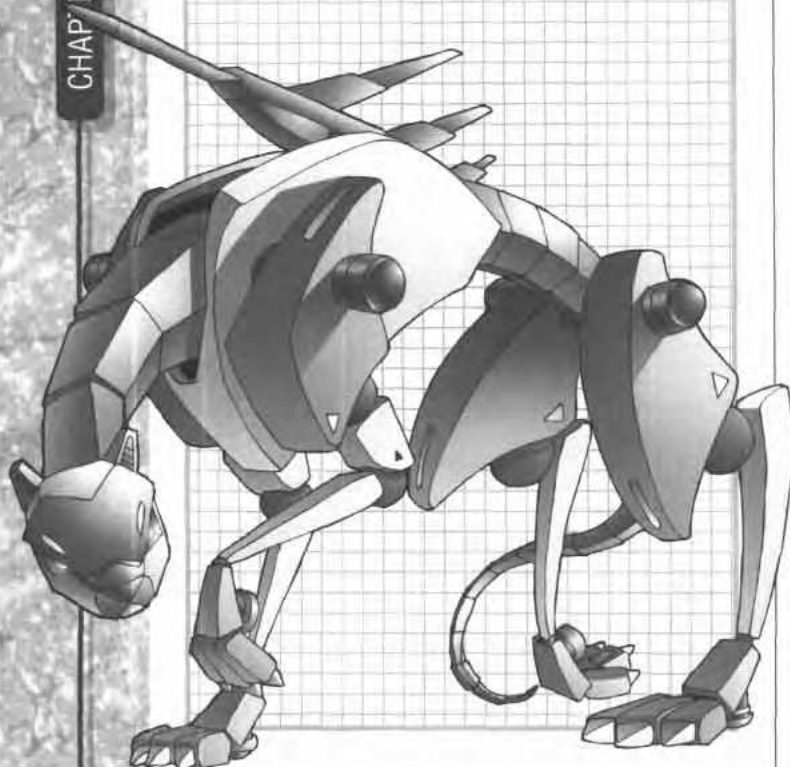
Long Range Radio (Secure, MP: 4), Jumping (x2, MP: 4), Radar (Global, 2 miles, MP: 12), Tactical Radio (Secure, MP: 4), Infrared (1 mile, MP: 4), Inertial Navigation System (MP: 2), Stabilization Gear (MP: 10)

Exotic Abilities:

Merging (Beast Lord) (MP: 47), Self Repair (MP: 5), Full AI (Abilities: Dex 18, Int 18, Wis 25, Cha 25, Level: Fighter 6, BAB: +6, Saves: Fort +5, Ref +6, Will +9, Skills: Hide +8, Climb +9, Handle Animal +11, Jump +9, Knowledge (nature) +8, Listen +9, Move Silently +8, Spot +9, Swim +9, Wilderness Lore +11, Feats: Track, Scent, Burst Fire, Strafe, Point Blank Shot, Dodge, Expertise.) (MP: 430)

Mecha Defects:

None



OGL Stat Block

Type:	Giant Robot
Size:	Large (Long, 11 ft)
Hit Points:	26 (MP: 32)
Occupancy:	None (MP: 0)
Hardness:	10 (MP: 50)
Defense:	20 (-1 size, +6 Dex, +5 armor) (MP: 25)
Strength:	23 (+6) (MP: 39)
Speed:	Land 32 mph (MP: 32)
Tactical Speed:	Land 280 ft.
Initiative:	+1 (MP: 10)
Maneuver:	+1 (MP: 10)
Total MP Cost:	783
Total Money Cost:	n/a

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Claws *	1d6	SS	n/a	n/a	Increased Threat (19-20), Muscle Powered	Arc of Fire (Fr), Melee (Medium)	1
Beam Cannon **	3d8	S	240'	50	Extra Ammo, Long Range, Semiautomatic	Arc of Fire (Fr)	36

Note: * Slashing Weapon, ** Laser Weapon

CHEETAH

Cheetah is the show-off of the Beast Lords, a yellow streak that appears to be constantly in motion. For the most part she is willing to follow Lion's instructions, embellishing them with her own touches where possible. Cheetah is always on the lookout for new challenges to conquer, exploring further and further afield, climbing mountains, delving into caves and fording rivers. She tries to show an interest in the activities of her human followers, but is too wrapped up in her own activities to be a constant presence. She turns up at uncertain intervals to teach new techniques and inspire them with her own abilities and deeds, while celebrating their own achievements as well. Luckily, her followers tend toward self-reliance and reflection, and view her infrequent attentions as another challenge to overcome.

Cheetah sprints into battle, looking to outflank her enemies and throw them into confusion with the speed of her attack. She attacks with her beam cannon as she charges forward, then falls upon her foes with tooth and claw. While not as strong as Lion, she makes up for it with enthusiasm and agility, and she is not adverse to taking on multiple opponents at once. The drawback to her fighting style is that she leaps in without taking stock of the situation, and in the past has had to be rescued by the other Lords when overwhelmed by unforeseen difficulties.

Special Abilities:

Long Range Radio (Secure, MP: 4), Jumping (x2, MP: 4), Radar (Global, 2 miles, MP: 12), Tactical Radio (Secure, MP: 4), Infrared (1 mile, MP: 5), Inertial Navigation System (MP: 2), Stabilization Gear (MP: 10)

Exotic Abilities:

Merging (Beast Lord) (MP: 47), Self Repair (MP: 5), Full AI (Abilities: Dex22, Int16, Wis25, Cha25. Level: Fighter 6. BAB: +6. Saves: Fort +5, Ref +8, Will +9. Skills: Hide +10, Balance +10, Climb +8, Concentration +4, Jump +8, Listen +9, Move Silently +10, Spot +9, Tumble +10, Swim +8. Feats: Point Blank Shot, Double Tap, Weapon Focus (Claw), Weapon Specialization (Claw), Dodge, Mobility, Spring Attack.) (MP: 440)

Mecha Defects:

None

EAGLE

By his own reckoning, Eagle is the smartest of the Beast Lords. He retains the most knowledge from the ancient world, and his sharp eyes see all that goes on below as he flies overhead, his blue form almost invisible against the sky. Eagle acts as the Beast Lords' scout and flies sentry when they are on the attack. His pride often leads to arguments with the other Lords over battle plans and their other activities, with Eagle convinced he knows best. He works closely with his human followers, as he likes the feeling of superiority he gets when teaching them new information and techniques. Bear frequently reminds him that they are humanity's servants, not their masters or elders.

Eagle prefers to stay above any combat, keeping an eye on the flow of battle and supporting his companions by attacking powerful enemies with his feather darts. These razor sharp metal shards are propelled by Eagle's wings and can penetrate almost any armor. Eagle is careful to conserve his fire as he must wait until they grow back before they can be fired again. The Lords' human allies always make sure to collect any surviving feather darts after battles, as they are highly prized for the construction of magic arrows. Eagle is at a distinct disadvantage if caught on the ground where he lacks maneuverability and offensive advantage. He is quick to call for help from the other Lords in such situations.

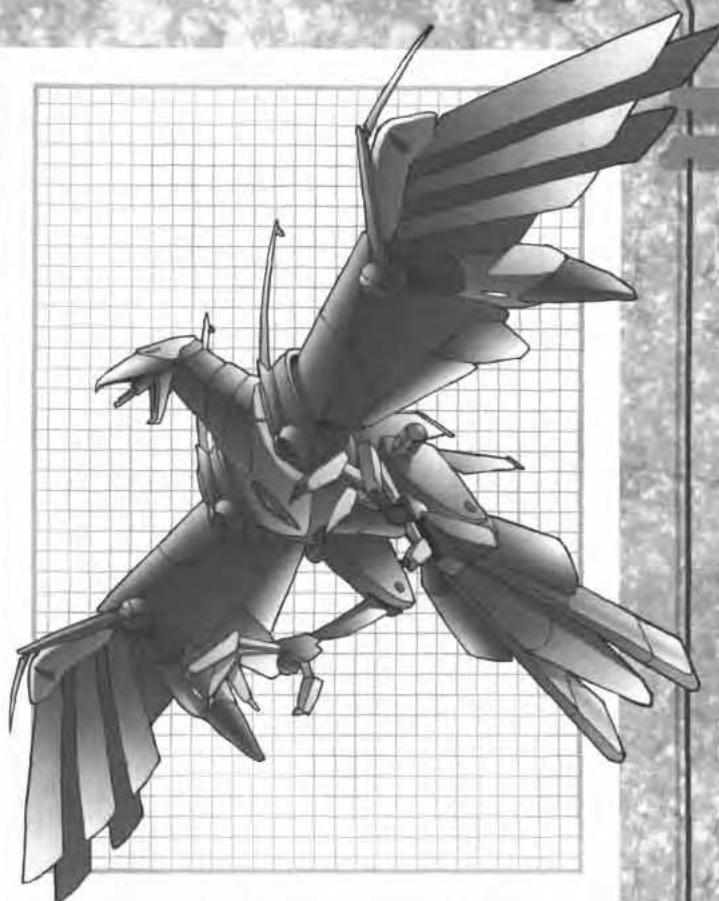
OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 10 ft)
Hit Points:	26 (MP: 32)
Occupancy:	None (MP: 0)
Hardness:	8 (MP: 40)
Defense:	18 (-1 size, +4 Dex, +5 armor) (MP: 25)
Strength:	21 (+5) (MP: 33)
Speed:	Land 5 mph, Air 36 mph (Ceiling 10,000 ft) (MP: 53)
Tactical Speed:	Land 40 ft., Flight 320 ft.
Initiative:	-1 (MP: 0)
Maneuver:	0 (MP: 5)
Total MP Cost:	787
Total Money Cost:	n/a

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Claws *	1d6	SS	n/a	n/a	Increased Threat (19-20) Muscle Powered	Arc of Fire (Fr), Melee (Medium)	1
Feather Darts **	2d4	S	80'	40	Armor Penetrating, Increased Critical (x3), Long Range, Semiautomatic	Arc of Fire (Fr)	27

Note: * Slashing Weapon, ** Piercing Weapon



Special Abilities:

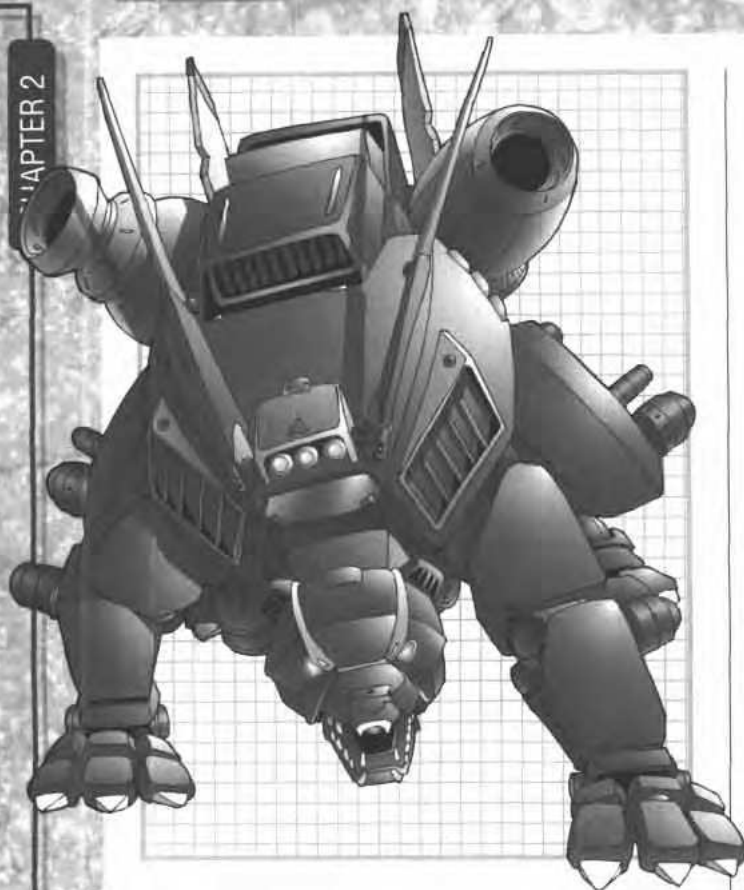
LR Radio (Secure, MP: 4), Radar (Global, 5 miles, MP: 30), Tactical Radio (Secure, MP: 4), Infrared (2 miles, MP: 10), Optics (6 miles, MP: 9), INS (MP: 2), Stabilization Gear (MP: 10)

Exotic Abilities:

Merging (Beast Lord) (MP: 27), Self Repair (MP: 5), Full AI (Abilities: Dex 18, Int 22, Wis 25, Cha 25, Level: Fighter 6, BAB: +6, Saves: Fort +5, Ref +6, Will +9, Skills: Alchemy +10, Innuendo +11, Knowledge (architecture) +10, Knowledge (geography) +10, Knowledge (history) +10, Knowledge (literature) +10, Knowledge (politics) +10, Perform +10, Spot +10, Feats: Flyby Attack, Point Blank Attack, Double Tap, Expertise, Improved Disarm, Precise Shot, Dodge.) (MP: 440)

Mecha Defects:

None



OGL Stat Block

Type:	Giant Robot
Size:	Large (Long, 15 ft)
Hit Points:	36 (MP: 52)
Occupancy:	None (MP: 0)
Hardness:	13 (MP: 65)
Defense:	16 (-1 size, +2 Dex, +5 armor) (MP: 25)
Strength:	31 (+10) (MP: 63)
Speed:	Land 18 mph (MP: 23)
Tactical Speed:	Land 160 ft.
Initiative:	-1 (MP: 0)
Maneuver:	-1 (MP: 0)
Total MP Cost:	860
Total Money Cost:	n/a

WEAPONS:

Name	Dam.	ROF	Ri	Ammo	Qualities	Restrictions	MP Cost
Claws *	1d6	SS	n/a	n/a	Increased Threat (19-20), Muscle Powered	Arc of Fire (Fr), Melee (Medium)	1
Missile Launcher **	5d6	S	150'	12	Blast (20 ft), Guided (IRH), Indirect, Semiautomatic	Arc of Fire (Fr), Less Ammo	105

Note: * Slashing Weapon, ** Blast Weapon

BEAR

Bear is the solid foundation of the Beast Lords. His black frame is the strongest and toughest of the Lords', but he is also the wisest and acts as the negotiator and peacemaker between them. He is the most deeply committed to their role as humanity's protectors and has little time for other activities. He is dedicated to teaching humans to defend themselves and can often be found sitting with a crowd of people, demonstrating how to set a broken bone or make a spear. He is willing to help in any situation, but likes it even more when people learn to solve their own problems — he feels that humans should not come to rely on the Beast Lords to do everything for them.

Bear usually hangs back in battle, assessing the Beast Lords' opponents abilities and offering his support where needed. He uses his missile launchers to rain down fire on the enemy's rear or to break up concentrated forces. His supply of missiles is limited however, and he must pick his shots carefully. If he runs out of ammunition or the situation is dire, Bear wades into close combat, where his tremendous strength often turns the tide of battle. However, he prefers to concentrate on one enemy at a time; he can find himself in trouble if surrounded and can be brought down by a pack of weaker enemies.

Special Abilities:

Long Range Radio (Secure, MP: 4), Radar (Global, 2 miles, MP: 12), Tactical Radio (Secure, MP: 4), Infrared (1 mile, MP: 5), Inertial Navigation System (MP: 2), Stabilization Gear (MP: 10)

Exotic Abilities:

Merging (Beast Lord) (MP: 47), Self Repair (MP: 7), Full AI (Abilities: Dex 14, Int 18, Wis 30, Cha 25, Level: Fighter 6, BAB: +6, Saves: Fort +5, Ref +4, Will +12, Skills: Diplomacy +11, Handle Animal +11, Heal +14, Knowledge (history) +8, Knowledge (nature) +7, Knowledge (religion) +8, Sense Motive +14, Feats: Point Blank Shot, Double Tap, Power Attack, Sunder, Expertise, Improved Trip, Knock-Down.) (MP: 435)

Mecha Defects:

None

BEAST LORD

All too often, the creatures used by the invaders as shock troops are too big and powerful even for the mighty Beast Lords to handle. When creatures such as giants and dragons threaten human settlements, the Beast Lords join together to become the Beast Lord, the ultimate expression of their power. The Beast Lord is formed by combining Bear as his legs, Cheetaah and Wolf as his arms, Eagle as his back and wings, and Lion as his torso and head.

The Beast Lord has his distinct personality, and the Lords are uncomfortable about suppressing their own wills while he takes over. The Beast Lord himself is focused on battling the enemy forces, and cares little for the problems of the Lords. He concerns himself with humans only as far as they are in danger from the invaders. Another drawback for the Lords is that they cannot regenerate any damage they have taken while they remain combined. However, the Beast Lord's strength may be the only thing that can stand against the invaders' most powerful creatures, and the Lords do not hesitate to combine in such circumstances. The Beast Lord's attacks can deal with most opponents, but in the toughest situations he can call forth Nature's Fury, a giant glowing sword with an aura of energy that can cleave in two anything the invaders have in their army.

OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 31 ft)
Hit Points:	146 (MP: 52)
Occupancy:	None (MP: 0)
Hardness:	14 (MP: 70)
Defense:	17 (-2 Size, +4 Dex, +5 armor) (MP: 25)
Strength:	40 (+15) (MP: 90)
Speed:	Land 23 mph, Air 32 mph (Ceiling 10,000 ft) (MP: 97)
Tactical Speed:	Land 200 ft, Flight 280 ft
Initiative:	-1 (MP: 5)
Maneuver:	-1 (MP: 5)
Total MP Cost:	1188
Total Money Cost:	n/a

WEAPONS:

Name	Dam.	ROF	Ri	Ammo	Qualities	Restrictions	MP Cost
Mighty Roar *	4dB	1	160'	n/a	Cone, Unlimited Shots	Arc of Fire (Fr), Slow Firing	84
Wolf Cannon **	3d10	A	150'	50	Automatic, Extra Ammo	Arc of Fire (Fr)	4
Cheetah Beam ***	3dB	S	240'	50	Extra Ammo, Long Range, Semiautomatic	Arc of Fire (Fr)	5
Nature's Fury ****	2d12	SS	n/a	n/a	Armor Penetrating, Increased Threat (19-20), Muscle Powered	Arc of Fire (Fr), Melee (Huge)	5

NOTE: * Sonic Weapon, ** Ballistic Weapon, *** Laser Weapon, **** Slashing Weapon

Special Abilities:

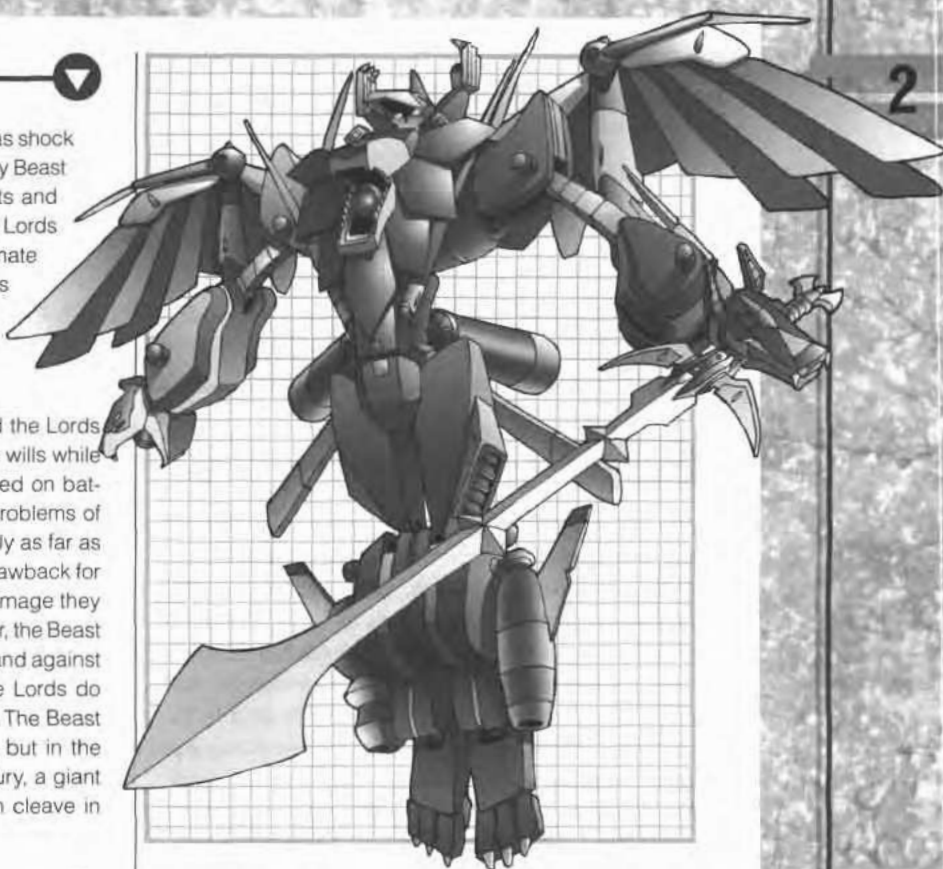
Headlights (MP: 1), Long Range Radio (Secure, MP: 4), High Resolution Radar (Global, 5 miles, MP: 50), Tactical Radio (Secure, MP: 4), Infrared (2 miles, MP: 10), Inertial Navigation System (MP: 2), Stabilization Gear (MP: 10)

Exotic Abilities:

Full AI (Abilities: Dex 18, Int 20, Wis 30, Cha 25, Level: Fighter 10, BAB: +10, Saves: Fort +7, Ref +7, Will +13, Skills: Climb +22, Balance +10, Escape Artist +10, Knowledge (history) +11, Knowledge (war) +11, Listen +16, Spot +16, Tumble +10, Feats: Power Attack, Cleave, Sunder, Weapon Focus (Nature's Fury), Weapon Specialization (Nature's Fury), Improved Critical (Nature's Fury), Dodge, Mobility, Expertise, Whirlwind Attack.) (MP: 180)

Mecha Defects:

None



CITIES AND EMPIRE

Fantasy mecha need not be magical creations, even when magic abounds as it does in the classic fantasy setting. Indeed, in a fantasy setting, non-magical robots can be the tools by which the lower classes take back their power from the magic-using elite. If a "mere" commoner can out-perform a mage using little more than his wits — and the help of his fellows — then the mage may find himself out of a job. But what happens when the classic foes of the Human races discover these tools as well?

HISTORY

In the ages that led up to the last of the Goblin Wars, the Human races — including humans themselves, as well as dwarves, elves, gnomes and halflings — struggled individually as kingdoms and city-states against the onslaught of the Goblin races: goblins, orcs, and their blood-thirsty ilk. As the black winds of warfare swept back and forth across the continent, the Human races gradually realized that by uniting beyond their borders and their appearances, they could make a stand against the Goblins and attain a permanent victory. The Final Goblin War was bloody and terrible, but in the end, the Goblins were wiped out and Humanity was saved.

Decades of united effort against the Goblins had strongly tempered the Human races' natural competitiveness and hostility towards one another, and when the War was over, they found it easy to maintain their alliances. Their lands had been ravaged, but with each person doing his or her part, they soon rebuilt their societies and achieved unprecedented prosperity. This affluence and the noticeable lack of hostile forces encouraged growth, and their cities expanded. They absorbed their surrounding thorps and hamlets and continued to grow, forming massive megalopolises. As they grew, new ideas took shape, and the feudal system was gradually replaced by a system of representative democracy.

With the growth of the Cities, as they'd come to be called, came the growth of technology. At first, magic was the primary tool of Human accomplishment, but the need for jobs was great in the expanding Cities, and magic concentrated economic power in an elite few. Labor guilds grew into be-

ing, using diplomacy (and occasionally intimidation) to secure rights for the common working Human, but it seemed not enough: magic was too great an advantage.

It was the dwarves and the gnomes who found the leverage the guilds desperately needed. With the dwarven discovery of coal and the mechanical ingenuity of gnomes, technology at last gained the upper hand. Although a highly skilled mage could construct a magical automaton to do the work of a hundred men, those hundred men could build machines to do the job better, and they could build them in less time. Some laborers were skeptical, but the guilds — now calling themselves Unions and organizing their power structures like the democracies around them — saw the crucial difference between a magical automaton and a machine: the machine needed a Human to operate it, and that meant more jobs.

Perhaps the most notable of the new coal-powered machines was the Coalsuit. Blending the strength and durability of a magical construct with the Human-operation of a machine, Coalsuits were the trump card the Unions needed. At last, the common people truly held the power, and the outlook for the Cities seemed promising.

They never dreamed that several groups of Goblins had survived the Final War. They never imagined that those tribes, too, could unite under one banner — on a faraway, isolated continent — or that they would make their own advances in technology. They certainly never expected that the Goblins would one day return, or that they might actually be more powerful than the Humans.

FACTIONS

The primary struggle in this setting takes place between two expansive societies: the Cities of Humanity and the Goblin Empire. Countless other groups exist throughout the world, many of them in remote, faraway places, but these two are shaping its fate.

The Cities

Vast, sprawling megalopolises, the Cities occupy the continent on which both Humans and Goblins first were born. There are six Cities in total: Stronghart, Alder-by-the-Sea, Yvorne, Polarius, Ulfanis and Grandport. Each is well over 100 miles in diameter, and three are over 150 miles across; Grandport and Alder-by-the-Sea even stretch out over the waters, encompassing nearby islands and bays. Vast acres of farmland surround the Cities, providing the food necessary for their enormous populations, and the seaside Cities use most of their waters for raising fish and algae. Beyond the Cities and their surroundings lies mostly unused wilderness, called the Frontier. Numerous smaller settlements exist out in the Frontier, concerned mostly with harvesting resources to be used in the Cities. These are primarily forestry and mining communities, but others exist as well.

The Cities are melting pots of the Human races, and there are many non-Humans who dwell within as well. In the early days, the mingling of so many people and races led naturally to new ideas and new ways of thinking. Chief amongst these was the notion of self-governance, and it ultimately led to the downfall of the feudal system under which the aristocracy had ruled for centuries. At present, there are two main factions in the Cities: the Unions and the Corporations. The Unions represent the average working person. Nearly every conceivable vocation has a Union, and virtually every laborer and craftsperson belongs to one. The Unions hold the majority of political power within the Cities, but the margin is narrow.

The Corporations hold the remainder of the power. Headed by the remnants of the aristocracy of old, they also hold most of the actual wealth. The Corporate aristocracy resents the power held by the

Unions (the "peasants," as they often refer to them in private), and they are ever on the lookout for a way to take it back.

The Cities maintain large public safety forces that keep the peace. Most of the police are regular foot patrolmen, but there are large numbers of Coalsuit patrols as well. There is no real organized military within the Cities, although the police can form up militias as necessary.

The Goblin Empire

The Empire is a new and terrifying force for the Cities: aside from the older elves, no Human has ever seen a living Goblin of any kind. The Empire is composed of the ancestors of those few Goblins who managed to survive the Humans' campaign during the Final War. Those survivors fled across the oceans to a new land, one wholly uninhabited. Many died in the long voyage, and many more perished in the forests and on the plains of their new home.

Goblins are nothing if not hardy, however, and they managed to survive and even prosper. In the two centuries since, most of their people were killed, the Goblins have rebounded, and the Empire currently stretches across the land. It has recently launched an invasion fleet of giant airships, and its goals are quite simple: it seeks to subjugate the Cities and enslave the Humans. To make matters worse, the Goblins have developed their own Coalsuits, and while the Humans use theirs for construction and resource extraction, the Empire uses Coalsuits strictly for war.

Goblin society is highly regimented and feudal. Most Humans would be surprised to find that actual goblins occupy the lowest rungs of society. Their brutal and domineering cousins, the hobgoblins, sit at the top, and bugbears, orcs, ogres and the rest occupy the middle rungs.

CAMPAIGNS

Campaigns in the world of Cities and Empire may be quite unlike most fantasy campaigns, particularly since the Cities' society is very different from the standard campaign, and firearms and explosives are not uncommon (see the **DMG**, *Technology* section, for various types of firearm stats). Dragons and demons and all the other usual staples of a fantasy setting still exist, however, but they take on much lesser roles, and most of the orc- and goblin-like races are unknown to the human-like races.

Invasion!

It is the eve of the bicentennial anniversary of the official founding of Grandport, the first City. For weeks, preparations for the historic event have been underway, and the City teems with civic pride — even the aristocrats have put aside their ill will for the Union bosses. Fireworks light up the night sky, and countless marching bands create a cacophonous din with their fanfare. Just past midnight, while the festivities are still progressing onward with no apparent end in sight, the brilliant fireworks illuminate dark and ominous shapes slowly approaching from over the ocean. Few notice at first, but then artillery shells begin raining down, and the revelry turns swiftly to panic and confusion. The invasion has begun.

The first moments of the Empire's assault on the Cities, starting with Grandport, are intense. An adventure set during these hours can range from door-to-door combat against Goblin Coalsuits to heroic rescue efforts. Any number of important tasks will crop up in the meantime, from delivering messages to City officials to organizing resistance to calling for a general evacuation. Grandport is quite large, and it will take weeks — perhaps even months — for the Empire to occupy it completely. In the meantime, the airships keep coming...

Collusion!

Many aristocrats have long held a grudge against the "commoners" of the Cities, especially the Unions. They have waited literally for centuries to

reclaim their rightful place as the masters of society, and they have kept their keen eyes open for any chance to tip the balance of power in their favor. Incredibly, while shocked by the return of the Goblins, some particularly cold-blooded aristocrats see in the invasion such an opportunity. A few have even begun helping the invaders, if only to weaken the Unions.

A close ally of the player characters suspects as much and hires them on to investigate the matter further. Doing so will require a great deal of stealth and discretion, and the characters will face a wide range of opposition. Some will simply seek to stop them from interfering, and others will suspect them of sowing discord themselves — especially if they attempt to parley with the Empire. In the end, they may find that they can trust only themselves.

Adapting to Your Own Campaign

Coalsuits do not require the Cities or the Empire for their existence. They can appear in any fantasy setting with ease, and they are especially appropriate for those in which one particular group (or more) is well known for its inventiveness. Dwarves and gnomes are the classic stereotypes, but there's no reason some other race or society can't invent them instead. They are also quite appropriate for a Victorian-like fantasy setting.

One important distinction separates Coalsuits from fantasy mecha such as Guardian Armors and Golemsuits, however: they are not magical. They are certainly fantastic, and real-world technology cannot actually duplicate them, but the mysterious forces of magic — divine or arcane — have no hand in their creation. In theory, this fact means that any craftsperson (or team of craftspeople) can create one, given time and resources. In a society for which magic is the exclusive right of the elite, this distinction can potentially be revolutionary — "Power to the People!"

MECHA DESIGN

A wide variety of mecha exist in the Cities and the Empire. Coal-burning furnaces are the chief power generator, heating water to produce steam that in turn drives their motors. Small furnaces cannot supply power for longer than a few hours before needing more coal; it is an unfortunate limitation, but to go much longer requires larger furnaces that cannot fit into something smaller than a locomotive engine. City engineers have recently invented crude chemical batteries, but these have yet to prove very useful. The Empire, however, has had such technology for over a decade, and while its batteries are bulky, they are used to good effect in its larger war machines.

The most ubiquitous mecha in both societies is the Coalsuit. Armored walkers made of cast iron and tin, Coalsuits are worn and operated somewhat like oversized suits of armor. The pilot's arms fit in the suit's arms, and his legs fit in its legs. The coal-burning engine allows the machine to move, and while it greatly augments the pilot's strength, it is somewhat clumsy and slow for movement. The Cities primarily use utility Coalsuits; the Empire's are strictly for war. Shortly after the start of the invasion (which takes place at the City of Grandport), the Cities will begin to outfit their Coalsuits for war. It may not happen in time to defend the fair City, but by the time the Empire makes it to Yvorne (its second target), the Humans will be able to make a better stand.

The Cities make use of a curious kind of horse-like mount for their Coalsuits. Called Centaurs because of the way a Coalsuit sits atop (and partially within) one, these oversized machines can support the great weight of a Coalsuit. Thanks to their larger furnaces, they can function for up to twelve hours before needing more coal. Furthermore, the carried Coalsuit need not have its own engine lit: a mechanical drive shaft can lock into the Coalsuit's systems and allow its upper body to move.

For mass-transport, the two societies have taken greatly different paths. The Cities use massive, steam-powered rail locomotives that can tow several hundred cars from one end of a City to another or from one City to the next. (Prior to the in-

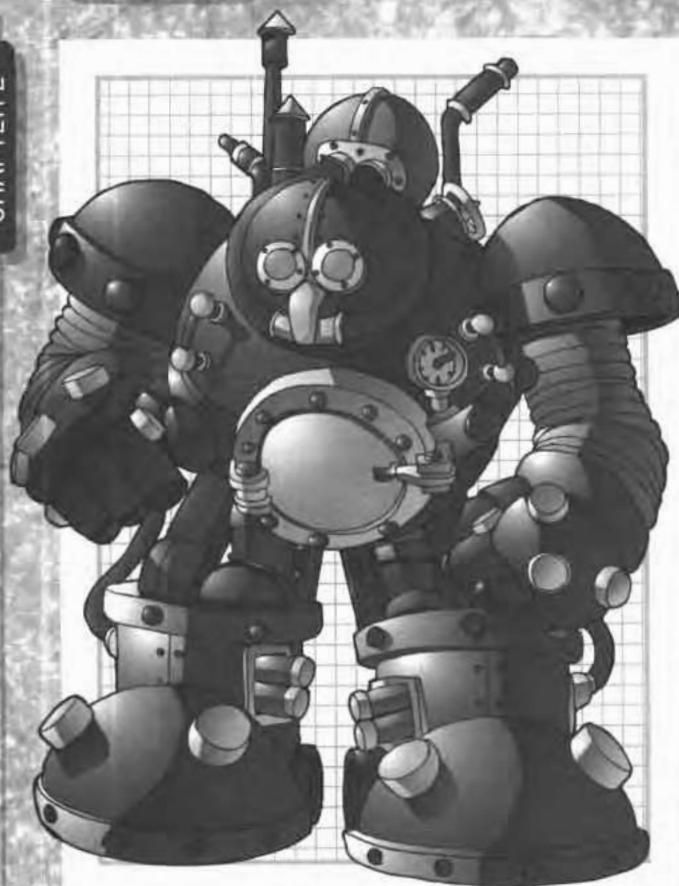
vention of the locomotives, it would literally take days to venture across a single City!) The Empire, on the other hand, uses armor-clad airships. These range in size from small skiff-like vessels to massive troop-transports that can carry 250 Coalsuits across the ocean and deposit them in the heart of a City. Because the Empire's Coalsuits are equipped with gliders, the dirigibles don't need to land to unleash their hordes — they needn't even slow down.

Finally, the Empire also uses submersible ships, which can approach an enemy port from below the surface of the water. These vessels make the most use of the Empire's chemical batteries, since it is impossible to operate a coal furnace underwater. These attack ships are used to shell a City mercilessly before moving ground troops in via dirigible.

Weapon Restriction: Dangerous

Some firearms and explosives are not merely unreliable: they are downright dangerous, especially to their operators. When a weapon with this restriction fails to fire, there is a chance that its ordnance will explode in its chamber (or the equivalent). The weapon must make a successful Fortitude saving throw (DC 5) or the round will discharge and damage the vehicle. Apply its normal damage immediately. If the weapon has the Blast quality, then that effect also applies.

The weapon must have the Unreliable restriction before taking the Dangerous restriction. Taking the Dangerous restriction multiple times increases the DC of the Fortitude saving throw by 5 for each additional Dangerous restriction.



OGL Stat Block

Type:	Suit
Size:	Medium-Size (8')
Hit Points:	30 (MP: 60)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	9 (MP: 45)
Defense:	14 (+4 armor) (MP: 20)
Strength:	+16 (MP: 48)
Speed:	Land x2/3 (MP: 12)
Tactical Speed:	Land x2/3

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Pneumatic Pickaxe	2d8	SS	—	—	Armor Penetrating, 2x Expanded Critical (x4)	Melee (Large weapon)	36

NOTE: The pneumatic pickaxe is a Piercing weapon.

TEAMSTER COALSUIT

The ubiquitous Teamster exemplifies the utility Coalsuit in widespread use by the Cities and the Frontier communities. It is one of the earliest designs in mass production, and the frame has undergone few major changes in the many decades since the first one stomped out of the assembly foundry at the start of the Coalsuit Age. Originally built to haul heavy loads around the Cities and to move freight for their giant steam locomotives, the chassis has proven to be quite adaptable. Rather than design entirely new frames, most Coalsuit design works simply add new attachments to the basic Teamster in order to gain new functionality. All manner of accessories exist: earthmoving blades, loading arms, carpentry and metal-working tools, farming implements, masonry equipment, and many more.

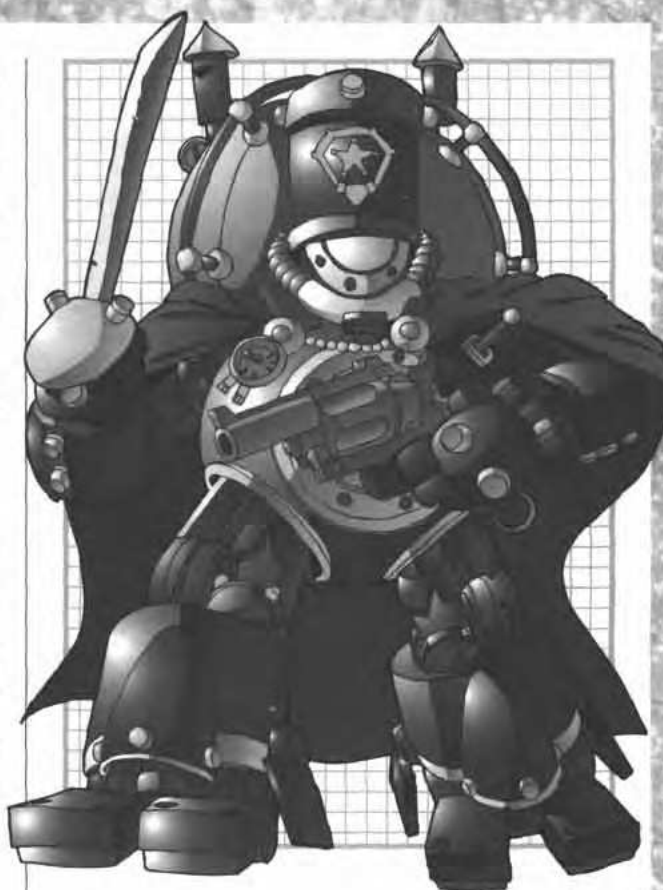
The Teamster was designed with operator safety in mind. Falling construction materials, arcing sparks, runaway saw blades, slipped conveyor belts, chemical spills and the like can turn its workplace into a hazardous environment, so its heavy iron plating is able to withstand all manner of abuse. In addition, as a heavy utility unit, the Teamster is often within reach of a wide array of heavy tools. In short, although the Teamster is not a combat unit, it requires very little on the part of an inventive operator to turn it into one — perhaps to the surprise of the Imperial forces.

Initiative:	-1 (MP: -5)
Maneuver:	-1 (MP: -5)
Total MP Cost:	190
Total Money Cost:	72,200 gp
Special Abilities:	
Headlights (MP: 1)	
Mecha Defects:	
Noisy (MP: -1), Reduced Endurance (4 hours, MP: -25), Start-Up Time (1 minute, MP: -2)	

WATCHMAN COALSUIT

The Cities' police forces consist chiefly of foot patrol officers who walk their beats in pairs or in trios. In certain key regions of each City, however, Watchman Coalsuits augment the regular patrols, and most major intersections feature a Watchman on duty; with their oversized furnaces, they are quite capable of putting in longer hours than any other Coalsuit — City- or Empire-made. Standing eight feet tall and wearing blue capes and stovepipe hats, the Watchmen are magnificent examples of City technology, and most citizens enjoy their reassuring presence. Children are especially attracted by the Coalsuits, and it has to be a very dreary day not to spot a flock of them surrounding the officers and barraging them with questions.

The suits come equipped with a small-capacity handgun and a saber, both polished to an almost luminescent shine. Watchmen draw their handguns only in extreme circumstances, such as when combating heavily armed criminals; they use their swords mostly, routinely striking with the flat of the blade in order to stun. When expected to face off against riotous crowds, the police often outfit their Watchmen with netguns that can ensnare without causing any harm. Teams of Watchmen can be found in Frontier towns as well, defending them from the wild; these are about as close as the Cities regularly come to fielding a mechanized army.



OGL Stat Block

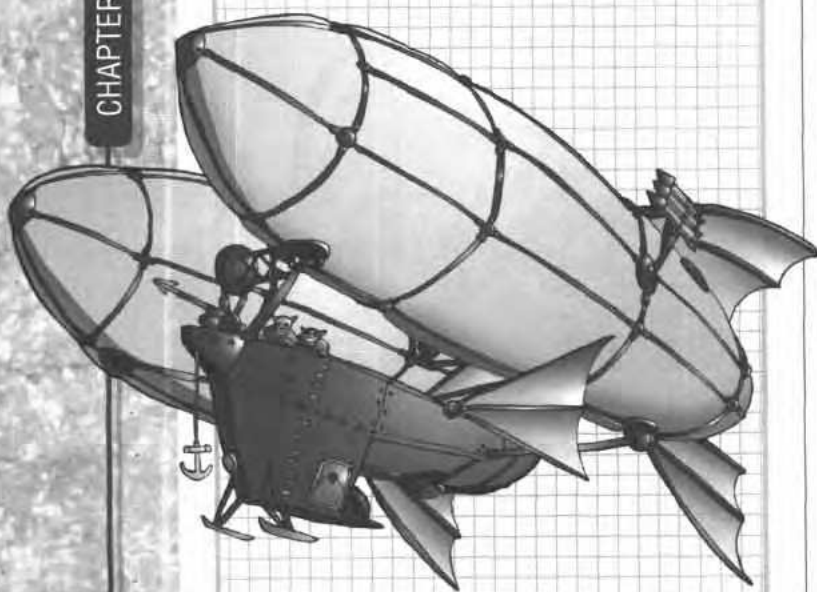
Type:	Suit
Size:	Medium-Size (9')
Hit Points:	30 (MP: 60)
Occupancy:	1 operator, 200 lbs of cargo (MP: 11)
Hardness:	9 (MP: 45)
Defense:	15 (+5 armor) (MP: 25)
Strength:	+8 (MP: 24)
Speed:	Land x2/3 (MP: 12)
Tactical Speed:	Land x2/3

Initiative:	+2 (MP: 10)
Maneuver:	-1 (MP: -5)
Total MP Cost:	183
Total Money Cost:	66,978 gp
Special Abilities:	
Searchlight (MP: 2)	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (8 hours, MP: -20), Start-Up Time (1 minute, MP: -2)	

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Watchman Pistol	2d6	SS	60'	6	—	2x Less Ammo	7
Netgun	T*	1	50'	3	—	3x Less Ammo, 2x Short Range, Slow-Firing	7
Longsword	1d8	SS	—	—	Muscle-Powered, Increased Threat (19-20)	Melee	12

NOTE: The watchman pistol is a Ballistic weapon. *The netgun is a Tangle weapon (DC 24). The longsword is a Slashing weapon.



HOOKSHARK AIR SKIFF

Named for a particularly vicious littoral water predator, the Hookshark is a multi-purpose air skiff that occupies a wide variety of roles within the Imperial Fleet. Nominally, the vessel is used for picket duty, patrolling the outermost perimeter of the Fleet as it makes its way across the world. A rack of unguided rockets is mounted on its lifting hull for combat, but firing them is somewhat risky: because the Empire uses hydrogen gas in its airships, a misfired rocket can potentially do great harm to the skiff instead of the enemy. The vessel's gondola-mounted pneumatic harpoon gun is much more safe to use, and its sharpened, fire-tempered tip can punch through a fair amount of armor plating. The harpoon is sometimes used in conjunction with a silk rope line, especially to tether the skiff to a tree or to a building when its anchor won't do.

The Hookshark is also commonly seen ferrying cargo and personnel between the larger airships; with a carrying capacity of one ton and eleven men, it is quite adequate for this usage. The upper hulls and gasbags of the massive transport ships feature docks for the Hookshark and related airships, allowing for easy loading and unloading of their cargoes. In theory, a Hookshark could carry a small five-man team of Coalsuits into battle, but it lacks a decent platform from which the large machines could safely drop.

OGL Stat Block

Type:	Vehicle
Size:	Huge (Long, 20')
Hit Points:	30 (MP: 20)
Occupancy:	4 operators, 11 passengers, 2000 lbs of cargo (MP: 94)
Hardness:	8 (MP: 40)
Defense:	8 (-2 size) (MP: 0)
Speed:	Air 30 mph (Ceiling 5500') (MP: 44)
Tactical Speed:	Air 265'

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Pneumatic Harpoon Gun	1d8	S	60	12	Armor Penetrating, Long Range	Less Ammo, Slow-Firing	9
Unguided Rockets	3d10	SS	75	12	Blast, Indirect Fire	2x Dangerous, 2 x Less Ammo, Short Range, Unreliable	11

NOTE: The pneumatic harpoon gun is a Piercing weapon and the rockets are Blast weapons.

Initiative:	-2 (MP: 0)
Maneuver:	-2 (MP: 0)
Total MP Cost:	184
Total Money Cost:	67,712 gp
Special Abilities:	
Headlights (MP: 1)	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (12 hours, MP: -20), Start-Up Time (10 minutes, MP: -4), Volatile (MP: -6)	

BRUTE COALSUIT

The Brute is the basic grunt unit of the Empire's Coalsuit forces, and is by far the most common. It is designed for smaller pilots, such as goblins and kobolds, so its operation principles are somewhat different from other Coalsuits: the pilot sits within a small cockpit in the machine's spherical torso section, operating the legs with foot pedals and the arms with a complicated system of levers and switches; a periscope-like apparatus affords him a view of his surroundings. Those who have seen the mechanical innards think it a wonder that the little pilots can even manage to keep the machines upright, much less use them in a battle. It is only the goblins' natural hyperactive nature that allows them to do so. (Interestingly, a goblin in a Coalsuit is often a much better and more disciplined soldier than one in the infantry, precisely because the machine's complex nature can fully occupy his regularly wandering mind.)

The basic Brute is fitted with a gear-actuated machine pistol; these devices are somewhat unsafe, and it is not unknown for a round to explode in the chamber, wrecking the weapon and possibly even harming the pilot. Brutes carry a melee weapon as a backup for this reason. For airship deployment, all Brutes are fitted with disposable paragliders.

OGL Stat Block

Type:	Giant Robot
Size:	Medium-Size (6')
Hit Points:	30 (MP: 60)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	10 (MP: 50)
Defense:	15 (+5 armor) (MP: 25)
Strength:	18 (MP: 24)
Speed:	Land 10 mph (MP: 10), Air 10 mph (Ceiling 500') (MP: 5)
Tactical Speed:	Land 90', Flight 90'

WEAPONS:

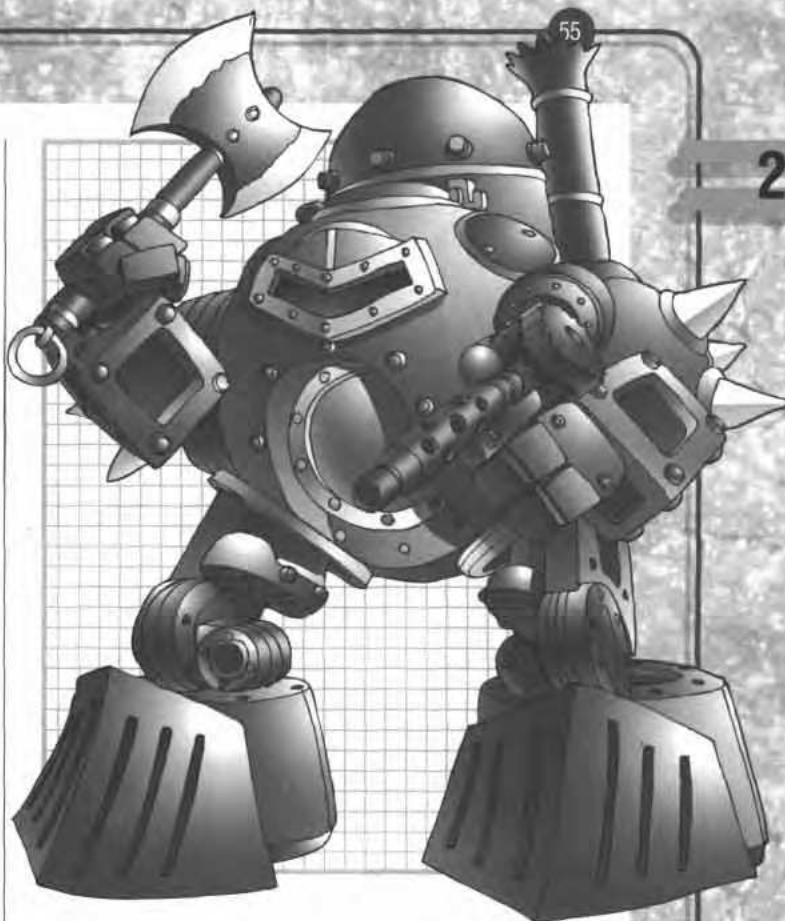
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Machine Pistol	2d6	A	40	25	Automatic	Dangerous, Unreliable	10
Battleaxe	1d8	SS	—	—	Increased Critical (x3), Muscle-Powered	Melee (Medium-size weapon)	9
Unguided Rockets*	3d10	SS	75	12	Blast, Indirect Fire	2x Dangerous, Less Ammo, Short Range, Unreliable	11

NOTE: The machine pistol is a Ballistic weapon, the battleaxe is a Slashing weapon, and the rockets are Blast weapons. *Fiend variant only

Variants

FIEND: a fire-support variant of the Brute. It is fitted with a rack of unguided (and very unsafe) rockets on its back. To keep the pilot's attention focused, the machine pistol is removed.

Stat Changes: Remove machine pistol, add unguided rockets. Cost: 166 MP; 55,112 gp.





OGL Stat Block

Type:	Suit
Size:	Medium-Size (9')
Hit Points:	45 (MP: 90)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	10 (MP: 50)
Defense:	15 (+5 armor) (MP: 25)
Strength:	+10 (MP: 30)
Speed:	Land x2/3 (MP: 13), Air 10 mph (Ceiling 500', MP: 20)
Tactical Speed:	Land x2/3, Flight 90'

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Machine Rifle	2d10	A	100	25	Automatic	Dangerous, Unreliable	16
Greataxe	1d12	SS	—	—	Increased Critical x3, Muscle-Powered	Melee (medium weapon)	17
Fire Belcher*	3d8	SS	60	6	Burning, Cone	2x Dangerous, 2x Less Ammo, Short Range	22
Explosive Crossbow**	3d8	1	120	25	Blast	Dangerous, Less Ammo, Unreliable	22

NOTE: The machine rifle is a Ballistic weapon, the greataxe is a Slashing weapon, the fire belcher is a Fire weapon, and the explosive crossbow is a Blast weapon. * Firestarter only ** Grenadier only

Variants

FIRESTARTER: An anti-infantry unit, the Firestarter carries a dangerous fire belcher, which can spray a cone of fire 60 feet.

Stat Changes: remove machine rifle, add fire belcher. Cost: 234 MP; 109,724 gp.

DESPOILER COALSUIT

The Despoiler is the Empire's command-unit Coalsuit, and is nearly always piloted by officers. Since non-hobgoblins are rarely promoted to such ranks, it is virtually guaranteed that the being at the controls is a member of the highest class of Goblin society. The standard Despoiler is armed with a gear-actuated machine rifle; in addition, a Despoiler always carries a melee weapon as well, and the greataxe is a favorite of most officers. Some prefer the greatsword or the warhammer, however, and one or two wield cruel scythes instead. As with most of the Empire's Coalsuits, this machine is equipped with a disposable paraglider to allow it to drop to the ground from an airship.

Despoilers are seldom deployed at a scale smaller than the squadron, of which it is always the commander. Although exceptions occur even in the highly regimented Empire, no Despoiler will be found without at least 25 troops at its side (these need not necessarily be Coalsuit soldiers). The Firestarter and the Grenadier are two common variants of the Despoiler's chassis, but these are fire support units, and any hobgoblin-sized soldier of the Empire may pilot them.

Initiative:	-1 (MP: -5)
Maneuver:	-1 (MP: -5)
Total MP Cost:	228
Total Money Cost:	103,968 gp
Special Abilities:	
Headlights (MP: 1)	
Mecha Defects:	
Glider (MP: -2), Noisy (MP: -5), Reduced Endurance (2 hours, MP: -25), Start-Up Time (1 minute, MP: -2)	

GRENADIER: The Grenadier uses an explosive-tipped crossbow instead of a machine rifle.

Stat Changes: remove machine rifle, add explosive crossbow. Cost: 234 MP; 109,724 gp.

BOMBARDIER SUBMARINE

Massive, sleek, and clad in riveted iron armor plating, the Empire's Bombardier ballistic mortar submarine resembles a 180-foot long black metal whale. The similarity ends with the 30-foot high sail that rises from the vessel's top deck and the pair of massive, 15-inch heavy mortars that squat like snarling iron bulldogs beside the sail, one forward and one abaft. Each of these weapons is capable of lobbing an 800-pound explosive shell up to three miles through the air. Few Cities can withstand such a withering offshore assault for long.

The standard crew complement for a Bombardier is eighty, including two teams of five sailors each to operate the mortars. One gunner receives instructions from the ship's bridge through a speaker tube system and calculates the trajectories necessary to hit the crew's target with a set of intricate calculus wheels. Another gunner adjusts the gears and cogs to bring the mortar into position; he also oversees the operation and directs the loaders. The two loaders — biggest and strongest members of the gunnery crew (often ogres or other similar creatures) — use an attached derrick to

maneuver the massive shell out of the magazine below deck and into position to be dropped into the barrel. The fifth member of the team is the surgeon: firing a Bombardier's deck mortar is a very dangerous occupation, especially for the loaders.

The Bombardier uses a coal-burning furnace while on the surface; the smoke is vented from a belching chimney located atop the sail. A large bank of chemical batteries allows the sub to operate underwater for up to six hours before resurfacing; recharging the batteries requires a full twelve hours on the surface with the furnace hot. The crewmen in charge of the power supplies wear heavy leather garments, including face masks, gloves and aprons, to protect themselves from the powerful acids contained in the batteries.

The ship carries enough coal to operate independently for up to two weeks, but its low speed prevents it from making long, trans-oceanic voyages unassisted. Instead, it is carried across the oceans by a giant transport craft similar to an Imperial troop transport dirigible, suspended between the twin main gasbags. While being transported, the Bombardier cannot fire its mortars.

OGL Stat Block

Type:	Vehicle
Size:	Colossal (Long, 180')
Hit Points:	150 (MP: 100)
Occupancy:	40 operators, 40 passengers, 6 rooms (MP: 500), 10 tons of cargo (MP: 100)
Hardness:	10 (MP: 50)
Defense:	2 (-8 size, MP: 0)
Speed:	Water 10 mph, Underwater 10 mph (300' depth, MP: 43)
Tactical Speed:	Water 90', Underwater 90'

Initiative:	-8 (MP: 0)
Maneuver:	-8 (MP: 0)
Total MP Cost:	985
Total Money Cost:	1,940,450 gp
Special Abilities:	
	2x Headlights (MP: 2), Life Support (MP: 20), 2x Room (Kitchen) (MP: 2)
Mecha Defects:	
	Reduced Endurance (5 days, MP: 10), Start Up Time (10 minutes, MP: -4)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
15-inch Mortar	8d12	SS	1320'	12	4x Blast (80'), Indirect Fire, 2x Long Range	2x Crew-Served (4 crew), 2x Dangerous, Exposed, 2x Less Ammo, Slow-Firing	91
15-inch Mortar	8d12	SS	1320'	12	4x Blast (80'), Indirect Fire, 2x Long Range	2x Crew-Served (4 crew), 2x Dangerous, Exposed, 2x Less Ammo, Slow-Firing	91

NOTE: Both 15-inch mortars are Blast weapons.



Chapter Three: Modern Worlds

Though practical walker vehicles are still a few years away, there already exist a number of specialized robots and proof-of-concept models that show that the classic giant robot is possible. Far from being a technical curiosity, the walker movement system actually has some serious usefulness: 85% of the land surface of the Earth can be traveled by a walking machine, far in excess of any other means of transportation short of flying vehicles.

Still, legs are far more complex than a wheeled drive-train, and require much more advanced control systems. They have more moving parts and are subject to greater forces, which means that vehicles equipped with them will, at first, be somewhat fragile. As the mecha get bigger, their mass increases faster than the cross-section of the legs supporting them. This will tend to limit their physical size at first, at least until power generation and structural material technologies catch up. Powered suits of armor are likely to be more prevalent in any modern setting than most other kinds of walking mecha.



USING MECHA IN MODERN WORLDS

"Modern" worlds are settings where the general level of technology is similar to the one of the late 20th century. Science has gone from a mysterious craft to an everyday thing, leading to mass production, cheap consumer goods and large cities with numerous skyscrapers. Magic may be present in one form or another, but is generally absent. It is technology that drives the machines, with electrical power and internal combustion engines coexisting with transistorized computers. Mecha are common, especially numerous personal vehicles of all types, but suits and giant robots usually only come into play in two situations: near-future settings (battlesuits are under study right now), or settings where an external factor makes them possible (alien technology, etc.).

Power Level

The power level of the mecha in a modern setting will generally affect their places in the world and, to a certain extent, how the world looks like. Pow-

erful mecha will tend to be restricted to the military or large corporations, and few people will see one except in the news. They will be kept out of sight on army bases, except when they are deployed to faraway battlefields (or, if things go badly, in the streets of the home town). If they need to travel between locations, reinforced roads with no vertical obstructions will be made available.

More mundane mecha open up additional possibilities. While they may still be restricted to the military, they become more likely to trickle down at the civilian daily level. Beyond the usual cars and trucks, mecha may be used for tough jobs like construction, or search and rescue (firemen and policemen are good candidates for fairly basic protective suits).

Rarity

Thanks to the wonders of mass production, any modern setting that features mecha usually sees large numbers of them. They will tend to be somewhat standardized and anonymous, and are better considered as mere tools. Just like weapons and equipment, they will require constant maintenance and may break down from time to time, usually at the worst possible moment.

The main exception to the above is for prototypes (which are often secret, and provide great adventure fodder) and one-of-a-kind "hero type" machines, which are usually restricted to a special organization or group. These require hand-crafting, special procedures or materials, or are otherwise time-consuming to assemble. On the other hand, they are often more powerful than the norm.

Skills and Training

Modern mecha usually require a minimal amount of training from their operator(s), and many battle-worthy mecha require a lot. This is because the latter feature numerous sub-systems, such as radars or targeting computers, that have complex operational procedures and necessitate some specific knowledge to interpret and make sense of in the heat of combat. It is not usual for operators to specialize their skills, with some becoming pilots, others gunners, and others still electronic system operators.

GEAR KRIEG

"...But should we fail, then the whole world... including all that we have known and cared for, will sink into the abyss of a new Dark Age made more sinister, and perhaps more protracted, by the light of perverted science..."

— Sir Winston Churchill, 1940

The world would indeed have been a different place had the Roaring Twenties not delivered the wonders promised by visionaries. Instead, war walkers now stride across the battlefield of Europe, huge supertanks thunder over North Africa, rocket fighters duel high above the Pacific, adventurers and superspies battle the Nazi forces in the shadows and scientists work feverously in their laboratories to perfect the next doomsday weapon for their masters. Powered by advanced science, will the darkness of fascism spread across the world, or can brave men and women prevent it?

A WORLD IN FLAMES

The Second World War was a conflict that truly touched the entire globe. From the fields of Western Europe to the vast expanses of the Pacific Ocean, no part of the planet would remain untouched by the fury and misery of the War. The political leaders of the conflict ran the entirety of the spectrum, from fool to genius, and from hero to fiend.

By 1939 the lines had been drawn for those who could see, or cared to look. Poland was high on the list of Hitler's territorial ambitions, for it represented some of the more humiliating aspects of the Treaty of Versailles. On the morning of September 1, 1939, the German Luftwaffe began the westward invasion with widespread bombing of Polish cities, factories, airfields and lines of communication. Two days after the invasion began, with all diplomatic initiatives spurned by Germany, Britain and France declared war. So began the Second World War.

For a time, the French were happy to sit behind their Maginot Line, secure in the fact that they could fight this war as they had fought the last one, defensively. The sheer destructive power of their "Death Ray Gun" emplacements would shatter any assault upon the soil of France — until German fast-moving units went around it, or blasted it apart

with "cockroach" walking mines. Britain, wracked by internal dissent in Chamberlain's government, vacillated at first, but stood fast against the Nazi assault under the leadership of Winston Churchill. Elsewhere, the Nazis continued their triumphant march across Europe.

North Africa

The Desert War was one of first major battlefields of the conflict, and the first theatre where the Allies were able to lock horns with the Nazis and perhaps stem the tide of their seemingly-unstoppable advance. The desert campaign was epic in its scale and the sheer scope of the gains and losses. Advances and retreats were measured in hundreds, even thousands, of miles. Men lived and died under the merciless gaze of the sun, and the featureless miles of sand and rock swallowed up entire formations of lost or dazed combatants. The desert was a feared and respected enemy by both sides and all learned to scratch a living and survive in the most sterile region on the planet.

Perhaps the most critical element of the Desert War was the supply convoys that snaked through the treacherous waters of the Mediterranean Sea. Up to 1941, Britain held the upper hand. The island of Gibraltar assured British control of the entrance to the Mediterranean from the Atlantic,

and the Suez Canal ensured relatively safe passage of convoys from the Indian Ocean. Axis convoys sailing and flying from Italy faced constant harassment, and shipping losses were heavy. British convoys didn't have it easy either; U-boats infested the waters around southern Italy and Malta, and attacks from the air became a constant threat as the huddling convoys sailed to and from North Africa.

Lightning War

Blitzkrieg (Lightning War) was, surprisingly, a term coined by American papers later in the war, and used to describe the type of warfare waged by Germany in its invasions throughout Europe. The secret to blitzkrieg's success lie in speed, exploitation of the enemy's weakest point and a close relationship between air and ground forces. Walkers proved to be an ideal weapon for this: their speed and adaptable movement allowed them to fill a scout, shock or mop-up role depending upon the circumstances. By the time of Germany's invasions of France and the Low Countries, walkers were an integral part of Germany's mobile warfare tactics.

The Eastern Front

At dawn on June 22nd, Germany put Operation Barbarossa into effect, invading Russia. Hitler had planned the conquest of the Soviet Union even before the outbreak of the war. Germany had many reasons to march on the USSR: aside from Hitler's antagonism towards Bolshevism, there was the wheat of the Ukraine, the coal and iron mines in the Dnieper and Don river regions, and oil in the Caucasus and the Caspian regions — the very material Germany required to fuel its armies and complete its conquests.

Through October and November, Orel, Bryansk, Kalinin, Odessa, Kharkov, Mariupol and Kerch fell. Sevastopol, in the Crimean peninsula, was under a brutal siege. The Russian defenders refused to surrender, relying on the underground system of tunnels and bunkers to confound the Nazi war machine. The longer they held out the better, as they knew they were tying up German troops and resources. Hitler ordered the "cockroaches," bane

of the Maginot line, into battle once again. This time, however, they carried canisters of mustard gas; thousands of Russians died coughing their lungs into bloody froth in the dark.

On the second day of November, German units began penetrating the westernmost suburbs of Moscow. Stalin had ordered huge defensive works constructed, including miles of anti-tank ditches, but these did little to deter the PanzerKampfers. Once inside the outer ring, the fighting became a horrific house-to-house affair, with no quarter asked or given. The Red Army found itself bitterly regretting Stalin's lack of faith in technology, as the PanzerKampfers' close infantry support was a definite advantage for the Germans. As November slid into December, the world waited and watched, holding its breath. Then, on December 5th, Mother Russia came to Stalin's rescue: it began to snow. The onset of winter began with a terrible blizzard, the worst snows in Europe for a hundred years.

The German High Command realized then that their lack of winter equipment, along with the massive Soviet army build-up, were going to be a problem. Men, women and children toiled in defense plants and factories, and women joined the ranks of the Red Army as snipers, walker and artillery crew, or as pilots. Much of the Red Army was inexperienced, and men ran and equipment was abandoned at the mere rumor of a German advance. But this soon stopped under better leadership, more experience and draconian discipline: Beria's NKVD field police shot deserters out of hand. Red Army troopers soon became more afraid of them than the Germans.

Lend-Lease

The US and Great Britain finally stepped forward to aid Soviet Russia in their fight. In June and July of 1941, both nations signed Lend-Lease Agreements with Stalin. By October, they sent tanks, walkers, aircraft, ammunition and supplies via a treacherous northern sea-route to the city of Murmansk. Of especial note were the delivery of British technical data and American early walkers, giving Stalin's researchers the head start they needed to begin their own walker development program.

The Pacific War

Japan had emerged in the 1920s as a regional powerhouse, both industrially and militarily. Ambitious and meddling, the Imperial Army constantly saw fit to dabble in the affairs of its Pacific neighbors, especially China. Before long, the Army had become the *de facto* government of Japan. As nationalist views hardened in the 30's, Japan seized Manchuria amid the chaos of civil war; the Empire now had a land base into central Asia. Increasingly disturbed with Japanese actions, the United States placed heavy sanctions on them. Fearing economic starvation and angered by American impudence, the stage was now set for Japan to act.

In the pre-dawn gloom of December 7, 1941, an amassed force of fighters, rocket planes and torpedo bombers droned above the Japanese carrier fleet. Laden with ordnance, two waves of planes set off for Pearl Harbor, safe-haven for the U.S. Pacific Fleet. The plan was simple: deal a killing blow to the Fleet, and Japanese domination of the Pacific would be assured!

At 7:40 AM, as the sleepy naval base slowly buzzed to life, the Japanese struck from the skies. Caught totally unawares, the base was thrown into disarray as explosions thundered across the fields. As the last planes droned away and Pearl Harbor went up in flames, the ultimate prize eluded the Japanese. The carriers, hundreds of miles away, had escaped the carnage. Nonetheless, the attack resulted in severe damage or destruction to eighteen ships, and with naval fuel oil supplies severely depleted, the next few months were to be trying times for the U.S. Navy. Shocked and infuriated by such an unwarranted sneak attack, President Roosevelt declared war on the Axis the very next day. The United States had entered the war firmly on the side of the Free World.

As Pearl Harbor still burned, invading armies struck hard and fast across the Pacific. Within days, Allied forces were reeling, with cornered garrison fighting desperately everywhere. The Japanese were soon conducting their war across a 6,000-mile front. By the end of 1941, much of south-east Asia was under Japanese control.

MECHA DESIGN

Vehicles designed for war, especially the tank and airplane, with their increased mobility, heavier ordnance and increased battlefield endurance, became machines of destructive might. The roles these vehicles took quickly changed from attack support to rapid assault and front-line fighters in their own right. The introduction of the walker vehicle, whose computator, height and articulated frame combined to make it into a superb firing platform, further changed the battlefield.

New and refined manufacturing techniques gave weapons a higher rate of fire, reduced cost for ammunition and increased range. By the late 1930s, weapons had reached impressive levels of performance. Machine guns could kill at a mile or more and shaped charges could cut through armored walls many feet thick. Gun calibers were increasing every year, the cannon's destructive power growing by leaps and bounds. Rockets and missiles had started out being more dangerous to the user than the enemy. By mid-war, rockets were becoming increasingly common on the battlefield, and some featured primitive guidance systems. All these weapons were carried by tanks and armored walkers as standard weapons.

Experiments were also made with directed energy weaponry, at first mostly by the Russians. Though the Maginot line had fallen, its Tesla "death ray" guns had performed admirably, if somewhat erratically, prompting a wave of imitators. By the early 40's, a few rare Russian tanks were sporting scaled-down Tesla projectors, while British troops were fielding the first "Canal Light" laser guns. Others, even more esoteric weapons would appear from time to time, most of them prototypes that would often be as dangerous to the user as to the target!

Aerial Technology

Aircraft became a crucial part of the land war. The success of Germany's blitzkrieg tactics was dependent on their aerial forces' careful interaction with the ground forces. The targeting of cities and strategic resources was a widespread use of the bomber. Aircraft became a critical part of naval warfare: even the once-mighty battleships were now vulnerable to tiny torpedo bombers.

Perhaps the greatest advancement was the introduction of rocket- and jet-powered aircraft. Britain based a squadron of primitive jet interceptors outside Duckworth during the closing weeks of the Battle of Britain. Horton and Northrop flying wings and Messerschmitt rocket fighters soon soared across the war-torn skies. Allied and Axis scientists would, by their efforts to create faster and longer ranged aircraft, take the first steps in birthing the Space Age.

Naval Technology

Twenty-five years before, the mighty battleship ruled the high seas. Now the carrier ruled, and the battleship was relegated to carrier protection or shore bombardment. The mighty battlewagons were vulnerable to air attack, and all ships carried batteries of anti-aircraft guns.

However, the submarine was to be the weapon that decided the fate of nations at sea. The German 'wolf packs' of U-boats prowled the sea-lanes of the Atlantic, very nearly starving Britain into submission by exacting a terrible toll on the supply convoys from the U.S. ASDIC, or Sonar, became the best way to combat the threat by allowing convoy escorts and aircraft to detect submerged attackers.

The Birth of Electronic Warfare

As far back as 1937, the German pocket battleship *Graf Spee* was equipped with radar for detection and fire control. The British Home Defense radar network was able to detect the approach of Luftwaffe aircraft and successfully thwart the numerically superior German air force. Most American vessels were equipped with radar, which, un-

known to them at the time, was superior to that of the Japanese.

By the end of 1941, both Germany and the Allies had radar capable of detecting aircraft as well as computing their altitude to varying degrees of accuracy. Allies were testing aircraft equipped with a short range radar and emitters capable of detecting aircraft within 1000 meters who were not equipped with a IFF (Identification Friend/Foe) beacon, or warn crews when their planes were 'strobed' by radar from enemy night fighters.

Armored Walkers

The man widely credited as the 'father' of walking machine theory was Professor Freiderich Goble, a gifted but frustratingly eccentric German inventor. In 1913, he presented a large number of military inventions, including his Panzerlandkreuzer, to the German High Command, but Goble never delivered, and promptly vanished into obscurity for several years.

It wasn't until the early 1920s that J. Walter Christie, an American inventor of unique vehicle propulsion and motive systems, formulated the concept of a fast-moving mechanical walker. By 1923, Christie had completed his first prototype, and in 1924 he decided to approach the review board of the U.S. Army Ordinance Department. On March 14, 1927, the W1926 was shown to Ordinance Department officials at Fort Meade, Maryland. The cost-conscious officials were less than enthusiastic, and Christie was forced to near-bankruptcy.

Christie probably would have slid into obscurity if it were not for a fortuitous visit by representatives of the Weimar Republic in late 1927. The Grossarbeiter ('large worker') program was a means to get post-war Germany back on her feet. Impressed with what they saw, the Germans paid handsomely for the prototypes and a partial license. The W1924 and W1926 were crated and shipped to Spain, and that was the last Christie saw of his machines. What Christie didn't realize was that the Germans had purchased his prototypes with the express intention of turning them into weapons. The Treaty of Versailles forbade the German Reichwehr from developing any armored vehicles, cars and tanks. It didn't, however, say

anything about *walking* machines. By 1938, the redesignated PanzerKämpfer ('armored fighter') program was a high priority and placed under one company, Traumshoteneun Panzerfabrik, headed by Langhauser.

Germany's saber-rattling in the late 30s and its unabashed use of armored walkers in its 'border incidents' acted as a wake-up call to the rest of the world. Both Britain and the U.S. were to begin extensive catch-up programs, whilst the Soviets were to largely ignore walkers, and Japan started its own 'oshimoï' program with help from Germany.

Anatomy of the Walker

Before and during the first two years of the war, walker development was fairly linear and generally dictated by German developments. British and American efforts were offshoot of German innovations, though the Allies preferred to follow Christie's "Mechanical Walker Suspension" theories. As the war progressed, however, walker designs were to diverge and change. The British liked sturdy four-legged designs, but still widely used Lend-Lease American walkers. Germany was to also field four-legged designs, but on a much more massive scale.

All the early-war walkers were two-man machines. One man was the pilot and maintainer of the on-board Computator; the other the commander, ammo-loader and fire controller. Piloting and fighting in a walker required considerable teamwork, and was often a noisy, hot and dangerous assignment. Though one crewman could control the machine alone, the combat efficiency of the machine degraded considerably. The cockpit was a cramped, uncomfortable cavity found in the 'chest' of the walker, with access gained through hatches around the top or sides of the machine. Quick escape from a burning walker was often a terrifying and desperate ordeal. Armored walkers used vision blocks, and some used stabilized periscopes. By late-1941, gyro-synchronized episcope became available, which facilitated greater vision and targeting. Most machines, however, relied on old-fashioned vision slits and hatches.

To get an armored walker to walk and perform required two pedals, two control sticks, several levers and a bank of buttons. These inputs were mixed by mechanical means through a set of pulleys, cams, and walkers, called the 'first mixer group,' which was then used to operate hydraulic valves. After 1938, the Germans began using an electromechanical-hydraulic mixer group for improved control and reaction time, but at the cost of increased complexity in both manufacture and maintenance.

Daring British agents were able to obtain a partially destroyed German D1 computator from Poland in late 1939, and two fully intact examples during the battle for France. At first, both Allied scientists just copied the D1 just to get units into the field, but both countries also had burgeoning computer research programs, and soon unique Allied computator systems were developed. In 1941 British walkers began to be outfitted with the Pinkerton Mark IV, a computator of uniquely British design. It wasn't as fast as German examples, but was more rugged and in some situations could be repaired by non-specialist vehicle crews.

By far the most common form of power came from the inline radial engine. Though protected in an armored cowling, the engines required elaborate filters and air intakes, and were also quite noisy. The British were the first to experiment with liquid-cooled engines.

For added mobility across even surfaces, some walkers were equipped with either wheels or treads. First theorized by Christie as 'Ancillary Propulsion,' it was the Germans who first made it work. As their machines became larger, the PzK IV and onwards used treads exclusively. The Allies were to prefer wheeled Ancillary Propulsion, which was often easier to repair in the field.

The Future

As 1941 drew to a close, the world was a different place. In two short years, warfare and the means to wage it had advanced at a terrifying pace. Of all the combatants, the Soviet Union was perhaps the most behind. Its research programs stunted, Mother Russia was woefully unprepared for this new type of war and had paid dearly. Nonetheless, a tremendous research program began to swing into action and literally overnight Russia was playing catch-up.

Walker development had been swift and exponential. By the end of '41 the machines were still quite primitive, but improved gyroscopes, controls and better weaponry had shown that walkers were far from being an anomaly relegated to the history books. With the exception of the Soviets, all the combatants fielded such machines in large numbers, and many new designs were in the prototype stage. Japanese walkers were at best pre-war designs and all lacked any form of advanced computer.

Though Germany was first off the mark when it came to walkers, the Allies had a distinct superiority in certain fields. Allied gyroscopes were more sophisticated and resilient to the rigors of combat, and the British had better radial engines for their machines. Later variants of the M12 Longstreet had an improved targeting system, though this was rapidly eclipsed by German use of "televisor" sensors in 1943 and the introduction of the D3 and D4 Computators in 1942 and onwards.

Experiments using a computator to aid fire control in tanks and naval vessels were well underway, but it would be some time before any were to enter service in noticeable numbers. Computators began to also see widespread use in research and theory, and the Allies used such machines to help break Axis codes. Both sides would also use the new devices to accelerate the development process of new weapons and combat vehicles, sometimes shaving years off entire research programs.

There were also some ominous signs. Both Germany and Japan had ongoing programs dedicated to the understanding of chemical and bio-

logical weapons. Reports of Germany's use of poison gas in the siege of Sevastapol had shown that Germany could field such weapons. Also of unknown purpose was fledgling research into genetics, biotechnology — even psychology and the human mind. Understanding was medieval at best, but both sides had varied interests in such subjects and effort was expended on some decidedly strange projects (such as the "supersoldier" and chemical trooper) throughout the course of the war.

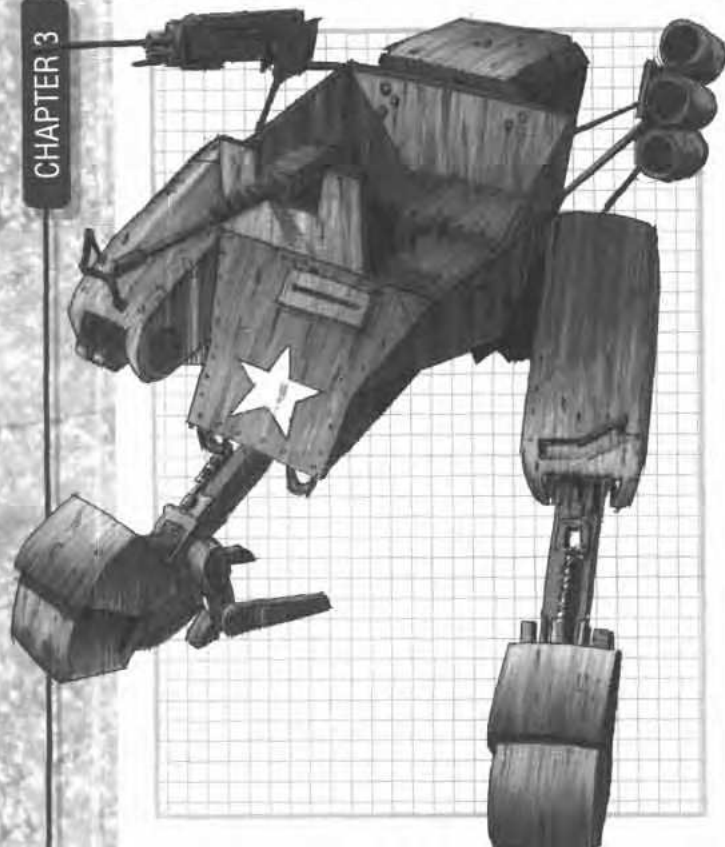
Technological development had been rapid up to the end of 1941, but the next few years were to prove even more wondrous and terrifying...

Uses in Other Settings

The low-tech combat walkers presented in this chapter can be ported over to virtually any setting. They could represent magical walking chariots (especially the open-topped designs) in any fantasy settings; assume that the machineguns and cannons are some variations of the magical wand, while the grenades are black powder mortars. Or, add a smokestack and some decorative wrought iron details, and they become the Cities' newest defense against the Empire.

The various walkers could be used as GHOST or REVENANT field transports in the Great Machine Decander setting, or as commercial all-terrain vehicles for the Phoenix Rising world (with the weapons removed, of course).

In Heavy Gear, Ouroboros or Changelings, they could feature as left-over machines from the Colonization era, found in scrapyards and other dumps. Some may have their original equipment (cranes, welding torches) still installed, while others exhibit some tack-on weapons.



M11 GENERAL EARLY

The M11 series was the first mass-produced American combat walker design. The first M11 left the assembly line in March 1939, and a total of 7980 M11 walkers were built until production stopped in late September 1943. The British received the M11 under the Lend-Lease program in March of 1941 and named the vehicle "Cavaller."

The A1 was an open-topped hull that was produced when the walker concept was relatively new. To cut weight, there was no roof, which also made it easier for the crew to see where they were going. As the first tests proved, the pilot's position (high and at the front) made it easier to see than an equivalent tank, and a roof was added to support a small turret (M11A2 and A3).

The walker's ability to shoot and move, coupled with the highly reliable engine in most versions, made it a favorite of its crew. The 37mm M6 gun was adequate early on, but by 1942 the walker was outgunned by its Axis counterparts. Various re-fits were made in the period between 1941 and 1943 which extended the vehicle's combat abilities, but toward the end of the war the M11 was mostly relegated to scouting, recon and flanking operations. A number of units were sent to the Soviet Union under the Lend-Lease program, where they fought under the designations L-1 and L-2.

OGL Stat Block

Type:	Giant Robot/Vehicle
Size:	Large (Tall/Long, 5.5 m)
Hit Points:	35 (MP: 50)
Occupancy:	2 operators, no cargo (MP: 20)
Hardness:	10 (MP: 50)
Defense:	9
Strength:	15 (+2) (MP: 15)
Speed:	Land 36/45 kph (MP: 20/30)
Tactical Speed:	Land 60/75 m/turn
Initiative:	-3/-4 (MP: -10/-15)
Maneuver:	-3/-4 (MP: -10/-15)

Total MP Cost:	162
Total Money Cost:	\$52,488
Special Abilities:	
Tactical Radio (MP: 2)	
Exotic Abilities:	
Transformation (walker/vehicle, MP: 27)	
Mecha Defects:	
Optimized Armor: Front (MP: -10), Noisy (MP: -5), Open (MP: -20)	
Reduced Endurance (2 hours at max speed, MP: -25), Start Up Time (1 minute, MP: -2), Weak Point: Legs (MP: -10)	

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
.30 Machinegun	2d10	A	30m	200	Automatic, 3x Extra Ammo	Arc of Fire (Fr)	58
.50 Machinegun	2d12	A	40m	150	Automatic, 2x Extra Ammo	Arc of Fire (Fr)	(52)
Grenade Launchers	7d10	S	14m	3	Semiauto, Blast, Indirect	Arc of Fire (Fr), 3x Less Ammo 3x Short Range	(44)
M4B Autocannon*	4d10	S	120m	8	Semiauto, Long Range	2x Less Ammo	(44)

*A3 variant only. All are Ballistic Weapons; Grenades are Blast Weapons

VARIANTS

M11A2: Remove the Open defect; .50 MG becomes turret-mounted. MP: 210, \$88,200

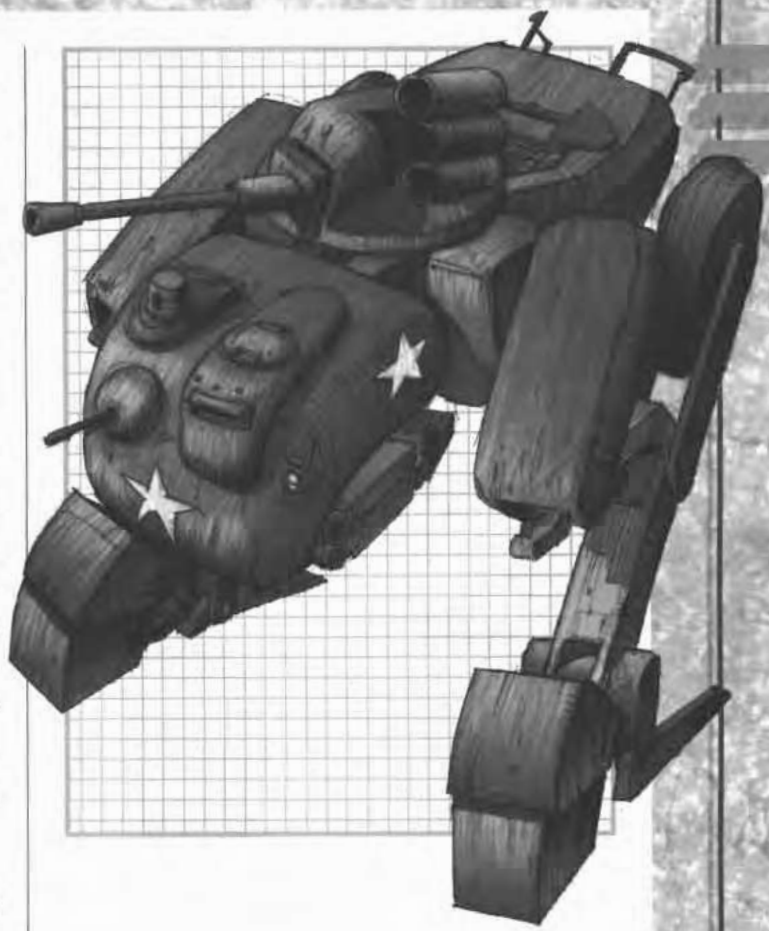
M11A3: Remove the Open defect; turret-mounted M4B Cannon replaces .50 MG. MP: 180, \$64,800

M12 GENERAL LONGSTREET

The Allied forces faced a major problem during the conflict. U.S. walkers had to be transported by ship from the American coasts, and this limited their physical size. In reaction, the Detroit Motor Works focused their energy on developing walker designs that were highly mobile and had minimal reliability issues. Unlike the Axis models, they used tire-equipped suspension to move rapidly along roads, relying on their legs to cross rough terrain. The Christie-derived suspension was a rugged and simple design.

The M12A1 was the first production model and was long considered to be the best (at least until later variants, such as the A8 and A15, were introduced on the European front). Though vastly undergunned, it was very mobile. The A2 was outwardly similar to the A1, but replaced the flat-sided turret with a cast-metal hemisphere mounting a flamethrower fed from tanks located inside the hull. Most A2s served on the Pacific front, where they proved extremely valuable in breaching Japanese fortifications.

With about 15,000 produced in dozens of variants, the Longstreet was the most widely produced walker of the war. In addition to the Lend-Lease models, Longstreets were sold to Canada (which called them Lumberjacks), Australia and even the Free France forces (in late 1944).

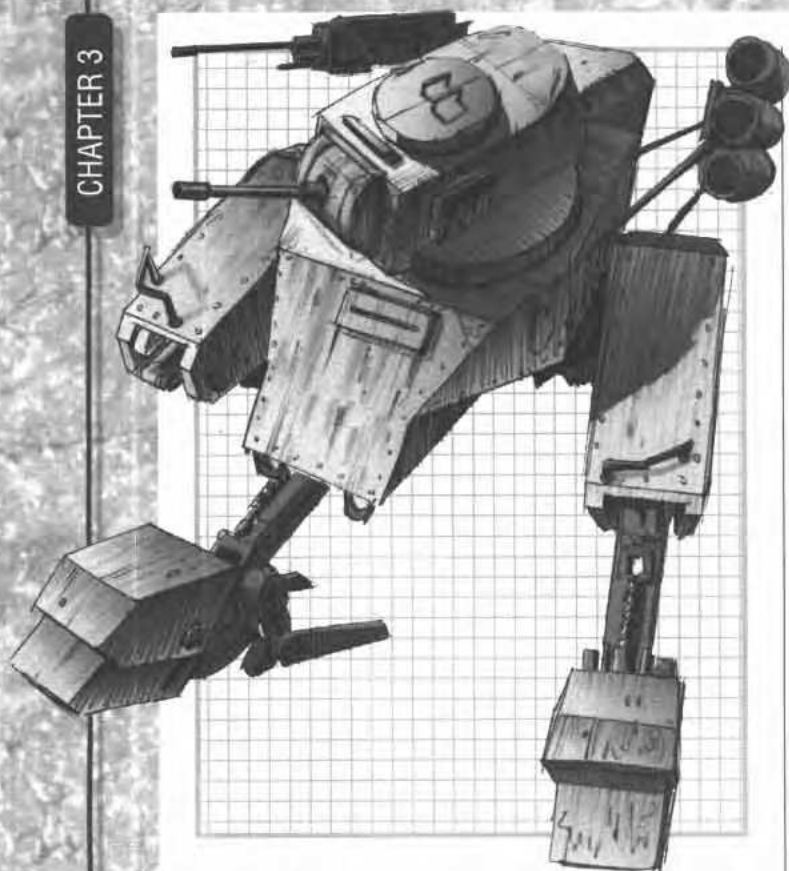


OGL Stat Block

Type:	Giant Robot/Vehicle
Size:	Large (Tall/Long, 6 m)
Hit Points:	40 (MP: 60)
Occupancy:	2 operators, no cargo (MP: 20)
Hardness:	12 (MP: 60)
Defense:	9
Strength:	18 (+4) (MP: 24)
Speed:	Land 45/54 kph (MP: 36/36)
Tactical Speed:	Land 75/90 m/turn
Initiative:	-3/-4 (MP: -10/-15)
Maneuver:	-3/-4 (MP: -10/-15)

Total MP Cost:	227
Total Money Cost:	\$103,058
Special Abilities:	
Tactical Radio (MP: 2)	
Exotic Abilities:	
Transformation (walker/vehicle, MP: 36)	
Mecha Defects:	
Optimized Armor: Front (MP: -12), Noisy (MP: -5), Reduced Endurance (3 hours at max speed, MP: -25), Start Up Time (1 minute, MP: -2), Weak Point: Legs (MP: -12)	

WEAPONS:							
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
.50 Machinegun	2d12	A	80m	150	Automatic, 2x Extra Ammo	Arc of Fire (Fr)	(52)
Grenade Launchers	7d10	S	14m	3	Semiauto, Blast, Indirect	3x Less Ammo, 3x Short Range	(51)
M8B Autocannon	5d10	S	150m	8	Semiauto, Long range	2x Less Ammo	55
Flamethrower*	3d10	A	24m	15	Burning, Stream	Less Ammo, Short Range	66
*A2 variant only — Fire Weapon. Otherwise, all are Ballistic Weapons; Grenades are Blast Weapons.							
VARIANTS							
M12A2: turret-mounted flamer replaces M8B cannon. MP: 240, \$115,200							



INFANTRY WALKER MK VIII "CAVALIER" ▼

Though the British high command had some passing interest in the walker concept, they did not pursue research into the field until reports of German successes grew too loud to ignore. By then they had accumulated a serious gap in development, and it was simpler to create a home-made version of the Americans' General Early walker, which was already available under Lend-Lease.

The first Cavaliers were similar to their cross-Atlantic brethren, though the engine compartment was slightly enlarged to fit a water-cooled engine rather than the air-cooled radial preferred by U.S. engineers. The legs used Vickers-type mechanisms which, being slightly different from the original ones (the toes' shock absorbers were bulkier and featured two smaller road wheels), required different armor plating. The vehicle also used a British-made radio and computer.

Most of the Cavaliers in service with the British army were either of the A, B or C models, though the line went up to "F". All three shared the same riveted hull as their American counterpart (the B and C variants also sported the same turret), and, apart from the British engines and electronics, were exactly the same. The main difference was in armament, with the C carrying a rapid-fire cannon.

OGL Stat Block ▶

Type:	Giant Robot/Vehicle
Size:	Large (Tall/Long, 5.5 m)
Hit Points:	35 (MP: 50)
Occupancy:	2 operators, no cargo (MP: 20)
Hardness:	10 (MP: 50)
Defense:	9
Strength:	15 (+2) (MP: 15)
Speed:	Land 36/45 kph (MP: 20/30)
Tactical Speed:	Land 60/75 m/turn
Initiative:	-3/-4 (MP: -10/-15)
Maneuver:	-3/-4 (MP: -10/-15)

Total MP Cost:	162
Total Money Cost:	\$52,488
Special Abilities:	
Tactical Radio (MP: 2)	
Exotic Abilities:	
Transformation (walker/vehicle, MP: 27)	
Mecha Defects:	
Optimized Armor: Front (MP: -10), Noisy (MP: -5), Open (MP: -20)	
Reduced Endurance (2 hours at max speed, MP: -25), Start Up Time (1 minute, MP: -2), Weak Point: Legs (MP: -10)	

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
.30 Machinegun	2d10	A	30m	200	Automatic, 3x Extra Ammo	Arc of Fire (Fr)	58
.50 Machinegun	2d12	A	40m	150	Automatic, 2x Extra Ammo	Arc of Fire (Fr)	(52)
Grenade Launchers	7d10	S	14m	3	Semiauto, Blast, Indirect	Arc of Fire (Fr), 3x Less Ammo 3x Short Range	(44)
1.2pdr Autocannon*	4d10	S	120m	8	Semiauto, Long Range	2x Less Ammo	(44)

*A3 variant only. All are Ballistic Weapons; Grenades are Blast Weapons

VARIANTS

CAVALIER B: Remove the Open defect; .50 MG becomes turret-mounted. MP: 210, \$88,200

CAVALIER C: Remove the Open defect; turret-mounted 1.2pdr Cannon replaces .50 MG. MP: 180, \$64,800

INFANTRY WALKER MK XII "ROUNDHEAD" ▼

The Cavalier soon proved inadequate as a front line combat unit, and plans were put into motion to bring about a Lend-Lease version of the Longstreet. The British version, called the "Roundhead" for its cast metal pilot compartment, sported a water-cooled radial engine and locally-produced computator and electrical systems. The former used a porthole-like opening rather than a vision slit, and the radiators were quite distinctive from the American air-cooling louvers. The legs used more boxy armor covers to facilitate fabrication and storage.

As Vickers became more familiar with the advances of the latter series of Christie walker suspensions, improvements in the Roundhead motive and support systems began to appear. The addition of a Rolls-Royce "Medusa" engine on the E variant solved the heat-exchanging problems seen in the previous engine design, and mechanical improvements to the computator system made for a more stable control.

The later versions of the Roundhead were famous for their sensors, including the XL400 radar set. A more advanced reflex-targeting array and improvements to weapon stabilization translated into more accurate fire, although problems with the weapon mounts plagued this model for almost a year.

OGL Stat Block ▶

Type:	Giant Robot/Vehicle
Size:	Large (Tall/Long, 6 m)
Hit Points:	40 (MP: 60)
Occupancy:	2 operators, no cargo (MP: 20)
Hardness:	12 (MP: 60)
Defense:	9
Strength:	18 (+4) (MP: 24)
Speed:	Land 45/54 kph (MP: 36/36)
Tactical Speed:	Land 75/90 m/turn
Initiative:	-3/-4 (MP: -10/-15)
Maneuver:	-3/-4 (MP: -10/-15)

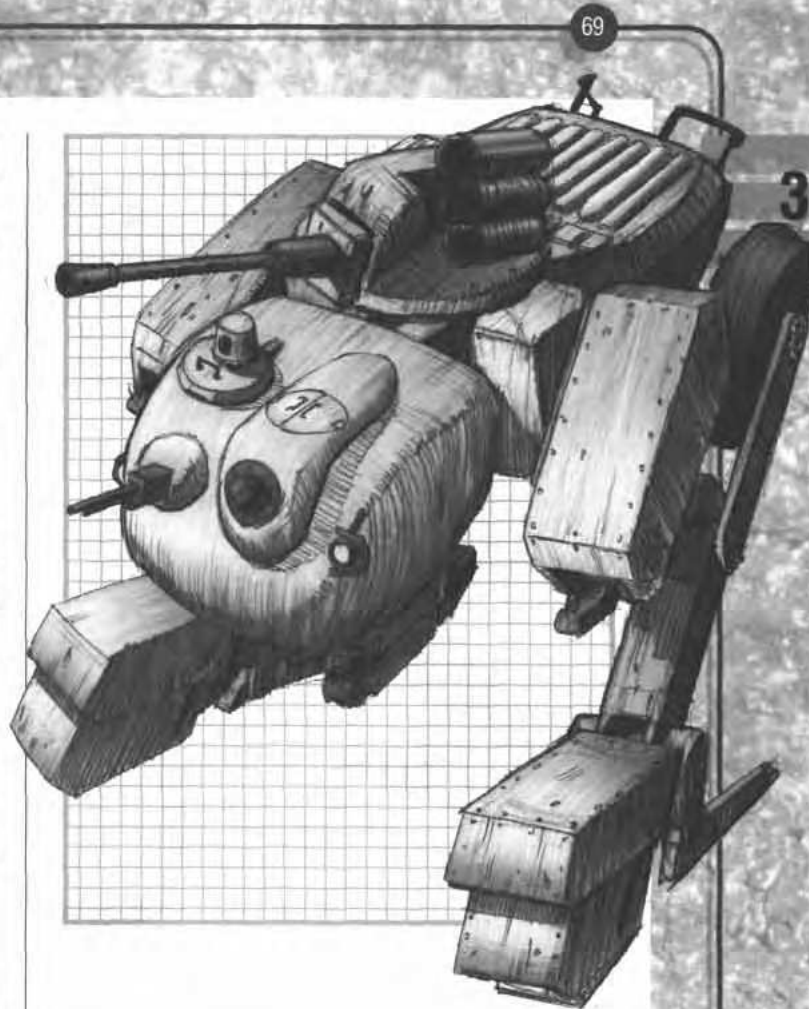
WEAPONS:

Name	Dam.	ROF	Ri	Ammo	Qualities	Restrictions	MP Cost
.50 Machinegun	2d12	A	40m	150	Automatic, 2x Extra Ammo	Arc of Fire (Fr)	(52)
Grenade Launchers	7d10	S	14m	3	Semiauto, Blast, Indirect	3x Less Ammo, 3x Short Range	(51)
1.2pdr Autocannon	5d10	S	150m	8	Semiauto, Long range	2x Less Ammo	55
Flamethrower*	3d10	A	24m	15	Burning, Stream	Less Ammo, Short Range	66

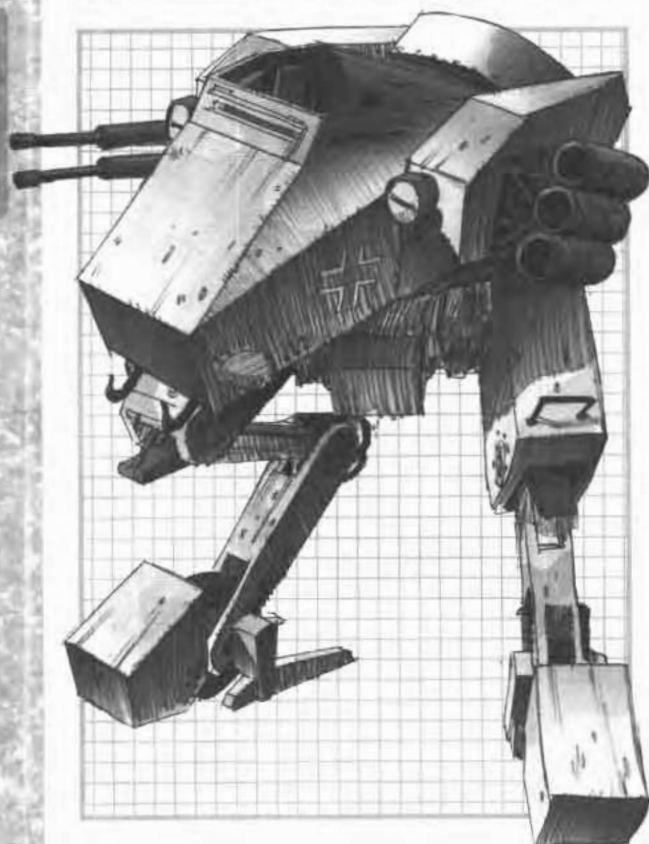
*A2 variant only — Fire Weapon. Otherwise, all are Ballistic Weapons; Grenades are Blast Weapons.

VARIANTS

ROUNDHEAD B: turret-mounted flamer replaces 1.2pdr cannon. MP: 240, \$115,200



Total MP Cost:	227
Total Money Cost:	\$103,058
Special Abilities:	
Tactical Radio (MP: 2)	
Exotic Abilities:	
Transformation (walker/vehicle, MP: 36)	
Mecha Defects:	
Optimized Armor: Front (MP: -12), Noisy (MP: -5), Reduced Endurance (3 hours at max speed, MP: -25), Start Up Time (1 minute, MP: -2), Weak Point: Legs (MP: -12)	



OGL Stat Block

Type:	Giant Robot/Vehicle
Size:	Large (Tall/Long, 5.5 m)
Hit Points:	30 (MP: 40)
Occupancy:	2 operators, no cargo (MP: 20)
Hardness:	9 (MP: 45)
Defense:	9
Strength:	15 (+2) (MP: 15)
Speed:	Land 36/45 kph (MP: 27/27)
Tactical Speed:	Land 60/75 m/turn
Initiative:	-3/-4 (MP: -10/-15)
Maneuver:	-3/-4 (MP: -10/-15)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
7.92mm MGs (2)	3d10	A	45m	200	Automatic, 3x Extra Ammo	Arc of Fire (Fr)	88
Grenade Launchers	7d10	S	14m	3	Semiauto, Blast, Indirect	Arc of Fire (Fr), 3x Less Ammo 3x Short Range	(44)
1.8cm Cannon*	4d12	S	160m	20	Semiauto, Long Range	—	104

*Ausf B and C variants only. All are Ballistic Weapons; Grenades are Blast Weapons

VARIANTS

AUSF B: removes 7.92mm MGs, add 1.8cm Cannon. MP: 164, \$53,792

AUSF C: Add 1.8cm Cannon, remove the No Hand and Open defects. MP: 222, \$98,568

PZK IV "LOKI"

In 1937, specifications for a light (5-ton) combat walker were issued by the German army. The Loki's design was partially based on Christy's original 1926 chassis, which was purchased from him that year. Most of the design work, however, was made on the GrAb 1 through 3 series (later called PzKpf I through III). After numerous tests in mid-1934, the improved PK1 was redesignated PzKpf IV Ausf A and entered production at the end of the year.

Its first combat test took place in secret during the Spanish Civil War (1936-38). Its thin armor offered only limited protection against small firearms, and the Ausf A's twin MGs were no match for anything other than infantry units (though the "grenades" — actually, very short range mortars — were useful as demolition devices). Still, performances showed the potential of the vehicle, and walkers became a permanent part of the German order of battle.

Though production ceased in early 1943, the Loki was extensively modified to serve in a variety of battlefield roles, and many fought right up to the end of the conflict. Its design was also a great help in the development of its bigger brothers, especially the experimental "Ausf X" series. The A to C variants remained the most common, as they were the simplest to manufacture and maintain.

Total MP Cost:	145
Total Money Cost:	\$42,050
Special Abilities:	
Tactical Radio (MP: 2)	
Exotic Abilities:	
Transformation (walker/vehicle, MP: 22)	
Mecha Defects:	
Optimized Armor: Front (MP: -9), Noisy (MP: -5), No Hand (MP: -30), Open (MP: -18), Reduced Endurance (2 hours at max speed, MP: -25), Start Up Time (1 minute, MP: -2), Weak Point: Legs (MP: -9)	

PZK V "VALKURIE"

As early as 1935, a new vehicle was thus put into development, which would eventually become known as the PzKpf V "Valkurie." Though the new chassis was more performant (faster and sturdier) than its predecessor, armament remained light, mostly due to recoil consideration. The Valkurie was the first to benefit from the new style Krupp suspension, which featured articulated tracks at the rear for better traction and shock absorption. From the Ausf B variant and onward, the chassis could also mount a pair of Krupp H6 grasper arms, which were primarily used for demolition and field engineering work.

The PanzerKämpfer V gained a reputation for being a highly reliable and effective vehicle, which shaped walker development in all factions. It was the best German walker in the first half of the war, and remained in service until the end of the conflict. It was also exported to other nations, allies or pro-German client states. Hungary, Romania, Bulgaria and Slovakia each received about a half-dozen Ausf A walkers along with the necessary technical support. Small number of Ausf A and B vehicles was also exported to Croatia. During Operation Barbarossa, the Soviets captured large numbers of PzKpf V of all types, some of which were hastily pressed into temporary service or used as bait.

OGL Stat Block

Type:	Giant Robot/Vehicle
Size:	Large (Tall/Long, 5.5 m)
Hit Points:	40 (MP: 60)
Occupancy:	2 operators, no cargo (MP: 20)
Hardness:	10 (MP: 50)
Defense:	9
Strength:	15 (+2) (MP: 15)
Speed:	Land 36/45 kph (MP: 27/27)
Tactical Speed:	Land 60/75 m/turn
Initiative:	-3/-4 (MP: -10/-15)
Maneuver:	-3/-4 (MP: -10/-15)

WEAPONS:

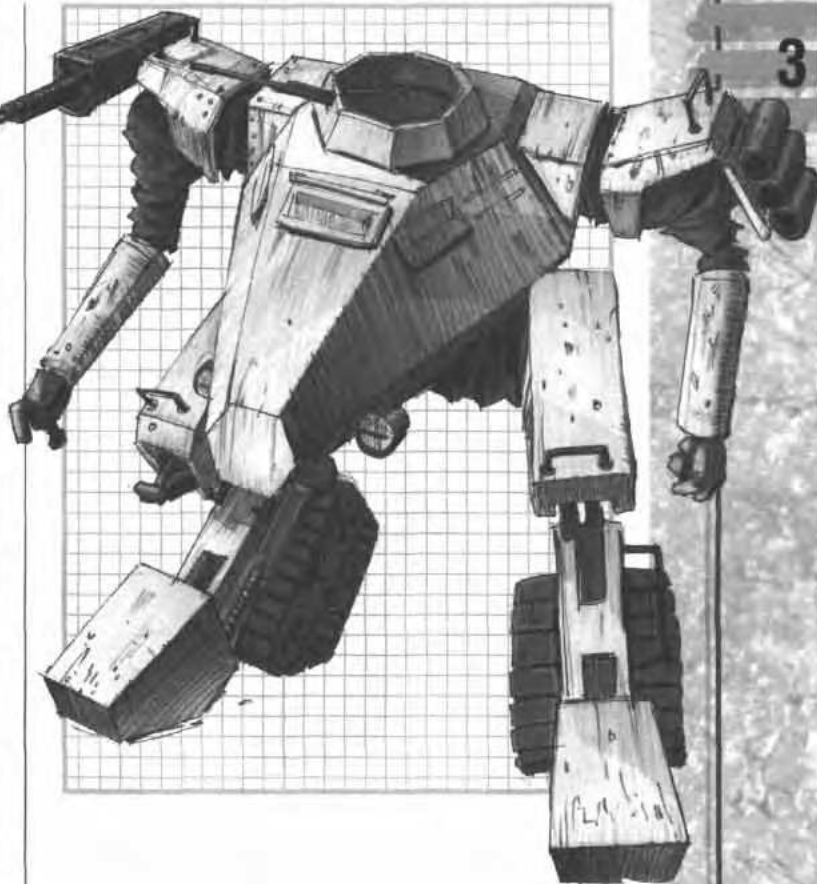
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
7.92mm MGs (2)	3d10	A	45m	200	Automatic, 3x Extra Ammo	Arc of Fire (Fr)	88
Grenade Launchers	7d10	S	14m	3	Semiauto, Blast, Indirect	Arc of Fire (Fr), 3x Less Ammo 3x Short Range	(44)
1.8cm Cannon*	4d12	S	160m	20	Semiauto, Long Range	—	104

*Ausf B and C variants only. All are Ballistic Weapons; Grenades are Blast Weapons

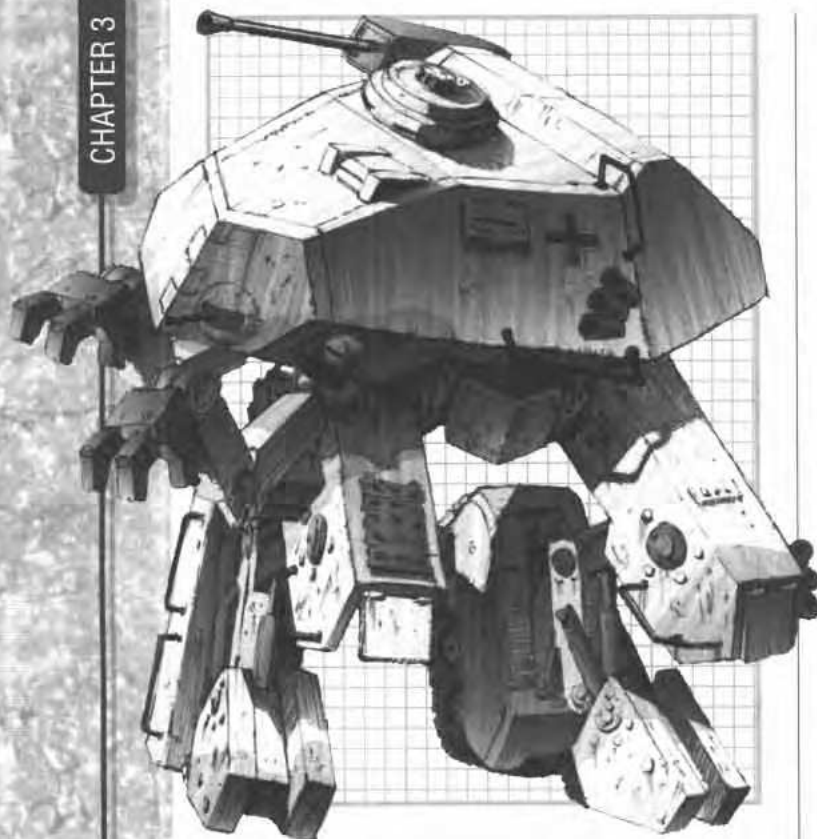
VARIANTS

AUSF B: removes 7.92mm MGs, add 1.8cm Cannon. MP: 190, \$72,200

AUSF C: Add 1.8cm Cannon, remove the No Hand and Open defects. MP: 250, \$125,000



Total MP Cost:	170
Total Money Cost:	\$57,800
Special Abilities:	
Tactical Radio 2km (MP: 2)	
Exotic Abilities:	
Transformation (walker/vehicle, MP: 26)	
Mecha Defects:	
Optimized Armor: Front (MP: -10), Noisy (MP: -5), No Hand (MP: -30), Open (MP: -20), Reduced Endurance (2 hours at max speed) (MP: -25), Start Up Time (1 minute, MP: -2), Weak Point: Legs (MP: -10)	



OGL Stat Block

Type:	Giant Robot/Vehicle
Size:	Large (Tall/Long, 6.5 m)
Hit Points:	45 (MP: 70)
Occupancy:	2 operators, no cargo (MP: 20)
Hardness:	12 (MP: 60)
Defense:	9
Strength:	20 (+5) (MP: 30)
Speed:	Land 45/54 kph (MP: 36/48)
Tactical Speed:	Land 75/90 m/turn
Initiative:	-3/-4 (MP: -10/-15)
Maneuver:	-3/-4 (MP: -10/-15)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
7.92mm Machinegun	2d10	A	30m	200	Automatic, 3x Extra Ammo	Arc of Fire (Fr)	(58)
Grenade Launchers	7d10	S	14m	3	Semiauto, Blast, Indirect	Arc of Fire (Fr), 3x Less Ammo 3x Short Range	(44)
Smoke Launchers	S*	SS	3m	3	Blast, Indirect	Arc of Fire (Fr), 4x Less Ammo, 3x Short Range	(13)
3.2cm Cannon	5d12	S	160m	30	Semiauto, Long Range	Arc of Fire (Fr)	86
Panzerfausts	3d20	SS	24m	2	Armor Penetrating, Blast	Arc of Fire (Fr), 4x Less Ammo, 2x Short Range	(18)

NOTE: All are Ballistic Weapons; Grenades and Panzerfausts are Blast Weapons. *Smoke, (2 rounds, 6')

PzK VI "Donner"

In 1941, Wa Pruef ordered Daimler-Benz and MAN (Maschinenfabrik Augsburg Nuernberg) to design a new 20-ton walker. The "Donner" incorporated a lot of what was learned from the Valkurie, and both its armament and suspension system were largely inspired by it. The sloped main hull was an attempt to increase armor protection for crouching walkers, though crew kept complaining about lack of headroom. The vehicle was designed from the start to be highly modular; older models returned for repairs were often fitted with newer parts, creating numerous hybrids.

Although on the drawing boards since 1938, the "Donner" was not produced until 1942, when the Ausf E variant was perfected. Although initial models suffered from cooling problems, this walker proved to be a superior fighting system, even though it was a stop-gap measure until even larger walkers were developed. Most E chassis were recalled to the factory in late 1944 to be refitted as E2s. Some later models carried a fixed 88mm gun, and the L variant featured a turreted heavy laser.

The PzK VI never reached the same level of fame as the two designs that flanked it in the German wartime design series. Nevertheless, it proved to be an excellent combat vehicle, incorporating lessons learned the hard way.

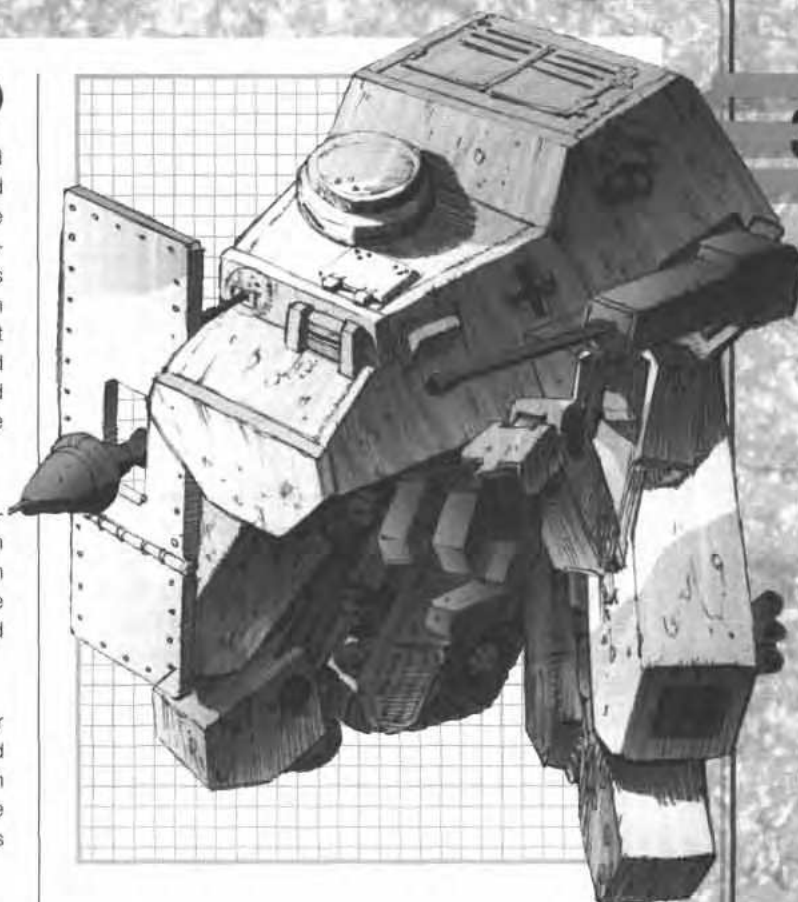
Total MP Cost:	118
Total Money Cost:	\$27,848
Special Abilities:	
Tactical Radio 2km (MP: 2)	
Exotic Abilities:	
Transformation (walker/vehicle, MP: 19)	
Mecha Defects:	
Optimized Armor: Front (MP: -12), Noisy (MP: -5), Reduced Endurance (2 hours at max speed, MP: -25), Start Up Time (1 minute, MP: -2), Weak Point: Legs (MP: -12)	

PzK VII "Uller"

The development of one of the most famous walkers of World War II started in 1937, though the Uller was not deployed until 1942. Henschel was to produce the majority of the chassis alongside its Tiger assembly lines. The first production Ullers were immediately shipped to frontline units in North Africa and the East front. During the production run, Ullers were constantly modified and improved almost on a monthly basis, adding and shedding systems based on their current availabilities. The success of the Uller would lead the Heereswaffenamt to fast-track production of the "Wotan" and "Jotun" series of walker-striders by 1944.

This model began the modern competition between walkers and traditional tanks. The Uller weighed even more than the Donner, and had an upgraded suspension and an even larger engine than the PzK VI, which at first led to some teething problems. Advanced weapon optics and stabilization mechanisms were standard on the Uller.

Late war variants would be crafted around a wide number of different weapon payload, including both 75mm and 88mm tank guns, experimental laser weaponry, and even wire-guided anti-tank missiles. A small number of Ullers were modified to defend the last positions of the German armies in early 1945: the Ausf X was a walking arsenal.



OGL Stat Block

Type:	Giant Robot/Vehicle
Size:	Large (Tall/Long, 6.5 m)
Hit Points:	50 (MP: 80)
Occupancy:	2 operators, no cargo (MP: 20)
Hardness:	14 (MP: 70)
Defense:	9
Strength:	20 (+5) (MP: 30)
Speed:	Land 36/54 kph (MP: 42/56)
Tactical Speed:	Land 60/90 m/turn
Initiative:	-3/-4 (MP: -10/-15)
Maneuver:	-3/-4 (MP: -10/-15)

Total MP Cost:	307
Total Money Cost:	\$188,498
Special Abilities:	
Tactical Radio 2km (MP: 2)	
Exotic Abilities:	
Transformation (walker/vehicle (MP: 50)	
Mecha Defects:	
Optimized Armor: Front (MP: -14), Noisy (MP: -5), One Hand (MP: -10), Reduced Endurance (2 hours at max speed, MP: -25), Start Up Time (1 minute, MP: -2), Weak Point: Legs (MP: -14)	

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
.30 Machinegun	2d10	A	30m	200	Automatic, 3x Extra Ammo	Arc of Fire (Fr)	(58)
Grenade Launchers	7d10	S	14m	3	Semiauto, Blast, Indirect	Arc of Fire (Fr), 3x Less Ammo 3x Short Range	(44)
Smoke Launchers	S*	SS	3m	3	Blast, Indirect	Arc of Fire (Fr), 4x Less Ammo, 3x Short Range	(13)
3.2cm Cannon	5d12	S	160m	30	Semiauto, Long Range	Arc of Fire (Fr)	86
Panzershreck	4d20	SS	32m	6	Armor Penetrating, Blast	Arc of Fire (Fr), 2x Less Ammo, 2x Short Range	(33)

NOTE: All are Ballistic Weapons; Grenades and Panzerschreck are Blast Weapons. *Smoke, (2 rounds, 6')

GEAR KRIEG MODERN

The Cold War was harsh on the Russian economy, and the Soviet effort to match American space deployments (including the missile defense network and the missile-equipped lunar bases) brought on its gradual collapse. After the dissolution of the Soviet Union in the late 1980s, several of its client states were left to their own devices. Iraq's dictator, Saddam Hussein, decided to invade neighboring Kuwait to grab its riches. Coalition forces, through Operation Desert Shield and Desert Storm, threw his forces out in a short but spectacular conflict in late 1991, facing Iraq's obsolete Soviet-made RT-72 combat walkers.

HISTORY

The victory over the Axis powers did not mean an end to war, as many had hoped. By the late 1940s, an "Iron Curtain" had dropped over the Eastern countries that were occupied by the Soviet forces and their allies. This was driven home to Western populations by the sight of American and British flying wing transports soaring over Russian combat walkers laying siege to the German capital, Berlin.

Before long, a true competition between civilizations was taking place. Using captured German technology, the USSR quickly sent men in space to join Germany and the US in the space flight club. The skies were soon filled with observation stations and manned communication relays, though experiments were made to use computers to automate both in the form of much cheaper "satellites." Events became even more complex when both sides developed the atomic bomb within a few years of one another. While lasers and Tesla gun emplacements could be used to shoot down any nuclear device dropped for orbit, 100% efficiency couldn't be guaranteed — for all their superscience arsenal, the two superpowers effectively had a knife at each other's throat.

Thus the Cold War began, with neither side able to affect the other directly. This led to the rise of the "proxy conflict," whereas groups sharing the philosophy of the patron superpower would be discreetly supplied with weapons and money to fight in their stead. Thus, surplus M12 walkers could be seen fighting under Israeli colors, while Soviet supertanks made up the core of China's People's Army for half a decade. The first such

major conflict was the Korean war, where the North half of the newly liberated country sided with Communism and attacked the fledgling democratic South. Under the auspices of the newly formed United Nations, several countries, though primarily the United States, offered support to the South. The conflict escalated when China attempted to do the same for the North, but threats of nuclear deployment limit their efforts. Four years and nearly two millions dead later, a truce is reach that would fix the Korean Demilitarized Zone for the rest of the century.

This bloody war was followed by a number of low-intensity actions throughout the world, most of them centered on Asia and Africa. The next main conflict to escalate was the Vietnam War, where Communist forces in the North opposed the French, then American-backed regime in the South. Advisors were soon replaced by combat troops, and for the next ten years American forces would stream to fight into the tiny Asian country. Their superior technology made the issue clear until the North received additional support from China and the USSR, including fomenting unrest in the United States themselves. By the early seventies, media and social pressures left the government no choice but to retire their troops, leaving the small local army to fall under the Communists' blows.

During the Seventies, the Western powers turned mostly inward. The Moon colonies were followed by orbital factories and a series of voyages in the inner solar system, including the establishment of a number of small outposts on Mars. The United States also fortified their defenses, setting up missile silos on the Moon, an improved laser-based orbital missile shield and a last ditch close-in defense systems (the Eastern Board Tesla Line installations can still be visited today).

Unknown to the Western world, the expenses of supporting ideological warfare everywhere on the planet was a severe strain on the Soviet economy. Their population was growing restless, and the hated enemy showed little signs of failure. The last straw was the construction of the so-called "Space Wars" American defense system: a series of orbital lasers and Tesla particle accelerators that the Russians vainly attempted to match with their own Polyus combat sat series.

In the end, the Soviet economy could not take the strain. Faced with full scale rioting, President Gorbachev had no choice but to announce the collapse of the Soviet Union. Its satellite countries immediately regain their independence, but it was the client states, such as Cuba and Iraq, that were to suffer the most from the loss of their sponsors. Some would make do with the situations, but others sought to replace their Russian benefactors with other resources, even if they had to steal it from others...

FACTIONS

Kuwait: This tiny oil-producing country could only mount minimal resistance to the invasion. Most of their armed forces retreated at the start of the conflict to link up with Allied troops in the counteroffensive. Though under-equipped, they performed valiantly.

United Nations Alliance: This was the main group of nations that handled the actual fighting. The bulk of the forces were provided by the United States, Great Britain and Canada, with additional fighting contingents from Saudi Arabia, France, the Netherlands, Egypt, Syria, Oman, Qatar, Bahrain, United Arab Emirates, Israel, Canada,

Belgium and Italy. Afghanistan, Bangladesh, Czechoslovakia, Germany, Honduras, Niger, Romania and South Korea gave support, but did not intervene directly.

Iraq: The Persian Gulf country stood alone in the conflict. Most governments, even those that sympathized or had commercial relationships with Saddam Hussein and his Baath party, realized that he was in no position to resist the Alliance for long. Jordan, Yemen and the Palestine Liberation Organization gave moral support, but did not intervene directly.

CAMPAIGNS

Mecha Assault: You're part of the allied forces that seek to liberate Kuwait from the invaders, pushing the soldiers of the brutal regime of Saddam Hussein back to their capital, and ending his reign of terror for good. Player characters will either be foot soldiers engaging the Iraq forces in the desert and towns of Kuwait and Southern Iraq, or mecha crew rolling across the desert blasting enemy armored units.

Covert Ops: Equipped with a single Hummer variable walker, your team of elite specialists range far and wide behind enemy lines to wreck the enemy's communication facilities and supply lines.

Adapting to Your Own Campaign

The vehicles presented here represent a high but not too advanced technology. They could be dropped virtually unmodified in any modern or near future campaign. For example, they might be a brand new form of TMAs in the *Trabajadores Moviles Armados* setting, or elite military vehicles in the *Phoenix Rising* setting.

By modifying the nature of the technology, they can be dropped in a fantasy setting. Picture them as magically-hardened (or just well engineered by Dwarfen sages) combat chariots, a notch above those of other races (represented by the WWII *Gear Krieg* vehicles, of course).

MECHA DESIGN

The combat walkers fielded by the modern armies of the 1990s were direct descendents of the lumbering war machines that helped decide the issue of the second world war. As walker movement systems became more reliable over time, several military planners questioned the need to field separate tank and walker units, especially since the latter's ground speed and armor were fast approaching their rolling cousins. By the late 1950s, most major powers had introduced variable, hybrid designs that were able to fight anywhere.

Structure

The basic frame of a combat walker saw much more stress than the structure of an equivalent-sized armored vehicle. This, coupled with the need for multiple articulation points necessary for movement, made them inherently weaker. The problem was first identified when the walkers were first developed in the 1930s, but it was not until the widespread availability of advanced composites and lightweight orbital foamed alloys in the 60s that it became possible to field walkers as main battle units.

The modern combat walker is based on an alloy skeleton to which all other systems are attached. This makes maintenance easier, as damaged sub-units can be removed for servicing without affecting the rest of the machine.

Powerplants

Despite the extensive use of walk-by-wire control systems and lightweight orbital alloy frames, the modern combat walker had enormous power needs. Most designed were powered by small gas turbines and banks of high density capacitors derived from the aerospace industry. These drove high pressure compressors that were used to power major movements through high strength hydraulic lines, while small generators powered the rest of the systems, including minor actuators and all sensor and computer systems.

Weaponry

Despite numerous superscience developments during the second world war, few non-conventional weapons were fielded by the modern armies. Lasers, which were easily degraded by aerosol canisters, were primarily deployed as anti-aircraft units, while vehicle-class Tesla guns could be defeated by specialized grounding cages built into the structure of combat craft. The larger Tesla emplacements, of course, fell under the various non-proliferation treaties and were used exclusively as defensive installations. Railguns were reserved for the large assault tanks, ungainly vehicles that were useless for rapid-reaction warfare.

Most combat vehicles thus fell back on conventional weapons such as cannons and missiles. There were improvements, of course: the Abram's state-of-the-art, laser-directed and computer-controlled 120mm smoothbore cannon largely outperformed railguns or previous decades. Meanwhile, inexpensive yet deadly missiles such as the TOW started to make an appearance on many smaller combat vehicles.

Battlesuits

Though the combat walkers have proven their worth in more than fifty years of armored warfare, they remain cumbersome beasts, not suited to stealth or confined environments. This has made them increasingly useless when facing highly mobile and motivated enemies that can fade in urban settings (terrorists, insurgents, etc.).

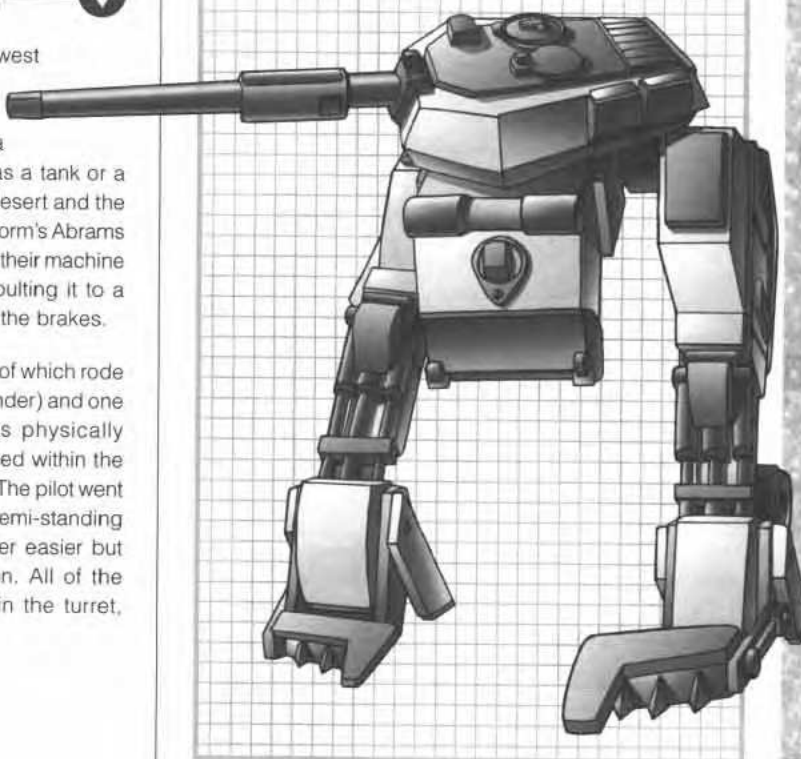
Government agencies, such as DARPA, have thus set to work trying to reduce their size to a man-wearable suit of power-assisted armor. The main stumbling block has always been the power supply, but modern turbines are approaching the required miniaturization threshold. The resulting units would remain too expensive to field at large, but they will be used as assault units to protect the more vulnerable infantrymen that follow them.

The stats of the combat suits presented in the Phoenix Rising setting may be used to represent these state-of-the-art prototypes.

M1A1 ABRAMS MECHATANK

The war was a showcase for some of the newest American military technology. The M1A1 mechatank was a direct descendant of the U.S.' WWII walker design efforts. It was a turbine-powered beast able to move either as a tank or a bipedal walker, and shone in both the open desert and the crowded city streets of southern Iraq. Desert Storm's Abrams crew become famous for their ability to convert their machine to walker mode while in rapid motion, catapulting it to a standing position by a forceful application of the brakes.

The vehicle was crewed by four people, three of which rode in the large, flat turret (gunner, loader, commander) and one in the main hull (the pilot). The latter was physically separated from the others, his station enclosed within the hinged forward section of the machine's body. The pilot went from a reclined position while driving, to a semi-standing posture that both made controlling the walker easier but also improved the downward field of vision. All of the vehicle's weapon systems were mounted in the turret, providing them with a maximum field of fire.



OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 8 m)
Hit Points:	80 (MP: 80)
Occupancy:	4 operators, no cargo (MP: 40)
Hardness:	24 (MP: 120)
Defense:	6 (MP: 0)
Strength:	30 (+10) (MP: 60)
Speed:	Land 54 kph (MP: 96)
Tactical Speed:	Land 90 m/turn
Initiative:	-3 (MP: 5)
Maneuver:	-2 (MP: 10)
Total MP Cost:	1106

Total Money Cost: \$4,892,944

Special Abilities:

Accessories (Fire Fighting +6, Mine Plow - Front, MP: 2), Chobham Armor (MP: 10), GPS (MP: 3), Headlights (MP: 1), HF Radio (Secure, MP: 4), Infrared (3 km, MP: 15), NBC (MP: 10), Optics (6 km, Low-light, MP: 18), Radar (2km, MP: 6), Tactical Radio (Scanner, Secure, MP: 5), Targeting Computer (120mm Gun +4, MP: 20)

Exotic Abilities: N/A

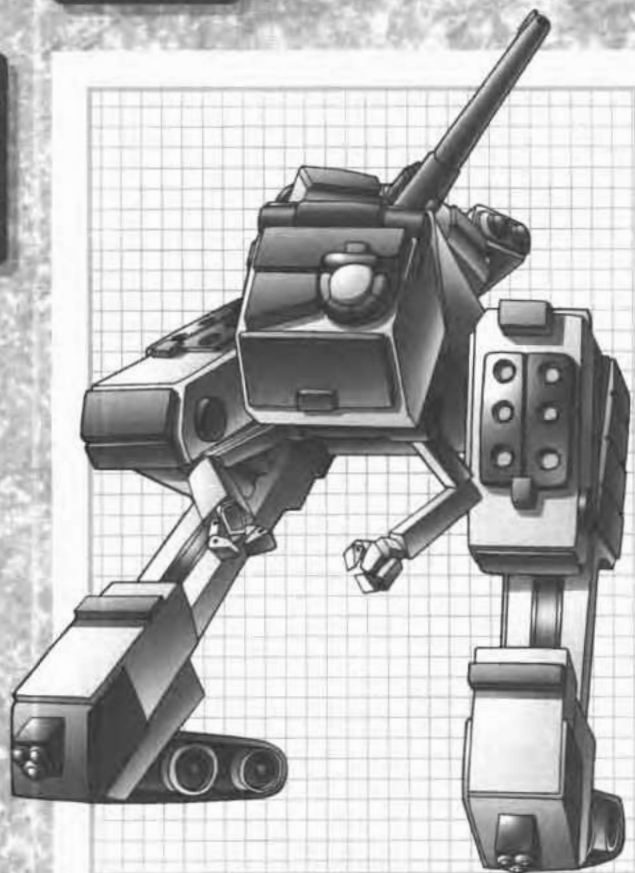
Mecha Defects:

No Hands (MP: -30), Reduced Endurance (10 hours, MP: -20), Start Up Time (10 minutes, MP: -2)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
120mm Gun — APFSDSDU*	10d12	SS	800m	30	AP, 2 x Long Range	—	520
120mm Gun — HE**	6d12	SS	480m	20	2 x Blast, 2 x Long Range	—	(31)
.50 Cal Machinegun*†	2d12	A	40m	900	Automatic, 4 x Extra Ammo	Exposed	86
7.62mm Machinegun*	2d10	A	30m	5700	Automatic, 5 x Extra Ammo	—	(13)
Smoke Launchers**	Lvl 3	SS	15m	12	Emanation	Less Ammo.	(3)

NOTE: *Ballistic weap.; **Hot Smoke, Blast weap.; †Different gunner (Commander)



M3A1 BRADLEY IFV

The Abrams mechatank was assisted by the M3A1 Bradley Infantry Fighting Vehicle, another variable walker design. Unlike the M1A1, the Bradley was not designed for assault purposes; its battlefield role was to protect and deliver a supporting squad of infantrymen to the front, while providing covering firepower to both. To this end, the M3A1 was equipped with a 25mm chaingun and a pair of guided missiles to engage tough targets like enemy tanks. Stubby manipulator arms extending from the lower chassis enabled it to perform minor engineering tasks as well, such as preparing quick firing positions for its troopers.

The vehicle carried a crew of three, one pilot, one gunner and the commander, who also took care of the radio equipment. The rear compartment had very cramped room for six fully equipped troopers; a large door lined with powered liftwires ensured rapid access regardless of the vehicle's current mode. The compartment also featured four lateral firing ports for the infantrymen's small arms.

OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 7 m)
Hit Points:	50 (MP: 20)
Occupancy:	3 operators, 6 passengers, no cargo (MP: 54)
Hardness:	16 (MP: 80)
Defense:	6 (MP: 0)
Strength:	26 (+8) (MP: 48)
Speed:	Land 64 kph (MP: 8)
Tactical Speed:	Land 107 m/turn
Initiative:	-3 (MP: 5)
Maneuver:	-3 (MP: 5)

Total MP Cost: 594

Total Money Cost: \$1,411,344

Special Abilities:

Accessories (Fire Fighting +4, MP: 1), 4 x Firing Ports (MP: 8), GPS (MP: 3), Headlights (MP: 1), HF Radio (Secure, MP: 5), Infrared (3 km, MP: 9), NBC (MP: 10), Optics (3 km, Low-light, MP: 9), Radar (2km, MP: 4), Tactical Radio (Secure, MP: 4)

Exotic Abilities: N/A

Mecha Defects:

Reduced Endurance (12 hours, MP: -20), Start Up Time (10 minutes, MP: -2)

WEAPONS

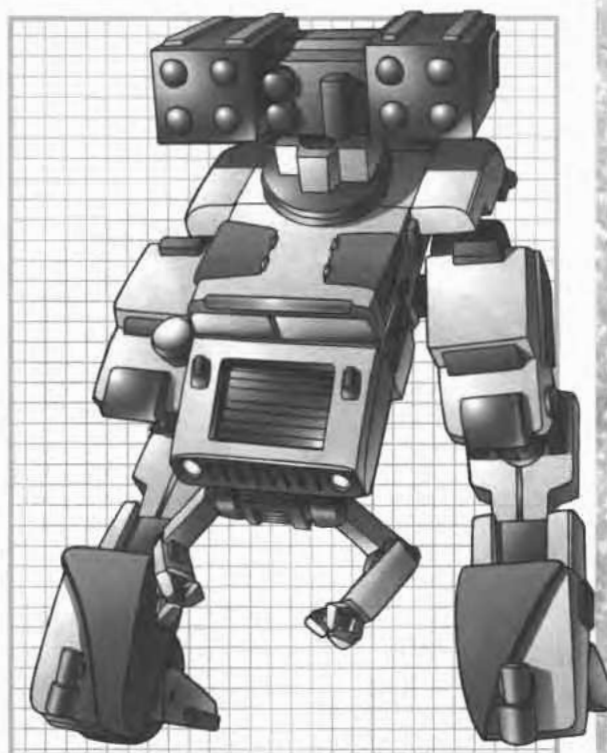
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
25mm Chaingun*	4d12	A	180m	900	Automatic, 4 x Extra Ammo, Long Range	—	312
7.62mm Machinegun*	2d10	A	30m	2200	Automatic, 4 x Extra Ammo	—	(11)
TOW Missiles**	10d10	1	300m	7	AP, Blast, Guided (OG), Long Range	2 x Less Ammo, Slow-firing	(18)
Smoke Launchers**	HotSmoke 3 SS	15m	8		Emanation	2 x Less Ammo	(3)

NOTE: *Ballistic weap.; **Blast weap.

M1025 HMMWV

The most common vehicle of the war was the High Mobility Multipurpose Walker Vehicles (HMMWV, pronounced HUMVEE), a variable design that could deploy as either a light walker inspired by WWII Japanese designs, or an all-terrain vehicle. Operated by a driver and gunner team and capable of carrying up to four people (or 800 kg of material) in its cargo area, the "Hummer" served as scout, light APC, field ambulance and a number of other support role.

Beyond its immediate usefulness as a light transport, the vehicle was equipped with a heavy machinegun mounted on a turret ring for close-in support. This weapon could be replaced by a grenade launcher as well. The heavier variants reduced their transport capacity for additional support struts that allowed them to mount much more dangerous weapon systems (such as a 25mm cannon, a TOW missile launcher or an anti-aircraft missile battery).



OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 6 m)
Hit Points:	35 (MP: 30)
Occupancy:	2 operator, 4 passengers, no cargo (MP: 36)
Hardness:	10 (MP: 50)
Defense:	8 (MP: 0)
Strength:	22 (+6) (MP: 36)
Speed:	Land 64 kph (MP: 40)
Tactical Speed:	Land 107 m/turn
Initiative:	-2 (MP: 0)
Maneuver:	-1 (MP: 2)

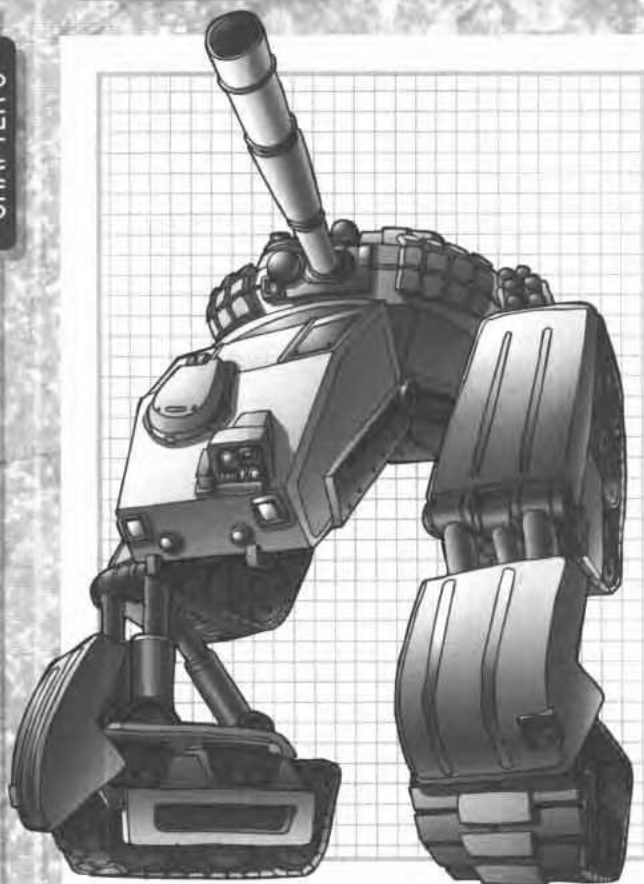
Total MP Cost:	307
Total Money Cost:	\$376,996
Special Abilities:	
Accessories:	(Fire Fighting +2, MP: 1), GPS (MP: 3), Headlights (MP: 1), HF Radio (Secure, MP: 4), Climate Control (MP: 2), Infrared (1.5 km, MP: 5), Low-light Optics (2 km, MP: 6), Tactical Radio (Secure, MP: 4)
Exotic Abilities:	N/A
Mecha Defects:	
Reduced Endurance:	(15 hours, MP: -20), Start Up Time (1 minute, MP: -2)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
7.62mm Machinegun	2d10	A	30m	2200	Automatic, 4 x Extra Ammo	—	110
(Opt.) 40mm Gren. Launcher	3d6	S	21m	600	Blast, 3 x Extra Ammo, Indirect	—	126
(Opt.) 25mm Chaingun	4d12	A	160m	900	Automatic, 4 x Extra Ammo,	—	312
					Long Range		
(Opt.) TOW Missiles	10d10	1	300m	7	AP, Blast, Guided (OG),	2 x Less Ammo, Slow-firing	183
					Long Range		
(Opt.) Stinger Missiles	10d8	SS	480m	8	Blast, Guided (IRH),	2 x Less Ammo	225
					2 x Long Range		

VARIANTS

M1025 Variant: replace 7.62mm by 40mm GL (Blast weap.), 323 MP	M1045 Variant: replace 7.62mm by 25mm chaingun (Ballistic weap.), 509 MP
M996 Variant: replace 7.62mm by TOW Missiles (Blast weap.), 380 MP	Avenger Variant: add Radar (10km), Stinger Missiles (Blast weap.), 552 MP



OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 8 m)
Hit Points:	65 (MP: 80)
Occupancy:	3 operators, no cargo (MP: 30)
Hardness:	18 (MP: 120)
Defense:	6 (MP: 0)
Strength:	26 (+8) (MP: 48)
Speed:	Land 54 kph (MP: 72)
Tactical Speed:	Land 90 m/turn
Initiative:	-3 (MP: 5)
Maneuver:	-3 (MP: 5)
Total MP Cost:	825

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
125mm Gun — APDS*	10d10	SS	300m	30	AP, Blast, Long Range	—	330
125mm Gun — HE**	6d10	SS	180m	14	2 x Blast, Long Range	—	(19)
7.62mm Machinegun*	2d10	A	30m	2000	Automatic, 4 x Extra Ammo	—	(11)
12.7mm Machinegun*†	2d12	A	40m	300	Automatic, 3 x Extra Ammo	Exposed	69
Smoke Launchers**	Smoke 3	SS	15m	8	Emanation	2 x Less Ammo	(1)

NOTE: *Ballistic weap.; **Blast weap.; †Different gunner (Commander)

RT-72 MECHATANK

The RT-72, a Soviet medium combat walker, entered production in 1971. It was a parallel design with the RT-64 and was originally designed as a less expensive version of the Soviets' state-of-the-art battle machine. The complicated RT-64 had not been well received by the Soviet military, and when the Vagonka design bureau produced an autoloader similar to the 64's for their own RT-62 design, it was accepted for production in 1967 as the RT-72. The inclusion of the autoloader reduced the crew to three (commander, driver and gunner), a practical decision for a cramped design.

The Soviet's decision to simultaneously build both models was a compromise between quality and quantity. The decision produced a difficult situation because most of the parts were different, apart from the 125mm ammunition. In the end, the cheaper RT-72 was the main walker design used by the Red Army from the 1970s to the collapse of the Soviet Union. It was also exported to other Warsaw Pact countries and several other countries such as Finland, India, Iran, Iraq and Yugoslavia. Iraq threw most of their RT-72s into battle to try and stop the Allied wave, but they were rarely successful.

Total Money Cost: \$2,722,500

Special Abilities:

Accessories (Fire Fighting +2, MP: 1), IGS (MP: 2), Headlights (MP: 1), HF Radio (Secure, MP: 4), Infrared (3 km, MP: 9), NBC (MP: 10), Optics (3 km, Low-light, MP: 9), Radar (1km, MP: 2), Reactive Explosive Armor (MP: 10), Tactical Radio (Secure, MP: 4), Targeting Computer (125mm Gun +1, MP: 5)

Exotic Abilities: N/A

Mecha Defects:

Reduced Endurance (9 hours, MP: -20), Start Up Time (1 minute, MP: -2)

R-57 SCUD MOBILE LAUNCHER

"Scud" was the NATO codename for a Soviet-designed, short-range liquid propellant surface-to-surface ballistic missile called the SS-1. It was developed from German WWII missiles in the 1950s and could carry either a high-explosive, nuclear or chemical warhead. The name "Scud" also identified an Iraqi modification, the Al Hussein, altered for greater range at the cost of accuracy in order to strike at Tehran during the Iran/Iraq conflict. It was this later model that the Iraqis used as a terror and bombardment weapon during the early stages of the conflict, to moderate effects (thankfully, their efforts to locate black-market nuclear warheads did not pan out thanks to the diligent efforts of Allied covert teams).

This weapon was carried on a TEL vehicle (transporter-erector-launcher), in this case the four-legged R-57 walker, another purchased Russian design. While somewhat slow, it was extremely mobile, well-armored and equipped with a forward shield and drill that enabled it to slowly burrow underground for protection against detection and destruction by enemy fighter-bombers (which created huge problems during the mop-up operations of the Gulf War). Once exposed for firing, however, the TEL proved a vulnerable target, especially in the critical few minutes before launch where the missile was raised and its onboard propellants pressurized.

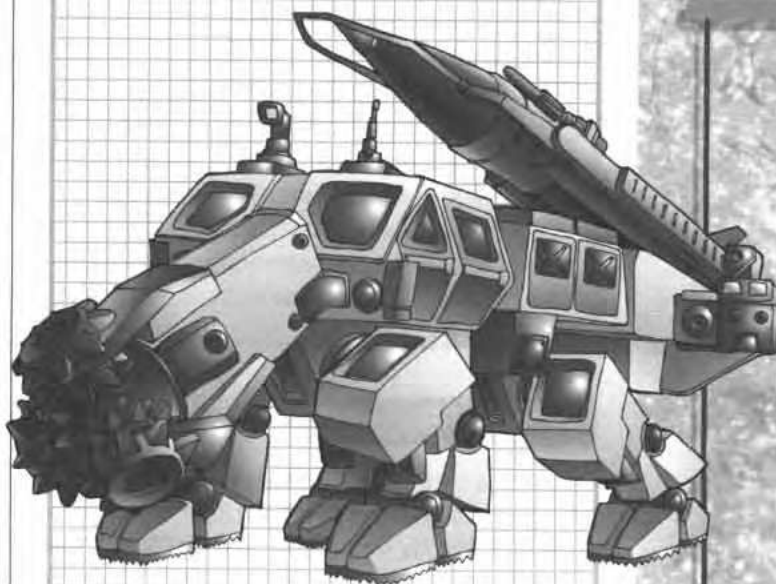
OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Long, 12 m)
Hit Points:	30 (MP: 15)
Occupancy:	2 operators, 6 passengers, no cargo (MP: 44)
Hardness:	14 (MP: 70)
Defense:	6 (MP: 0)
Strength:	32 (+11) (MP: 66)
Speed:	Land 32 kph, Burrow (Collapse) 3 kph (MP: 28 + 40)
Tactical Speed:	Land 54 m/turn, Burrow 5 m/turn
Initiative:	-5 (MP: -5)
Maneuver:	-4 (MP: 0)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
SCUD Missile - HE*	8d10	6***	6km	1	3 x Blast, Guided (IG), Indirect, 6 x Long Range	Arc of Fire (Fr), 2 x Crew-Served, 5 x Less Ammo, 6 x Slow-Firing	61
(Opt.) SCUD Missile - Gas*	Lvl 5**6***		6km	1	Blast, Emanation, Guided (IG), Indirect, 9 x Long Range	Arc of Fire (Fr), 2 x Crew-Served, 5 x Less Ammo, 6 x Slow-Firing	51

NOTES: *Blast weapon; ** Nerve Gas, ***Missile requires six full rounds of preparation before firing.



Total MP Cost:	260
Total Money Cost:	\$2,704,400
Special Abilities:	
INS (MP: 2), Headlights (MP: 1), HF Radio (Secure, MP: 4), Climate Control (MP: 1), Radar (3km, MP: 6), Tactical Radio (Secure, MP: 4)	
Exotic Abilities:	N/A
Mecha Defects:	
No Hands (MP: -32), Reduced Endurance (2 days, MP: -15), Start Up Time (1 minute, MP: -2)	

PHOENIX RISING

In late 1997, Phoenix Energia, a small Spanish company, announced that it had perfected a new form of cold fusion, offering the potential of limitless power, cheaply and without pollution. By 2029, Phoenix Energia's fusion process has completely replaced other energy sources in almost all applications. The world has been transformed by abundant pollution-free energy, improving the quality of life for millions of people around the world, and Phoenix Energia has become a corporate empire spanning the globe. The world looks to be at the dawn of a new golden age, but old conflicts and hatreds refuse to go away, and there are those that resent Phoenix Energia's power. Bloodshed and terror continue as normal, so what has really changed and to whose advantage is the current global situation?

PAX ENERGIA

The claims by Phoenix Energia in 1997 of having achieved cold fusion caught the international scientific community by surprise. Using ordinary water as its source of hydrogen, Phoenix Energia's process produced helium and power without generating heat or dangerous levels of radiation. Although the company's researchers refused to divulge the exact method used, citing commercial secrecy, the sealed units they provided for independent testing did indeed generate electricity with no other input besides water. One unit was disassembled to show a complex series of metal catalyst plates, but no insight into its working was gained. The unit stopped generating power when opened, and the research institute involved was blacklisted by Phoenix Energia from any further involvement in the tests.

With their process certified as genuine, the company announced plans to begin commercial production of the units. Knowing the general public's distrust of all things nuclear, Phoenix Energia advertised their units as 'water batteries' and entered strategic partnerships with several automotive manufacturers to make use of the units in cars. Not surprisingly, Phoenix immediately came under attack from traditional energy producers, for once uniting the oil, nuclear and solar energy manufacturers. But the company weathered the threats, corporate espionage and attempted buy outs, for the cold fusion units were simply too useful and popular for governments to legislate against, no matter what bribes the energy industry offered.

Phoenix Energia expanded their production lines again, offering units to fill almost every niche, from powering laptop computers to replacing cities' coal and nuclear power stations. The other energy companies rapidly went out of business, and just as rapidly, the cold fusion units became essential to the economy of every nation on earth. Phoenix Energia, with its complete monopoly on the units, was soon the largest company in the world. Others tried to duplicate the cold fusion process but to no avail: theoretical research revealed no insights on how the process worked, and reverse engineering proved impossible as disassembled units simply stopped working, with no clue as how to start them again.

Phoenix Energia eventually revealed that the fusion reaction had to be 'sparked' in the factory, but what that spark was one of the most carefully kept secrets in the world. In 2012, the Peruvian government attempted to nationalize the Phoenix Energia factory that distributed units to the whole of South America. Phoenix Energia simply shut down the plant by remote from the company's Spanish headquarters, and within a week the Peruvian government issued a groveling apology and a request to restart the plant before the country's economy collapsed completely. On the whole the world didn't care, as cheap power was more than a fair trade off for Phoenix Energia keeping the mystery of cold fusion to itself.

Around the world, living standards and quality of life rose as simple improvements in heating, lighting and water transport lead to healthier, better educated populations. Global tensions eased as nations no longer competed for basic resources

like gas and oil. Phoenix Energia invested its vast wealth in other green technologies, promising to deliver environmentally friendly advances in many fields. More quietly, the corporation began to diversify into other areas as well, forming or buying subsidiaries around the world. By 2021, Phoenix Energia was directly or indirectly involved in consumer electronics, entertainment, military hardware, mining, medical equipment and several other fields. Its influence could be felt in every country and government in the world.

FACTIONS

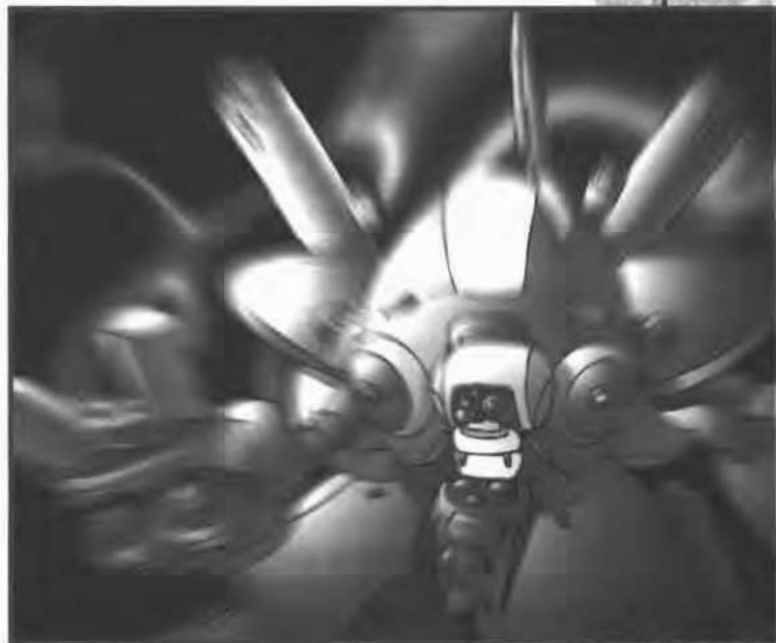
By the early 21st century, the nation-states that have existed in the past have become less relevant than before. With difference in wealth worldwide being lessened, and with rapid and safe travel becoming easier and cheaper everyday, the world is slowly turning into a global village. Smaller groups, corporations and ideologies are becoming social focal points, slowly replacing the older cultures and ideas. It's no longer about where you live — it's about who you know, and work, and live with.

Phoenix Energia, LLC

The corporation known as Phoenix Energia is at the core of a large umbrella of parent corporations and numerous subsidiaries. Though the core business of the Phoenix group remains the production of their cold fusion reactors, they own (wholly or partially) businesses in all modern manufacturing domains, as well as quite a few service-related operations (such as airlines — Phoenix Air, road transportation, naval shipping fleets, etc.). The group also uses part of their wealth to finance a number of research centers and social welfare institutes, particularly in former Third World countries (many of them in South America).

The company is publicly-owned, though the original board of researchers/directors still hold the majority of the shares. Their immense wealth makes any take-over attempt impossible. The board members tend to live quiet lives in remote fortified locations to protect themselves and their loved ones. Many communicate only by audio, handling their affairs through trusted intermediaries. The CEO is rumored to employ teams of troubleshooters to both protect the corporation and

oppose those who would destroy its good works. Because of the increased threat level faced by the corporation in the past few years, security has been greatly reinforced at all Phoenix locations, with armed troopers (many of them clad in slave armor) standing guard and patrolling the grounds.



Mouvement Anarchiste Global

The MAG, as it is called in communiqués and graffiti, is not an organized group but a loose community of anarchist cells operating world-wide. They have no particular goal except for the complete eradication of all social, economic and judicial structures, in order to "maximize personal liberty, at the expense of personal security if need be!"

Many of the MAG members are nihilists, and they have used suicidal tactics in the past. Their charismatic leader, a man known only as Didier, tops several "wanted" lists. He remains an elusive figure, and many in the police and intelligence community believe he may well be a computer composite created to act as a social focal point for the movement.

Altor Consortium

Altor is one of the few remaining corporations that can stand the might of Phoenix. Like the latter, they have made their fortune supplying a rare technological commodity, in this case a series of quantum-level computer chips that are used in the world's largest supercomputers, themselves critical to keep track of the immense amount of information being exchanged everyday — not to mention the various critical scientific research they allow. Altor's board of director keeps a weary eye toward Phoenix — if someone else manages to develop (or steal) the chip designs, they will lose their sole advantage in the market. On the other hand, the reverse could also happen to Phoenix...

CAMPAIGNS

Not everyone was happy with the status quo, however. As territorial disputes faded into the background, ideological conflicts rose to new prominence all over the globe. Religions and political groups turned to violence to spread their messages, while other lashed out against what they perceived as complacent societies or their own sense of ennui. Anarchists and nihilists grew in number and set about remaking the world in their image.

Technological advances had lead to new weapons. Compact fusion units, advanced armor composites and artificial muscle fibers made possible the first practical suits of powered armor (called "slave armor"), giving security forces a significant edge in the fight — at least until the terrorists and freedom fighters hit back with armor of their own. Now the potential for collateral damage is even higher. The two sides seek to infiltrate each other, looking for the advantage that will let them land the killer blow. Meanwhile, cities and towns suffer under tight security, leading to resentment and further violence.

Amidst this chaos a new social movement has formed, one that looks resentfully towards Phoenix Energia and its wealth and influence. It claims that the company has simply become too powerful and is changing the world to its own advantage. They point to the company's secrecy as evidence of a vast conspiracy that is close to engulfing and controlling the entire world.

For the most part their message is lost in the noise of the fast-paced modern world, ignored or dismissed as paranoid ravings, but the movement is a growing one none the less, with independent groups and cells in many countries. Violence against Phoenix Energia property and employees is on the rise, and can no longer be written off as random acts. The company is alarmed at this new development, and is now investigating with its own security forces as well as its influence with several governments to get them to combat the problem. After all, what is good for Phoenix Energia is good for everyone. This has forced the movement further underground, bring it into contact with criminals and worse.

But if Phoenix Energia is indeed trying to control the world, then anything is justified in opposing it. If the old order is swept away, then who or what will rise from the ashes?

Adapting to your Own Campaign

The slave armors and organizations presented here can be incorporated in part or in whole in any modern or near-future campaign which features international corporations and a fairly high level of technology. Phoenix doesn't need to be a worldwide, all encompassing corporation. If the "spark" process can be duplicated, a number of companies will start producing the reactors commercially. This will nonetheless be a social revolution, and the simplest way to include this is to start at the announcement. Perhaps the player characters are part of the team that discovers the secret, or maybe they have been hired to spy on the fledgling company.

The slave armors can be taken as is and dropped into most modern settings, especially the lighter models. These could represent the new types of military suits (the famous "future warrior" projects) coming into use, or they could be prototypes. Perhaps the player characters can build them on their own, provide they have the technical know-how to do so, and the means to acquire the parts. Without Phoenix's energy source, however, it will be difficult to justify a high level of performance without relying on another type of futuristic powerplant (advanced power cells, micro-turbines, etc.).



MECHA DESIGN

The slave armors are direct descendants of the medieval suit of armor. They are referred to as "slave" since they follow the movements of their operator exactly. A slave armor is built around a composite skeleton frame to which the various components and actuators are attached. The frame wraps around the operator, reproducing his every movement through as onboard drive computer (which is programmed to ignore jitters).

The helmet's innards are covered with layered retinal projectors linked to various sensors and cameras in the outer skin. All relevant operational information (IFF, targeting, velocity, etc) is displayed there in graphical mode. Depending on the specific armor design, a number of additional sensor modes can be available, such as millimeter-wave radar, thermographic, and so on. Many are mounted on "bunny ear" sensor booms for additional coverage.

Slave armors rely on several different types of actuators to move about, from conventional hydraulic systems or high-strength myomar fibers to specialized linear electric motors. The smaller suit designs never use hydraulics, as myomars are easier to adapt to the human form: the self-contracting muscle fibers are wrapped around an inner shell which contains the wearer and the various motion-sensitive sensor arrays.

The protective plates of a slave armor are generally made from a special polymer-ceramite composite with good heat conduction and limited flex-

ibility. Additional layers can be added for extra strength and durability, although this increases the cost of the material. The smaller types of slave armor, and especially the anarchist-built models, often use composite fiber cloth instead, since it is lighter and more readily available.

All slave armors are powered by a compact Phoenix fusion reactor usually located in the backplate. The more tight-fitting models sometime replace this by a series of slim "power packs" disseminated throughout the suit (generally the torso and thigh plates).

Uses In Other Settings

The Warden suit could take the role of 'traditional' adult infantry, nursing a grudge against child battlesuit pilots, in the Outworld Changeling setting; in the same breath, the Myrmidon or Loki might be biomechanical Dvoran robots (perhaps incorporating brainwashed prisoners, or just mutated clones built from captured human DNA) designed to infiltrate Terran colonies and destroy them from within.

With the addition of the wall crawling and self-repair abilities, and the removal of its weapons, the Loki could be used as Monkey in the Beast Lord dimension. With upgraded life support, both the Myrmidon and Warden suits can serve as ship boarding marines and ground troops in Space Ranger Ouroboros.

In addition to this, all the Phoenix Rising mecha can be used in any modern or espionage settings, either as secret line units or as one-of-a-kind cutting edge prototypes.

MODERN



OGL Stat Block

Type:	Suit
Size:	Medium (6')
Hit Points:	16 (MP: 32)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	10 (MP: 50)
Defense:	10
Strength:	+4 (MP: 12)
Speed:	Land x1.5 (MP: 30)
Tactical Speed:	Land x 1.5
Initiative:	0 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
5.5mm Carbine*	2d8	A	24m	50	Automatic, Extra Ammo, Handheld	—	54
Taser Grip**	2d6	SS	n/a	12	Stun	Less Ammo, Melee (Small)	1
Frag Grenade***	4d6	SS	5m	3	Blast (6 m), Handheld	3x Less Ammo, 2x Short Range	2

Note: * Ballistic Weapon, ** Electric Weapon, *** Slashing Weapon

VESPER "MYRMIDON" SWAT ARMOR

The Myrmidon is one of the lightest suit of slave armor available and is in use by police SWAT teams and military anti-terrorist units around the world. Vesper Security Technologies, a wholly owned subsidiary of Phoenix Energia, is the market leader in slave armor, and has produced a suit that is both light and maneuverable while still providing a high level of protection to its wearer. The Myrmidon has good all around armor coverage, which is important in urban environments where attacks can come from any direction, including above and below. Its layered composite design can stop modern bullets of up to 7.5 mm caliber. It is fully sealed and protects the wearer from chemical and biological attack while at the same time lowering its heat signature, making it harder to spot by infrared sensors.

The suit's own sensors consist of light intensification and thermal imaging cameras built into its visor, along with a heads-up display that can provide navigation data such as compass heading and floor plans. Video from the 'bunny ear' periscope system can be displayed as well, allowing the operator to see around corners with being exposed to enemy fire. The Myrmidon has built-in tasers in its hands but is designed to be used in conjunction with the RK-107C 5.5 mm bullpup assault rifle. Depending on their mission, wearers usually carry a variety of grenades as well.

Maneuver:	+2 (MP: 10)
Total MP Cost:	200
Total Money Cost:	\$82,944 (w/o handheld weapons)
Special Abilities:	
GPS (MP: 2), Headlights (MP: 1), NBC Filter (MP: 2), Stealth (Infrared +2) (MP: 6), Secure Tactical Radio (MP: 4), Infrared (2 km) (MP: 6)	
Mecha Defects:	
Reduced Endurance (6 hours) (MP: -20), Start-Up Time (1 minute) (MP: -2)	

VESPER "WARDEN" UCA

The Warden is a full military suit of slave armor, intended for brutal urban conflicts where the rules of engagement do not preclude casualties amongst innocent bystanders. Designed to withstand intense weapons fire, the Warden can stop bullets of up to 12.5 mm caliber. While not as fast or agile as the Myrmidon, the Warden does feature more powerful strength amplification, allowing soldiers to carry heavier loads without encumbrance or fatigue.

The Myrmidon's weaponry consist of a tribarrel 12.5mm rotary gun with the ability to penetrate walls and ceilings to hit targets behind cover, a single shot smart missile launcher for use against hard targets, and a backpack-mounted point defense fragmentation launcher. When activated, the PDFL fires a cone of shrapnel that can destroy incoming missiles or kill unarmored infantry at short range. Care must be taken not to injure nearby friendlies with this system, although the shrapnel cannot penetrate a Warden's armor. Optional weapons include an automatic grenade launcher or a light railgun firing high velocity armor-piercing rounds.

While highly effective in combat, military slave armor's drawback is that it must be removed for the wearer to rest and perform maintenance, leaving the operator vulnerable to attack and increasing their required logistical support.

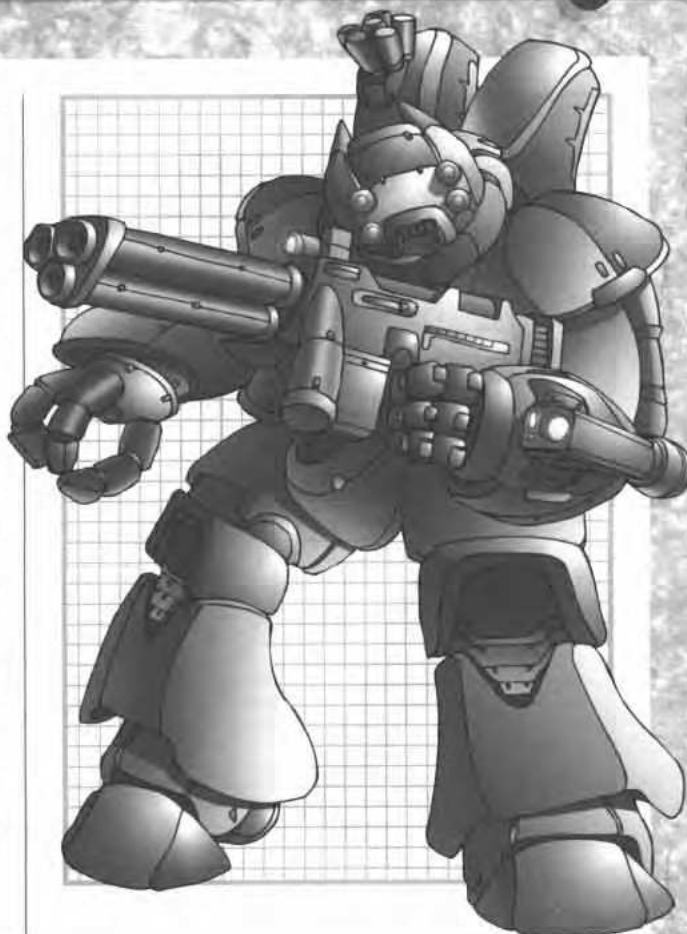
OGL Stat Block

Type:	Suit
Size:	Medium (8')
Hit Points:	20 (MP: 40)
Occupancy:	1 operator, no cargo (MP: 0)
Hardness:	13 (MP: 65)
Defense:	10
Strength:	+6 (MP: 18)
Speed:	Land x1 (MP: 26)
Tactical Speed:	Land x1
Initiative:	0 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
12.5mm Rotary Gun •	2d12	A	40m	100	2x Automatic, 2x Extra Ammo Handheld	—	130
AT Missile **	10d6	SS	45m	1	Armor Penetrating, Blast (3 m), Guided (IRH,LG), Indirect	5x Less Ammo, Short Range	8
PDFL Pod ***	4d6	SS	36m	10	Cone	2x Less Ammo, Low Penetration	4

Note: • Ballistic Weapon, ** Blast Weapon, *** Slashing Weapon



Maneuver:	0 (MP: 0)
Total MP Cost:	300
Total Money Cost:	\$115,600 (w/o handheld weapons)
Special Abilities:	
	GPS (MP: 2), Headlights (MP: 1), NBC Filter (MP: 2), Stealth (Infrared +2) (MP: 6), Secure Tactical Radio (MP: 4), Infrared (2 km) (MP: 6)
Mecha Defects:	
	Reduced Endurance (6 hours, MP: -20), Start-Up Time (1 minute) (MP: -2)



OGL Stat Block

Type:	Suit
Size:	Medium (6')
Hit Points:	14 (MP: 28)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	10 (MP: 50)
Defense:	10
Strength:	+3 (MP: 19)
Speed:	Land x2 (MP: 40)
Tactical Speed:	Land x2
Initiative:	0 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
7.5mm Assault Rifle*	2d10	A	30m	30	Automatic, Handheld	—	44
Rocket Prop. Grenade**	6d6	SS	27m	1	Armor Penetrating, Blast (3 m), Handheld	5x Less Ammo, Short Range	2
Frag Grenades***	4d6	SS	5m	3	Blast (6 m), Handheld	3x Less Ammo, 2x Short Range	2

Note: * Ballistic Weapon, ** Blast Weapon, *** Slashing Weapon

"LOKI" INSURGENT ARMOR

The original Loki slave armor was designed by a group of Scandinavian anarchists using stolen blueprints of a prototype German suit. After using several Loki suits to cause extensive damage to government buildings in Denmark and Finland, the anarchist released detailed instructions for building the suit on the Internet. It soon became a favored weapon of insurgent forces and terrorist groups around the globe. It owes its success to its ease of manufacture: most parts are available commercially, and the control circuitry is provided by the guts of a laptop computer. Only the composite armor is hard to come by, and the design conserves this precious resource by concentrating it on the front torso of the suit, leaving it vulnerable to rifle-caliber bullets in the back and on the limbs. On the plus side, this makes the suit very light, with operators taking advantage of its speed to avoid being hit. Police snipers are, however, well aware of the Loki's weak points.

Except in very well funded groups, Loki suits are usually armed with weapons easily available on the black market. Assault rifles, single shot rocket propelled grenades and fragmentation grenades are more than capable of dealing with lightly armed opposition. Against better equipped forces and armored vehicles, Loki operators will usually take advantage of their superior speed to escape.

Maneuver:	+1 (MP: 5)
Total MP Cost:	174
Total Money Cost:	\$31,752 (w/o handheld weapons)
Special Abilities:	
Headlights (MP: 1), NBC Filter (MP: 2), Stealth (Infrared +2, MP: 6), Secure Tactical Radio (MP: 4), Infrared (1 km) (MP: 3)	
Mecha Defects:	
Optimized Armor (Front, MP: -10), Reduced Endurance (5 hours, MP: -20), Start-Up Time (1 minute, MP: -2)	

"MORTE" TERROR WEAPON

Simply named after the death it brings, the Morte suit is a terror weapon, with no effort wasted in considering its long term durability. Many of those that put it on never intend to survive to take it back off, and some models even have welded-on access hatches. Produced by well-equipped terror groups, Morte suits are designed to survive attacks just long enough to cause massive casualties amongst civilian targets. Thick armor protects the operator from retaliation while a pair of shoulder hardpoints mount heavy weapons, with light vulcan guns, flamethrowers and grenade launchers being the most common. Defense is provided by a 5.5 mm rifle built into the left arm of the suit, while groups with more focused plans beyond simple terror often mount anti-tank rockets in forearm launchers. The suit has its own life support system, insulating the wearer from the effects of his own biochemical warfare attacks and giving the suit the ability to hide underwater to avoid detection.

Police forces hate attacks by Morte suits: beyond the immediate destruction, the suits are almost impossible to stop without heavy weapons that cause the kind of collateral damage that the Morte wearer is looking for. Morte operators are committed fanatics and will self-destruct rather than surrender. Often, the best police can hope for is the Morte operator to run out of ammunition and then kill themselves.

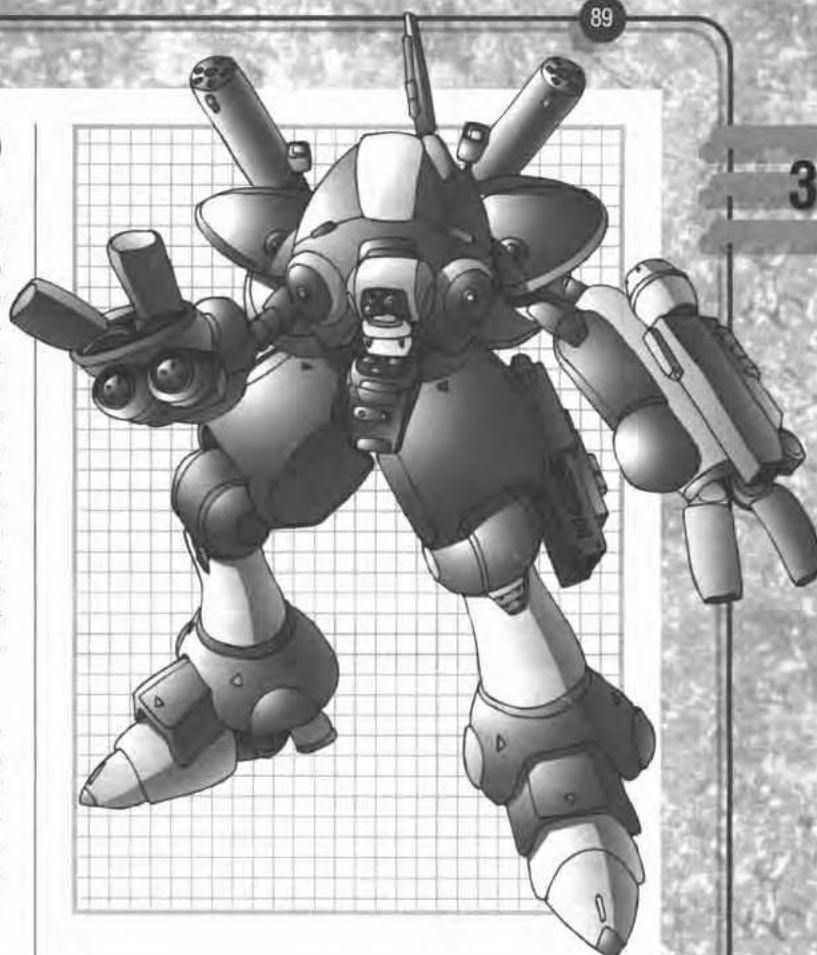
OGL Stat Block

Type:	Suit
Size:	Medium (9')
Hit Points:	26 (MP: 56)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	12 (MP: 160)
Defense:	10
Strength:	+5 (MP: 15)
Speed:	Land x1 (MP: 24)
Tactical Speed:	Land x1
Initiative:	0 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
7.5mm Vulcan Gun*	2d10	A	30m	100	2x Automatic, 2x Extra Ammo Hardpoint	—	110
7.5mm Vulcan Gun*	2d10	A	30m	100	2x Automatic, 2x Extra Ammo Hardpoint	—	11
LOSAT Rocket**	10d8	SS	45m	1	Armor Penetrating, Blast (3 m)	5x Less Ammo, Short Range	3
5.5mm Rifle*	2d8	A	24m	50	Automatic	—	3

Note: * Ballistic Weapon, ** Blast Weapon



Maneuver:	0 (MP: 0)
Total MP Cost:	281
Total Money Cost:	\$51,200 (w/o hardpoint weaponry)
Special Abilities:	
	GPS (MP: 2), Headlights (MP: 1), Life Support (MP: 4), Secure Tactical Radio (MP: 4), Infrared (2 km, MP: 6)
Mecha Defects:	
	Reduced Endurance (9 hours, MP: -20), Start-Up Time (1 minute, MP: -2)

GREAT MACHINE DECANDER

The year is 1968. The discovery of ancient supertechnology has transformed the world. A power previously undreamt of has made possible huge developments in medicine, materials, energy production, transport and the sciences. The world seems to be on the edge of a new golden age, where all knowledge and comfort will be only a button push away. But there are those that would use these ancient secrets for their own selfish purposes. Criminals, nations and others use this knowledge to steal, murder, wage war and commit even more nefarious acts, causing death, destruction and anguish around the globe. Only the secret organization REVENANT can stand up against the encroaching darkness, and where ever evildoers appear they call forth Great Machine Decander to battle against them!

THE REBIRTH OF OLMONUS

Doctor Marcus Soong was widely ridiculed by his colleagues in the field of archaeology for his theories regarding the existence of an ancient civilization with technology and culture far in advance of our own. Working from legends mentioned in ancient writings and his own suppositions Doctor Soong postulated that a great nation called Olmonus thrived almost 100,000 years ago. The Olmonians wielded almost godlike power and lived in peace and harmony, with cities around the world. Angered by the closed minded attitudes of his contemporaries, Soong spent years searching for solid evidence to support his theories.

Still, none were more surprised than he was when he discovered a completely intact Olmonian site deep underground in southern Mexico in 1952. Although it consisted of only three small chambers, it was undeniably very old and very advanced, and news of its discovery catapulted Soong from laughingstock to darling of the archaeological community. Additionally, after deciphering part of the Olmonian script, Doctor Soong was able to discover the location of several other Olmonian installations around the world.

Soong began his research into Olmanus in earnest, and soon had a working knowledge of some of their simpler technologies. Realizing that the world could benefit greatly from this knowledge, Soong founded the GHOST (Global Harbringer of Olmonian SuperTechnology) corporation in 1957 to develop Olmonian technology and turn it into products that could be used in the modern world.

Soon, Olmonian technology had worked its way into every facet of everyday life, and Soong became exceedingly rich and famous.

He returned to his research, secure in the knowledge that he was helping his fellow man. He explored several other Olmonian facilities, all of them deep underground or otherwise protected from the years and prying eyes. Doctor Soong was able to determine their purpose as warehouses, storage facilities, mining complexes and monitoring stations. Very little information about wider Olmonian society and culture remained, and Doctor Soong began to wonder why other Olmonian sites, undeniably robust enough to withstand the ages, had not survived. What had caused the end of the Olmonian civilization? Further research yielded little in the way of answers.

Taking a break from his studies, Doctor returned his attention to the outside world, where he was horrified to discover a possible answer to his questions. Humans, despite possessing the power to ensure peace and prosperity for all, were exploiting that power for personal gain and advantage at the expense of others. Doctor Soong could see that humanity could very well destroy itself through the use of advanced technology if not guided away from that path.

In 1966, with the help of others who shared his fears, he created the REVENANT organization to save humanity from itself and built the super robot Great Machine Decander as humanity's champion. Today, the future looks brighter, but Doctor Soong knows a long fight still lies ahead.

FACTIONS

The world of 1968 has been much changed by the introduction of Olmonian technology. Olmonian materials make the construction of larger and taller buildings easier, and cities everywhere reach towards the skies. Small aircraft, helicopters, ornithopters and airships have become much more common, and even short range jet packs are available to those rich and foolhardy enough. Computers and other electronic devices built with Olmonian technology are just as large and bulky as those without, but are tens or hundreds of times more powerful. The Olmonians liked to think big, and many modern engineering works follow in their footsteps, with projects like huge gleaming hydro-electric dams, giant bridges connecting islands to the mainland and the diversion of rivers to irrigate formerly barren areas are on the drawing board or already being built, tended to by towering construction robots.

Olmonian technologies have made life easier, safer, healthier and more productive for people everywhere, and in turn people are happier and more optimistic. Earlier concerns about pollution and nuclear destruction have been soothed and most of the social problems of previous decades have been solved. The successor to the United Nations, the World Development League, provides a forum for the nations of the world to solve their differences peacefully.

Yet, despite all this, there are still those that crave power, money and notoriety. Sophisticated criminal networks seek to take what does not belong to them, countries still feud and make war on each other, and even supposedly responsible countries develop ever more powerful weapons. Their tasks are made easier, and the potential for destruction and human misery made greater, by Olmonian technology. REVENANT exists to stop this misuse, and its agents around the globe are busy every day pushing back this darkness.

REVENANT

Doctor Soong formed REVENANT with the stated aim of insuring Olmonian knowledge and science was used for the good of all people everywhere,

and not perverted to the cause of personal gain or destruction. Charismatic and persuasive when he needed to be, Doctor Soong recruited the best and brightest from around the world that shared his vision. REVENANT was soon in business infiltrating criminal syndicates, blowing the whistle on illegal military research and development and protecting civilians from technology gone wrong. REVENANT has no official status and its activities are technically illegal, but many law enforcement agencies find it in their best interests to cooperate with it. Regardless, REVENANT operates in secret, taking direct action or tipping off law enforcement and the public anonymously where needed.

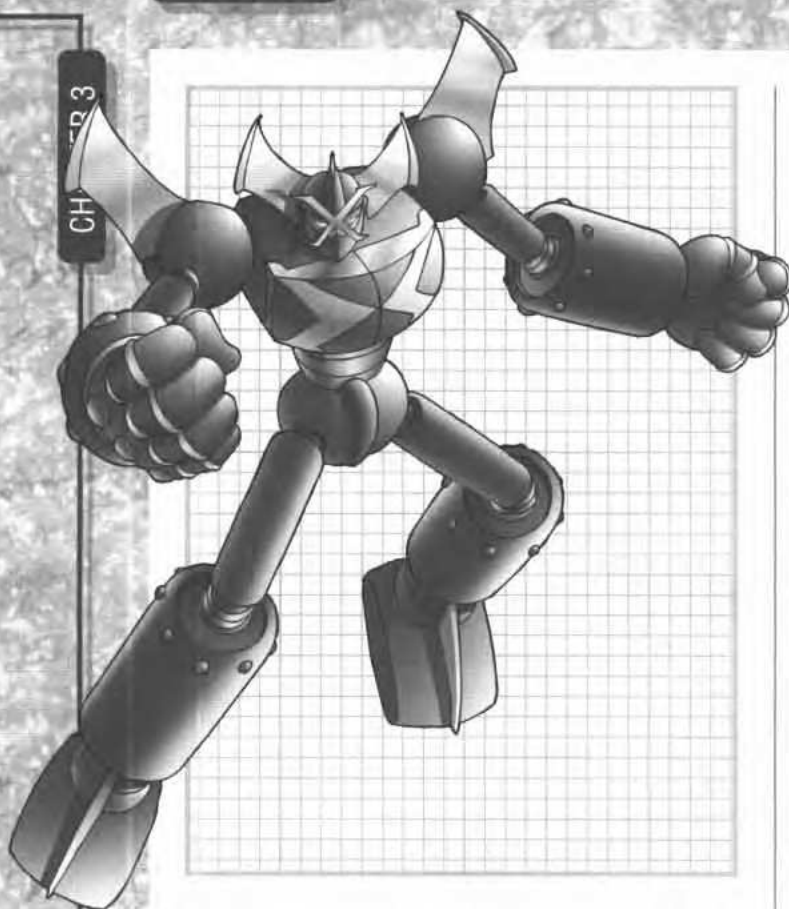
GHOST

GHOST has approximately one hundred agents worldwide, backed up by a few hundred support personnel, researchers, analysts and administrators. It is funded by Doctor Soong's own personal wealth and the resources of GHOST. Many REVENANT personnel have covers working for GHOST, and agents use GHOST facilities around the world, although GHOST itself is not aware of its connection to REVENANT. REVENANT operatives have access to almost any resource they need, from surveillance equipment to weapons and armor to scientific analysis laboratories. In dire circumstances or when events get out of control, REVENANT dispatches Great Machine Decander, confident in its ability to bring any situation to a decisive conclusion.

Other Uses

Great Machine Decander could be a rival to the Beast Lords, fighting the invaders with its own agenda and without concern for humans (or, it might be one of the invaders). Great Wing Pelonus could function as a paramilitary aerial patrol craft in the Phoenix Rising world, or perhaps as an extremely advanced flying wing prototype in the Gear Krieg setting.

Cruel Venom could be a Chaotic Evil Divine Guardian in the Guardians of Divinity setting, or a giant coal-powered Imperial mechanical snake in the Cities and Empire world.



GREAT MACHINE DECANDER

Great Machine Decander, named after the Olmonian god of justice, is Doctor Soong's most amazing piece of engineering and REVENANT's ultimate weapon. Although capable of flight when joined to Great Machine Pelonar, Decander is usually transported by aerial super-transporter in GHOST livery to avoid attention. Regardless, a squad of technicians, mechanics and pilots accompanies Decander wherever it goes.

Decander's armor and frame are made from an ultrahard Olmonian alloy, and it is powered by an advanced Olmonian mass reactor, the details of which are known only to Doctor Soong. Decander's fists and eyebeams are more than sufficient to deal with most targets; when more firepower is necessary, Decander's chest panel opens to reveal the Decander Cannon, a cluster of gun barrels ranging in diameter from 30 to 100 millimeters. Decander Chain is made from the same alloy as Decander's armor and can be used for anything from tying up a defeated enemy to supporting the weight of a collapsing tower. Finally, there is Hell Punch, Decander's weapon of last resort. Energy is drawn directly from the mass reactor to surround Decander's fist with a fiery nimbus of plasma, allowing the robot to punch through almost anything. Hell Punch is dangerous and places great stress on Decander, and is only used when no other option is available.

OGL Stat Block

Type:	Giant Robot
Size:	Colossal (Tall) (20.2 m)
Hit Points:	120 (MP: 40)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	30 (MP: 150)
Defense:	2 (MP: 0)
Strength:	60 (+25) (MP: 150)
Speed:	Land 128 kph (MP: 240)
Tactical Speed:	Land 214 m/turn
Initiative:	-6 (MP: 10)
Maneuver:	-6 (MP: 10)

Total MP Cost: 1370

Total Money Cost: \$75,076,000

Special Abilities:

Chobham Armor (MP: 30), Secure Long Range Radio (MP: 4), Life Support (MP: 20), Global Meta-Scanner (3 km) (MP: 30), Searchlight (MP: 2), Secure Tactical Radio (MP: 4), Magnetic Sensor (1 km) (MP: 6), GPS (MP: 2), Stabilization Gear (MP: 10)

Exotic Abilities:

Merging (Jet Decander) (MP: 470)

Mecha Defects:

Noisy (MP: -5)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Decander Cannon*	8d12	S	40m	15	Semiautomatic, Concealed, Volley	Arc of Fire (Fr), Less Ammo, 2x Short Range	5
Decander Chain**	2d10	SS	n/a	n/a	Flexible, Handheld Muscle Powered	Melee (Colossal)	3
Eyebeams***	6d10	SS	90m	n/a	Unlimited Ammo	Arc of Fire (Fr)	132
Hell Punch****	2d20	1	n/a	n/a	2x Armor Penetrating, Muscle Powered	Arc of Fire (Fr), Melee (Huge), Slow Firing, Unreliable	3

Note: * Ballistic Weapon, ** Bludgeoning Weapon, *** Laser Weapon, **** Fire Weapon

GREAT WING PELONAR

Named after the Olmonian demi-god of flight, Great Wing Pelonar serves as a high speed transport for REVENANT agents. REVENANT actually owns ten of these aircraft, which are almost identical in appearance to the civilian Ewigkeit aircraft manufactured by GHOST. They are capable of transporting up to ten people plus cargo anywhere in the world, and both land and take off from any flat surface. The design of its jet engines renders it much quieter than normal planes, and its stealth systems allow it to appear almost invisible to radar and other sensors when necessary. Defense is provided by a pair of pop-up laser turrets. The passenger section can be quickly switched out for a larger cargo bay, emergency medical bay, technical workshop or multi-disciplinary science laboratory to provide support to agents in the field.

Pelonar's greatest ability, however, is to combine with Great Machine Decander to form Jet Decander. Attaching to the back of Decander, Pelonar's engines are powered directly by Decander's mass reactor, giving them unlimited endurance and enough thrust to propel Jet Decander at supersonic speeds. However, the added mass does make Jet Decander less agile on the ground. Due to the dangers involved, it is not recommended for passengers to occupy Pelonar during the transformation to Jet Decander.

OGL Stat Block

Type:	Vehicle
Size:	Gargantuan (Wide) (15.4 m)
Hit Points:	40 (MP: 100)
Occupancy:	2 operators, 8 passengers, 2000 kg cargo (MP: 72)
Hardness:	10 (MP: 50)
Defense:	4 (MP: 0)
Speed:	Air 2200 kph (MP: 1375)
Tactical Speed:	Air 3674m/turn
Initiative:	-4 (MP: 0)
Maneuver:	-4 (MP: 0)
Total MP Cost:	2258

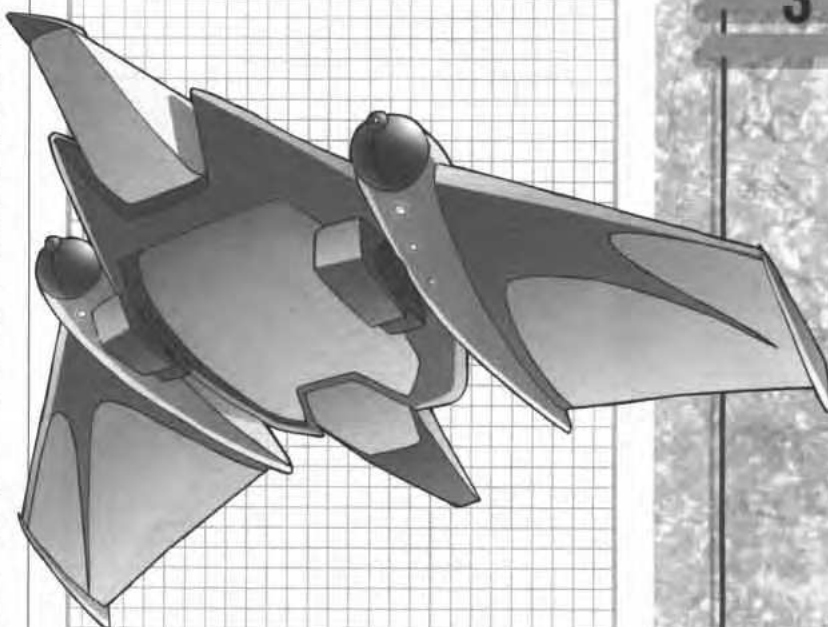
WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Laser Turret *	4d12	SS	120m	30	—	—	52
Laser Turret *	4d12	SS	120m	30	Different Gunner	—	52
Note: * Laser Weapon							

VARIANTS

JET DECANDER: Great Machine Decander merges with Great Wing Pelonar to form Jet Decander.

Stat Changes to Decander (previous page): add Speed: Flight 2000 kph/3340 m/turn (MP: 3750); change Hit Points to 160 (MP: 120), Speed Land 96 kph/160m/turn (MP: 180), Initiative: -8 (MP: 0), Handling: -8 (MP: 0) (Total MP Cost: 4700)



Total Money Cost: \$50,985,640

Special Abilities:

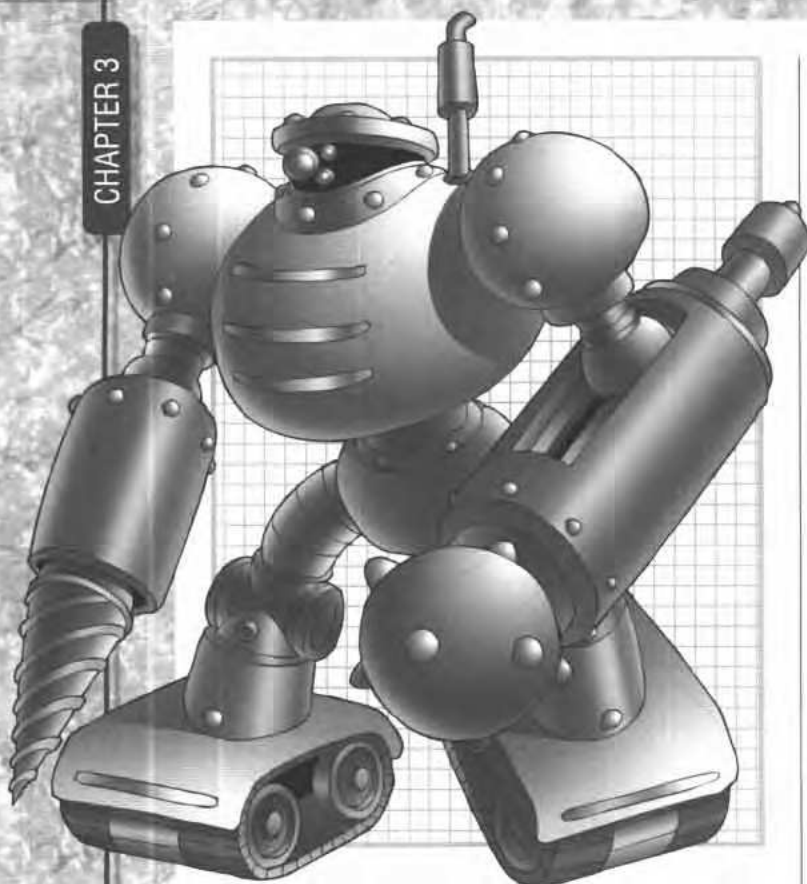
GPS (MP: 2), Secure Long Range Radio (MP: 4), Life Support (MP: 16), Global Meta-Scanner (3 km) (MP: 30), Radar (10 km) (MP: 20), Searchlight (MP: 2), Secure Tactical Radio (MP: 1), Advanced Remote Control (MP: 10), Stabilization Gear (MP: 10), Stealth (Infrared +4, Radar +4) (MP: 48)

Exotic Abilities:

Merging (Jet Decander) (MP: 470)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (8 hours, MP: 20), Start Up Time (10 minute, MP: -4)



SAMSON II

Commonly seen at construction sites, the Samson II is designed to support the massive engineering efforts of the modern age. Manufactured by Meridian Heavy Industries, hundreds of Samson IIs are in service around the world. Besides its enormous strength and its short range eyebeams for cutting and welding, the Samson II can be fitted with a variety of modular construction and engineering tools. Available equipment includes a hydraulically powered piledriver arm for demolition and foundation work and the drill arm, whose diamond-tipped fingers come together at a point and rotate to form a high power drill, as well as digging arms, saws and cable laying tools.

Unfortunately, the Samson II is also a favorite of the criminal fraternity. Beyond simple destructive rampages, Samson IIs have been used for bank and armed car hold ups, hijackings, insurance scams, intimidation and even assassination. Most are stolen from construction sites and then abandoned after the criminal act, but some criminal syndicates have the resources to own and maintain Samson IIs on a permanent basis, usually customizing them with the addition of weapons and armor. Needless to say, rogue Samson IIs represent a huge problem for law enforcement agencies, who must resort to commandeering robots themselves or relying on military support.

OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall) (15.4 m)
Hit Points:	60 (MP: 40)
Occupancy:	1 operator, no cargo (MP: 10)
Armour Hardness:	12 (MP: 60)
Defense:	6
Strength:	40 (+15) (MP: 90)
Speed:	Land 24 kph (MP: 18)
Tactical Speed:	Land 40m/turn
Initiative:	-4 (MP: 0)

Maneuver:	-4 (MP: 0)
Total MP Cost:	223
Total Money Cost:	\$99,458
Special Abilities:	
	Cabin Climate Control (MP: 4), Long Range Radio (MP: 2), Searchlight (MP: 2)
Mecha Defects:	
	Noisy (MP: -5), Reduced Endurance (7 hours) (MP: -20), Start Up Time (1 minute) (MP: -2)

WEAPONS:

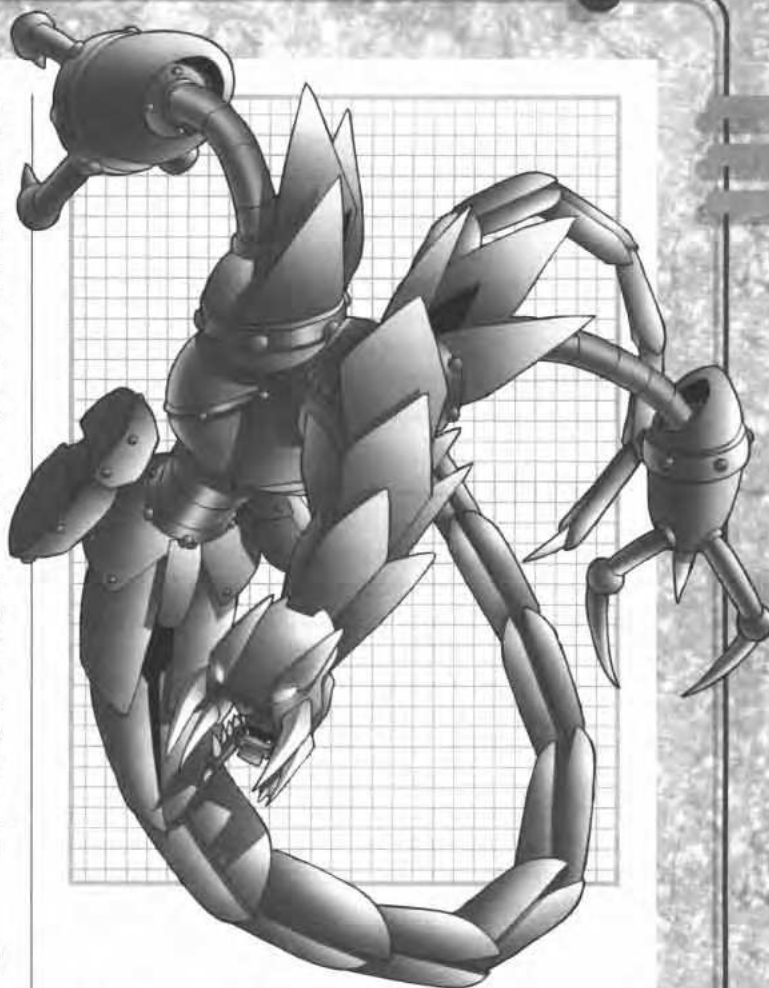
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Eyebeams*	4d10	SS	15m	30	Armor Penetrating	Arc of Fire (Fr), 2x Short Range	22
Piledriver Punch**	2d12	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Huge)	1
Drill Punch***	2d8	SS	n/a	n/a	Armor Penetrating, Muscle Powered	Arc of Fire (Fr), Melee (Huge)	1

Note: * Laser Weapon, ** Bludgeoning Weapon, *** Piercing Weapon

CRUEL VENOM

Part of a depressing new trend, Cruel Venom is a robot designed purely to commit criminal acts, with a destructive power far beyond most military vehicles. Capable of transforming between a humanoid form and a giant robotic snake, it is covered in iridescent scales that reflect the effects of most energy weapons. In humanoid form it can attack targets at a distance with its telescopic arms, while its snake form crushes its enemies with its body, wrapping around them while delivering a huge electric shock (the illustration at right shows it in mid-transformation). Its bite injects the target with a concentrated acid, causing them to disintegrate from the inside out and gives Cruel Venom its name.

The original Cruel Venom was built in 1966 by Professor Saltus and was destroyed the same year by Great Machine Decander while attempting to rob a Chinese gold repository. This may have been the end of Cruel Venom, except that one of the Professor's lieutenants decided to fund his early retirement by selling the blueprints for the robot to several other crime syndicates. The Professor had the traitor executed shortly afterwards, but copies of Cruel Venom have since appeared in several places around the globe. Angered, Professor Saltus is rumored to be working on an improved version called Cruel Viper.



OGL Stat Block

Type:	Giant Robot
Size:	Colossal (Tall/Long) (19.8 m)
Hit Points:	100 (MP: 0)
Occupancy:	1 operator, no cargo (MP: 10)
Armour Hardness:	20 (MP: 100)
Defense:	2 (MP: 0)
Strength:	50 (+20) (MP: 120)
Speed:	Land 60 kph/Land 20 kph (MP: 75/25)
Tactical Speed:	Land 100m/Land 33m
Initiative:	-8 (MP: 0)
Maneuver:	-8/-6 (MP: -10)
Total MP Cost:	448

Total Money Cost: \$4,014,080

Special Abilities:

Ejection Seat (MP: 3), GPS (MP: 2), Secure Long Range Radio (MP: 4), Life Support (MP: 20), Global Radar (3 km) (MP: 12), Reflective Coating (+10) (MP: 20), Searchlight (MP: 2), Secure Tactical Radio (MP: 4), Infrared (2 km) (MP: 6)

Exotic Abilities:

Transformation (Cruel Venom/Cruel Constrictor) (MP: 60)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (12 hours) (MP: -20), Start Up Time (1 minute) (MP: -2)/Same, plus No Arms (MP: -50)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Cruel Punch*	4d10	1	6m	n/a	Muscle Powered	Arc of Fire (Fr), Thrown Weapon (Huge)	2/-
Shocking Constriction**	8d6	SS	n/a	n/a	Flexible, Muscle Powered	Melee, Static	-37
Venom Fang***	4d12	SS	n/a	20	Burning	Arc of Fire (Fr), Melee (Huge)	35/4

Note: * Bludgeoning Weapon, ** Bludgeoning/Electrical Weapon, *** Piercing/Acid Weapon

TMA: TRABAJADORES MÓVILES ARMADOS

Greedy corporations, despotic rulers and criminal organizations will always lust for power; unfortunately, many of these situations are "too minor" or "too politically inconvenient" for a government to send in its troops, and the victims of incidents too often have little recourse. In a world in which giant robots have become reality, the villains will find new tools with which to carry out their schemes. Fortunately for the oppressed, so too will the police and paramilitary organizations who aren't afraid to come to their rescue.

HISTORY

At the end of the 20th century, a staple of classic Japanese science fiction was steadily becoming science fact: a number of corporations around the world were developing the technology that would pull giant robots from the pages of young boys' comics and into mainstream commercial and industrial reality. At the forefront of this research were two companies in particular: Mänty Technologies, Inc., a Finnish forestry and mining manufacturer that had created a multi-legged walking vehicle for harvesting trees with minimum impact on forests; and Kitsuyama Motors, a Japanese automotive manufacturer that had developed autonomous bipedal walking technology.

During the first few years of the 21st century, the two companies pooled their resources briefly to combine their technologies for mutual advantage. Distrust and paranoia led to the breakdown of the relationship by the year 2006, however, and they became bitter rivals. Industrial espionage and endless litigation characterized the fierce corporate warfare that resulted. On the sidelines of this war was a little-known Mexican automobile manufacturer, Lobopiedra Automotor, which had some of the best lawyers in North America and an eye for the future. In 2005, Lobopiedra had licensed the walking technology from the combined Finnish-Japanese project, and when the latter fell apart, Lobopiedra was left standing with the rights to develop industrial walkers with virtually no strings attached to either Mänty or Kitsuyama. In 2009, the world's first mass-produced bipedal industrial vehicle stepped off Lobopiedra's assembly line in Hermosillo, Sonora: the TM-01 Granjero ("Farmer"), designed for work in the

agricultural sector. By 2011, dozens of manufacturers all over the world were tooling their assembly lines for the production of their own walkers. While each manufacturer had its own term for its product, the world referred to them as a whole as "TMs" or "Trabajadores Móviles" ("mobile workers") after Lobopiedra's designation.

As the use of TMs became more and more widespread around the globe, new kinds of trouble began to brew. These problems were particularly pronounced in developing countries where lax attention from the governments of the world's post-industrial nations meant greedy corporations and despotic local rulers could literally get away with murder. Outfitting a bulldozer for terror was somewhat difficult (though not impossible); outfitting a five-meter tall humanoid walking machine for the same purpose was trivial, especially when its humanoid legs provided unprecedented mobility and its humanoid arms provided unprecedented adaptability. Many of these developing nations literally became battlegrounds for a new kind of warfare in which TM-equipped "security" forces from one corporation engaged their counterparts from a rival over local resources and contracts, such as deregulated water rights or cellular phone airwaves. These battles gave rise to the TMA, the Trabajador Móvil Armado or "armored mobile worker," which consisted of a TM with welded-on armored plating and cheap military surplus weaponry. Caught in the middle of these battles, as always, were the innocent locals, and something needed to be done to protect them.

The post-industrial governments refused to step in, embroiled as they were with their own self-interests and internal problems. It was up to the beleaguered United Nations to step in and mitigate

the crisis. Unfortunately, because many of the post-industrial governments had strong ties to the offending corporations or sat on the U.N. Security Council as permanent members, U.N. forces could rarely intervene. As soon as a measure for intervention would come up in the General Assembly, it would be shot down by a single veto from the Security Council. It is now 2017, and small, independent TMA teams provide what protection they can — and what protection their clients can afford.

FACTIONS

The world is rife with corporations, governments and criminal organizations that would use TMAs to exploit the populace. Few of these activities make the headlines in global news organizations; indeed, many of the corporations that abuse their power in the poorer nations are beloved icons in the richer, more metropolitan ones, and the occasional reports of their vice are scoffed at or ignored by the majority of the people who live there. Fortunately, while corruption is widespread, so is virtue, and several paramilitary security organizations offer their services to those in need.

Troubadour Security Services

Its name a corruption of "trabajador," Troubadour Security Services is one of the better-known TMA security organizations in the world. Headquartered in the archipelago of the Kingdom of Tonga in the South Pacific Ocean, TSS employs approximately 1350 people. Many of these are support technicians and transport crew for the firm's 120 TMAs and their pilots. TSS operates in Tonga at the grace of the tiny nation's king, who enjoys the slight boost to his kingdom's economy by its presence. The firm and the king walk a thin line, however: if it antagonizes a permanent member of the U.N. Security Council too greatly, the odds that TSS will be branded a terrorist organization are high. Such an event would put the kingdom in great peril, forcing the king to take action against TSS.

The Troubadours currently operate in over twenty theaters around the world. Six are defensive operations in which they protect villages from local warlords and drug cartels. The rest are search-

and-destroy operations carried out against the same. The firm's fees are reasonable considering the risks its members take and the materials required to support them, but they are still quite expensive, and those who need them the most often cannot come by the necessary funds. To alleviate this situation, TSS maintains contact with a handful of wealthy philanthropists who are willing to help subsidize their operations.

United Nations Peacekeeping Operations

Most calls for U.N. intervention in what have come to be known as "TMA crises" end without resolution, being too politically "hot" or, sadly, too politically insignificant for the sitting nations of the Security Council to agree collectively to take action. Still, some crises cannot be ignored, and the Council has, from time to time, authorized U.N. military or police intervention in the form of a peacekeeping operation. Only the 15-member Security Council can authorize such activity, however, and it is subject to veto by any of the five permanent members — the General Assembly can only call for such measures.

The U.N. does not possess a military force; each peacekeeping operation is created from resources committed by participating states. TMA operations typically involve a few dozen units from two or three countries and the requisite support personnel to keep the walkers at operational readiness. Conventional troops with armored personnel carriers and infantry fighting vehicles usually augment the TMA troops. The TMAs themselves sometimes pull double duty as light military units and civilian police support.

The Black Diamond Cartel

On the opposite side of the law from agencies such as TSS is the ruthless Black Diamond Cartel, a notorious criminal organization that operates primarily in the smaller, developing countries of South America. The Black Diamonds specialize in drug trafficking, smuggling and slavery, but they also offer their services to small-time warlords and other criminal gangs. Entire villages have vanished beneath the Black Diamonds' armored mechanical feet, the adults brutally murdered and the children sold into slavery or worse.

CAMPAIGNS

Campaigns in the world of the *Trabajadores Móviles Armados* will tend to be somewhat heroic, with the oppressed standing up to their oppressors while most of the world turns a blind eye. Action and intrigue abound: a defensive battle against a group of marauders can turn into an international scandal in the blink of an eye with the discovery of an important clue as to their backers, or it might be lost forever in a cover-up operation conducted by men in unmarked, black helicopters.

TMA pilots obviously make desirable characters, since they will be where most of the action will be found. Conventional troops and intelligence agents will also find a calling in this setting, augmenting (or opposing) the TMA combatants and gathering information about the larger picture in which a handful of isolated incidents are set. Given the nature of many of the TMA forces and their missions — in the remote places of Earth, far from the comforts of home — even the support personnel for a walker will need military or police training.

Campaign Seed: Water Rights

New Millennium Consumer Products, Inc. — a global business conglomerate headquartered in Western Europe — has a small but important manufacturing plant located in South America. Political unrest in the region has sparked several minor rebellions, and NMCP is concerned about the safety of its holdings. To this end, it has hired a TMA security service to protect its plant from criminal and guerilla forces.

As predicted, hostile forces arrive in the dead of night to destroy the plant. During the fighting, the player characters make an alarming discovery: it is not common criminals who have attacked, but disaffected citizens. Their government's recent deregulation of its public water works has resulted in a terrible crisis. When the utilities were deregulated, NMCP purchased the water works contract, and now it charges exorbitant water prices that most of the locals cannot pay. Whole villages have had their water supplies shut off, and the resulting health hazard has sharply increased

the rate of outbreak of diseases such as cholera within their populations. The villagers have done their best to bargain with NMCP representatives, but their pleas have fallen on deaf ears. It happens that the plant the PCs have been assigned to protect is actually one of NMCP's water works substations. At the end of their ropes and immeasurably desperate, the villagers are determined to occupy the plant and restore the flow of water to their homes and their families.

The PCs have a difficult decision to make: if they side with their employer, they may be responsible for the deaths of hundreds of innocent victims of corporate greed. On the other hand, if they side with the villagers, they will be breaking their contract and may have trouble finding work in the future — assuming they live long enough for that to be a problem. For surely once NMCP discovers the PCs' change of allegiance, it will hire forces to teach them — and the villagers — a lesson. Worse, the conglomerate has much of the world's media on its side, and it has powerful allies within the governments of many nations who owe its CEOs more than a few favors.

Adapting to Your Own Campaign

It should be fairly easy to adapt *Trabajadores Móviles Armados* to an existing science fiction or near-future campaign. It is not driven by global warfare or the arrival of an interstellar civilization, so its introduction can be fairly innocuous if perhaps unusual. Because the TMA mecha themselves are primarily civilian utility vehicles rather than military war machines, they can be quite useful in an existing giant robot setting that is already richly populated with combat walkers. They could easily be Work Gears for *Heavy Gear*, for example, or large civilian exo-suits for *Jovian Chronicles*.

Mecha Design

The typical *Trabajador Móvil* is a bipedal humanoid walking robot. It stands five meters tall in order to make use of existing transportation infrastructure. An operator — referred to variously as a driver or a pilot — occupies a cockpit in the upper half of the machine's torso. The controls are simple and robust, requiring about the same amount of skill to operate as those of an automobile. An acceleration pedal controls the vehicle's speed, and a simple joystick controls its direction. To brake, the driver can simply let up on the acceleration pedal; pulling back on the joystick while moving forward will bring the machine to a rapid halt. A balance computer coordinates the motion of the TM's legs and arms (if any). Some TMs have open cabs, and others have entirely enclosed cockpits. In the latter case, a sensor cluster contained in a head-like mount sits atop the vehicle's shoulders, accentuating the humanoid appearance.

There are three broad categories of TM. The general TM itself is a rugged industrial vehicle that commonly has very little practical armor. Where TMs are used for combat, they are usually augmented with welded-on plates of sheet metal. Specialized light-duty combat models, the *Trabajadores Móviles Armados* (TMAs), feature factory-installed armor plating and bulletproof glass. These are commonly used by police and security forces. SMAs — *Soldados Móviles Armados*, or armored mobile soldiers — have begun to be used by several national military units. With much heavier weaponry, more powerful engines and thicker, stronger armor, an SMA would pose a serious threat to a TMA.

ICE/EM Hybrid Engine

Most TMs use a hybrid motive system that combines a gasoline internal combustion engine with an electric motor. A governor computer regulates the output and distribution of energy for each according to the vehicle's needs. When the machine is idle, the combustion engine shuts off, and the electric motor generates all of the power. Even at low speeds, especially over short distances, it is the electric motor that drives the

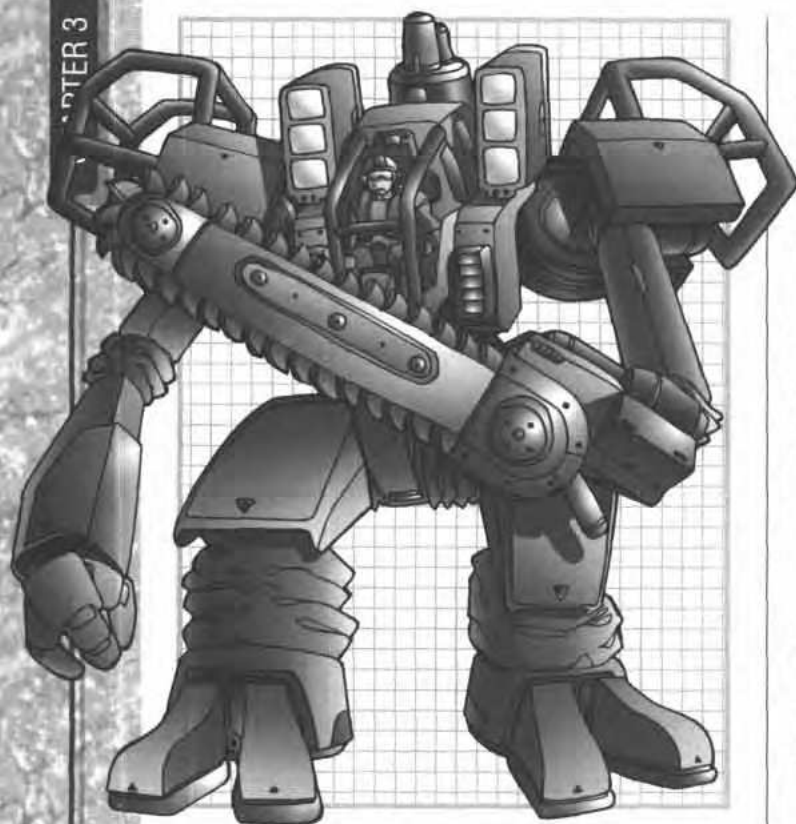
vehicle. The engine will switch on from time to time to recharge the battery or to augment slightly the electric motor's output. At moderate speeds, the two work in tandem to provide power, and at high speeds, the combustion engine is the main power source. Certain operations, such as the flexing of the walker's leg and arm joints, normally generate waste heat; the hybrid system reclaims part of this energy and converts it into electricity to recharge the battery. The overall process is clean, energy-efficient and environmentally friendly.

Weaponry

As security and police vehicles, TMAs are usually outfitted with moderate, low-power weaponry designed to disable a hostile vehicle or disperse an unruly crowd. In addition to keeping casualties to a minimum and safeguarding innocent bystanders, such weapons minimize collateral damage to the regions the TMAs are deployed to protect. Water cannons, rubber pellet shotguns, net guns and beanbag launchers are common non-lethal weapons, and electromagnetic pulse grenades and high-voltage "stun guns" are usually employed against vehicles. The latter disrupt the target vehicle's electrical systems, rendering it useless.

Sometimes, however, heavier firepower is needed. Standard lead bullet projectile weapons such as pistols and rifles exist, and a quick change of ammunition can turn a rubber pellet shotgun into a brutal anti-personnel weapon or a beanbag launcher into a grenade rifle. Depending on the circumstances, a TMA might also mount a missile or unguided rocket system, but this arrangement is rare with police and security forces. It is far more common with outlaw TMs and military SMAs.

Finally, purpose-built melee weapons are fairly common; they tend to be extremely cheap and reasonably effective while at the same time requiring no costly ammunition. Impromptu melee weapons are often within arm's reach, especially amongst hastily converted industrial TMs, for which a tool might easily be employed as a bludgeoning weapon if all else fails.



MODEL 13 DEEPWOODS

Mänty Technologies' Model 13 Deepwoods walker is the direct, bipedal descendent of the original multi-legged walking forestry machine developed at the turn of the century. Equipped with a large, heavy-duty chainsaw, the Deepwoods is used in logging and forest clearing and fire-fighting operations. Its free hand can be used for extra stability and balance and to haul fallen trees or branches out of its way or back to a waiting processing station. Its legs give the machine the ability to operate easily in the rough, uneven terrain that marks many natural forests. Because roads need not be built to support its operation, the vehicle can perform its tasks with minimal impact on the environment.

The Deepwoods is a wilderness vehicle, and it is almost never seen in an urban setting. It is uncommon to find one being used by outlaws, but because it is usually stationed in remote places with an abundance of cover, it makes a particularly easy target for a criminal element looking to "liberate" a piece of heavy machinery. Sometimes the chainsaw is left in place for its sheer intimidation factor, but more often, it is removed, allowing the machine to sport rifle-like weapons. Its open-air cockpit can be a liability, however, and it is rarely left without additional armor plating.

OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 5.9 m)
Hit Points:	35 (MP: 50)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	10 (MP: 50)
Defense:	9 (-1 size)
Strength:	32 (+11, MP: 66)
Speed:	Land 50 kph (MP: 31)
Tactical Speed:	Land 85 m
Initiative:	-3 (MP: -10)
Maneuver:	-2 (MP: -5)

Total MP Cost:	177
Total Money Cost:	\$62,500
Special Abilities:	
GPS (MP: 2), Headlights (MP: 1), Long Range Radio (MP: 2)	
Exotic Abilities:	
None	
Mecha Defects:	
Noisy (MP: -5), Open (MP: -20), Reduced Endurance (4 days, MP: -15)	

WEAPONS:

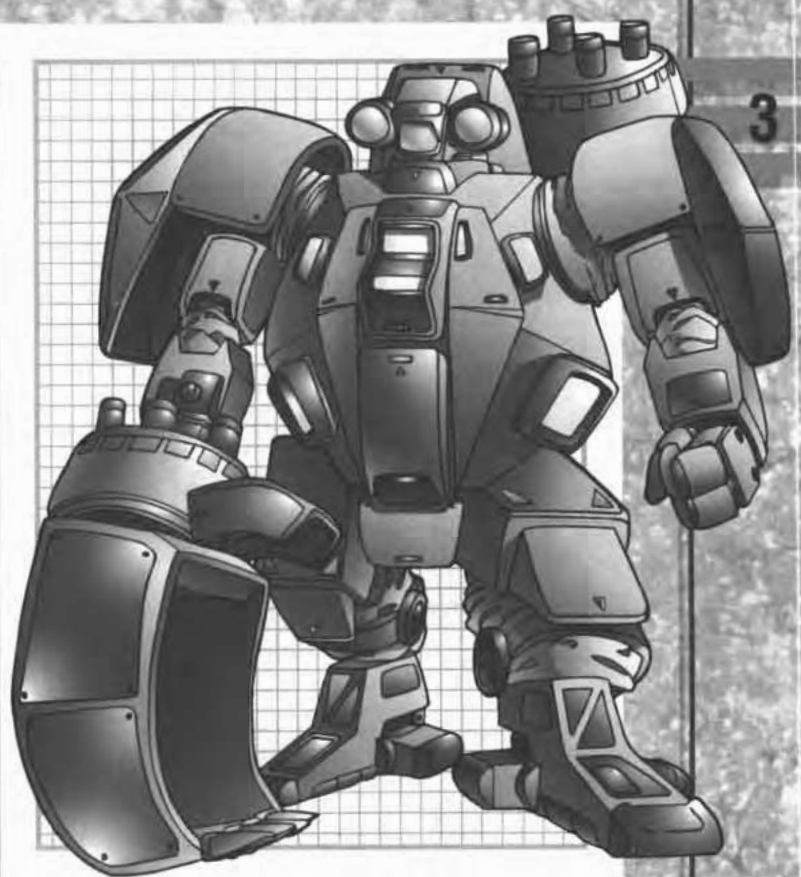
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Chainsaw	3d8*	SS	—	—	Muscle-Powered	Melee (large weapon)	20
(Opt.) Axe	2d6*	SS	—	—	Increased Critical (x3), Muscle-Powered	Melee (large weapon)	14
(Opt.) 20mm Machine Pistol	4d10** A		60 m	30	Automatic	—	66
(Opt.) Riot Shotgun, Metal Slug	4d10** SS		30 m	15	—	Low Ammo, Short Range	22
(Opt.) 52mm Rocket Pack	7d8*** A		40 m	24	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	126

* slash, **ballistic, ***blast

MODEL 15 DEEPROCK

The Mänty Technologies, Inc., Model 15 Deeprock is used for surface mining operations such as strip mining, quarrying and mountaintop removal. Ironically, despite what its name might imply, the Deeprock's five-meter height precludes it from entering most underground mines, although it is often employed in the construction of large tunnels. It features oversized manipulators that aid in moving large masses of earth or rock much like a loader shovel. These earth-moving manipulators are actually glove-like attachments that fit over the vehicle's true manipulators, which are as adaptable as any other TM's mechanical hands. Its manipulators and legs are powerful enough for the machine to lift and carry several tons of rock. When doing so, its hybrid engine operates solely in internal-combustion mode, which noticeably shortens the Deeprock's operational cycle.

Because falling rock is a constant danger in its typical work environment, the Deeprock is heavily armored, and its crew compartment is one of the safest found on a Trabajador Móvil. This feature makes it quite attractive for use as a security or paramilitary unit, and Mänty markets it as such, sans the earthmoving "gloves." In this configuration, it comes with a large shield and a machine pistol.



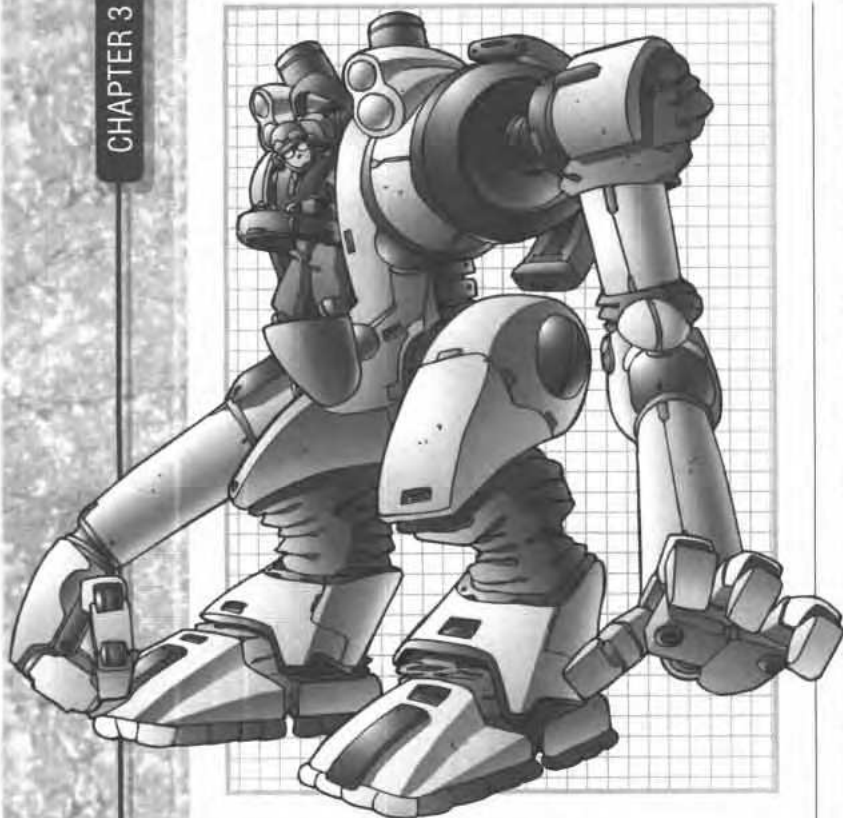
OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 5.8 m)
Hit Points:	40 (MP: 60)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	14 (MP: 70)
Defense:	9 (-1 size)
Strength:	40 (+15, MP: 90)
Speed:	Land 50 kph (MP: 44)
Tactical Speed:	Land 85 m
Initiative:	-3 (MP: -10)
Maneuver:	-2 (MP: -5)

Total MP Cost:	249
Total Money Cost:	\$124,000
Special Abilities:	
Headlights (MP: 1), Long Range Radio (MP: 2), Low-Light Optics (1 km, MP: 2)	
Exotic Abilities:	
None	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (1 day, MP: -20)	

WEAPONS:							
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Earthmoving Glove	1d6*	SS	—	—	Muscle-Powered	Melee	5
Earthmoving Glove	1d6*	SS	—	—	Muscle-Powered	Melee	5
(Opt.) 20mm Machine Pistol	4d10** A	60 m	30	Automatic	—	—	66
(Opt.) 52mm Rocket Pack	7d8*** A	40 m	24	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	—	126

*bludgeon, **ballistic, ***blast



AK-392 STEEPLEJACK

Although Kitsuyama Motors' early efforts at producing an industrial walking vehicle were stymied by its legal battles with Mänty Technologies, Inc., its flagship product, the AK-392 Tobishokunin, is the world's top-selling construction walker. Better known in the West as the Steeplejack, it is a standard, non-armored Trabajador Móvil ("aruki" in Japanese, from the words "aruku," "to walk" and "kikai," "machine"). Unlike a real steeplejack, the TM cannot usually operate at lofty heights: its size is too great for it to move around safely in most such environments. It does feature a pair of extra-long manipulator arms, however, that allows it to reach much higher than other TMs and which provides it with greater lifting leverage for heavy loads. These factors, combined with Kitsuyama's aggressive marketing campaign, have given it a distinct advantage over rival products.

Steeplejacks are popular vehicles for warlords and freedom fighters alike. Their ready availability at construction sites makes their acquisition relatively easy, and adding armor plating — particularly around the open-air cockpit — and weapon systems is a simple conversion. Even without automatic weapons, the machine is not helpless: the oversized arms pack an enormous punch, and they can grapple and flip most conventional ground vehicles, including a light tank.

OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 5.9 m)
Hit Points:	30 (MP: 40)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	10 (MP: 50)
Defense:	9 (-1 size)
Strength:	44 (+17, MP: 102)
Speed:	Land 60 kph (MP: 38)
Tactical Speed:	Land 100 m
Initiative:	-2 (MP: -5)
Maneuver:	-1 (MP: 0)

Total MP Cost:	196
Total Money Cost:	\$76,500
Special Abilities:	
Headlights (MP: 1)	
Exotic Abilities:	
None	
Mecha Defects:	
Noisy (MP: -5), Open (MP: -20), Reduced Endurance (2 days, MP: -15)	

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
(Opt.) Club	1d8*	SS	—	—	Muscle-Powered	Melee	7
(Opt.) 20mm Machine Pistol	4d10** A	60 m	30	Automatic	—	—	66
(Opt.) 52mm Rocket Pack	7d8 *** A	40 m	24	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	—	126

*bludgeon, **ballistic, ***blast

AK-383/Z Guardman

Kitsuyama Motors' AK-383/Z Guardman is a relatively inexpensive TMA designed for base or compound security rather than civilian or light combat duty. As such, the Guardman is often seen standing watch at warehouses and manufacturing plants, in Japan and abroad. Abroad, the walker is produced and marketed through Kitsuyama's North American affiliate, Kitsuyama-N.A., which has branches in Canada, the U.S. and Mexico. The unit is sold with a small-caliber automatic machine pistol capable of stopping other light armored vehicles, which is usually sufficient for its role. It carries an oversized riot shield for self-defense, but it is not a crowd-control unit by any measure. The lack of non-lethal options has not prevented ruthless warlords and despots from turning these machines on crowds of protestors, however.

Rumors abound that Kitsuyama is developing an advanced military version of the Guardman for the Japanese Self-Defense Force; there is no public acknowledgement of such a situation from either the Japanese government or the Kitsuyama management, however. Speculation as to its nature varies wildly, although most rumors agree that it is likely to have some of the most advanced electronic systems on the planet. Many of these predict it will feature stealth and active camouflage components, giving rise to predictable codenames such as "Ninja" or "Shinobi."



OGL Stat Block

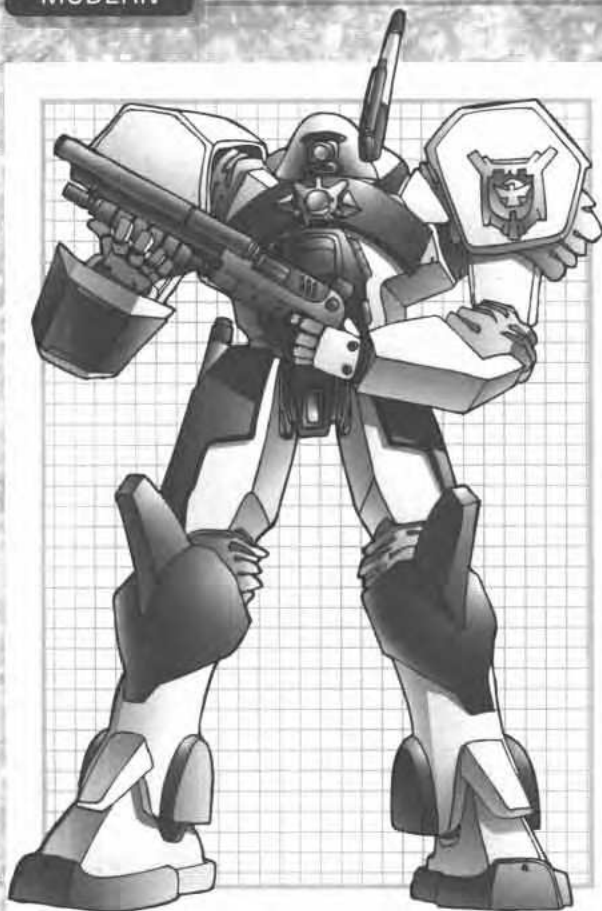
Type:	Giant Robot
Size:	Large (Tall, 5.9 m)
Hit Points:	35 (MP: 50)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	12 (MP: 60)
Defense:	12 (-1 size, +3 shield)
Strength:	34 (+12, MP: 6672)
Speed:	Land 70 kph (MP: 53)
Tactical Speed:	Land 115 m
Initiative:	-1 (MP: 0)
Maneuver:	-1 (MP: 0)

Total MP Cost:	314
Total Money Cost:	\$197,000
Special Abilities:	
	Long Range Radio (MP: 2), Low-Light Optics (1 km, MP: 2), NBC Filter (MP: 4), Optics (2 km, MP: 2), Tactical Radio (Secure, MP: 4), Shield (+3, MP: 9)
Exotic Abilities:	
	None
Mecha Defects:	
	Noisy (MP: -5), Reduced Endurance (4 days, MP: -15)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
20mm Machine Pistol	4d10*	A	60 m	30	Automatic	—	66
(Opt.) Longsword	2d6**	SS	—	—	Increased Threat (19-20), Muscle-Powered		Melee 14
(Opt.) Thump Rifle, Grenade	6d8***	SS	60 m	15	Blast, Indirect	Low Ammo	108
(Opt.) EMP Grenade	6d8***	SS	12 m	3	2x Blast, EMP	3x Low Ammo	54

*ballistic, **slash, ***blast



OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 6.0 m)
Hit Points:	35 (MP: 50)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	12 (MP: 60)
Defense:	11 (-1 size, +2 shield)
Strength:	36 (+13, MP: 78)
Speed:	Land 70 kph (MP: 53)
Tactical Speed:	Land 115 m
Initiative:	-1 (MP: 0)
Maneuver:	-1 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Riot Shotgun, Rubber Shot	2d10*	SS	30 m	15	Cone, Stun	Low Ammo	59
(Opt.) Thump Rifle, Beanbag	2d8*	SS	45 m	15	Long Range, Stun	Low Ammo	24
(Opt.) Thump Rifle, Grenade	6d8**	SS	60 m	15	Blast, Indirect	Low Ammo	108
(Opt.) Riot Shotgun, Metal Slug	4d10*	SS	30 m	15	—	Low Ammo, Short Range	22
(Opt.) EMP Grenade	6d8**	SS	12 m	3	2x Blast, EMP	3x Low Ammo	54

*ballistic, **blast

MS-02 ONE-EYED JACK

Mason Aerospace is a leading Australian manufacturer and developer of aerospace and military technology, including advanced optical systems and robotic manipulator arms — both of which feature prominently in its most publicly visible product, the Mobile Sentry Model 2 One-Eyed Jack. A dedicated security vehicle, the One-Eyed Jack is a rugged and utilitarian machine that is equally at home on watch in a crowded city street or on patrol in the heart of a stifling tropical rainforest. Its standard armament consists of a pump-action shotgun that can fire either solid slugs or non-lethal rubber pellets, and a buckler-type shield affords it some extra defense in close quarters. It is the One-Eyed Jack's powerful optical suite that gives it both its name and its tactical advantage, however. A high-resolution multi-spectral imager, the Jack's ONE-EYE system features some of the most sophisticated non-military real-time image processing and analysis software on the planet. The system can track dozens of targets simultaneously and can be trained to identify potentially threatening behavior from a single individual in a crowd of hundreds.

The One-Eyed Jack is one of the most popular choices for independent TMA security teams. Although it is quite expensive, its ONE-EYE system usually proves its worth the first time the machine is deployed in a chaotic, densely packed urban setting.

Total MP Cost:	325
Total Money Cost:	\$211,000
Special Abilities:	GPS (MP: 2), IR (2 km, MP: 4), Low-Light Optics (2 km, MP: 4), NBC Filter (MP: 4), Optics (2 km, MP: 2), Long Range Radio (Secure, MP: 4), Tactical Radio (Secure, MP: 4), Shield (+2, MP: 6), Targeting Bonus (+1, single hand-held weapon, MP: 5)
Exotic Abilities:	None
Mecha Defects:	Noisy (MP: -5), Reduced Endurance (4 days, MP: -15)

TMA-07 PRESERVER DE LA PAZ

Lobopiedra Automotor's Model 7 Preserver de la Paz ("Preserver of the Peace" or "Peacekeeper") is the company's sole foray into the field of armored security TMs. Developed in 2015, the Preserver was designed for light civilian duty in urban environments, so it performs much better on paved roads than in rocky or otherwise uneven terrain. Armed with a semi-automatic beanbag pistol and equipped with a large riot shield, the Preserver is suitable for crowd control and other peacekeeping activities. A pair of EMP grenades can disable hostile vehicles with a minimum of impact to the surrounding urban environment should the need arise, and the beanbag clip may be exchanged for a conventional ammunition clip in situations where lethal force is unavoidable.

The Preserver de la Paz was created chiefly for U.N. peacekeeping operations: the United Mexican States is a leading contributor of TMA units and personnel to Peacekeeping missions. Maintenance on the Preserver is surprisingly cheap, since the frame uses most of the same standard parts found in all of Lobopiedra's TMs — even specialized equipment such as sand filters are standardized in across the line. This low cost of maintenance makes the vehicle particularly attractive to U.N. operations, since it adds to the safety of its support staff by minimizing their time required in harm's way.

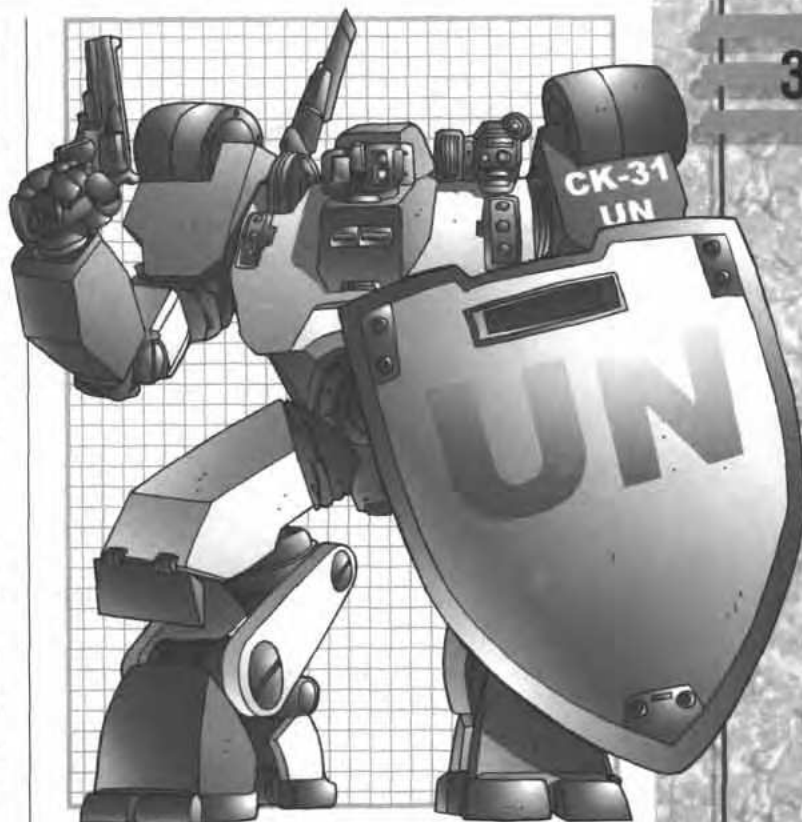
OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 5.8 m)
Hit Points:	35 (MP: 50)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	11 (MP: 55)
Defense:	12 (-1 size, +3 shield)
Strength:	32 (+11, MP: 66)
Speed:	Land 70 kph (MP: 48)
Tactical Speed:	Land 115 m
Initiative:	-1 (MP: 0)
Maneuver:	-1 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Semiauto. Pistol, Beanbag	2d8*	S	20 m	15	Semiautomatic, Stun	Less Ammo, Short Range	18
EMP Grenade	6d8**	SS	12 m	3	2x Blast, EMP	3x Low Ammo	54
(Opt.) Semiauto. Pistol, Slug	4d8*	S	30 m	15	Semiautomatic	Less Ammo, Short Range	27
(Opt.) 40mm Water Cannon	2d10*	SS	15 m	10	Stream, Stun	Low Ammo, Short Range	33

*ballistic, **blast, *ballistic



Total MP Cost: 309

Total Money Cost: \$191,000

Special Abilities:

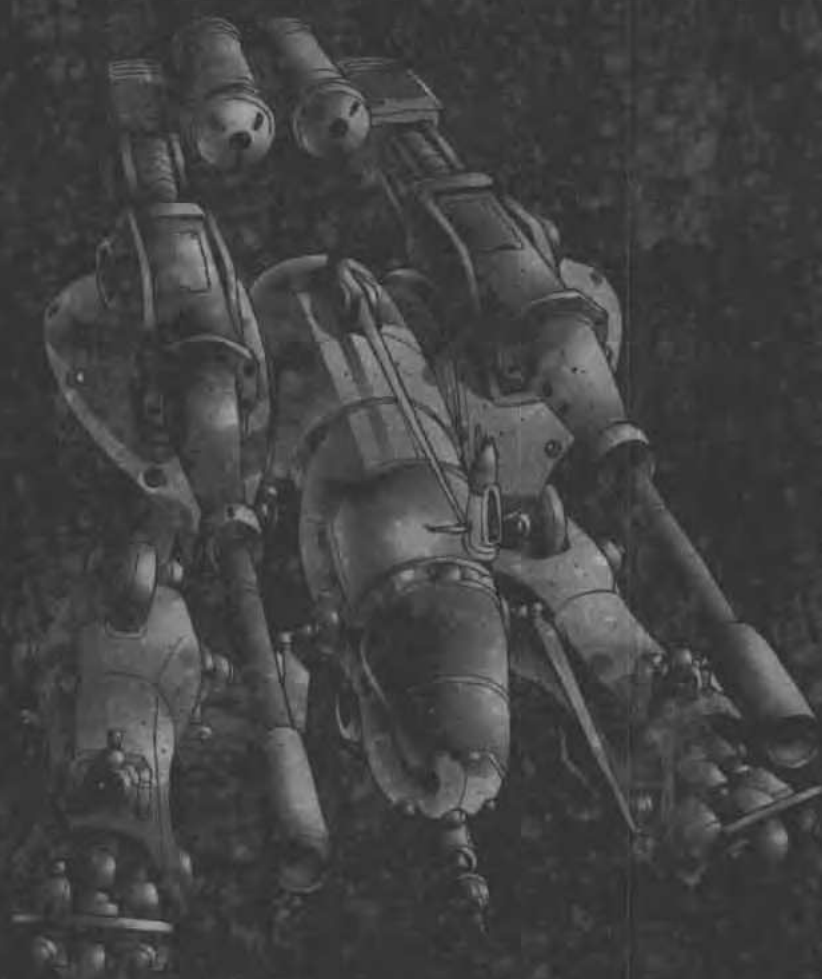
Long Range Radio (MP: 2), Low-Light Optics (1 km, MP: 2), NBC Filters (MP: 4), Optics (2 km, MP: 2), Tactical Radio (Secure, MP: 4), Shield (+3, MP: 9)

Exotic Abilities:

None

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (4 days, MP: -15), Road Vehicle (MP: -4)



Chapter Four: Future Worlds

Given a high enough level of technology, mecha become not only practical, but a useful and versatile solution to many military and civilian problems. Rather than transporting a bulldozer, a crane and a truck to a far-flung colony, you simply field a single mecha that can do the job of all three. Thanks to improved computer systems, many mecha may even become autonomous robots.

Some basic mecha types have become common in future settings: the starship, the combat armor, and, increasingly in the past few years, the menacing giant robot. They have a dual use: to take the characters from one scene to the other in style, and to provide them with the future equivalent of plate armor and monsters to fight.



USING MECHA IN FUTURE WORLDS

Unlike fantasy and modern worlds, which are easy to define, future worlds can be almost anything. Some of them are dark dystopias set in the concrete jungles of Earth's megapolis, where power-armored police chase down hacker-controlled drones. Others are the classic "blaster gun and starship" settings, with courageous explorers boldly setting forth into the unknown. Future worlds can be as small as one habitat, and as large as a galaxy. Most feature technological marvels so advanced that they might as well be magic: transformable robots, faster-than-light fighters, energy battlesuits, and so on. For this reason, magic usually isn't present in those settings; if it does, it is often in the guise of low level psychic powers.

Power Level

Unless they are everyday civilian devices, mecha in future worlds tend to enjoy very high power levels and capabilities. This is mostly due to the sophisticated technology that was used to create

them, but may also simply be a requirement for the job at hand (for example, if the aliens' armor technology can withstand nuclear blasts, most mecha will carry atomic missiles). It may also be a side effect — the plasma reactor that powers the space yacht has enough output to light up a small town.

This may cause a problem with certain types of stories. Mecha that are able to throw megawatts of energy at each other will quickly raze anything they fight in, including natural features such as mountains. This matters little in space, but planetbound campaigns will quickly turn into a trip through a wasteland, unless the mecha's power is curbed somewhat (either by technology, procedures or simple etiquette).

Rarity

Like the modern settings, future worlds enjoy the advantage of mass production and robotics. Some may even feature matter replication technology, which makes creating additional mecha trivial. This means that in most civilized societies, acquiring a new machine is mostly a question of economics (i.e., can one afford it?) and legalities (is one permitted to own or operate such a device?).

"Having" and "fielding" a machine are not the same, however. While the mecha themselves may be easy to come up with, spare parts and ammunition may not. Some mecha stories have been centered around finding an elusive source of fuel, or a solid-state part to replace the original that has fused in place during the last battle.

Skills and Training

Like their modern brethren, future mecha feature numerous sub-systems that have complex operational procedures and necessitate some specific training. Fortunately, expert systems, artificial intelligences and graphical (or even neural) control systems make the job a lot simpler. In some cases, anyone with the proper heroic predisposition can simply jump into the cockpit and fly out, relying on the machine and one's raw abilities to carry the day.

HEAVY GEAR

The year is AD 6132, or TN 1933 in the local calendar. The scene is Terra Nova, a far away planet settled by humanity in the 52nd century. More than three hundred years ago, a political crisis on Earth precipitated the collapse of the Human Concordat, the organization which had governed humanity since 4503. Terra Nova was suddenly left to fend for itself, with little contact with its sister colonies or with Earth. Interstellar travel is possible using the few aging Gateships left in orbit, but few could justify the enormous expense of maintaining the ancient vessels. It was therefore a lack of interest and finances, and not technology, that isolated Terra Nova.

Sixteen years ago, a newly unified and highly imperialist Earth, under the control of the New Earth Commonwealth, sent a fleet to the Terranovan homeworld in a surprise invasion attempt to reclaim their old colony. At the time, Terra Nova's two confederations were on the brink of a world war. When faced with a common adversary, the two grudgingly allied to fight off their old colonial masters in a conflict that would become known as the War of the Alliance. After three and a half years of bitter conflict, the Earth invasion force, now short on supplies and reinforcements, conceded defeat and left the system.

Victory was short-lived, however. Now, after a decade of detente following the war, the power brokers of Terra Nova are restless once again. The ever-present border wars between the two superpowers are escalating at an alarming rate. Politicians and generals are feeding the public inflammatory rhetoric. Rumors of hidden nuclear arsenals being mobilized spread like wildfire. The inhabitants of the planet hold their breaths as the two political juggernauts lock horns with each other once again. No one seems to know or care what is happening to the rest of the human worlds — an oversight that might have devastating consequences in the future...

FACTIONS

The people of this world have adapted to the characteristics of their new home planet and evolved into several distinct societies. Life on Terra Nova centers around the city-states, immense fortified cities that extend their power over the surrounding countryside. These originally evolved to protect the population against both the wildlife and the marauders that roamed during the troubled times of the post-Colonial era (see *Life on Terra Nova*, 2nd Edition, for more details).

Most of these city-states banded together to form the seven nations, called leagues, that dominate Terra Nova's political scene. In turn, these leagues have allied (not always willingly) to form two super-nations, called confederations, each one dominating one hemisphere of planet. Only the gigantic equatorial desert known as the Badlands escapes their influence.

Confederated Northern City-States

The Confederated Northern City-States (CNCS) is an association of the three leagues located in Terra Nova's northern hemisphere. The member-leagues cooperate on many levels, including trade, defense, and technological development. Unlike the nations of the southern hemisphere, the leagues of the North are natural allies. They are linked by common geography, religion, and values.

Tall, jagged mountain peaks and green valleys and plains make up the arctic landscape. The people of this confederation are a conservative lot, fond of sharp wit and hard work. Northerners are also a pious people, with the majority of them being followers of the Revisionist Church. This reactionary faith was derived from the teachings Mamoud Khodaverdi, a prophet who lived during the chaotic period just after Earth abandoned Terra Nova.

Northern Lights Confederacy

The Northern Lights Confederacy is the oldest and largest of the three leagues that form the CNCS. Norlight diplomats were the first to propose the CNCS as a deterrent against possible aggressions by the newly formed Allied Southern Territories.

The NLC is the stronghold of the Revisionist Church. Revisionism is the state religion and revisionist morality has shaped the Confederacy's laws. Norlights tend to think of themselves as virtuous, but most other Terranovans see them as self-righteous bigots.

Ironically, while stifling religious and personal freedom, the NLC holds political freedom to be inviolate. An old Norlight saying goes, "If you're going to be offensive, make sure you're a politician." Thus, hundreds of special interest and religious groups masquerade as political parties.

United Mercantile Federation

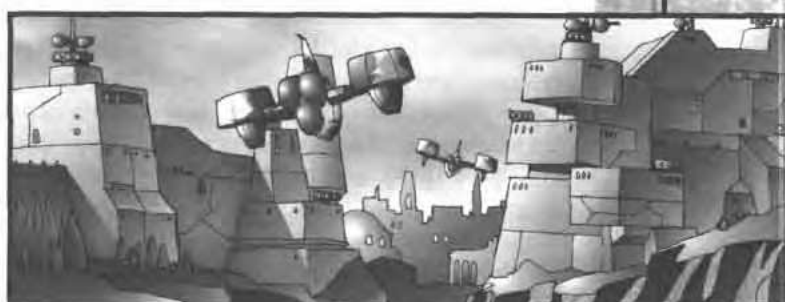
The Federation is the second most powerful member-league of the CNCS. It is a highly industrialized league, whose factories produce nearly half of the manufactured goods sold in the northern hemisphere.

Federation citizens, called Mercantilists, are strong believers in the expression, "There ain't no such thing as a free lunch." All Mercantilists are expected to work hard and earn their way. Even the right to vote must be purchased. On the other hand, this ideology also applies to the Federation government. The UMF cannot legally tax its citizens, and must earn all of its revenues by other means.

Mercantilists are renowned for their ingenuity and their skill at seizing opportunities, both in business and in life. While the Revisionist Church is well established in their society, they lack the religious fervor of the Norlights. Only the Revisionist work ethic has permeated their society.

West Frontier Protectorate

The last member-league of the CNCS is the Western Frontier Protectorate, which controls the Great Western Plain, a long strip of grassland in the western arctic. This zone borders on the Badlands, giving the Protectorate a dry climate suitable for grain production.



Westerners are strong traditionalists and are notoriously stubborn. Their society revolves around two key groups, the military and the clan. Only individuals who have served in the military may claim WFP citizenship. Only members of the armed forces may run for public office.

Westerners also identify themselves by their extended family, or clan. The clan is so important that Westerners identify themselves first by clan name and then by given name (for example, Doe John). One's reputation is derived from one's clan. For example, the Olinson clan is famous for its scientific achievements while the Salinas are known to have a strong sense of fairness, often becoming judges.

Allied Southern Territories

The Allied Southern Territories is officially a confederation of the four southern leagues of Terra Nova. In reality, it is merely a puppet government whose leaders are appointed by the leaders of the Southern Republic. The AST was formed after the Republic overran its neighbors over a century and half ago. The real southern superpower is the Republic.

The AST encompasses the entire antarctic region of the planet. This lush, mountainous region is covered in tropical jungles and swamps. The tropical polar region is separated from the dry Badlands by a ring of arid savannah.

The populace of the AST is highly diverse. Most of the city-states are very liberal societies where individualism is prized. While honor and reputation are important to southerners, they worry little about propriety or scandal. Morality laws are almost unheard of and almost any vice is legal. The various governments are happy to let their citizens carry on in whatever manner they wish so long as they pay their taxes and let the state run smoothly. Unsanctioned political activity is almost universally illegal in the AST. Most acts of political protest carry sentences of corporal or capital punishment.

Southern Republic

The Southern Republic is, in general terms, the most powerful league on Terra Nova. The Republic boasts a population half again as large as the NLC along with a vibrant economy. Its military controls almost the entire southern hemisphere of the planet.



All this power has fueled the Republican national ego and it has grown to immense proportions. Most Republicans view their league as the ideal Terranovan society. They see their league's colonial policy as an act of kindness. It brings civilization and superior culture to those they invade.

Despite its totalitarian foreign policy, the Southern Republic is a democratic state. Yet, since all the major parties have nearly identical platforms, they differ only in their public relations approaches.

The people of the Republic are energetic and highly individualistic. Their society encourages artistic expression and self-exploration. Even humble laborers live in relative luxury and enjoy plentiful leisure-time. The average Republican views Northern life as suffocating and repressed. Most Northerners denounce Republicans as decadent imperialists.

Humanist Alliance

The Humanist Alliance is the result of an attempt to create a utopian state. While the Alliance is hardly a perfect society, it has managed to survive for over three hundred years. Its population is generally content and its crime rates are astonishingly low.

The population of the Alliance is divided into three castes: preceptors, protectors, and commoners. Preceptors are the society's leaders and scholars.

Protectors are the military and police forces of the Alliance. Commoners are the laborers, businessmen, and craftsmen of their society. Children are assigned to a caste at age 12 after undergoing a complex battery of tests to determine their interests and natural aptitudes.

Many foreigners mistakenly label the people of the Alliance as robots who serve their society. Preceptors plan, protectors fight, and commoners work. Nothing could be further from the truth. Alliance society is designed to allow individuals to achieve their greatest potentials. Hobbies and personal interests are cherished by Humanists as ways of expressing their individuality.

Citizens of the Humanist alliance are the most conservative people in the AST. Although few activities are prohibited, their society encourages modesty and moderation. Hardly as prudish as Northerners, Humanists simply prefer to sample the joys of life a little bit at a time. In this way, they believe that there will always be something a little better to look forward to the next day.

Mekong Dominion

The Mekong Dominion is an economic powerhouse which has managed to profit from its forced membership in the AST. The leaders of the Dominion are masters of the art of backroom politics, and have used this ability to acquire greater political freedom than other members of the AST.

The Mekong people are exceptionally pragmatic. They view their Republican overlords as obstacles to overcome. They believe it is generally simpler to either obey or bribe the Republicans than to waste time and energy in armed revolt. Most Mekong citizens expect that, in the long run, the Dominion will simply use its economic power to expel the Republican occupation forces.

Mekong is ruled by a group of corporate CEO's. These CEO's are responsible to their shareholders. Since most Mekong corporations give their employees shares as New Year's bonuses, Mekong's ruling council is effectively guided by the Dominion's entire corporate structure. While

this is hardly a true democracy, it offers significantly more public input than the governments of other AST member-states.

Eastern Sun Emirates

The Eastern Sun Emirates is the backwater of the AST. Its economy is heavily dependent upon its primary resource industries, especially mining and metallurgy. Almost everything in the ESE is the property of the league's aristocracy. This minuscule upper class consists of fifty local lords, called emirs, and their families. The emirs are led by the patriarch of the ESE.

The emirs are infamous for their lavish displays of wealth. They live jet-set lives and maintain private armies to quell rebellions on their estates. A small middleclass leads a parasitic existence, living off of the emirs as servants, advisors and soldiers.

The large majority of the ESE's population are lower class industrial serfs. They generally accept their condition in a surprisingly stoic manner, lulled into complacency by the expert public relations campaigns and "bread-and-circus" type events sponsored by the emirs. Every once in a while, however, a strong leader comes forth from the proletariat and starts a local rebellion. These uprisings are systematically crushed by the fearful emirs. Many political analysts fear the day that a proletariat uprising grows too rapidly to suppress effectively.

The Badlands

The Badlands are both a geographical and a political region. Technically, they are the nigh-infernal desert regions that ring Terra Nova between roughly 10° North and South. More generally, they are the political space between the



two polar confederations, the Confederated Northern City-Sates and the Allied Southern Territories. Four major mountain ranges and thousands of square kilometers of savanna are included in this political buffer zone and most Terranovans consider them part of the Badlands.

The equatorial arid band is made up four different deserts. All share extreme temperatures and near complete aridity. The water-rich MacAllen cave

network is buried under hundreds of meters of rock and sand, accessible only through occasional natural fissures which spawn precious oases. The Badlands are home to mining communities, frontier towns, outposts, and many independent city-states. They are also filled with debris from the failed Earth invasion of the past decade. Not a nice place to live, but so ripe in opportunities...

Paxton Arms

The most influential and powerful faction in the Badlands is undoubtedly Paxton Arms, the largest weapons manufacturer on Terra Nova. The massive factories of the Peace River city-state pump out millions of arms and vehicles, ranging from simple hunting rifles to the cutting-edge Warrior Elite Heavy Gear. The conglomerate is increasingly trapped by its traditional positions as supplier for polar wars and defender of Badlands security.

Port Arthur

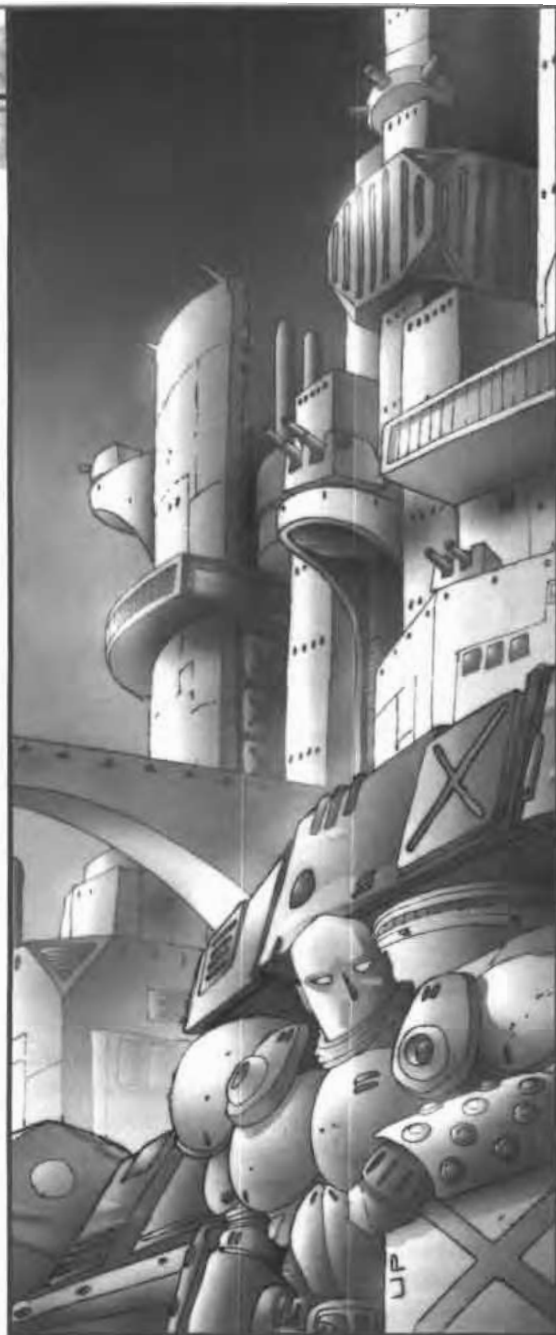
Only 15 cycles ago, Port Arthur was a huge refugee camp centered around the crippled supply center for the defeated Earth invasion forces. Today, it has become the largest independent city-state of the Badlands and is actively challenging Peace River for the title of political center.

Jan Mayen

In 1919 TN, a Jan-class GREL named Soldier Mayen rejected his military past and called for GRELS and humans to live equally in their new home. In 1924 TN, Mayen and 10,000 followers left Port Arthur and made their way to the Eastern Desert, where Mayen had found acceptance among Terranovan refugees. The city-state they founded took on the name of their leader.

The New Coalition

Despite the increasing pressure from the poles to align, most Badlands communities wish to retain their independence. The small communities of the Westridge Range — an important rail axis — have banded together with the power of Port Arthur to



maintain their neutrality in the coming conflict. This New Coalition (also known as NuCoal) has been only partially successful, and only time will tell whether it will survive.

Rover Gangs

Rovers are outlaw raiders, usually making their living by stealing from small communities and trade caravans. Most are only lightly armed and prey only on isolated targets. Almost all rovers gather around a charismatic leader who provides arms,

money, alcohol or some other desired item. Gangs usually last only as long as their leader is able to bring them success.

Wounded Knee

Wounded Knee developed around the hulk of an abandoned colonial-era vessel. By 1600 TN, the hulk-residents had coalesced into a rugged community that fed off the nearby Northern leagues. Wounded Knee grew into a smugglers den based on ease of access to the leagues through the Westridge Range, where the city is located.

Westphalia

Gambling exists across the Badlands and all of Terra Nova, ranging from friendly card games to state lotteries and vast underworld empires, but it all pales in comparison to the casinos of Westphalia. The true gambler makes pilgrimage to the city-state in the southern foothills of the Westridge Range. The gilded streets, running from casino to casino, call the desperate and the daring like a beacon.

Khayr Ad-Din

At best, Khayr ad-Din is a poor community of nomadic scavenger bands centered around a valuable resource: the Khayr ad-Din Waste Disposal Site. This giant junkyard covers nearly 26 square kilometers, built-up by over three centuries of waste dumped by cities along the Gamma maglev line. Although many minor Gear duels are arranged across the Badlands, the heart of gladiatorial dueling lies in Khayr ad-Din.

TECHNOLOGY

Over the past four thousand years, technology has advanced by leaps and bounds. However, unpleasant historical circumstances, including an Ice Age on Earth and centuries of religious strife, have limited the rate at which humanity's tools evolved. In addition, centuries of interstellar colonization have shown that complex hi-tech equipment tends to break down over time, and thus, Terranovans prefer simple devices, resorting to high technology only when it is considerably more advantageous (see the **HG Tech Manual 2** for more information).

The first interplanetary colonists were faced with a difficult problem. Their new home planet was similar to Earth, yet was also very different. For one thing, it was more rugged and mountainous and featured uncertain conditions. The best solution was to use the walker type vehicle which was commonly used in construction and other specialized tasks. Because the colonial corporations were unwilling to spend large sums of money to transport important quantities of cargo over to Terra Nova, the mission specialists had to turn toward modular and highly adaptable components which could serve in a variety of ways and yet be easy to maintain using local resources and material.

The first of this new line of equipment was the Hardhat, a rugged cockpit/main body system to which a variety of tool limbs could be attached. The Hardhat was self-contained: it carried its own walk-control computer and sensor attachment. Additional sensor and computer modules came with the limbs.

The first years of colonization saw the arrival of nearly 1200 Hardhats on Terra Nova. They were adapted to a huge number of functions, and even discarded units were used as spare parts to build conventional vehicles. The Hardhat served as a base for the evolution of the walker on many of the colonial planets. By 5800, walkers were used extensively on Terra Nova. When the colonial corporations were forced to retire because of the economic crisis on Earth, many settlers armed their machines in the hope of breaking through the spaceports' defensive lines.



As the years passed and the city-states were founded one by one, new armies arose to protect them. These armies included walker vehicles in various roles, including infantry support, but they were still essentially modified civilian equipment, not particularly suited for warfare. In 5948, the United Mercantile Federation's engineers started work on a true military walking infantry vehicle, or BOT (Bipedal One-man Tank). The result of this program was the Hunter, a rugged, boxy machine that could be easily produced and fielded. Thousands of Hunters left the assembly line in the next fifty years, many of them sold to the UMF's allies or captured by its neighbors.

Worried by this new technological development, the Southern Republic tried to acquire a few Hunters by several means — some legal, other definitely not — but to no avail. It was not before 5951 that Republican commandos were able to steal one Hunter from an advanced Protectorate force in the Badlands. A mere six months later, the Republic was using its own version of the Hunter (named Jäger) to force its neighboring Southern states into a coalition led by the Republic.

GLOSSARY

Armoplast: a high-density polymer which has a number of military applications, such as an armor plate component.

Cerachip: slang term for a ceramic advanced computer chip.

Durasheet: a highly resistant composite material made of several interwoven layers of polymer, metal and ceramic, stronger than steel but much lighter. Often used for Gear armor.

Flexite: an hardened steel made up of extremely pure iron and advanced carbon super-molecules, leading to a super-strong metallic alloy that is extensively used in vehicle construction.

Gate: a fault in the space-time continuum where two normally distant points of space touch one another. Following Markus Tannhauser's theories, Gates are the basis of Faster-Than-Light travel technology.

Gateship: a ship equipped with a Tannhauser Gate drive. Huge and slow, few of these behemoths exist. They are fabulously expensive to build and maintain but can open Gates for entire fleets.

GRELS: Genetically Recombined Experimental Legionaries (GRELS) were the Earth forces' shock troops. Artificial humans, designed in gene labs and force-grown in tanks, they formed the vanguard of the invasion.

Heavy Gear: most often referred to as Gear, it is a one-man infantry fighting vehicle, designed to protect a soldier and enable him to carry heavy weaponry over vast distances.

Hopper: slang term for a Vertical Take-Off and Landing (VTOL) vehicle held aloft by powerful thrusters.

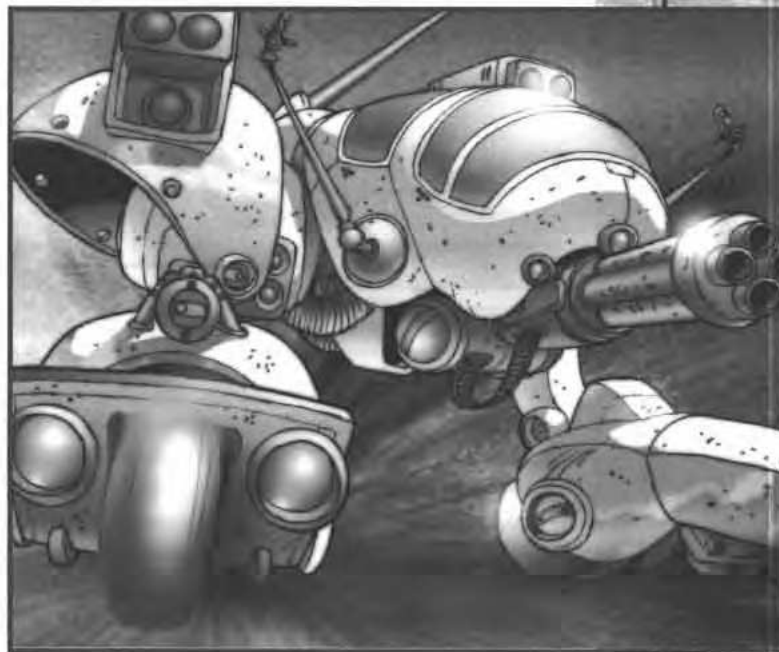
Landship: huge land-going vessels which use magnetic repulsion and hoverfan technologies to float a few centimeters off the ground.

NNet: slang term for neural networks. The NNet is the "brain" of the Heavy Gear. It is the super-fast computer that translates the control inputs from the pilot into complex body motions.

SMS: the abbreviation for Secondary Movement System, most often a set of wheels or treads placed underneath the feet or body of the Gear to allow extra speed.

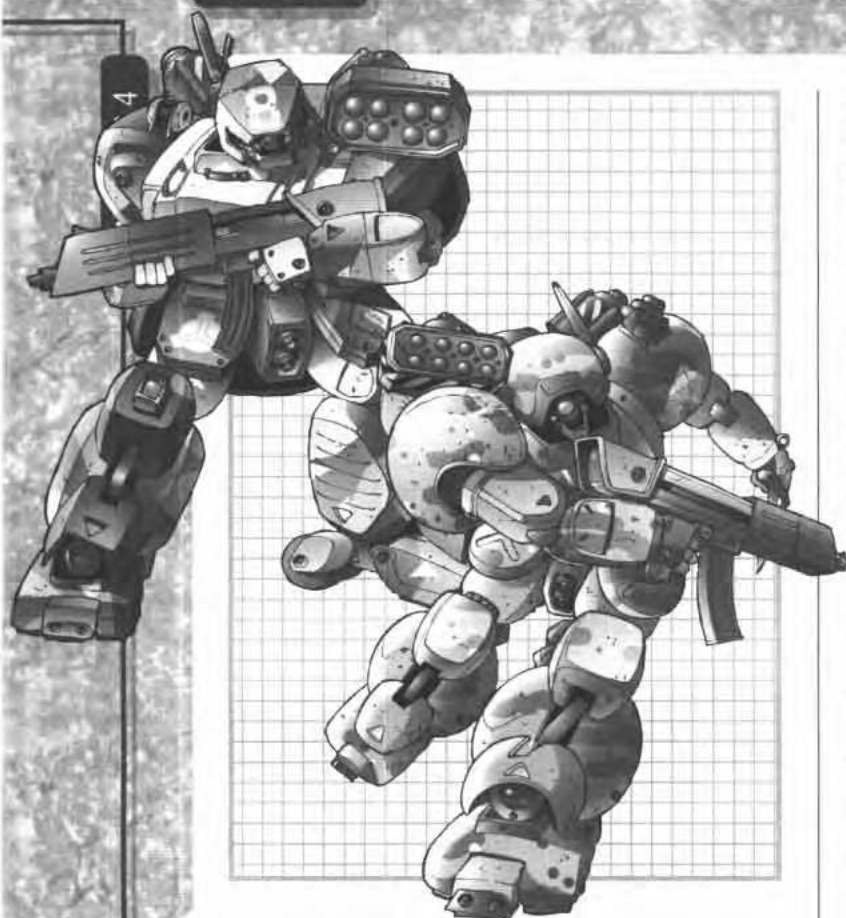
Strider: slang term for large, non-humanoid walker vehicles, generally used for fire support.

Turtleshell: slang term for infantry heavy body armor. Made out of high tech composite, it is nevertheless quite cumbersome.



V-Engine: an advanced, powerful internal combustion engine. Its compact design and ability to use almost any kind of fuel makes it a prime choice for many military vehicles.

VISUP: Short for Visual SUB-Processor, the VISUP is the specialized computer that computes the sensors' information before sending it to both the NNet and the pilot.



OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 4.3 m)
Hit Points:	45 (MP: 70)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	15 (MP: 75)
Defense:	9
Strength:	40 (+15) (MP: 90)
Speed:	Land 108 kph (MP: 105)
Tactical Speed:	Land 180 m
Initiative:	-1 (MP: 0)
Maneuver:	-1 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
20mm Autocannon*	4d12	A	80m	60	Automatic, Extra Ammo	Arc of Fire (Fr)	(104)
52mm Rocket Pack**	7d8	A	40m	24	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	157
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo	(88)
Vibroknife***	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Large weapon)	(18)

NOTE: *Ballistic Weapon; **Blast Weapons; ***Slashing Weapon. All weapons are Hardpoint-mounted, the A/C is handheld.

Variants

HEADHUNTER/JAGER COMMAND: add Long Range Radio (Secure, MP: 4), Lasercomm (Secure, MP: 4) (Total MP Cost: 527)

GENERAL PURPOSE GEARS

"GP" Gears are jacks of all trade. They may fulfill almost any mission requirements, though they will seldom perform as well as specialized units. GP vehicles are thus best used as straightforward front-line combat machines. They are generally simple in design and can thus form the basic core of the army. Their field of duties mimic those of standard infantry, as well as some tasks traditionally entrusted to armored units.

The HACS-01MG-MP *Hunter* is the "old man" of the Gear world, and remains among the most common designs in military service today. Its versatility later led to a proliferation of specialized variants. First deployed during border conflicts between the United Mercantile Federation and the other Northern leagues, the Hunter encountered its Southern counterpart during the Merchant Wars of TN 1686-1688. As the CNCS was formed, the Hunter spread to the other Northern leagues. The War of the Alliance proved the endurance of the "old man."

The OACS-01M/SU *Jager* started its existence as a shameless copy of the Federation's Hunter. Republican commandos stole a prototype and the engineers created a near-exact copy toward the end of the Southern War. Soon after, the Jager faced its first Gear to Gear combat as the AST and the Federation fought in the Westridge Range area during the Merchant Wars.

Total MP Cost: 519

Total Money Cost: 207,600 Marks/Dinars

Special Abilities:

GPS (MP: 2), NBC Filter (MP: 4), Radar (2 km, MP: 4), Tactical Radio (Secure, MP: 4), Infrared (2km, MP: 6)

Exotic Abilities:

None

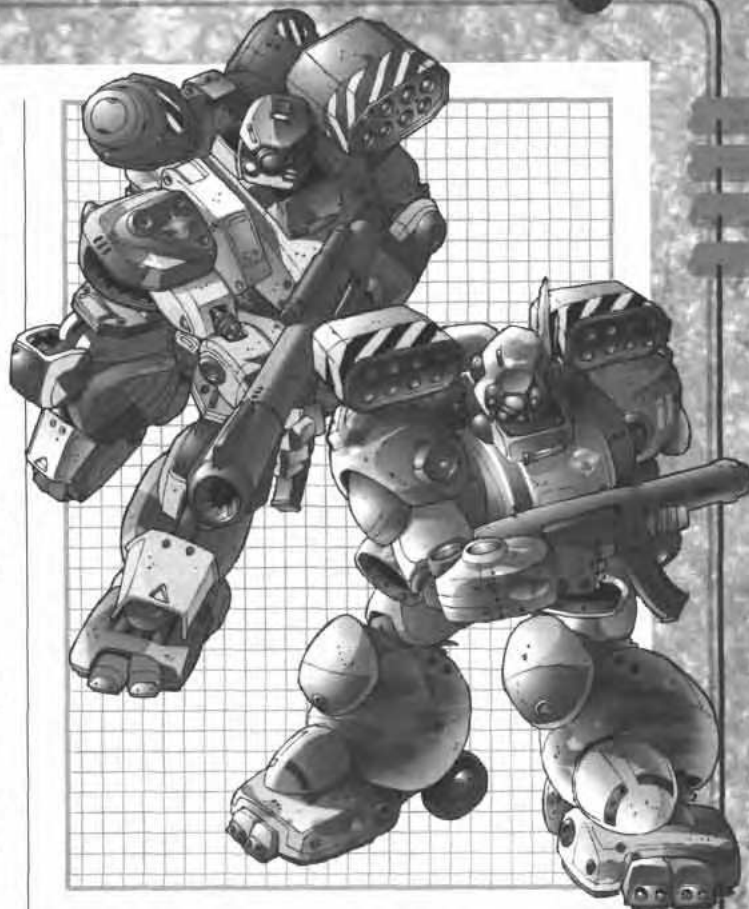
Mecha Defects:

Noisy (MP: -5), Reduced Endurance (14 hours at combat speed, MP: -20), Start Up Time (1 minute, MP: -2)

Elite Gears are high performance machines assigned to special units, commanders and aces. Commando operations are their forte. They are often equipped with additional comm equipment and ECCM devices to make sure they can remain in contact with their forces. Due to their high cost and complexity, elite units are proportionally more rare than other Gear types.

The HACS-02MG-MPS *Jaguar* was developed by Northco as a successor to the aging Hunter. The new machine featured a wide variety of improvements in the control interface and comm array. Additional chassis struts make it more resistant and provide paratroop capabilities. The Federation Army originally made of the *Jaguar* a "strategic federal resource," but the Earth invasion broke the tensions and the production lines were brought to full capacity.

Its Southern counterpart is the OACS-05M/SU *Black Mamba*, a cutting edge Gear that incorporates composites in its frame to reduce weight albeit at the cost of some rear armor protection. Damage to the Territorial Arms factories cut production during the War, but since then distribution has followed standard policy — the lion's share going to the Republican Army, a lesser number to the MILICIA, and a very few to the local defense forces of the vassal states.



OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 4.6 m)
Hit Points:	46 (MP: 72)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	16 (MP: 80)
Defense:	15
Strength:	41 (MP: 93)
Speed:	Land 122 kph (MP: 128)
Tactical Speed:	Land 203 m
Initiative:	-1 (MP: 0)
Maneuver:	0 (MP: 5)

Total MP Cost:	613
Total Money Cost:	245,200 Marks
Special Abilities:	
GPS (MP: 2), NBC Filter (MP: 4), Radar (3 km, MP: 6), Long Range Radio (Secure, MP: 4), Tactical Radio (Secure, MP: 4), Infrared (2 km, MP: 6), Parachute (MP: 4), Targeting System (+1, all weapons, MP: 20)	
Exotic Abilities:	
None	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (16 hours at combat speed, MP: -20), Start Up Time (1 minute, MP: -2)	

WEAPONS:

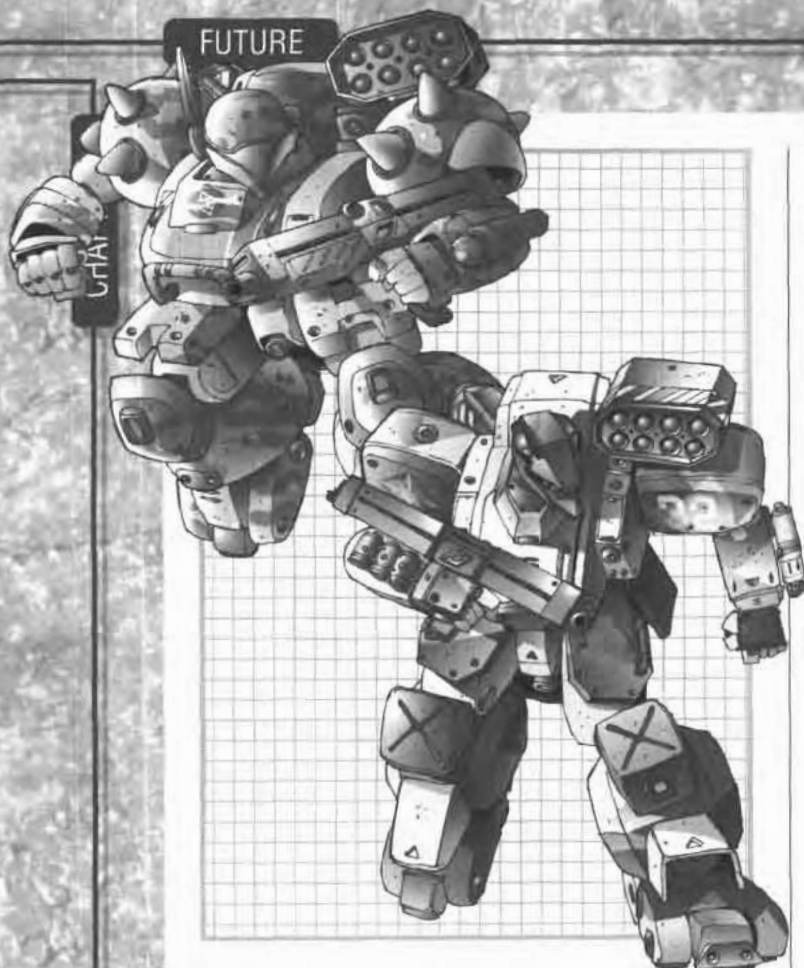
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
30mm Autocannon*	5d12	A	100m	60	Automatic, Extra Ammo	Arc of Fire (Fr)	(130)
71mm Rocket Pack**	8d8	A	48m	32	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	180
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo	(88)
Vibroknife***	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Large weapon)	(18)

NOTE: *Ballistic Weapon; **Blast Weapons; ***Slashing Weapon. All weapons are Hardpoint-mounted, the A/C is handheld.

Black Mamba

Same stats as above, with these changes: Armor Hardness 17 (85), Hp 47 (MP: 18), Land Speed 126 kph (MP: 136), Optimized Armor (Front, MP: -17), Limited A.I. (Dex3/Wis1/Cha1) (MP: 15) (Total MP Cost: 626; 250,400 Dinars)

FUTURE



OGI Stat Block

Type:	Giant Robot
Size:	Large (Tall, 4.3 m)
Hit Points:	40 (MP: 60)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	10 (MP: 50)
Defense:	9
Strength:	35 (+12) (MP: 75)
Speed:	Land 135 kph (MP: 90)
Tactical Speed:	Land 225 m
Initiative:	0 (MP: 5)
Maneuver:	+1 (MP: 10)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
20mm Autocannon*	4d12	A	80m	60	Automatic, Extra Ammo	Arc of Fire (Fr)	(69)
52mm Rocket Pack**	7d8	A	40m	24	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	157
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo	(88)
Vibroknife***	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Large weapon)	(18)

NOTE: *Ballistic Weapon; **Blast Weapons; ***Slashing Weapon. All weapons are Hardpoint-mounted, the A/C is handheld.

Iguana

Same stats as above, with these changes: Armor Hardness 14 (MP: 70), Maneuver 0 (MP: 5), Hp 44 (MP: 68), Land Speed 126 kph (MP: 112) (Total MP Cost: 533, 213,200 Dinars)

SCOUT GEARS

Scout machines are generally fast and agile, capable of avoiding the enemy's notice as they skirt his positions, trying to gain as much information as possible before returning to its base. Often, scout machines carry dedicated electronic equipment and are capable of designating targets for fire support units. Some are modified with extra weapons and armor to serve as cavalry and light skirmishers.

The HACS-01LG-SCT *Cheetah* was designed to surpass the mobility of previous scout machines. It is lightly armored, but relies on outstanding speed and superb maneuverability to give it a defensive edge. The *Cheetah*'s release also marked the arrival of Kenema's Shaian Mechanics on the Gear production scene. In the 35 cycles since the *Cheetah* entered production, Shaian has passed from a sub-contractor of note to one of the "big two" Gear producers in the North, and is a nexus of the Keneman economy.

Unlike the Northern *Cheetah*, the OACS-01L/SC *Iguana* was designed to be effective as a light trooper as well as a scout vehicle. Its small cockpit is surrounded by armoplast plates that cover up most of the steel-alloy frame of the torso. Appreciated by its pilots for its combination of speed and armored protection, the Gear can be found in all but the most disfavored front-line units of the Southern armies.

Total MP Cost:	488
Total Money Cost:	195,200 Marks
Special Abilities:	
ECM (Comm +3, Radar +3, MP: 12), Laser Designator (RI: 150m, MP: 2), GPS (MP: 2), NBC Filter (MP: 4), High Rez Radar (4 km, MP: 12), Tactical Radio (MP: 2), Infrared (3km, MP: 9)	
Exotic Abilities:	
None	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (14 hours at combat speed, MP: -20), Start Up Time (1 minute, MP: -2)	

FIRE SUPPORT GEARS

The hallmark of the fire support units is the presence of a hard hitting, indirect-fire capable weapon among their arsenal. Fire support units usually hang as far back as possible and actively avoid contact with enemy units. For maximum battlefield effectiveness, fire support machines need to be paired with a forward observer of some kind that will relay target coordinates.

The HACS-02HG-MPS *Grizzly* was the result of a cooperation between industrial giant Northco and Kenema's Shaian Mechanics. The Grizzly has been a mainstay of the Northern armies since its introduction in the TN 1870s. Its true test was the War of the Alliance, where the Grizzly proved effective in combat, especially when deployed with scout units to "tag" enemy hovetanks with laser designators for its guided mortar.

The OACS-01H/SU *Spitting Cobra* is the heaviest mass-produced Gear chassis in current use by the Southern armies. In addition to devastating medium to long-range firepower, the 'Spit' features a heavily armored cockpit. It was developed in the TN 1880s as part of the renaissance of Territorial Arms, and is fielded by all forces. It remains an expensive machine, however, so costs limit its distribution.

OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 5.0 m)
Hit Points:	48 (MP: 76)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	18 (MP: 90)
Defense:	9
Strength:	45 (+17) (MP: 105)
Speed:	Land 99 kph (MP: 126)
Tactical Speed:	Land 43 m/turn
Initiative:	-2 (MP: -5)
Maneuver:	-2 (MP: -5)

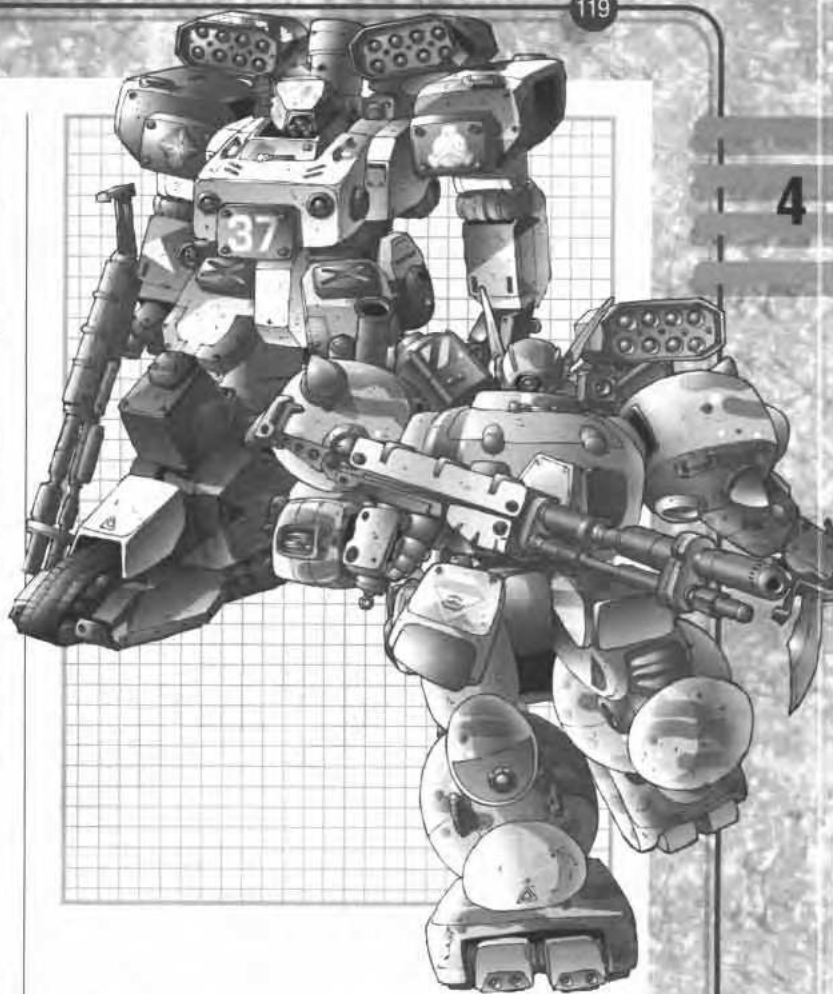
WEAPONS:

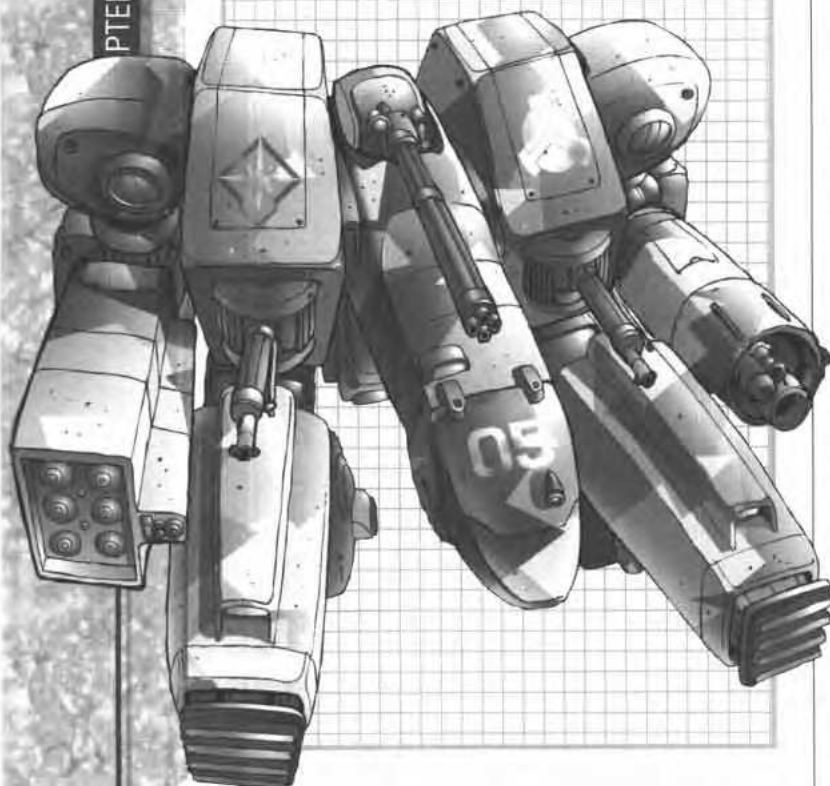
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
30mm Autocannon*	6d12	A	120m	60	Automatic, Extra Ammo	Arc of Fire (Fr)	(156)
71mm Rocket Pack**	8d8	A	48m	24	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	(144)
Hvy Guided Mortar**	3d20	SS	80m	60	Blast, Extra Ammo, Indirect	Arc of Fire (Fr)	210
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo	(88)
Vibroknife***	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Large weapon)	(18)

NOTE: *Ballistic Weapon; **Blast Weapons; ***Slashing Weapon. All weapons are Hardpoint-mounted, the A/C is handheld.

Spitting Cobra

Same stats as above, with these changes: Armor Hardness 21 (MP: 105), Hp 51 (MP: 82), Land Speed 126 kph (MP: 168), Lt. Guided Mortar (MP: 66) and Heavy Rocket Rack (see *King Cobra*, MP: 300); Remove Guided Mortar (Total MP Cost: 812, 324,800 dinars)





Mammoth Strider

The WACS-01FS-AST *Mammoth* is the most common strider unit in use by the forces of the CNCS. Originally a Norlight design, the Mammoth is now built under license by no less than three companies throughout the Northern Hemisphere. The machine is rugged and tough, and its large clawed feet and balance plates are perfectly suited to the rocky environment of the North. The machine has a crew of two, one pilot and one system operator/gunner, sitting in a tandem configuration. The Mammoth is sturdy and well-armored, and uses an AFLIC sensor pod mounted on the nose as its main sensor array.

First released in TN 1848, the Mammoth has seen many battles and undergone many refitting and modernization programs. The success of the Mammoth has made striders into an integral part of the Northern and Southern arsenals. Northern developers, however, have remained faithful to the basic systems of the Mammoth and the chassis has been used for a number of variants.

The Mammoth was pressed into service during the War of the Alliance, where it proved itself effective against hovertank columns when used in conjunction with forward observers, or when they could take advantage of terrain. When pitted against the fast-moving CEF hovertanks on open ground, however, the lumbering Mammoths fared poorly.

OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 6.5 m)
Hit Points:	90 (MP: 140)
Occupancy:	2 operators, no cargo (MP: 20)
Armor Hardness:	25 (MP: 125)
Defense:	8
Strength:	30 (+10) (MP: 60)
Speed:	Land 46 kph (MP: 175)
Tactical Speed:	Land 76 m
Initiative:	-3 (MP: -5)
Maneuver:	-2 (MP: 0)

Total MP Cost: 791

Total Money Cost: 316,400 Marks

Special Abilities:

Chobham Armor (MP: 23), Laser Designator (RI 150, MP: 4) GPS (MP: 2), NBC Filter (MP: 4), High Rez Radar (3 km, MP: 12), Tactical Radio (Secure, MP: 2), Long Range Radio (Secure, MP: 4), Infrared (2 km, MP: 6)

Exotic Abilities: None

Mecha Defects:

No Hands (MP: -30), Noisy (MP: -5), Reduced Endurance (14 hours at combat speed, MP: -20), Start Up Time (1 minute, MP: -2)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
25mm Autocannon*	4d12	A	80m	60	Automatic, Extra Ammo	—	(104)
90mm Snub Cannon*	5d20	SS	75m	20	—	Arc of Fire (Fr), Short Range	(52)
Guided Missile Pod**	10d10	S	150m	8	Semiauto, Blast, Indirect, Guided (SARH, LG)	Arc of Fire (Fr), 2x Less Ammo	256
Heavy Machineguns	3d12	A	40m	200	Automatic, 2x Extra Ammo	Arc of Fire (Fr)	(52)

NOTE: *Ballistic Weapon; **Blast Weapons.

Variant: Assault Mammoth

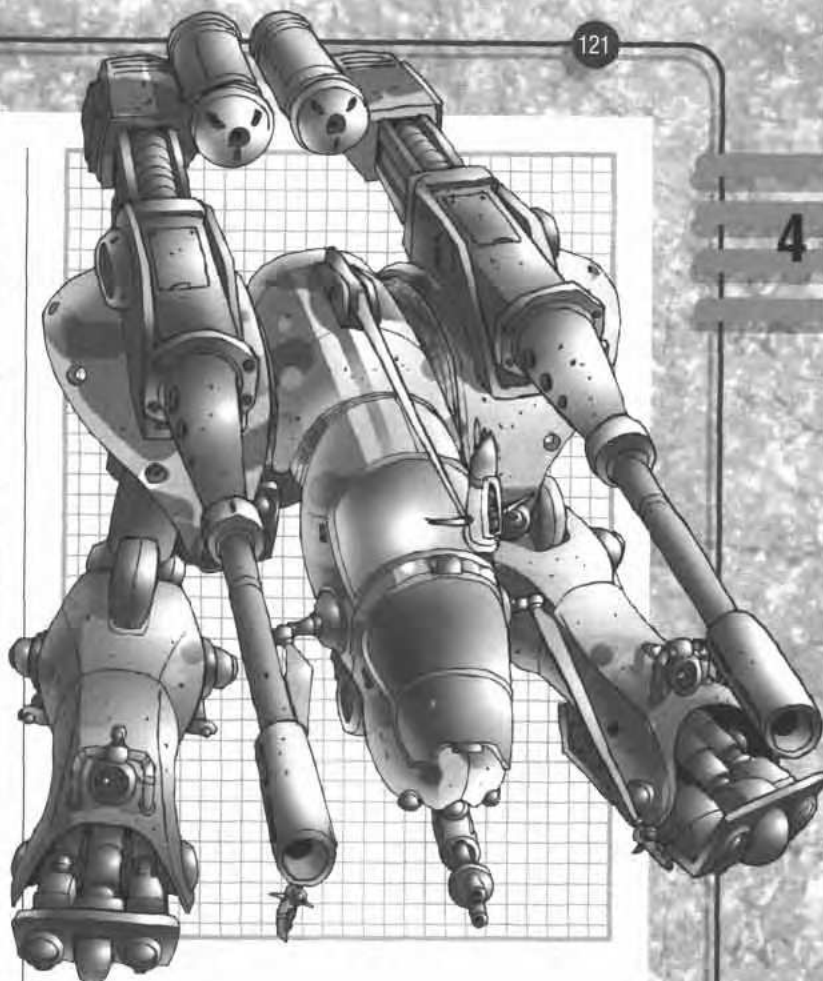
Same stats, replace Guided Missile Pod with a second Snub Cannon, Total MP Cost: 587, 234,800 marks

LONG FANG NAGA STRIDER

The OWCS-01AS *Naga* has been designed primarily as a high firepower, rapid intervention unit designed to exploit breakthroughs in the line and lend medium range heavy support to friendly units in trouble. The *Naga* is the main strider unit of the Republican forces, and is the basis for many current specialized vehicles. It is not very strongly armored for its size, and as such is rarely seen in close combat. A cornered *Naga* crew will likely prefer to flee rather than fight a frontal battle.

The *Naga* is crewed by two people: pilot/commander in the back, gunner/system operator in the front. In a pinch, the pilot can double as a gunner, though the overall combat performance will be reduced. The *Naga* is surprisingly maneuverable for a walker of its size. Like the smaller *Gears*, it can use both its legs and foot-mounted wheels to move about. Three slim arms bear sensor pods, allowing the *Naga* to look over corners and walls without exposing itself.

The *Naga* is widely associated with the Republic itself, its ostrich-like form being featured often in propaganda works. It is currently in service in all Southern forces, though each army has its own specific locally-produced variants. This increases the chance of production defects, since not all manufacturers are as careful with quality control as Republican Heavy Industries.



OGL Stat Block

Type:	Giant Robot
Size:	Huge (Tall, 6.5 m)
Hit Points:	65 (MP: 90)
Occupancy:	2 operators, no cargo (MP: 20)
Armor Hardness:	23 (MP: 115)
Defense:	8
Strength:	30 (+10) (MP: 60)
Speed:	Land 108 kph (MP: 161)
Tactical Speed:	Land 180 m
Initiative:	-2 (MP: 0)
Maneuver:	-2 (MP: 0)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
25mm Autocannon*	4d12	A	80m	60	Automatic, Extra Ammo	Arc of Fire (Fr)	(69)
105mm Field Gun*	8d12	SS	640m	12	2x Extra Range	Arc of Fire (Fr), Less Ammo	104
105mm Field Gun*	8d12	SS	640m	12	2x Extra Range	Arc of Fire (Fr), Less Ammo	(104)

NOTE: *Ballistic Weapons.

Variant: Naga

Same stats, replace both Field Guns with 2 x Guided Missile Pod (see *Mammoth*, page 102, MP: 256), Total MP Cost: 727, 290,800 dinars

Total MP Cost:	560
Total Money Cost:	224,000 Dinars
Special Abilities:	
Chobham Armor (MP: 23), Laser Designator (RI 150, MP: 4)	
GPS (MP: 2), NBC Filter (MP: 4), Radar (4 km, MP: 8), Tactical Radio (Secure, MP: 2), Long Range Radio (Secure, MP: 4), Infrared (2 km, MP: 6)	
Exotic Abilities:	None
Mecha Defects:	
No Arms (MP: -30), Noisy (MP: -5), Reduced Endurance (14 hours, MP: -20), Start Up Time (1 minute, MP: -2)	



KODIAK

Introduced in the final days of the War of the Alliance, the HACS-10HG-AST *Kodiak* is the sum of Northern engineering, concentrating massive firepower in a mobile package. The Grizzly's armor was considerably thickened, especially on the front, and the armor skirts were extended for additional protection. The engine and transmission were upgraded to help the Kodiak carry the nearly one and a half tons more of weapons and armor plating. The communication system was also upgraded, giving it more range, and a new laser sensor system was installed in a lengthened head housing. The armament, which was already heavy on the standard Grizzly, became truly monstrous on the Kodiak: particle accelerator, guided missiles, rockets. The new Gear was thus a massive beast, standing 5.2 meters tall and weighing in at a over ten tons.

The Kodiak was used to good effect against CEF incursions into Northern territories. Its success against hovortanks quickly became a morale-boosting military legend and the rare Kodiaks were wrapped in a mystique of invulnerability they only partially deserved. Since the signing of the Treaty of Westphalia, the Kodiak has remained in service as a prestige unit. Still quite rare because of its elevated production cost and high maintenance requirements, it is sought after to add a mystique of power to a regiment.

OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 5.2 m)
Hit Points:	53 (MP: 86)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	20 (MP: 100)
Defense:	9
Strength:	50 (+20) (MP: 120)
Speed:	Land 88 kph (MP: 120)
Tactical Speed:	Land 146 m
Initiative:	-1 (MP: 0)
Maneuver:	-2 (MP: -5)

Total MP Cost: 755

Total Money Cost: 302,000 Marks

Special Abilities:

Chobham Armor (MP: 21), GPS (MP: 2), NBC Filter (MP: 4), High Rez Radar (2 km, MP: 6), Tactical Radio (Secure, MP: 4), Long Range Radio (Secure, MP: 4), Infrared (1km, MP: 3)

Exotic Abilities:

None

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (14 hours at combat speed, MP: -20), Start Up Time (1 minute, MP: -2)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Particle Accelerator*	5d12	SS	80m	12	2x Long Range, Increased Threat (18-20)	Arc of Fire (Fr), Less Ammo	(162)
Lt. Guided Missiles**	8d10	SS	40m	12	Blast, Indirect, Guided (LG)	Arc of Fire (Fr), Less Ammo	264
71mm Rocket Pack**	8d8	A	48m	24	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	(180)
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo	(88)
Vibroknife***	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Large weapon)	(18)

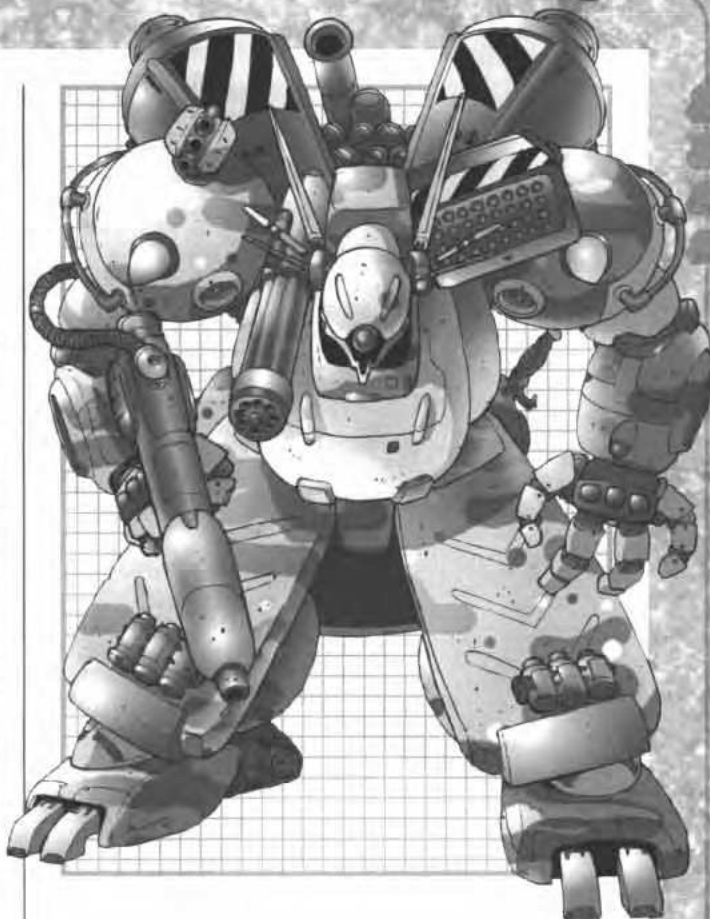
NOTE: *Energy Weapons; **Blast Weapons; ***Slashing Weapon. All weapons are Hardpoint-mounted, the Accelerator is handheld.

KING COBRA

The OACS-12H/AS *King Cobra* is a heavily modified Spitting Cobra. It was developed during the closing weeks of the War of the Alliance by a special team working around the clock at Territorial Arms. The machine arrived too late to have a significant effect on the course of the conflict, but when it did engage in battle it often helped turn the tide. Because King Cobras were extremely expensive and relatively few in number, they were assigned only to veteran pilots.

The King Cobra is designed to punch through enemy lines and engage in close combat. It has heavily reinforced armor designed to give maximum protection to its vital systems and an enormous engine to make it just as fast as other machines, even with its monstrous weapon and armor load.

Its arsenal is extremely varied — too varied, according to the machine's detractors. The main weapon is the advanced Southern Republic Weapon Industries PA-2X Particle Accelerator, an 8 MW particle weapon designed to damage a target with both impact and secondary shock effects. This is backed by twin rocket delivery systems and a 20 mm gatling autocannon mounted on the right shoulder. Multiple melee weapons such as knuckle plates, hand grenades and a large vibromachete round out the weapon payload.



OGL Stat Block

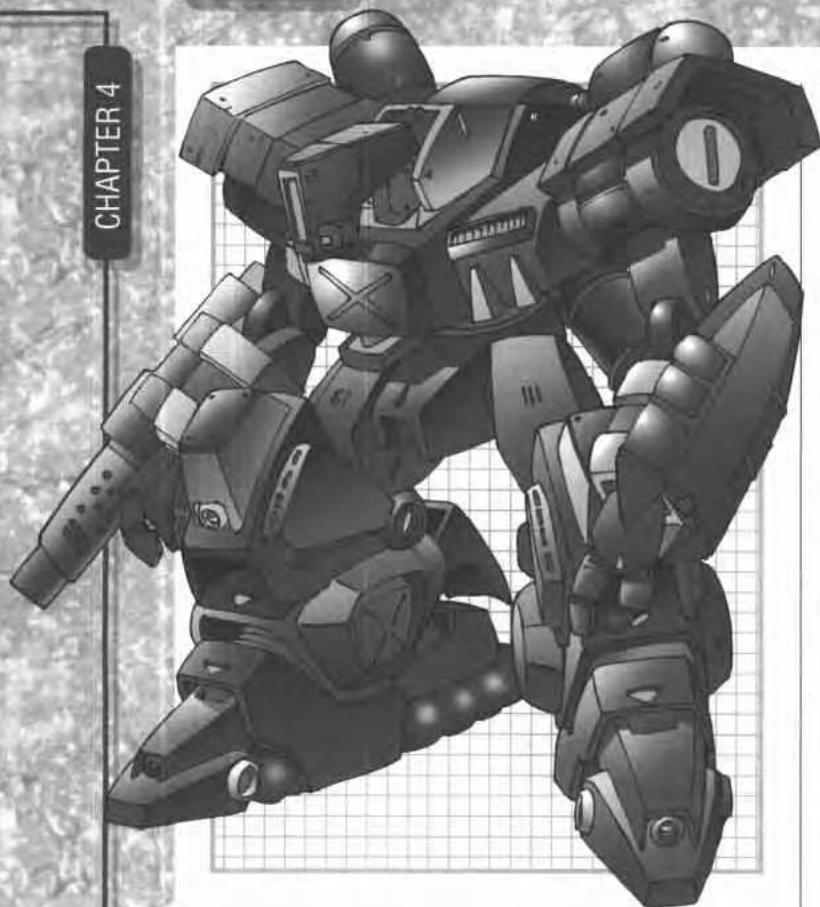
Type:	Giant Robot
Size:	Large (Tall, 5.2 m)
Hit Points:	60 (MP: 100)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	21 (MP: 105)
Defense:	9
Strength:	50 (+20) (MP: 120)
Speed:	Land 99 kph (MP: 147)
Tactical Speed:	Land 165 m
Initiative:	-1 (MP: 0)
Maneuver:	-2 (MP: -5)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Particle Accelerator*	5d12	SS	80m	12	2x Long Range, Increased Threat (18-20)	Arc of Fire (Fr), Less Ammo	(162)
71mm Rocket Pack**	8d8	A	48m	24	Automatic, Blast, Indirect	Arc of Fire (Fr), Short Range	(180)
82mm Rocket Pack**	10d8	A	120m	24	Automatic, Blast, Indirect	Arc of Fire (Fr)	300
20mm Autocannon***	4d12	A	80m	60	Automatic, Extra Ammo	Arc of Fire (Fr)	(104)
Light Guided Mortar**	2d10	SS	30m	10	Blast, Guided (LG), Indirect	Arc of Fire (Fr), Less Ammo	(66)
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo	(88)
Vibroknife****	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Large weapon)	(18)

NOTE: *Energy; **Blast; ***Ballistic; ****Slashing. All weapons are Hardpoint-mounted, the Accelerator is handheld.

Total MP Cost:	851
Total Money Cost:	340,400 Dinars
Special Abilities:	
Chobham Armor (MP: 21), GPS (MP: 2), NBC Filter (MP: 4), Radar (2 km MP: 4), Tactical Radio (Secure, MP: 4), Long Range Radio (Secure, MP: 4), Infrared (1km, MP: 3)	
Exotic Abilities:	
None	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (14 hours at combat speed, MP: -20), Start Up Time (1 minute, MP: -2)	



TYPE 6-16 BATTLE FRAME

The Type 6-16 was the first Battle Frame successfully produced by CEF engineers. Reverse engineered from captured Terranovan machines, the design and testing took the better part of a decade to complete. Battle Frames were already entering into low initial production runs in preparation for full-scale mass production when the 1st Black Talon strike team arrived on Caprice, disrupting the CEF's timetable.

Many of the Type 6-16's components would be familiar to a Terranovan military technician: V-engines, hydraulic powertrain, neural net control systems and a torso cockpit. What would be new is the advanced armor materials, the hover movement system, superconductors and hydrogen fuel systems, among other things. Terran technical expertise cannot yet match the centuries of experience possessed by the Terranovans, however, and consequently the Frame is not as sturdy as its colonial counterparts.

Like all Frames, the 6-16 doesn't have any built-in weapons, and all armament is carried on hardpoints. The standard layout of energy weaponry and guided missiles is intended to complement that of the hovertanks with which it will most often be fielded. To date, the Type 6-16 has fared well in skirmishes with resistance groups in the Caprician Highlands but less well when confronting Black Talon Teams.

OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 4.3 m)
Hit Points:	43 (MP: 66)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	13 (MP: 65)
Defense:	15
Strength:	35 (MP: 93)
Speed:	Land 180 kph (MP: 156)
Tactical Speed:	Land 300 m
Initiative:	-1 (MP: 0)
Maneuver:	-1 (MP: 0)

Total MP Cost:	620
Total Money Cost:	248,000 Credits
Special Abilities:	
INS (MP: 2), NBC Filter (MP: 4), Tactical Radio (Secure, MP: 4), Long Range Radio (Secure, MP: 4), Infrared (1km, MP: 3), Radar (2 km, MP: 4), Laser Designator (RI: 150m, MP: 2)	
Exotic Abilities:	
None	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (14 hours at combat speed, MP: -20), Start Up Time (1 minute, MP: -2)	

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Laser Cannon*	4d12	SS	160m	20	Long Range	Arc of Fire (Fr)	(69)
Guided Missiles**	10d10	SS	150m	6	Blast, Indirect, Guided (LG, SARH)	Arc of Fire (Fr), 2x Less Ammo	220
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo	(88)

NOTE: *Energy Weapon; **Blast Weapons. All weapons are Hardpoint-mounted.

MOAB COMBAT MOUNT

The Moab is an almost perfect example of Caprician walker vehicle engineering. It is a four-legged walker vehicle powered by twin V-engines located at the rear of the main hull. The latter sits on a universal turreted mount, to which a hip block is attached. Four powerful legs come out of the block, two on each side, which give the vehicle a somewhat insect-like appearance. The long legs are segmented for maximum mobility and equipped with claw-like feet for traction on the tough Caprician surface.

The sloped hull holds two crew stations, placed one behind the other and slightly off-center. Both cockpits are protected by heavy armor plates and are fully pressurized for operations anywhere on the surface, though the internal reserves are limited to a few hours. Sensor blisters placed all around the vehicle provide the crew with a view of the outside world.

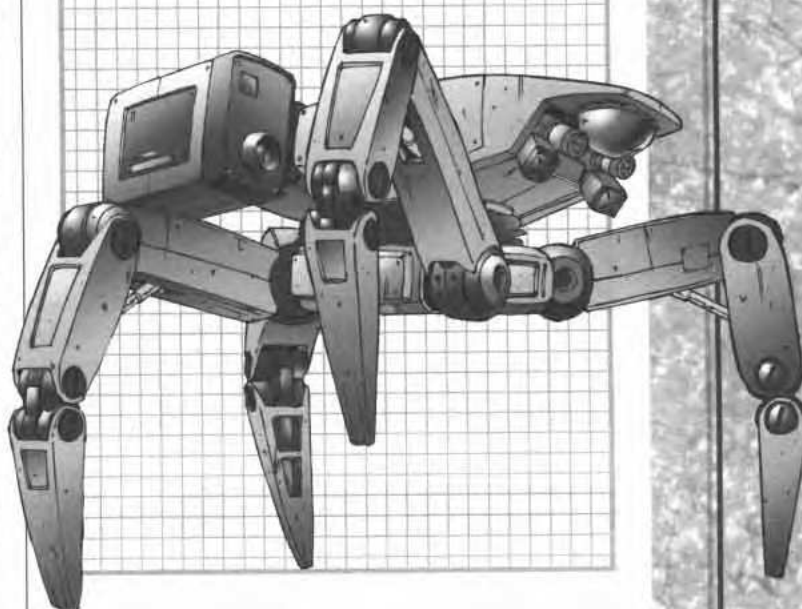
This type of vehicle is mainly deployed in the wastelands outside the Cat's Eye trench, primarily around corporate mining outposts where they serve (with typical Caprician pragmatism) as both security and emergency engineering vehicles. Liberati scouts report that crane and A-frames attachments have sometimes been adapted to the weapon pod hardpoints for just this purpose, though no such vehicle has been reported by the Talon teams onsite yet.

OGL Stat Block

Type:	Giant Robot
Size:	Huge (Long, 9.8 m)
Hit Points:	50 (MP: 60)
Occupancy:	2 operators, no cargo (MP: 20)
Armor Hardness:	20 (MP: 100)
Defense:	8
Strength:	35 (+12) (MP: 75)
Speed:	Land 75 kph (MP: 100)
Tactical Speed:	Land 125 m
Initiative:	-3 (MP: -5)
Maneuver:	-3 (MP: -5)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Gatling Laser	4d12	A	80m	60	Automatic, Extra Ammo	Arc of Fire (Fr)	69
Gatling Laser	4d12	A	80m	60	Automatic, Extra Ammo	Arc of Fire (Fr)	69
Different Gunner							



Total MP Cost: 494

Total Money Cost: 197,600 Credits

Special Abilities:

Chobham Armor (MP: 21), GPS (MP: 2), Life Support (MP: 12), Radar (2 km, MP: 4), Tactical Radio (Secure, MP: 4), Long Range Radio (Secure, MP: 4), Infrared (1km, MP: 3)

Exotic Abilities:

None

Mecha Defects:

No Arms (-35), Noisy (MP: -5), Reduced Endurance (14 hours, MP: -20), Start Up Time (1 minute, MP: -2)

JOVIAN CHRONICLES

The sudden explosion sends you tumbling wildly out of control. Frantically, you grip the maneuvering sticks, struggling with the verniers and apogee thrusters in a desperate attempt to correct your flight vector. Luckily, the resistant outer layers of composite laminated armor covering the heavy torso of your exo-armor have flash-vaporized under the megajoule pulse of the enemy laser beam, sparing you a cold death in the vacuum of space. Your helmet display shows your new trajectory and the gigantic silhouette of the colony cylinder you are protecting, bright pinpoints of light marking the location of the attackers to your left.

You react quickly, spinning your exo-armor around and raising your right arm to align the targeting crosshair with the most likely vector of your rapidly moving opponent. Your massive battle machine mimics your action, its arm-mounted massdriver spewing out a barrage of hypervelocity slugs. A bright explosion in the distance - one down, one to go! Better end this fast, you think: the gauge on your reaction mass tank is already in the red. But you're not worried; you're the best pilot of the Confederation, after all.

THE SOLAR SYSTEM OF 2212

The Jovian Chronicles recount the stories of one possible future, a time in which Mankind has expanded and settled the solar system, going as far as terraforming Venus and Mars. The total human population is around 9 billion; of those, only about 4-5 billion are found on Earth, the rest populating the various colonies of the Solar System. The slow rate of growth of the population is due in part to the incessant civil wars that plagued Earth roughly from the late 21st century up to the late 22nd and the strict birth control procedures applied to ease the demographic pressure on the environment.

HISTORY

In 1977, Dr. Gerard K. O'Neill was the first to propose practical solutions to the inherent problems in designing, building and maintaining giant space stations that could house thousands of people. He used the phrase "planetary chauvinism," first coined by Isaac Asimov, to describe Mankind's inability to see the possibilities that existed outside of the atmosphere. Space, O'Neill contended, could become our new home, solving problems of both pollution and overpopulation. Many praised his work, but his ideas were judged to be impractical and economically unfeasible.

Pollution was an endemic problem in the last years of the 20th Century, with entire regions condemned because of industrial accidents. Ecologically friendly alternatives in the fields of power generation and heavy manufacturing were needed to reduce the strain on the environment. In August 1997, a small corporation released a second generation solar cell that had ten times the efficiency of any previous design. A mere six months later, NASA officials, together with private corporations, were proposing the Solar Power Satellite (SPS) project to Congress, to be implemented over the next twenty years. Plans for a permanent space station to house the array's maintenance and construction workers and their equipment was already in the works. The high cost of sending material and elements up into space led to talks about a lunar base and an ore-launching massdriver later that year. Both would be shipped to the Moon in sections during the late 2010s using technologies developed from the old Apollo program and the more recent Space Shuttle, which led to the first true Heavy Launch Vehicles (HLV).

Although the development of efficient launch systems significantly reduced the cost of putting material in orbit, the cost per kilogram was still considered too high. The orbital elevator concept was one of the options studied as a solution. Prelimi-

nary studies by NASA and European Space Agency teams soon showed that such a device would be nearly impossible to build. The project took an entirely new direction when it was proposed that the orbit of the anchoring space station be lowered and the tether stopped just above the mesosphere, reducing the system's overall length and making its construction possible. The new system was dubbed a skyhook. Although the anchor would be traveling at hypersonic velocity relative to the ground, specialized shuttles could be built to reach it using existing technology.

Use of the skyhook enabled the expansion of both the existing space stations and the primitive lunar settlement. By the end of the second decade of the 21st century, many factories and habitats were ringing the planet, while the Moon Base thrived and became a small city dedicated to supplying the raw material needed for space construction.

Return to Space (2020-2030)

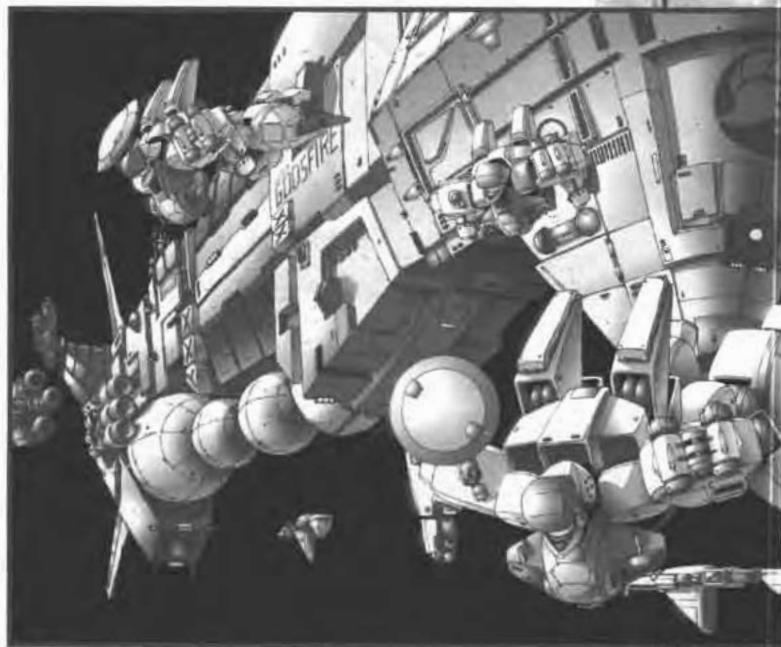
The new wave of interest in the conquest of space brought back the half-forgotten project to explore and even colonize Mars. In particular, the existing space facilities made it easy to launch a single stage Earth to Mars mission. Using the experience gained from the 2024 lunar base project — the vehicles used for the Mars Direct mission were very similar to those used to colonize the Moon in the late 2010s — the first mission to Mars left in early 2027, well ahead of the futurists' projections. The return module was already on Mars, having softlanded two years earlier on a base prepared by robot probes in the early '20s. By the time the first crew left, four other Mars Direct spacecraft were underway, ready to spearhead the construction of the first permanent human city on Mars.

The increased level of prosperity on Earth, fueled by newly available space resources, helped slow down the rate of growth as families required less and less children to ensure their future. The population continued to grow at an exponential rate in poorer regions of the globe, however; new lands were cleared, rain forests destroyed and soils exhausted by repeated farming with inadequate methods. The first permanent orbital settlement projects were seriously proposed at this time, both to take

up part of the population growth and to house the construction crew required to build the massive second generation SPS arrays and orbital factories. In November 2030, the L-5 construction site of Island One, an O'Neill-type colony cylinder, was formally declared open.

The Exploration Years (2030-2070)

The skyhooks allowed probes to be launched to the most distant planets of the Solar System with relative ease, and for the better part of the '20s each planet had been mapped and examined by numerous probes and robots. Based on the findings of the Galileo II manned mission, the Jovian Gas Mining Corporation was founded in February 2037. Just a year later, construction began on



Ironwheel Station in Jovian orbit. The station was completed in a remarkably short time, and by 2040 housed nearly 1000 people, many of them scientists. The formation of JGMC heralded the age of the space companies, corporations formed to exploit the riches of the Solar System.

By 2050, the total human population, on Earth and elsewhere, had reached nearly 13 billion. The first three Island One stations were completed by this time, each fully inhabited by nearly 140,000 people. Proposals for larger Island Two-type stations, with a diameter of 1.4 kilometers and a length of four, were put forward. Some were willing to go



even further out to escape the crowded Earth system. After the general census of 2070, the Martian population was found to be nearly 2 million, almost half of them having emigrated from Earth over the past thirty years. Further out, the first permanent nomad settlements were established in the asteroid belt between Mars and Jupiter by former orbital colonists heading out to the new frontier in home-built spacecraft.

In 2034, a small mining/scientific mission was sent to Mercury. No one could imagine the audacity of the mission's financial backers; they wished to use it as a base to terraform Earth's sister planet, Venus. Soon, Mercurian massdrivers started throwing magnesium and calcium rocks at Venus, chemically bonding the excess CO₂ atmosphere to the crust of the planet. Drones then seeded genetically engineered bacteria and algae to accelerate the project. Early in the 22nd century, the Venusian poles cooled just enough to accept their first domed settlements, although terraforming would not be completed for many centuries.

Depression (2070-2210)

By the second half of the 21st century, the biosphere of planet Earth was in sorry shape: pollution was out of control, particularly in the newly industrialized third-world countries eager to "catch up"; widespread droughts and floods were battering the cities; and the ozone layer was catastrophically depleted. Programs limiting the production of ozone-depleting gases and the development of new, non-polluting energy sources were only slowing down the problems caused by Mankind's insatiable need for energy.

During the 2080s, the social and environmental pressures caused the collapse of several nations. Civil wars, epidemics and balkanization provoked a major exodus toward space and the colonies. Whole populations pooled their life savings to buy a patch of land on a colony somewhere in the Solar System in the hopes of improving their living conditions. In early 2081, the provisional Terran government, an evolution of the United Nations council, took refuge in orbit. To reflect this change, the council officially took on the name of United Solar Nations. The inhabitants of Mars declared their independence in the summer of 2085. During this time, the terraforming of Venus was progressing, and the financing corporations were establishing temporary orbital settlements to prepare entire prefabricated factory units for the construction of future arcologies. By 2086, corporate technical personnel were being shuttled in from Earth's orbital colonies at a rate of several thousand per month.

By the 2090s, the governments of Earth had lost any remaining authority they might have had over the space colonies. The fall of the last superpowers and the subsequent loss of their spacefaring capacities isolated Earth from the rest of Mankind. The period from 2120 to 2180 is often referred to as the "Tough Times." With Earth in disarray, each settlement was more concerned about its immediate survival than politics or trade: the new Venus colony was busy trying to become autonomous, there was intermittent civil war on Mars and the Jovian settlements struggled to survive the harsh conditions of their environment. Jupiter's Trojan asteroids were dismantled and used to build new colony cylinders to house the growing Jovian population, but limited living space remained an endemic problem. It was not unknown for an entire extended family of eight to share a single room.

Meanwhile, the period of civil conflict and unrest on Earth had degenerated into outright war. A league of small nations had banded together under one flag and were methodically taking over as many territories as possible. The Unification War, as the conflict came to be known, ended in 2182. On January 1st, 2184, the Central Earth Government and Administration was founded by the victors. Although they did not control the entire planet, CEGA did rule North America, Europe and large parts of Africa and Asia.

New Beginning (2185-2210)

The resolution of the troubles on Earth signaled the end of a dark period for all. Contact between settlements slowly resumed. It was thought to be the beginning of a new age of peace and prosperity — the events of 2210 would shatter that illusion.

In the early 2200s, Terran scientist Doctor Agram Peyarje developed a "cyberlinkage" system for partial thought-control of machinery and vehicles. CEGA agents quickly realized that it could be used for military purposes and conscripted him. Fearful of the imperialistic views of CEGA, the scientist contacted Jovian operatives and requested political asylum. At about the same time, living creatures were discovered in the atmosphere of Jupi-

ter. Although the two events seemed unconnected at first, they would later prove to be the starting point of a new era for humanity.

Jovian Armed Forces pilots were sent to Venus, where the scientist was attending a seminar, and helped Dr. Peyarje escape. They were however discovered and pursued across the solar system by CEGA and Venusian forces. From the Moon to Jupiter, they left in their path a trail of destruction. By the time the group reached Jovian territory, an entire battle fleet was at their heels. By then, a plot to destroy Elysee, the capital-station of the Jovian Confederation, was uncovered. After what would later be known as the Battle of Elysee, the station was saved, an entire CEGA battle fleet was destroyed and one of the JAF's commanding officers, the very man who directed the Peyarje mission, was arrested as a traitor.

The months following the Battle were tumultuous, to say the least. CEGA officially declared its fleet to have gone rogue, while a witch hunt started to find the people responsible for the whole affair. The true culprits are safely out of sight, however, and a new, troubled age has just begun...

Uses in Other Settings

The powerful giant robots of the Jovian Chronicles universe can be used as stand-in for almost any kind of anime shows' designs. They should mesh well with the transforming fighters of the Ouroboros setting, perhaps representing Colonial self-defense force mecha. With the addition of a mind-impulse link, they could become the largest Neural Riders ever made in Outworld Changelings.

Exo-armors could be used as enemy robots or even Olmonian designs in the Great Machine Decander setting. With a change of technology, they can also be ported over to any fantasy setting that features giant robots. They could represent additional types of Mortal Guardian Armors in the Guardians of Divinity setting, or the Cities' ultimate warmachine designs in Cities & Empire (removing the space flight abilities, of course).

FACTIONS

The human-settled Solar System can be divided in many regions, which have been divided below into "Inner System" and "Outer System" for simplicity (no political alliance should be inferred). The Inner System includes Earth, its Orbital colonies, the Moon, Venus and Mercury. The Outer System includes Mars, the Belt, Jupiter and the Titan settlement. Another major player, the United Solar Nations (USN), while not a country, was added to this roster.

Mercury

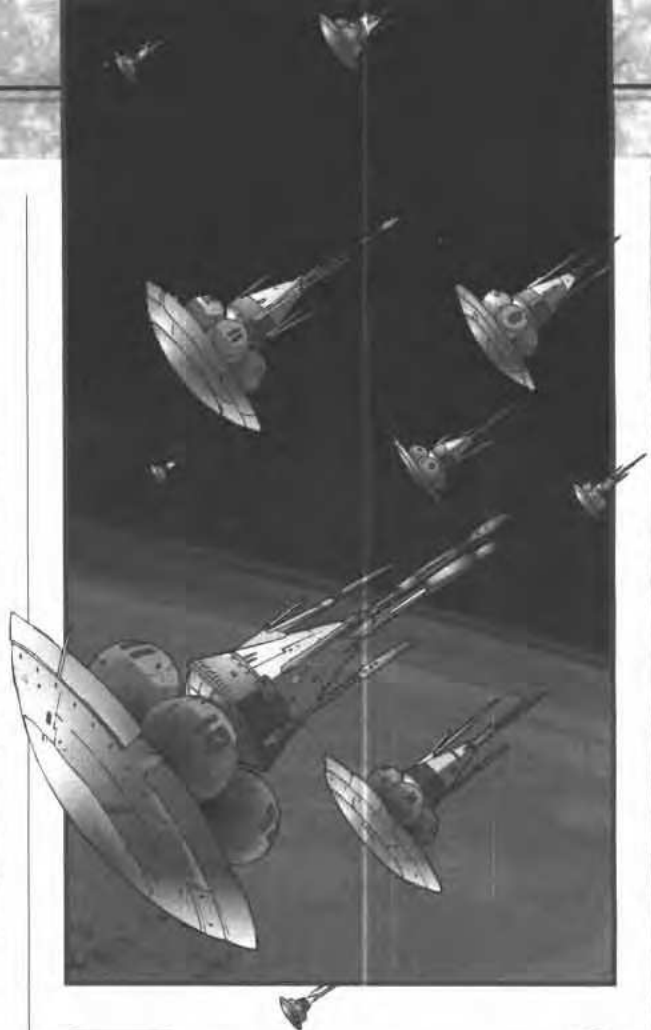
Mercury is a rather small nation-settlement, whose main exports are high quality miniature electronic components and metal-rich ore. Their merchant fleet is also impressive, and their crew are known for their wanderlust. Mercury's population is a strange mix of people: some came here attracted to the rich mineral resources of the planet; others came here to escape the elitist Venusian society.

The most notable characteristic of Mercury is that it is the headquarters of the powerful Merchant Guild, a large association of merchant companies which provide most of the transportation throughout the solar system.

Venus

Venus was terraformed by a consortium of major corporations to create a safe haven for their organizations. The initial phases of the project were surprisingly fast and successful, and Venus is now a marginally habitable planet — although terraforming won't be finished for a couple of centuries yet. In the meantime, the Venusian upper class and their workers live in huge polar arcologies, surrounded by factories and terraforming processors.

The best way to describe Venusian society would be "aristocratic." The inhabitants are the descendants of a large group of people who left Earth and came to Venus mainly to protect their fortune and influence.



Earth

The birthplace of Mankind is a planet damaged by centuries of overpopulation, environmental abuses and civil wars. Only recently has order been restored in the form of the Central Earth Government and Administration (CEGA), a bureaucratic planetary government as ruthless as it is efficient. Earthmen as a whole have an arrogant attitude about them and believe the Earth should lead the solar system as befit its position as the cradle of all humanity. In reality, the Earth needs the colonies' resources to sustain its shattered ecosystem and economy.

Orbital Colonies

The orbital colonies were the salvation of many who fled the Earth during the troubled periods of its recent history. The colonies are huge O'Neil stations parked at the Lagrange points around the planet. Orbitals, as these colonists are referred to, are hard-working, peaceful people who follow the CEGA's lead as a means of protecting their fragile homes.

United Solar Nations

The USN evolved from the old United Nations to provide a neutral meeting ground between the various settlements. In time, it acquired political weight and even founded a private peace-keeping army, the USN Guard, and an interplanetary law enforcement agency, the Solar Police (SolaPol). The USN is now a recognized force in the politics and events that shape the history of the solar system. USN headquarters are located in Earth's orbit.

The Moon

The Moon is the CEGA's industrial center. Its inhabitants are living in huge complexes buried beneath the soil, shielded against solar flares and cosmic radiation. Many of the Earth's heavy industries were moved to the Moon long ago to benefit from the abundant solar power and large mineral deposits found there. The Selenites are disciplined, strong people used to carving their living out of the inhospitable surface of Earth's satellite. They are part of the CEGA but only because it provides them with military protection and new business opportunities.

Mars

Mars is peculiar in that it is divided into two distinct political entities: the Martian Free Republic and the Martian Federation. Border clashes between the two nations are frequent, as they represent ideologies at odds with one another.

The Republic is smaller in terms of territories and resources; it is populated by freedom-minded individuals who are used to think by themselves and who prefer to rely only on their close relations. Most of them live in small fortified homesteads scattered over the surface of the planet.

The Federation is a much more oppressive place, as the government and the population believe in a strict social discipline designed to help them prosper. Inspections are frequent and identification papers mandatory.

The Belt

The myriad of asteroids which make up the Belt are populated by mobile nomad communities, each a micro-society of its own. Most live in large asteroid stations carved right out of the rock. Belters are independent and distrustful of strangers.



The Belt is also home to pirates, who find a haven in its anarchy. Pirates usually prey on passing merchant ships or nomad communities for supplies and consumable, preferring to target vessels with poor thrust and low acceleration. Both Jupiter and Mars are aware of the problem and frequently coordinate patrols to cover more grounds.

Jupiter

The Jovian Confederation is home to the thinkers and workers who have fled the troubled Earth of the past centuries. Their enormous space stations, orbiting Jupiter and protected by sturdy screen generators, are a sight to behold. The Confederation was the first to develop and field exo-armors.

Jovians are community-oriented, intelligent and reliable people. Their ancestors, having taken refuge from wars and misery, have made the Jovian society a peaceful one, dedicated to the study of science and the betterment of life. Although they get along well with most of the other settlements, they distrust both the CEGA and Venus. It is also rumored that certain factions within the Agora (the Jovian government) are hungry for power and may take actions that could put the safety of the Confederation in jeopardy.

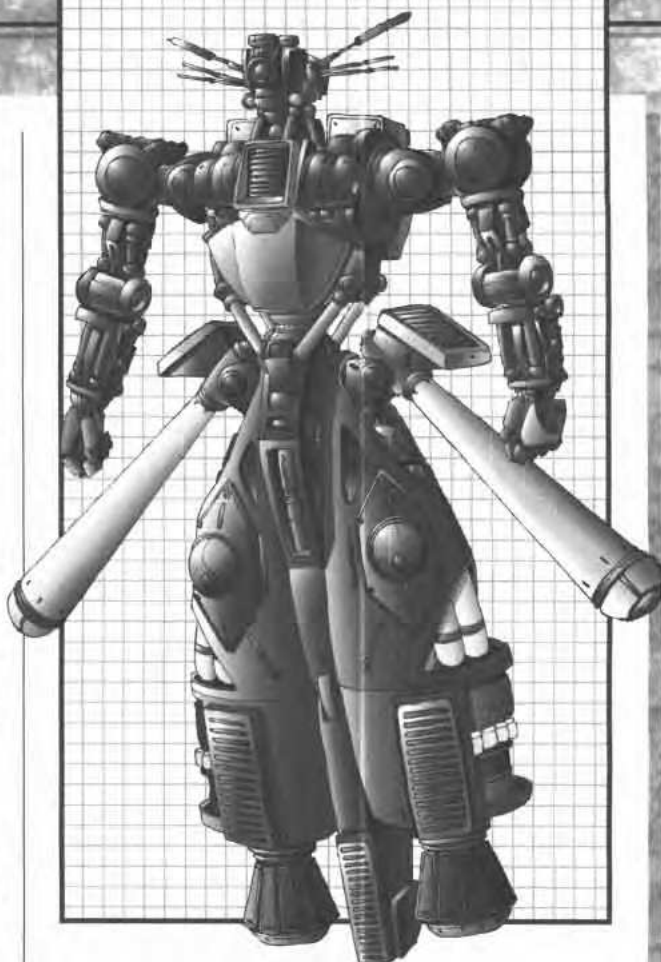
Titan

Titan, the largest moon of Saturn, is famous for having an atmosphere. Though it lays almost twice as far as the Jupiter settlements, Titan plays an important role in the industries of the Solar System. It is the main source for complex hydrocarbon compounds, which are mined on the surface and bulk-shipped by large clipper tankers to the industrial complexes in orbit around the major planets.

MECHANICAL CYCLOPEDIA

The hard times on Earth in the 21st and 22nd centuries and the much more urgent problem of survival in the space colonies have restricted research to areas with immediate practical applications, such as warfare and recycling. Thus, while leaps were made in emergency medicine, weapons and spaceship design, little or nothing else received much attention.

The Edicts have also changed the way science is pursued. They are covenant written into the codes and laws of every place of learning in every nation in the Solar System. They prohibit all access



to high-level information pertaining to bioengineering and nanotechnology, and likewise forbids research into these areas without specific government approval and constant public scrutiny. The Edicts also apply to research into artificial intelligence. While painful for scientists to enforce, they have kept the misuse of technology to a minimum. Although every nation maintains several "illegal" research facilities, these are always heavily safeguarded.

The technology of the twenty-third century is thus less advanced than most people in the twentieth century would have expected. There are no teleporters, no faster-than-light drives and most common technological items used would be recognized by a twentieth century human. The text below offers a quick survey of the major technologies that have shaped the world of the Jovian Chronicles.

Basic Engineering

The twenty-first century was the first to see the advent of new kinds of materials made possible by the zero-g conditions of space stations. The development of workable molecular-scale engineering technology, or nanotechnology, also came about at roughly the same time. Nanotech allowed the design and construction of molecule-sized machines, capable of manipulating very small clumps of atoms. The few types of nanomachines presently in existence are severely restricted and regulated. Nano- and micromachines are used in sealed vacuum tanks to grow material of very high strength for low weight. They are also used to build advanced computer circuitry, complex chemical products and medical microrobots.

Armor

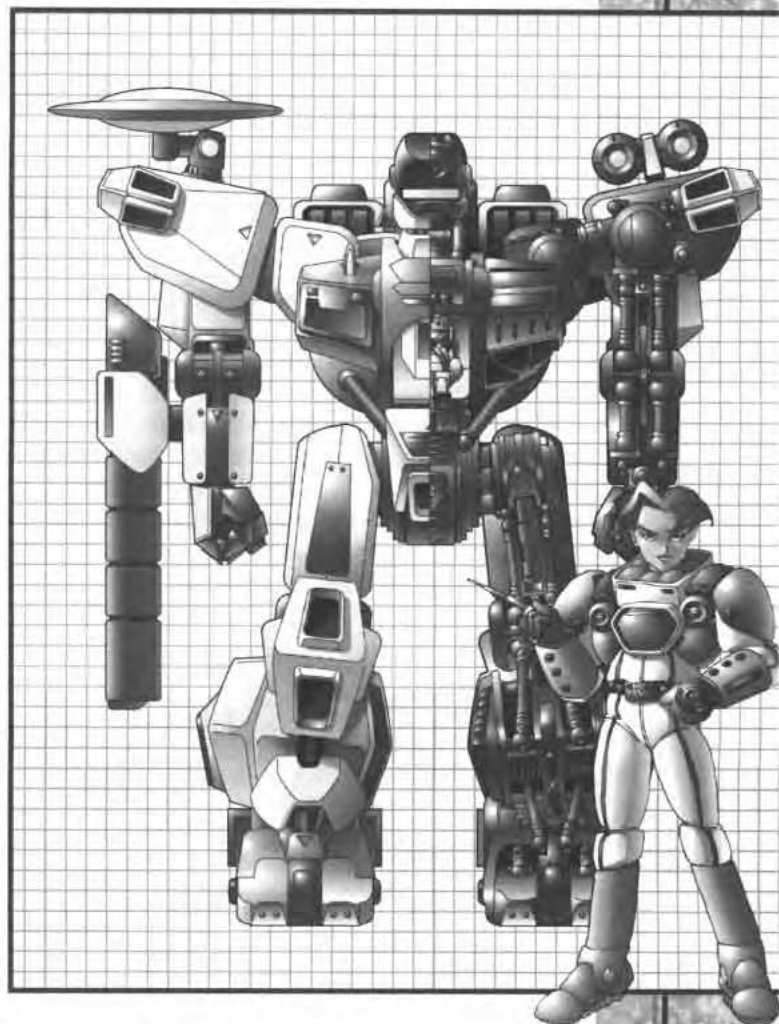
Armor is generally made from a special polymer-ceramite composite with good heat conduction and limited flexibility. Sometimes, a special mesh of artificial diamond fibers is added for extra strength and durability, although this increases the cost of the material. Special care is taken to include limited radiation-absorbing elements within the material as well as making sure there are reduced possibilities of a catastrophic radiation cascade should the armor be hit by high energy cosmic rays.

Power Generation

Most twenty-third century space vehicles are powered by a compact reactor using a high-energy magnetic "bottle" to hold a micro-fusion reaction. These powerplants come in a variety of sizes, from the small engine of scout exo-armors to the huge fusion drive cores of the largest ships. Jovian designs are the most advanced and efficient in existence; heavily shielded, they do not react as violently as most other types of powerplants when their core is breached.

Man-worn powered armors (referred to as exosuits) and other small vehicles use a superconductive battery instead of a fusion powerplant

because of size limitations. Many ground vehicles feature internal combustion engines that use alcohol or synthetic oil as fuel because petroleum has become too rare.



Solar energy is freely supplied by the Sun — one needs only collect the rays and convert them to a more useable form of energy. Although solar-powered ground vehicles are relatively uncommon, many houses and industries use solar panels for non-critical, low-power applications.

Propulsion Systems

The most common type of space propulsion system in use is the PCC (Plasma Combustion Chamber) drive. Using an inert gas or liquid as reaction mass (most often hydrogen or water), the PCC enables ships and other space vehicles to achieve great acceleration for extended periods, reducing the travel time between planets to mere weeks and sometimes even days. Smaller vehicles, such as repair pods or exo-suits, also use the more conventional chemical engines.

Electronic

As advanced manufacturing techniques reduced the size and boosted the power of electronic circuitry, more and more items started to feature them. In space, electronics were pervasive. There was a computer in each helmet, each suit, each ship, all monitoring the machinery that kept their human crew alive. By the twenty-third century, computers and automated workers are an accepted part of the everyday world. They are used in the manufacture of all sorts of items and to provide graphical, easy-to-use control interfaces.



Communication

Even though the signals travel at near light speed, space communications almost always suffer from delays due to the large distances involved. A conversation between the Moon and Earth is almost in real time. A call sent from the Inner Belt to Mars, however, would take 5 or 6 minutes to reach its destination. Any reply from Mars would take the same time to get back.

Computers

Data-processing machines have evolved the most of all electronic technologies. Once simple calculators, they are now capable of limited intelligence and problem solving. Modern computers can often sound very human on the comm system. The Edicts have placed limits on artificial intelligence developments, so there are no known self-aware computers in existence.

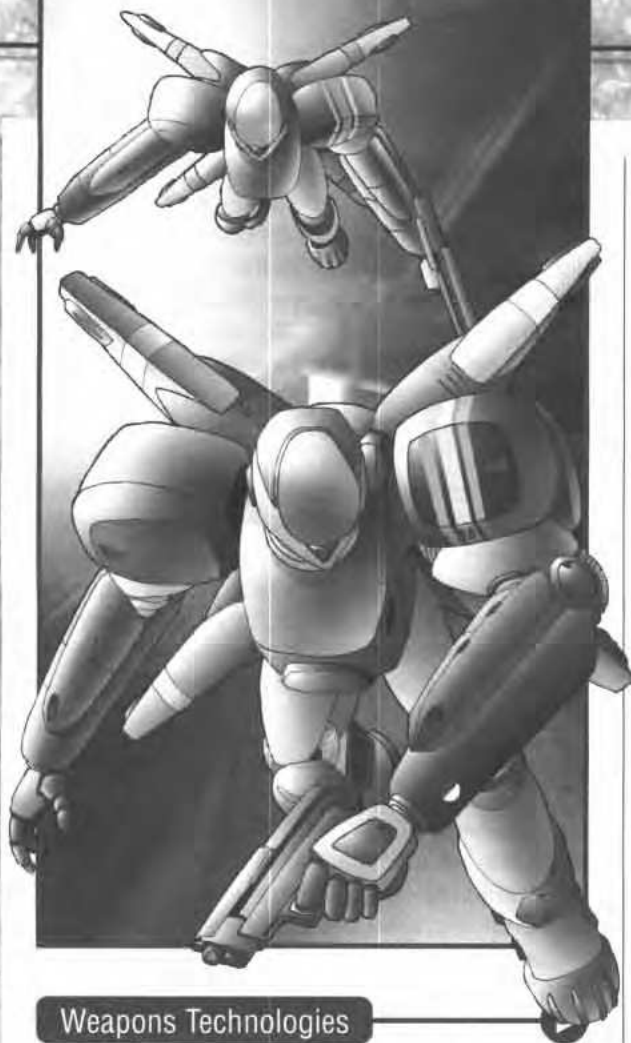
All space vehicles have an advanced computer to figure out trajectories and burn time, freeing the pilot to perform more important tasks (like fighting). Relying extensively on superconductive neural nets and complex expert system programs, they are used as virtual crewmembers on space-ships and as copilots in fighters and exo-armors.

Electronic Warfare

Each modern fighting vehicle carries a host of defensive electronic modules. Some break up their radar signature, while others interfere with the opponent's targeting equipment. These modules are built-in, and no combat vehicle would be designed without them. As a result, they have a much smaller sensor signature than what would be expected due to their large size, and combat is once again short-ranged; weapons that could hit an unprotected target thousands of kilometers ahead have to be used almost at visual range.

Radiation Screens

Early space vessels relied on sensors and heavily shielded "storm room" to protect the crew against solar flares and other cosmic radiations. The problem became more acute while setting up the mining colonies in Jupiter's orbit. With the space emigration boom, a solution was found: why not equip each station and vessel with a shield generator similar in effect to the magnetic field surrounding Earth? Power was plentiful, and the new equipment stopped almost all harmful radiations.



Weapons Technologies

Space is a very special environment for weaponry due to the absence of atmosphere and gravity. Specific weapon types have evolved to answer the peculiar requirements of space combat, such as increased range and lack of an atmospheric medium. Unlike their ground-side cousins, space weapons are also capable of more than destruction. Lasers can be used for secure communication over very long distance; kinetic weapons use the same basic technology as a massdriver reaction engine; a modified missile can be used as a message torpedo.

Lasers: An acronym for Light Amplification by Stimulated Emission of Radiation, the laser has been widely used since its development both as a tool and weapon. Lasers can also be used to send coded messages over very long distances. In general, this is practical only for large installations or in emergency situations, since both the emitter and receiver must remain at the same velocity during the transfer (the space equivalent of standing still).

Kinetic Kill Weapons: These weapons are based on magnetic acceleration technology and cause damage by kinetic energy (i.e., movement). They are divided in two general classes: railguns and massdrivers. A railgun uses a single projectile and accelerates it via twin rails supplying the necessary current along the length of the barrel. Massdrivers use the same principle, but employ a series of magnetic rings instead of rails' current to fire a hail of smaller shells. Each impact causes less damage, but the attack is generally spread over the whole of the target instead of just a spot. It also allows a greater rate of fire.

Particle Cannon: also sometimes known as beam cannons, these are magnetic acceleration devices designed to shoot high energy ions instead of a solid projectile. Particle cannons cause damage through a combination of kinetic energy, heat and electrical induction. Often more powerful than lasers, they cause a lot of collateral damage by shorting electronic circuitry in the target.

Missiles: Missiles are self-propelled, self-guided projectiles. Using sophisticated guidance computers and laser targeting technology, the missile is one of the most deadly weapons available to an exo-armor. Various types of warheads are used, from the simple shaped explosive to the low-yield tactical nuclear charge (although the latter is rather rare and expensive).

Plasma Lance: The plasma lance is a compressed-gas cylinder with an ionizing ejector nozzle at one end. When held by a specially designed manipulator, a direct current from the exo-armor's main fusion reactor is transmitted to the ejector and transforms the gas into a giant plasma flame. The overall device looks like a sword made of light and is very effective against armored opponents. Unfortunately, the small gas supply limits the usefulness of the weapon and the exo-armor must often carry several spare lances.

Space Engineering

In the late eighteenth century, French physicist Joseph Louis Lagrange was studying three-body systems, calculating the gravitational influence of two masses, like the Earth and the Moon, on a third body in their vicinity. He found that at certain points, the gravitational forces of the two bodies were equal (but did not necessarily cancel each other out), creating "stable" points in space. In reality, these points actually orbit their calculated positions because of the influence of the Sun and the other bodies in the solar system.

The first three Lagrange points are located on the axis linking the two main bodies. All three points are relatively unstable: any perturbation of the sat-



ellite along the axis would cause it to gradually fall towards one of the bodies. The other two points, L4 and L5, are on the orbit of the smaller body at 60 degrees on either side of the axis. These are stable points, as demonstrated by the clusters of asteroids found there. These "Trojan" Asteroids were used as on-site material for the construction of the Earth system's colonies. The supplies from the Moon, added to these asteroids, were used to first build wheel-type stations, then, later, the larger O'Neill islands and cylinder colonies.

By 2210, most of the colonies in existence are O'Neill-type cylinders, with the exception of the Jovian ones, which had to be built on the closed Vivarium model because of the increased radiation levels. They are huge cylinders varying between 25 and 40 km in length, usually with thrusters and zero-gee docking bays at both ends. Each is home to up to 20 million people, though smaller ones are not uncommon.

Gravity is simulated by rotation along the axis of the cylinder. O'Neill colonies alternate ground panels with clear panels to let the sunlight inside, and use giant reflectors to direct it; Vivariums use a special "sunline" running the axis of the cylinder for light, since the whole station is thickly covered by rocks for protection against radiation and meteors.

Exo-Armors

The exo-armors (short form for armored exo-skeleton) are the ultimate evolution of the personal combat space suit of the early twenty-first century. Originally no larger than a man, they increased in size until some of the biggest were nothing less than small ships. This was necessary in order to carry the enormous amount of fuel, armament, and electronics necessary to accomplish their assigned mission. Spacefighters remain in use, but their lack of maneuverability and endurance (compared to exo-armors) confines them to strike and fire-support roles.

Linear Frame and Cockpit

The linear frame is the main control element of the exo-armor. It looks like an strength-enhancing industrial exo-skeleton and wraps the pilot, reproducing his every movement. The exo-armor's onboard drive computer then interprets these motions and moves the armor's limbs accordingly, firing apogee motors as needed to compensate. The linear frame control system gives the exo-armor an uncanny maneuverability as well as a strangely human grace.

Space flight is controlled via special joysticks located near the hand controls. A minimum of training is necessary to fully control the armor, even if the computer can provide verbal and visual as-

sistance. The cockpit's internal walls are covered with layered monitors linked to various sensors and cameras in the outer hull of the exo and display an unobstructed view of the world around the vehicle. All relevant operational information (IFF, targeting, velocity, etc) is displayed either in the flight helmet worn by the pilot or directly on the screen. The machine's "head" and main sensors are slaved to the motions of the helmet, adding to the "humanity" of the exo-armor.

Chassis and Actuators

Since an exo-armor is designed to emulate and reproduce the movement of the human body, it is built around a composite skeleton to which the various components and actuators are attached. The "bones" are made of composite material specifically designed to optimize the transfer of loads passing through them. Limited flexibility enables the frame to absorb casual kinetic stress without any damage.

Exo-armors rely on several different types of actuators to move about, from conventional hydraulic systems or high-strength myomar fibers to highly specialized linear electric motors. The smaller exo-suits almost never use hydraulics, as myomars are easier to adapt to the human form. The fibers are wrapped around an inner shell which contains the wearer and various motion-sensitive sensor arrays.

Spaceships

Spacecraft are crucial to humanity's presence in space. Unlike the planet-bound life we all know, in space it is not possible to simply walk from one destination to another (even if the distances involved were on a smaller scale). Some kind of vehicle with life-support is required, be it a spaceship or a comparatively simple space suit with a thruster pack.

Spaceships of the twenty-third century are very different from the practical designs used in the early age of space exploration. Modern ships sport a thick ablative skin and a massive architecture designed to stand particle erosion and lengthy acceleration. Other vessels, designed at a lower

cost or for shorter trips, are just a support frame for habitat modules, fuel tanks and engines.

Each ship relies on powerful fusion thrusters (called plasma drives) to move. When possible, they accelerate for half the voyage, then turn around and decelerate at the same rate for the rest of the trip. Except for a short weightlessness period midway through the trip, the passengers feel gravity during the transfert. When the ship is in acceleration, "up" is toward the nose and "down" toward the engines. The internal organization of a ship is thus very similar to a skyscraper, with decks stacked on top of each other instead of following the length of the hull like a plane or a boat.

Ships are generally not equipped to descend on the surface of a planet. Aside from being non-aerodynamic, they are much too heavy to land on anything bigger than an asteroid. The exceptions to this is the Moon, where small ships routinely land to transport cargo.

Medicine

Medicine in the twenty-third century uses limited genetic engineering to create custom drugs and viruses designed to specifically treat an illness. It is customary for an individual to be gene-mapped at birth to check for any possible disease. Limited accelerated cellular regeneration is possible and often used to regrow missing limbs and organs.

GLOSSARY

Agora: the seat of the Jovian Confederacy's government. It is located in the Jovian capital of Elysée.

Asteroid: small celestial body composed of either metal, rock, ice, or any combination of the above.

Asteroid Belt: the region of space extending from 2.2 to 3.3 AU from the Sun. Most of the asteroids orbit within this zone.

Astronomical Unit (AU): a unit of measure based on the distance from the Earth to the Sun. It is equal to 1.49×10^8 km.

CEGA: short for Central Earth Government and Administration. It is the ruling body that controls much of the Earth system.

Colony Cylinder: a huge, self-contained space station between 25 and 40 km in length, slowly rotating to generate one gee of gravity on the inside surface.

Exo-Armors: large personal armors, standing around fifteen meters high and piloted from a cockpit located in their chest area.

Exo-Suits: also known as powered armors, or powered suits, they are smaller counterparts of the exo-armors. They are worn by their pilot, and generally stand between two and three meters tall.

Floater: secretive, giant "gas bag" creatures living in Jupiter's atmosphere. They are about as intelligent as whales.

Gee: A measure of acceleration, the gee (also noted as simply g) is the pull exerted by the Earth at sea level.

Kinetic Kill Cannons: a class of weapons that cause damage by kinetic energy (impact). See Massdriver, Railgun.

Lagrange Points: locations in space where the gravitational forces of two large bodies are equal. The first three points, L1 to L3, are located on the

axis linking the two bodies. The other two points, L4 and L5, are on the orbit of the smaller body at 60 degrees on either side of the axis and are extremely stable.

Laser: acronym for Light Amplification by Stimulated Emission of Radiation, a laser is a beam of coherent light, generally used to superheat and destroy a target. Lasers can also be used as a radar-style sensor device (lidar) and to transmit messages.

LEO: short for Low Earth Orbit, a 300 to 600 kilometers high, near-circular orbit with a period of about ninety minutes.

Linear Frame: the main control element of an exo-armor or exo-suit. It looks like an industrial exoskeleton and completely supports the pilot, reproducing his every movement.

Magnetic Sail: a thin ring-like device that generates a magnetic field that can be pushed by the solar wind and the magnetic field of planets.

Massdriver: a weapon that uses a series of magnetic coils to fire a hail of small shells.

Missiles: self-propelled, self-guided projectiles, using sophisticated guidance computers and laser targeting technology.

Nomads: colloquial term for groups of people that live on asteroids or spaceships, outside of mainstream human society.

O'Neill Island: a type of colony cylinder which uses glass panels and mirrors to direct sunlight inside.

Particle Cannon: also known as beam cannon, is a magnetic accelerator designed to shoot ions instead of a solid slug. They cause damage through a combination of kinetic energy, heat, and induced electrical charge.

Plasma Combustion Chamber (PCC): one of the most common type of space propulsion system in use, using an inert gas or liquid as reaction mass.

Plasma Lance: a compressed-gas cylinder with

an ionizer ejector system at one end. Current transforms the gas into a giant plasma flame.

Plunger: orbital transfer vehicle that uses aerobraking techniques to reduce the amount of reaction mass required to travel. Also known as Divers.

Railgun: a weapon that magnetically accelerates a single projectile via twin rails along the length of the barrel.

Screen Generator: a device that protects the vehicle or space suit on which it is mounted by either absorbing or deflecting the radiation striking it.

Skyhook: a more feasible kind of "space elevator" that allows cargo to be hoisted up into orbit. It consists of a long tether extending from a low orbit station down into the upper atmosphere.

Solar Police (SolaPol): the law-enforcement agency of the United Space Nations. Similar to Interpol, but with more power.

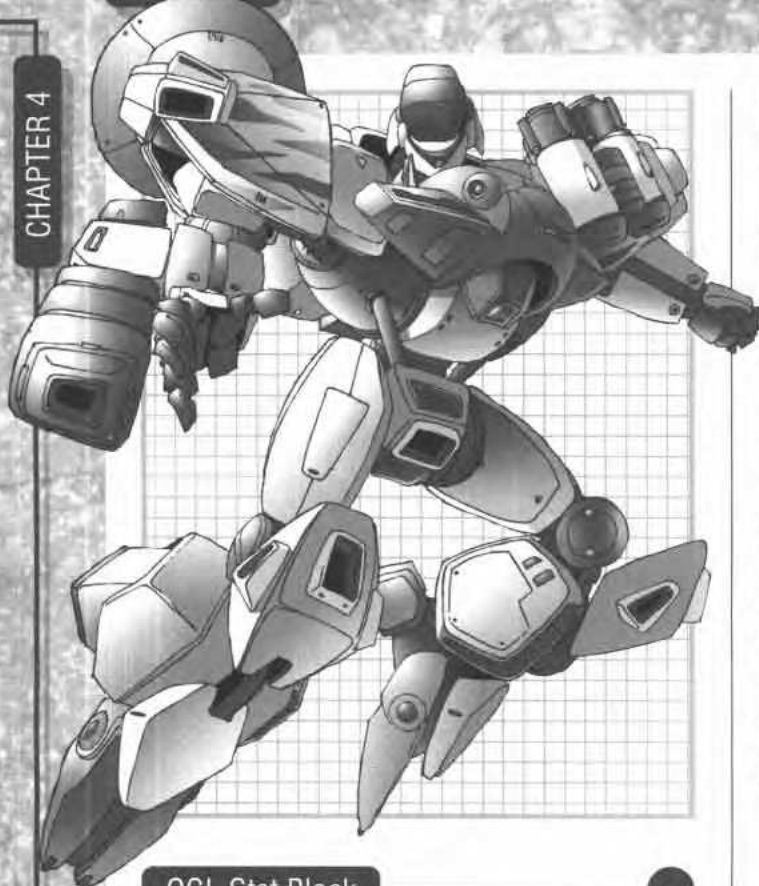
Solar Sail: an extremely thin, highly reflective sail that is pushed by light beams (either solar or laser-generated).

United Space Nations (USN): an advisory council, the USN is the successor of the 20th century's United Nations.

Venusian Bank: a powerful economic consortium, based on Venus.

Vivarium Colony: a type of colony cylinder which is closed and thickly protected against radiation, relying on a "sunline" running along its axis to provide illumination.





OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 15.4 m)
Hit Points:	66 (MP: 52)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	22 (MP: 110)
Defense:	6
Strength:	55 (+22) (MP: 135)
Speed:	Land 108 kph, Realistic Space Flight (Thrust 1.4g, G-Round 300) (MP: 154+924)
Tactical Speed:	Land 180 m
Initiative:	-2 (MP: 10)
Maneuver:	-2 (MP: 10)
Total MP Cost:	2594
Total Money Cost:	518,800 credits

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Particle Cannon*	8d12	SS	320m	n/a	Long Range, Unlimited Shots, Increased Threat (19-20)	Arc of Fire (Fr), Space-Optimized	(364)
MMJ-4 Missiles**	10d12	SS	800m	2	Armor Pen., Blast, Guided (IRH, ARH, LG), Indirect, 2x Long Range	Arc of Fire (Fr), 3x Less Ammo	(357)
Plasma Lances*	10d12	SS	n/a	10	Armor Penetrating, Concealed, Handheld, Increased Critical (x3)	Arc of Fire (Fr), 2x Less Ammo, Melee (Large)	(130)

NOTE: *Energy Weapons; **Blast Weapon. The particle cannon and missiles are Hardpoint-mounted.

EAL-04A PATHFINDER ALPHA

The original Pathfinder was one of the oldest exo-armors in the Jovian military arsenal. A development of the ill-fated EAL-03, the Pathfinder was found to be a rugged if simplistic design, easy to field and maintain. About half of the JAF's exo-armor squadrons were composed of Pathfinders at the time of the Battle of Elysee, and although somewhat fragile by exo-armor standards, they performed admirably despite heavy losses.

Almost immediately following the Battle of Elysee, an upgrade program was started to rebuild the forces of the JAF. The engineers at JAW reworked the design, reshaping the Pathfinder's complex rounded skin into something that was easier to mass-produce. The internal mechanisms were also reworked for improved performances, following pilots' advice and suggestions. The resulting machine was given the identification code Pathfinder Alpha, to distinguish from its predecessor.

The Pathfinder fulfill the battlefield function of scout and light fighter. It is agile and has plenty of reaction mass, and a complete sensor suite to detect possible enemies with. The armament is limited, but effective.

Special Abilities:

Booster (Space, 2.8g, G-Round 100, MP: 616), Chobham Armor (MP: 22), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Ejection Seat (MP: 3), Life Support (MP: 16), Searchlights (MP: 2), Jumping (x5, MP: 20), GPS (MP: 2), High Resolution Radar (Global, 5 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10), Targeting Device (+1 Particle Cannon, MP: 5)

Exotic Abilities:

Limited A.I. (Dex3, Wis3, Cha1, MP: 35)

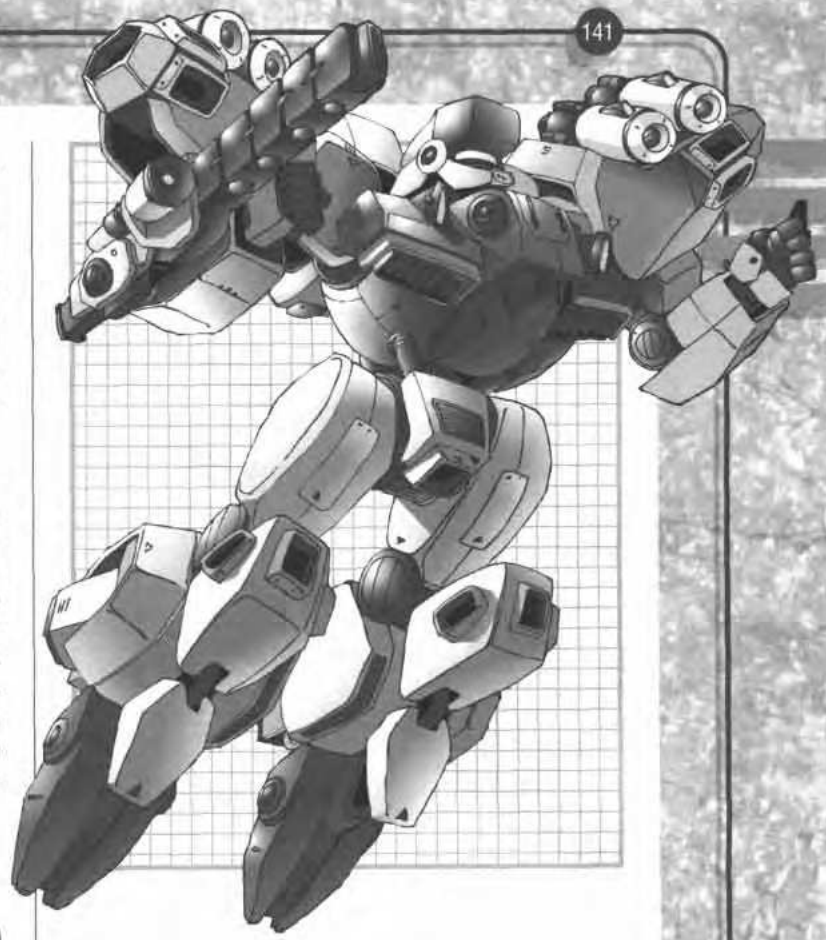
Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)

EAM-03A RETALIATOR ALPHA

The Retaliator is the standard medium interception exo-armor of the JAF. Like its siblings, the Pathfinder and the Vindicator, it has undergone an extensive redesign process in the aftermath of the Battle of Elysee. Well-armed and fast for its size, the updated Retaliator Alpha can take on opponents bigger than itself and still come out on top. The Retaliator is commonly found in strike teams along with Pathfinders because of its high speed and heavy armament.

Unfortunately, the machine is still lacking proper armor. To ensure speed and maneuverability similar to that of light exo-armors while still carrying heavy armament, compromises had to be made. To save further mass, the engineers tried to reduce the size of the thrusters by using a new plasma injector cone with pre-heating. It worked, up to a point: because the verniers have to operate at near maximum level for extended periods of time, they tend to over-heat, which used to cause shutdowns. Though the problem has been mostly solved on the Alpha, green pilots still burn out the thruster array on their first sortie with a Retaliator, despite warning from the tech crew.

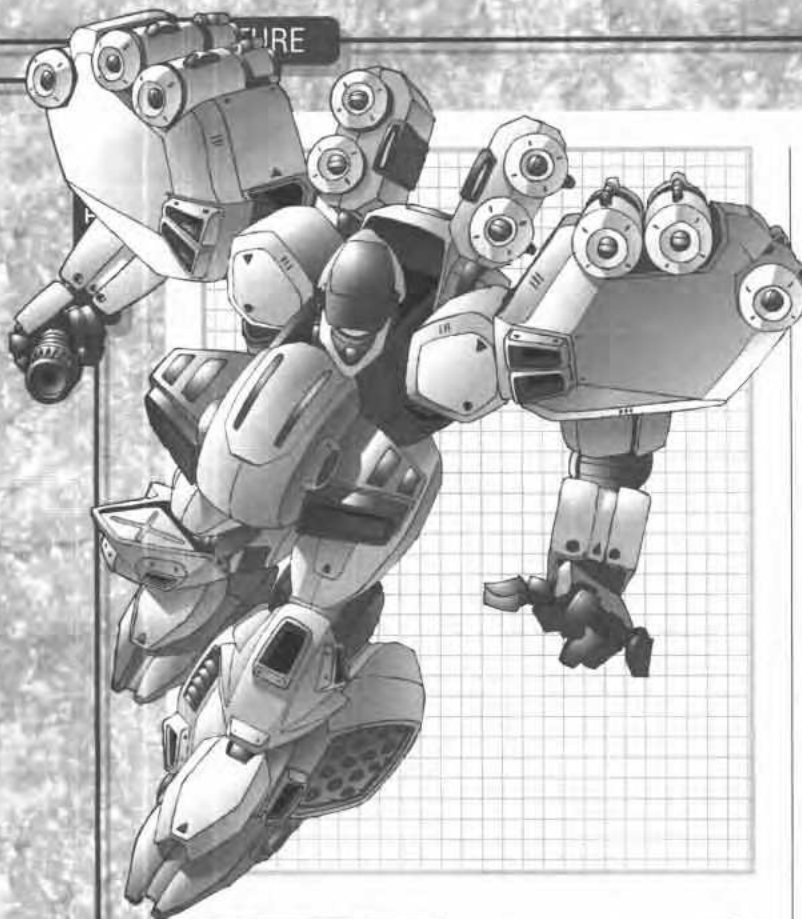


OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 15.5 m)
Hit Points:	66 (MP: 52)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	26 (MP: 130)
Defense:	6
Strength:	55 (+22) (MP: 135)
Speed:	Land 99 kph, Realistic Space Flight (Thrust 1.2g, G-Round 250) (MP: 182+780)
Tactical Speed:	Land 165 m
Initiative:	-3 (MP: 5)
Maneuver:	-2 (MP: 10)
Total MP Cost:	2194
Total Money Cost:	438,800 credits

Special Abilities:
Booster (Space, 2.4g, G-Round 50, MP: 312), Chobham Armor (MP: 26), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Ejection Seat (MP: 3), Life Support (MP: 16), Searchlights (MP: 2), Jumping (x5, MP: 20), GPS (MP: 2), Radar (2 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10)
Exotic Abilities:
Limited A.I. (Dex3, Wis3, Cha1, MP: 35)
Mecha Defects:
Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)

WEAPONS:							
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
JAW-11A Railgun*	7d12	SS	560m	20	2x Long Range	Arc of Fire (Fr)	(182)
MMJ-4 Missiles**	10d12	SS	800m	4	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, 2x Long Range	Arc of Fire (Fr), 3x Less Ammo	357
LMJ-4 Missiles**	7d12	SS	280m	6	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, Long Range	Arc of Fire (Fr), 2x Less Ammo	(303)
Plasma Lances*	10d12	SS	n/a	10	Armor Penetrating, Concealed, Handheld, Increased Critical (x3)	Arc of Fire (Fr), 2x Less Ammo, Melee (Large)	(130)
NOTE: *Ballistic Weapon; **Blast Weapon; ***Energy Weapons. The railgun and missiles are Hardpoint-mounted.							



EAH-01A VINDICATOR ALPHA

The Vindicator is currently the most powerful mass-produced exo-armor in the solar system. Because of its high cost, it is usually assigned to proven pilots or squadron commanders only. The massive armament and armor give the Vindicator a tremendous advantage in combat. The Vindicator program was started only two years ago, in 2208, as a direct result of the introduction of the Wyvern by the CEGA. The JAF's generals felt that since the Wyvern was nearly the equal of the Retaliator in combat, they needed an even more powerful unit to stay in the forefront of the arm race.

The Vindicator is such a machine. Although a bit slow, its massive light missile batteries can easily overwhelm most close defense systems. The heavy warheads carried on the shoulders and in the backpack can even be used to destroy or severely cripple small ships or damage large ones. A pair of Jovian Optics anti-missile turrets guard the exo against return fire. Its most impressive weapon, however, is the combination mass-driver/laser mounted on the right arm. The presence of a non-ammunition based weapon extends the combat endurance of the Vindicator, enabling it to get rid of small threats while saving the precious massdriver ammunition for more important targets.

OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 16.4 m)
Hit Points:	72 (MP: 72)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	26 (MP: 130)
Defense:	6
Strength:	65 (+37) (MP: 165)
Speed:	Land 45 kph, Realistic Space Flight (Thrust 0.9g, G-Round 450) (MP: 78+1053)
Tactical Speed:	Land 75 m
Initiative:	-3 (MP: 5)
Maneuver:	-2 (MP: 10)
Total MP Cost:	3382

Total Money Cost: 676,400 credits

Special Abilities:

Booster (Space, 1.8g, G-Round 150, MP: 702), Chobham Armor (MP: 26), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Ejection Seat (MP: 3), Life Support (MP: 16), Searchlights (MP: 2), Jumping (x5, MP: 20), GPS (MP: 2), Radar (2 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10)

Exotic Abilities:

Limited A.I. (Dex3, Wis3, Cha1, MP: 35)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
JAW-15 Massdriver*	10d12	A	800m	50	2x Long Range, Extra Ammo	Arc of Fire (Fr)	(346)
Laser Cannon***	5d12	SS	800m	n/a	3x Long Range, Unlim. Shots	Arc of Fire (Fr)	(346)
HMJ-6 Missiles**	12d12	SS	960m	10	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, 2x Long Range	Arc of Fire (Fr), Less Ammo	858
LMJ-1 Missiles**	5d12	SS	200m	40	Armor Pen., Blast, Extra Ammo, Guided (IRH, ARH, LG), Indirect, Long Range	Arc of Fire (Fr)	(476)
Plasma Lances*	10d12	SS	n/a	10	Armor Penetrating, Concealed, Handheld, Increased Critical (x3)	Arc of Fire (Fr), 2x Less Ammo, Melee (Large)	(130)
Anti-Missile System***	4d6	A	72m	n/a	Cone, Long Range, Unlimited Shots	Arc of Fire (Fr), Low Penetration	(112)

NOTE: *Ballistic Weapon; **Blast Weapon; ***Energy Weapons. The massdriver/laser and heavy missiles are Hardpoint-mounted.

CEA-01 SYREEN

The Syreen was hastily designed to be a stopgap measure to the recent colonial advances in exo-armor technology. Using an old OTV (Orbital Transfer Vehicule) model, CEGA technicians built a legless and crude craft capable of defending itself in hand-to-hand combat as well as carrying anti-ship missiles. Because of the original nature of its propulsion system, the Syreen is capable of high acceleration, but suffers from poor range and maneuverability. The latter was improved by the recent addition of vectoring plates to the main nozzle. These plates need constant attention however, and many technicians complain they are spending too much time on them.

The most amazing piece of equipment is surely the Active Close Defense Laser System (ACDLS for short), a computer-guided, variable range laser array composed of four independently focusing lenses. These serve as the Syreen's main ranged weapon, except when an opponent approaches the Syreen within 25 meters: the computer then automatically takes over and fires at the new threat. This is beginning to cause problems as Syreens sometimes open fire on friendly units, acting on misread IFF signals.

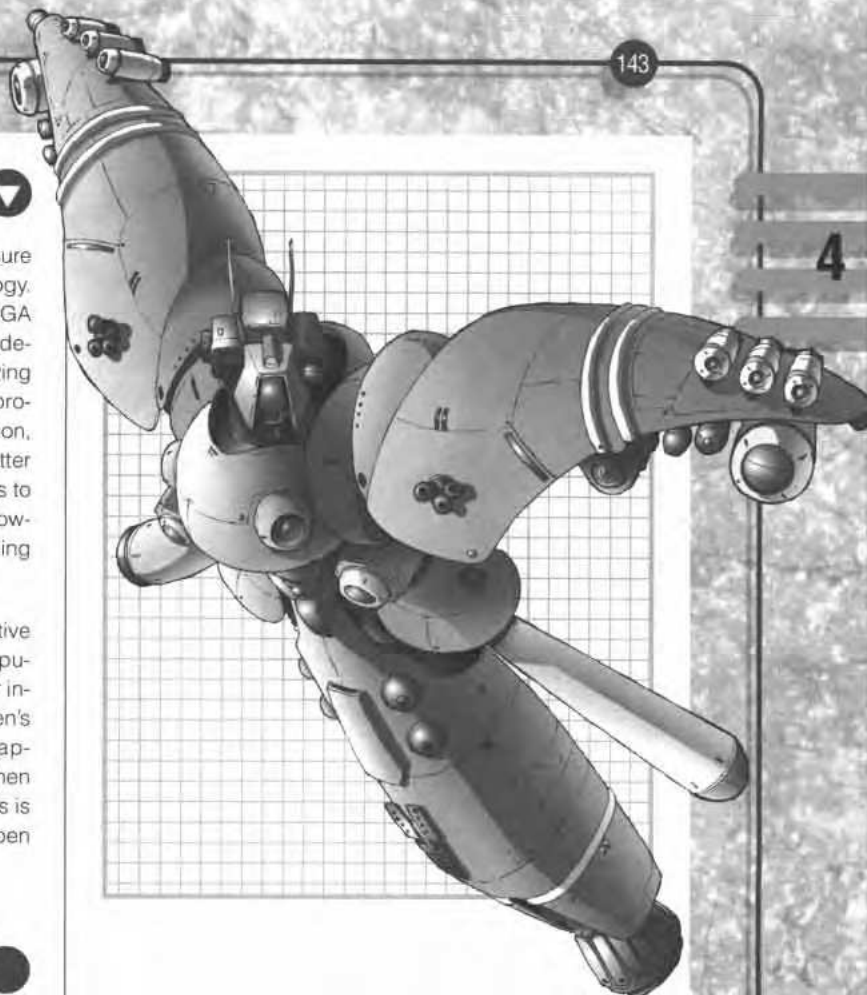
OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 17.2 m)
Hit Points:	40 (MP: 0)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	22 (MP: 110)
Defense:	6
Strength:	45 (+27) (MP: 105)
Speed:	Realistic Space Flight (Thrust 1.5g, G-Round 250) (MP: 825)
Tactical Speed:	n/a
Initiative:	-4 (MP: 0)
Maneuver:	-4 (MP: 0)
Total MP Cost:	2456

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
ACDLS Laser Mode*	4d12	S	160m	n/a	Long Range, Semiauto, Unlimited Shots	Arc of Fire (Fr)	(208)
ACDLS Melee Mode*	5d12	SS	n/a	n/a	Unlimited Shots	Arc of Fire (Fr), Melee	(130)
LAC-1 Missiles**	5d12	SS	100m	4	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect	Arc of Fire (Fr)	(390)
A3 Missiles**	10d12	SS	400m	4	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, Long Range	Arc of Fire (Fr), 3x Less Ammo	(325)
CSH-4 Missiles**	12d12	SS	960m	10	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, 2x Long Range	Arc of Fire (Fr), Less Ammo	858

NOTE: *Energy Weapon; **Blast Weapons. The missiles are Hardpoint-mounted.



Total Money Cost: 491,200 credits

Special Abilities:

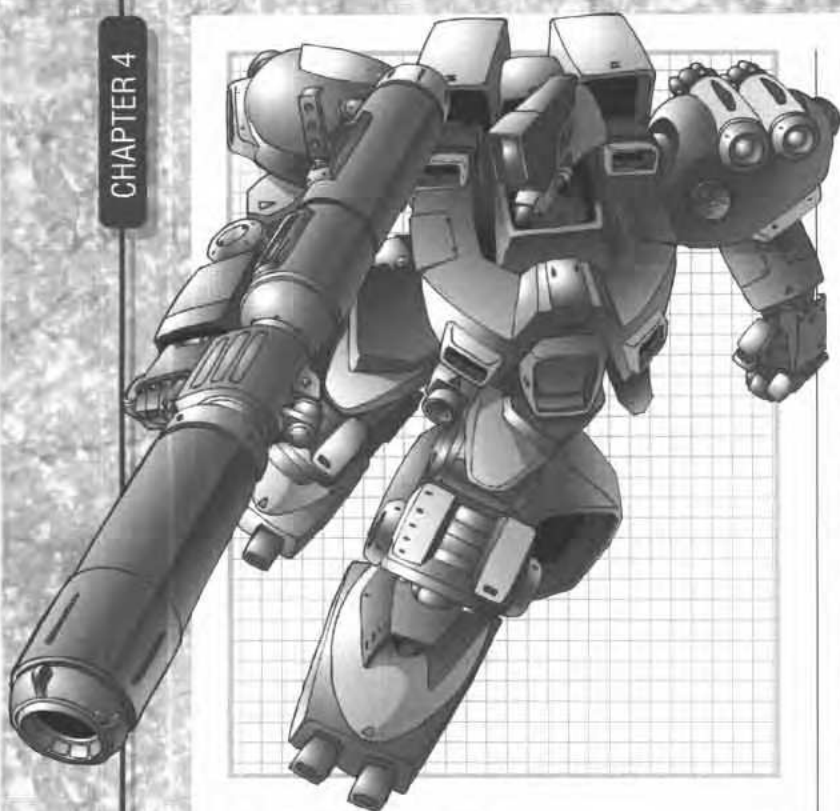
Booster (Space, 3g, G-Round 50, MP: 330), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Defensive Jammer (+4, MP: 12), Ejection Seat (MP: 3), Life Support (MP: 16), GPS (MP: 2), Radar (2 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10)

Exotic Abilities:

Limited A.I. (Dex3, Wis1, Cha1, MP: 25)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)



CEA-05 WYVERN

As the Retaliator was gradually introduced in the JAF's front line units, the CEGA Council decided they needed a new, more modern exo-armor design to face it. Although efficient, the most recent updates of the Syreen were hopelessly outclassed, so the research was oriented in a new direction. Martian Federation-bought Defenders were moved with great secrecy to the LAC base in the Tycho Crater to be deassembled and studied. Then, using the basic frame as a guide, the engineers set out to create an exo-armor which could stand against current Jovian designs and win.

The head unit was completely redesigned, scrapping the front and lateral sensor arrays of the Defender to make room for an anti-missile system as well as two massdrivers for close combat. The armor plate covering the neck unit was retained for additional protection. A large hypergolic bazooka provide the main firepower. Wargames with Venusian HDF troops have proved the soundness of the overall Wyvern design. Its only major flaw is the lack of an energy-based main weapon system, which greatly limits the operational range of the unit.

OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 16.9 m)
Hit Points:	72 (MP: 64)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	26 (MP: 130)
Defense:	6
Strength:	55 (+22) (MP: 135)
Speed:	Land 54 kph, Realistic Space Flight (Thrust 1.2g, G-Round 275) (MP: 104+858)
Tactical Speed:	Land 90 m
Initiative:	-3 (MP: 5)
Maneuver:	-2 (MP: 10)
Total MP Cost:	2387

Total Money Cost: 477,400 credits

Special Abilities:

Booster (Space, 2.4g, G-Round 75, MP: 468), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Ejection Seat (MP: 3), Life Support (MP: 16), Searchlights (MP: 2), Jumping (x5, MP: 20), GPS (MP: 2), Radar (2 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10)

Exotic Abilities:

Limited A.I. (Dex3, Wis3, Cha1, MP: 35)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)

WEAPONS:

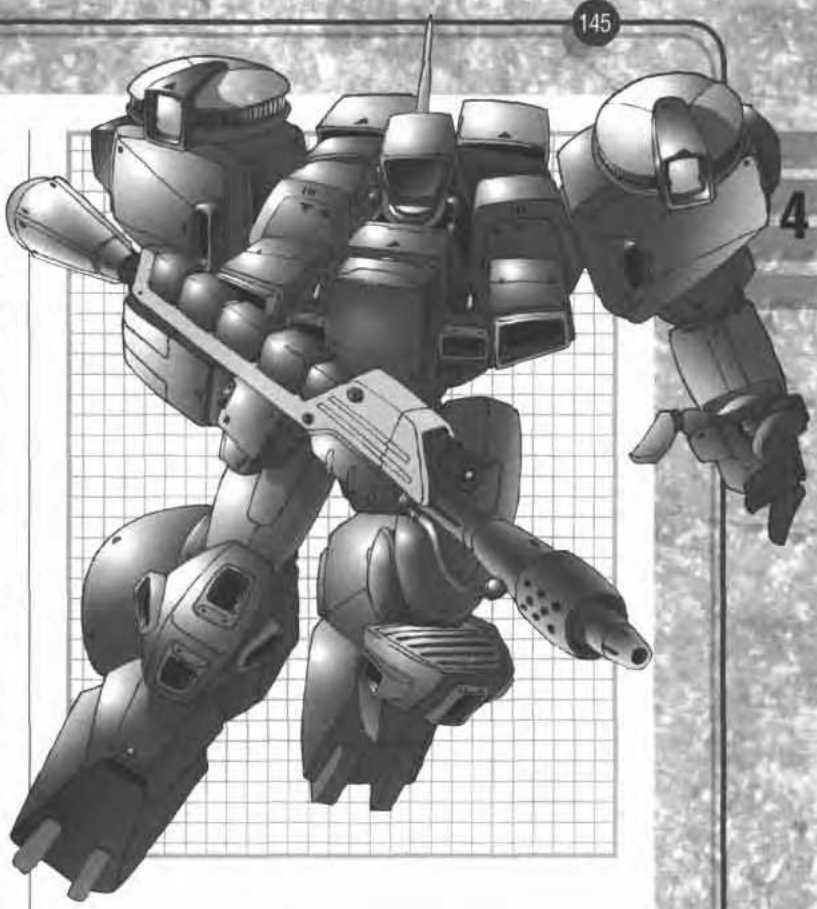
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
LACW-8 Bazooka*	10d12	A	800m	6	2x Long Range, Handheld	Arc of Fire (Fr), 2x Less Ammo	(130)
3-M3 Missiles*	12d12	SS	960m	2	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, 2x Long Range	Arc of Fire (Fr), 3x Less Ammo	429
Rocket Canisters*	3d6	SS	27m	40	Blast, Extra Ammo, Indirect, Volley	Arc of Fire (Fr)	(70)
LACW-1 Massdriver**	3d12	A	30m	200	2x Automatic, 3x Extra Ammo	Arc of Fire (Fr), Short Range	(97)
Anti-Missile System***	4d6	A	72m	n/a	Cone, Long Range, Unlimited Shots	Arc of Fire (Fr), Low Penetration	(112)

NOTE: *Blast Weapons, **Ballistic Weapon; ***Energy Weapon. Both the rockets and missiles are Hardpoint-mounted.

CEA-09 CERBERUS

The Cerberus is the latest addition to the CEGA arsenal. It has not seen combat yet (at least not officially) although pilots have been assigned to the available machines. The Cerberus is the result of the collaboration of the engineers of CEGA, LAC and a Venusian firm (the name of which remains unrevealed at this time). Conceived as a hunter/killer exo, the Cerberus - unlike the Wyvern - is an entirely new design. The name Cerberus comes from its two massive shoulder pods in which a vast array of ECM and EWAC systems are stored, as are several sensors, scanners and stereoscopic cameras. When these systems are active, the machine seems to have three heads, hence its name.

Since the Cerberus relies more on speed, maneuverability and its hit-and-run attack capacities, its weaponry is reduced. For the first time on a CEGA machine, a plasma lance is incorporated for hand-to-hand combat. The real bite of the Cerberus is its main weapon, a LACM-11 30 mm massdriver rifle that fires depleted uranium-tungsten sabot discarding rounds. The Newton & Ewell targeting and tracking system is mostly responsible for the incredible accuracy of the weapon, which is said to be able to hit a running light on a ship from kilometers away.



OGL Stat Block

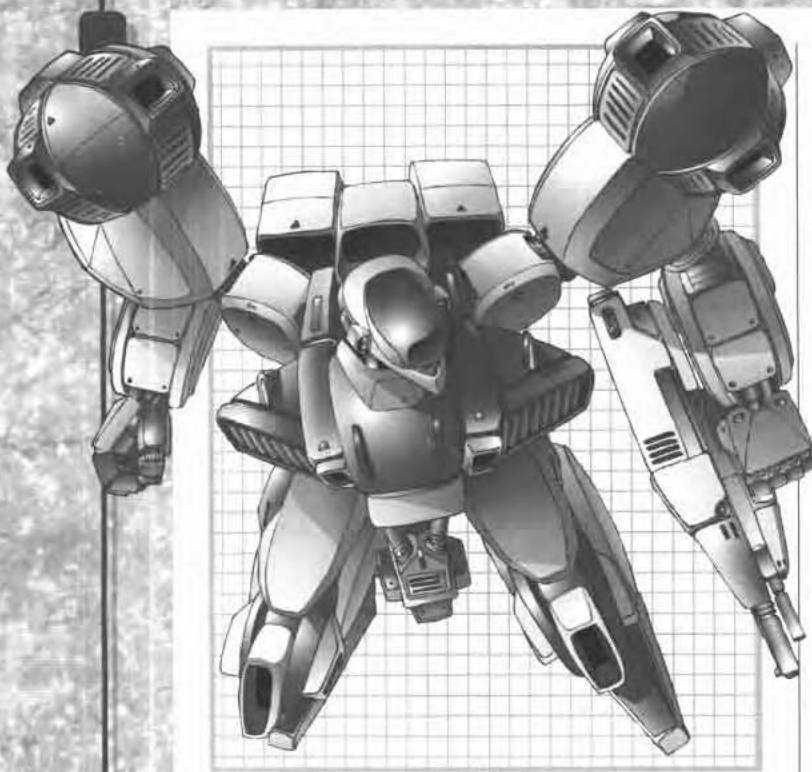
Type:	Giant Robot
Size:	Gargantuan (Tall, 17.1 m)
Hit Points:	75 (MP: 70)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	26 (MP: 130)
Defense:	6
Strength:	60 (+25) (MP: 150)
Speed:	Land 54 kph, Realistic Space Flight (Thrust 1.3g, G-Round 250) (MP: 104+845)
Tactical Speed:	Land 90 m
Initiative:	-2 (MP: 10)
Maneuver:	-2 (MP: 10)
Total MP Cost:	2948
Total Money Cost:	589,600 credits

Special Abilities:
Booster (Space, 2.5g, G-Round 150, MP: 975), Chobham Armor (MP: 26), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Radar Jammer (+4, MP: 12), Radio Jammer (+4, MP: 12), Defensive Jammer (+4, MP: 12), Ejection Seat (MP: 3), Life Support (MP: 16), Searchlights (MP: 2), Jumping (x5, MP: 20), GPS (MP: 2), Radar (3km, MP: 30), Magnetic Sensor (2km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10)
Exotic Abilities:
Limited A.I. (Dex3, Wis3, Cha1, MP: 35)
Mecha Defects:
Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
LACW-3 Massdriver*	10d12 A		1600m	20	Automatic, 3x Long Range, Handheld	Arc of Fire (Fr)	433
LACW-1M Massdriver*	4d12 A		80m	n/a	2x Automatic	Arc of Fire (Fr), Short Range	(52)
Plasma Lances*	10d12 SS		n/a	5	Armor Penetrating, Concealed, Handheld, Increased Critical (x3)	Arc of Fire (Fr), 2x Less Ammo, Melee (Large)	(104)

NOTE: *Ballistic Weapon; **Energy Weapons



HA-101 BRIMSTONE

The Hermes Aerospace Brimstone is the newest exo-armor to enter service in the ranks of the Mercurian defense force. The machine is the first home-grown exo-armor entirely produced in Mercurian space. It was designed to answer to the needs of both the army and the Merchant Guild, who has ordered the Brimstone to escort its transports. The most prominent characteristic of the Brimstone is its large thrust rating. Its eight main engines, all based on PCC technology, generate enough thrust to propel the craft forward at almost three Earth gravities. Unfortunately, this is achieved at the expense of the reaction mass reserve.

Hermes incorporated a number of design elements that were specifically requested by the Mercurian government and the Merchant Guild. The Brimstone has large manipulators that are useful when handling material and ships in space docks. It also features numerous heatsinks and coolant units since it is often operating under high temperature conditions. The sensors are completely protected by a tough one-way radome. Auxiliary cameras are placed in twin pod mounts on either side of the head unit and on the torso.

OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 15.4 m)
Hit Points:	66 (MP: 52)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	26 (MP: 130)
Defense:	6
Strength:	55 (+22) (MP: 135)
Speed:	Land 36 kph, Realistic Space Flight (Thrust 1.4g, G-Round 150) (MP: 78+546)
Tactical Speed:	Land 60 m
Initiative:	-2 (MP: 10)
Maneuver:	-2 (MP: 10)
Total MP Cost:	1712

Total Money Cost: 342,400 credits

Special Abilities:

Booster (Space, 2.8g, G-Round 25, MP: 182), Chobham Armor (MP: 26), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Ejection Seat (MP: 3), Life Support (MP: 16), Searchlights (MP: 2), Jumping (x5, MP: 20), GPS (MP: 2), Radar (2 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10)

Exotic Abilities:

Limited A.I. (Dex3, Wis3, Cha1, MP: 35)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
FESTar-12 Rifle*	6d12	A	240m	60	Automatic, 2x Extra Ammo, Long Range, Handheld	Arc of Fire (Fr)	(260)
M10 Missiles**	7d12	SS	280m	6	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, Long Range	Arc of Fire (Fr), 2x Less Ammo	(303)
M30 Missiles**	10d12	SS	800m	2	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, 2x Long Range	Arc of Fire (Fr), 3x Less Ammo	330
Plasma Lances*	10d12	SS	n/a	10	Armor Penetrating, Concealed, Handheld, Increased Critical (x3)	Arc of Fire (Fr), 2x Less Ammo, Melee (Large)	(130)

NOTE: *Ballistic Weapon; **Blast Weapon; ***Energy Weapons. The missiles are Hardpoint-mounted.

G-1 RYU

The G-1Ryu is a relatively recent development of the Venusian exo-armor industry. It is a state-of-the-art, high performances exo-armor which is intended to become the main Venusian trooper unit in the next decade. The G-1 is a relatively unknown vehicle, as it was not well publicized by the Home Defense Force and its maker, Venusian Aero Corp. Hard data is hard to get, based on what little has been released about them and pictures taken at long range.

The Ryu is built alongside traditional exo-armor design principles. It uses both hydraulic and myomar technologies to move its limbs and weapon systems, and is powered by a standard micro-fusion reactor located in the rear section of the body. The standard G-1 configuration has a large thruster backpack, indicating good reaction mass reserve and good or superior acceleration.



OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 16 m)
Hit Points:	60 (MP: 40)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	25 (MP: 125)
Defense:	6
Strength:	50 (+20) (MP: 120)
Speed:	Land 99 kph, Realistic Space Flight (Thrust 1.1g, G-Round 300) (MP: 175+825)
Tactical Speed:	Land 165 m
Initiative:	-2 (MP: 10)
Maneuver:	-2 (MP: 10)
Total MP Cost:	2469
Total Money Cost:	493,800credits

Special Abilities:

Booster (Space, 2.2g, G-Round 100, MP: 550), Chobham Armor (MP: 25), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Ejection Seat (MP: 3), Life Support (MP: 16), Searchlights (MP: 2), Jumping (x5, MP: 20), GPS (MP: 2), Radar (Global, 2 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10)

Exotic Abilities:

Limited A.I. (Dex5, Wis5, Cha1, MP: 55)

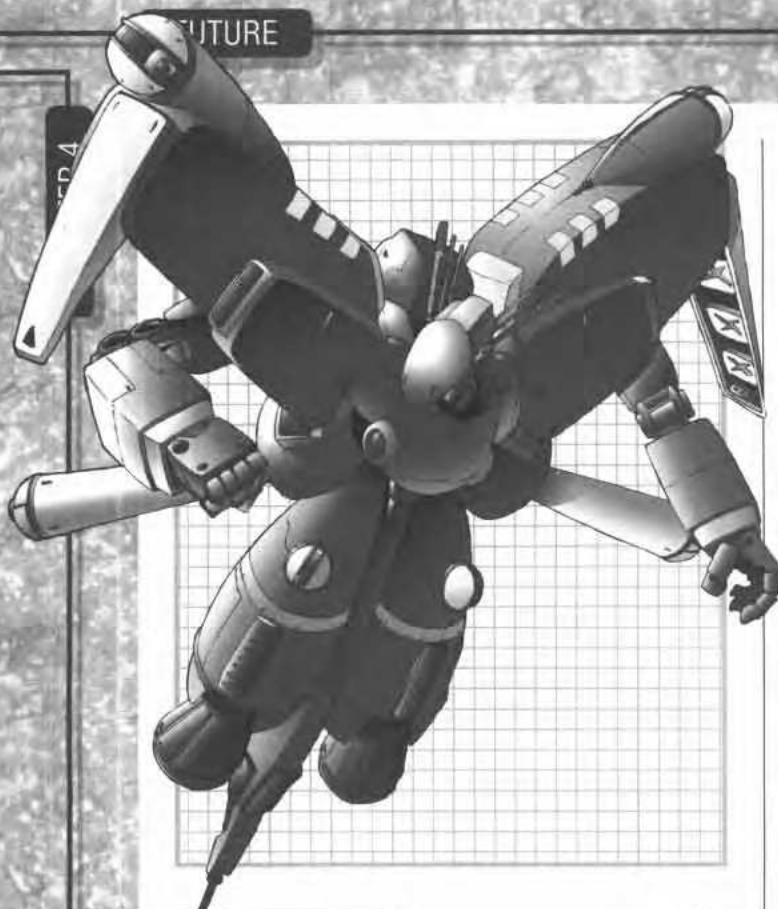
Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Massdriver Rifle*	6d12	A	240m	200	2x Automatic, 3x Extra Ammo, Long Range, Handheld	Arc of Fire (Fr)	364
ALM-16 Missiles**	10d12	SS	800m	2	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, 2x Long Range	Arc of Fire (Fr), 3x Less Ammo	(357)
Head Pulse Lasers***	4d12	A	40m	240	2x Automatic, 3x Extra Ammo	Arc of Fire (Fr), Short Range	(130)
Plasma Lances*	10d12	SS	n/a	10	Armor Penetrating, Concealed, Handheld, Increased Critical (x3)	Arc of Fire (Fr), 2x Less Ammo, Melee (Large)	(130)

NOTE: *Ballistic Weapon; **Blast Weapon; ***Energy Weapons. The missiles are Hardpoint-mounted.



OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 17 m)
Hit Points:	40 (MP: 0)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	24 (MP: 120)
Defense:	6
Strength:	50 (+20) (MP: 120)
Speed:	Realistic Space Flight (Thrust 1.5g, G-Round 250) (MP: 900)
Tactical Speed:	n/a
Initiative:	-2 (MP: 10)
Maneuver:	-2 (MP: 10)
Total MP Cost:	2117

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Hecantonchires-1*	5d12	S	200m	n/a	Long Range, Semiauto, Unlimited Shots	—	390
Hecantonchires-2*	4d6	S	36m	n/a	Semiauto, Unlimited Shots	—	(140)
Railgun*	10d12	S	1600m	10	3x Long Range	Arc of Fire (Fr), Less Ammo	(260)
A9 Missiles**	10d12	SS	400m	6	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, Long Range	Arc of Fire (Fr), 3x Less Ammo	(325)

NOTE: *Energy Weapon; **Blast Weapons. Both the railgun and missiles are Hardpoint-mounted.

CEA-12 FURY

It was not until eight months after the Battle of Elysée that the first production models of the Syreen Upgrade Package, dubbed the Fury, came out of LAC's Clavius facility. Sharing a thirty-percent parts commonality with the Syreen and possessing similar handling, the Fury was immediately popular with Syreen pilots. By early 2213, the number of Furies created either by factory reconstruction of existing Syreens or ground-up production was nearly two hundred.

The Hecatonchires system, first tested on the Typhon prototypes, is found on the Fury in its mass-produced form. This refined ACDLS is the most complex part of the Syreen-to-Fury construction, since it involves the linking of multiple turrets located at the vehicle's extremities to a secondary power generator as well as a central fire control computer.

Beyond participating in CEGA's Century 23 wargames in 2212, the Fury has seen little in the way of combat against equivalent opponents. The Fury performed extremely well, however, successfully evading detection and "destruction," and providing invaluable data on the efficiency of CEGA's orbital defenses and early-warning systems.

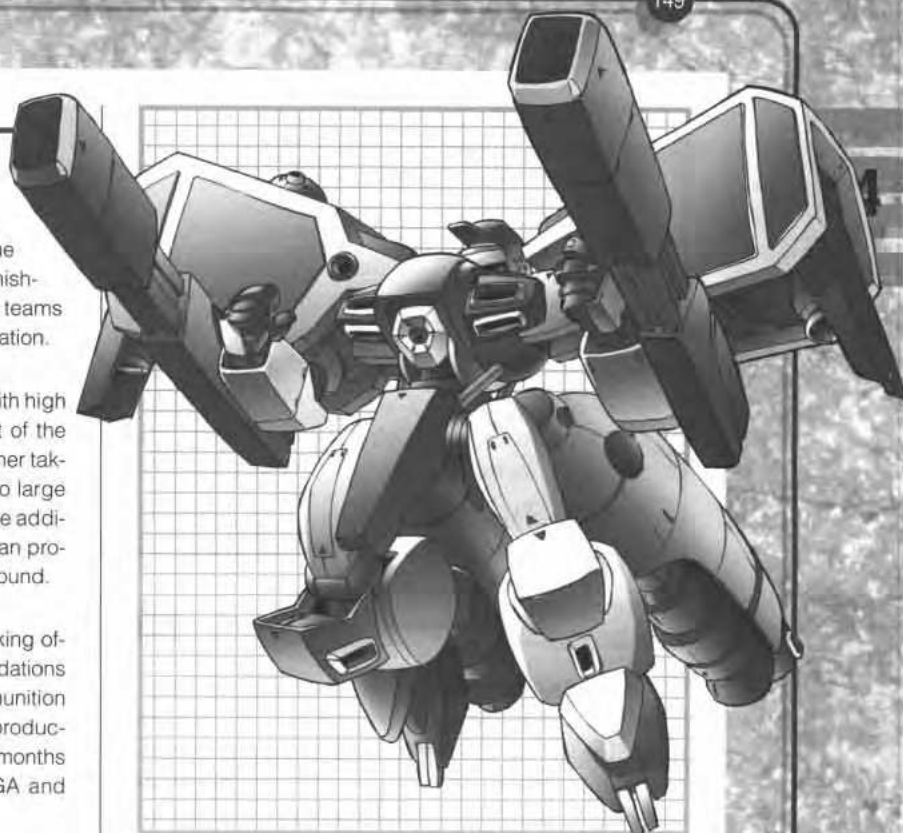
Total Money Cost:	423,400 credits
Special Abilities:	
Booster (Space, 3g, G-Round 50, MP: 360), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Defensive Jammer (+4, MP: 12), Ejection Seat (MP: 3), Life Support (MP: 16), GPS (MP: 2), Radar (2 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10), Targeting Device (Hecantonchires, +1, MP: 5)	
Exotic Abilities:	
Limited A.I. (Dex3, Wis3, Cha1, MP: 35)	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)	

EAH-07 STORMRIDER

Jovian Armor Works, the principal exo-armor contractor for the JAF, developed multiple prototypes since the Prometheus Project's inception; the last design to leave its doors was the Stormrider, a mish-mash of all the lessons learned by the Prometheus teams in the course of their marathon of exo-design innovation.

The machine is a blend of high firepower coupled with high thrust. A twin beam cannon battery provides most of the firepower, with a torso-mounted beam scatter launcher taking care of any enemy unit venturing too close. Two large guided missile racks, built into the shoulders, provide additional long range attack power. The thruster array can propel the heavy vehicle at high speed even on the ground.

Reserved almost exclusively for aces and high-ranking officers, the Stormrider requires special bay accommodations on its carrier as well as nearly triple the fuel, ammunition and downtime of more common trooper units. The production schedule has been advanced by six to twelve months in anticipation of renewed hostilities between CEGA and the Confederation.



OGL Stat Block

Type:	Giant Robot
Size:	Gargantuan (Tall, 15.5 m)
Hit Points:	66 (MP: 52)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	25 (MP: 125)
Defense:	6
Strength:	55 (+22) (MP: 135)
Speed:	Land 90 kph, Realistic Space Flight (Thrust 1.5g, G-Round 250) (MP: 150+937)
Tactical Speed:	Land 150 m
Initiative:	-2 (MP: 10)
Maneuver:	-2 (MP: 10)
Total MP Cost:	4494
Total Money Cost:	898,800 credits

Special Abilities:

Booster (Space, 3g, G-Round 50, MP: 375), Chobham Armor (MP: 24), Tactical Radio (Secure, MP: 4), Laser Com (Secure, Interplanetary, MP: 14), Laser and Radar Warning Receivers (MP: 4), Radar & Radio Jammer (+2, MP: 24), Ejection Seat (MP: 3), Life Support (MP: 16), Searchlights (MP: 2), Jumping (x5, MP: 20), GPS (MP: 2), Radar (2 km, MP: 30), Magnetic Sensor (2 km, MP: 6), Optics (2km, MP: 4), Infrared (2km, MP: 6), Stabilization Gear (MP: 10), Stealth (Radar +2, Infrared +2, MP: 12), Targeting Device (Beam Cannons, +1, MP: 5)

Exotic Abilities:

Limited A.I. (Dex6, Wis6, Cha1, MP: 65)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start Up Time (1 minute, MP: -2)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Beam Cannons*	8d12	S	640m	n/a	2x Long Range, Increased Threat (19-20), Unlimited Shots	Arc of Fire (Fr)	485
Scatter Launcher*	5d12	SS	200m	10	Cone, Long Range	Arc of Fire (Fr)	(173)
MMJ-2LR Missiles**	6d12	SS	480m	16	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Indirect, 2x Long Range	Arc of Fire (Fr), Less Ammo	(390)
AM Turrets*	4d6	S	36m	n/a	Semiauto, Unlimited Shots	—	(140)
Plasma Lances*	10d12	SS	n/a	10	Armor Penetrating, Concealed, Handheld, Increased Critical (x3)	Arc of Fire (Fr), 2x Less Ammo, Melee (Large)	(130)

NOTE: *Energy Weapons; **Blast Weapons.

SPACE RANGER OUROBOROS

In 2214, a new threat appeared in the fragmented Terran Sphere: identifying themselves simply as Task Force Gukashii of the Iriimnir, an alien fleet began to attack the outlying human colony worlds. Waves after waves of strangely-shaped spacecraft descended on the hapless defenders, brushing them aside and proceeding to take the cities and settlements apart methodically, with a brutal yet casual efficiency. Now the human colonies and Earth must put their differences aside to face the Iriimnir assault, lest they become another victim of the aliens' relentless march across the known universe. The supercarrier Ouroboros, its valiant crew and the other battleships of the Earth Space Force are all that stand between Mankind and total annihilation.

HISTORY

In the 22nd century humanity, spurred on by population pressure and environmental problems on Earth, began the systematic exploration and colonization of space. This began with orbital settlements and pressure-domed cities on the surfaces of the planets of the solar system, but it was after the discovery of the space-fold warp core, a Faster-than-Light propulsion system, that colonization really began. Scout probes departed daily in every direction, looking for world suitable for human life. They were followed in short order by giant migration arks flanked by the heavily armed vessels of the newly-established Earth Space Force.

Millions of people emigrated from the homeworld to seek better lives in the colonies, but many brought their problems with them. It was not unknown for a nation or cultural group to seek out a colony of their own where they could live according to their wishes. The colonies prospered at first, but soon fell to squabbling amongst themselves and with Earth. The reasons varied widely: some did not want to share their new planet with another group, others resented having to pay taxes to the homeworld to help pay for the ESF. In many places, minor conflicts actually broke out, and they threatened to engulf humanity in interstellar war. It was in the middle of this tense situation that the Iriimnir showed up.

FACTIONS

Though there are many political groups in the Terran Sphere, the unofficial name for the area of space that has been colonized by Mankind. Though most are independent in theory, they are all aligned under two separate banners, the Earth government (for all intents and purposes outside of Earth itself, the ESF is the government) and the Colonies. Though the latter often suffer from internal strife, they did their best to present a somewhat unified face to the Terran council. With the war against the Iriimnir fleet on, the two sides have come to learn to work with one another, though there are still frictions in the everyday operations.

The Earth Space Force

The Earth Space Force, also known as the ESF, is humanity's primary defense against the invaders. Earth, as the oldest, largest and richest human world, had the best equipped military forces and quickly took command of the war against the Iriimnir, against only minor protests from the colonies. In the past its personnel consisted entirely of Earth natives, but since the start of the war many colonials have signed up with the ESF instead of joining their own militia forces. This has led to some friction in the ranks, with the Earth natives looking down on the 'rubies,' but their united desire to defend humanity has kept tensions to a minimum.

The ESF fleet assembled to fight the Iriimnir is lead by the supercarrier *Ouroboros*. This mighty vessel, pride of the ESF, carries a dozen squadrons of variable fighters and thousands of the best personnel humanity has to offer. The *Ouroboros* is fully capable of extended operations against the enemy on its own, but it is accompanied by over a hundred other ships, including destroyers, escorts, troopships and supply vessels. Smaller detachments are formed to operate independently of the main fleet, conducting long range sweeps for enemy craft or fighting against the enemy's own detachments.

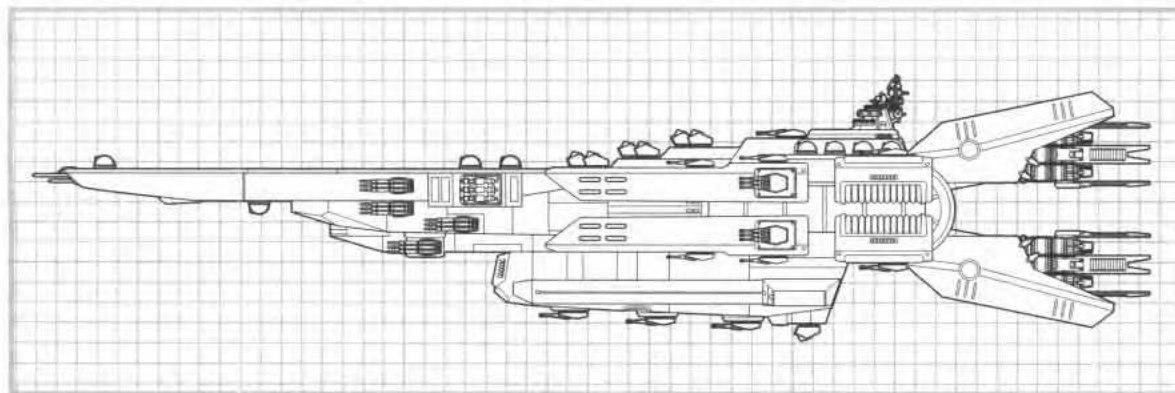
Both the ESF and the Iriimnir consider their capital ships too valuable to risk in open combat, preferring to keep them in reserve for decisive battles where they can destroy the enemy without major loss to their own forces. Thus, most engagements are fought on both sides by escort class ships and fighter craft, a role on the ESF side filled by its ace in the hole, the transformable aerospace fighter.

To defend the colonies a new kind of vehicle was required, one that could take on multiple roles and fight on the ground, in the air and in space. Thus the aerospace fighter concept was born: in the sky it flew like a traditional jet aircraft, in space it performed as a fighter craft, and on the ground it could transform to a giant humanoid form to counteract its more traditional form's lack of maneuverability and versatility. The humanoid form could take full advantage of terrain features, operate in built up areas and fight in close quarters. It was also useful in a variety of civil engineering tasks as well, and proved just as agile in space as on the ground. The two forms became known as Fighter mode and Ranger mode, and pilots devised new tactics based on switching between the two constantly in combat. Aerospace fighters became the backbone of the colonies' defense militia and several colonies began to manufacture their own. These militias proved vital in protecting the colonies in the early days of the war, and aerospace fighter pilots are extremely popular there, receiving attention and gratitude wherever they go.

ESF Supercarrier *Ouroboros*

This mighty vessel is the pride of the ESF and the core of the human defense. One and a half kilometer long, it carries a dozen squadrons of variable fighters and thousands of the best personnel humanity has to offer. Its thick armored hull bristles with gun batteries and missile launchers, and mega-fusion drives can propel it as a significant fraction of the speed of light, when it does not use its space-fold warp core. The *Ouroboros* is fully capable of extended operations against the enemy on its own.

The *Ouroboros* has no game stats: as the home base of the player characters and the central focus point of the campaign, it enjoys script immunity versus any kind of serious damage (until the last episode, at least). On the other hand, its powerful weapon arrays can never target the heroes' main antagonists, though they mow down an impressive quantity of lesser enemy machines in the background of the main action.



The Iriimnir

The appearance of the Iriimnir came as a complete surprise to humanity, but an even bigger shock was in store for both sides — humans and Iriimnir looked almost identical. Besides possessing hair and eye colors unknown to humans, Iriimnir could pass as humans without a second glance. DNA samples obtained by both the ESF and the Iriimnir confirm that the two species' genomes are remarkably similar — even the fact that they both use DNA to carry their genetic information is phenomenal. What differences in the genomes there are readily explainable through millennia of genetic drift between the two populations; it is theorized that humans and Iriimnir, through the use of genetic counseling, could even interbreed. Both human and Iriimnir scientists are at a complete loss to explain this situation, certainly none of the species previously encountered by the Iriimnir task force were even humanoid. Research continues on both sides, but the Iriimnir, for their part, have not let this information interfere with their mission.

The Iriimnir *modus operandi* is simple. Thousands of years ago, they deployed an unknown number of task forces to carry out a murderous task: to travel throughout the galaxy looking for other space faring civilizations and destroy them before they can become a rival to the Iriimnir civilization. Usually, this involved the destruction of all of a species' technological artifacts, but in the past task forces have resorted to genocide when faced with determined opposition that would be too costly to defeat by 'kinder' methods. Then, with their target destroyed, the task force reequips and replaces any losses and moves on in search of a new target.

Since the task forces have not remained in contact with each other, no one knows just how many species and civilizations have been wiped out by this savage agenda. Task Force Gukashii is not even certain how long it has been traveling through the galaxy; much of the task force's history was lost when their central archive ship was destroyed in a surprise raid and the backup databases erased by enemy information warfare computer viruses, more than 1200 years ago. Even the location of their home planet and the original rea-



son for their mission are now gone forever. With everything else lost to them, the Iriimnir cling to their task with grim fanaticism as their only reason for living, and so far all attempts by the ESF to negotiate with the Iriimnir have failed.

The Iriimnir space fleet is an entire civilization on the move. The ESF has yet to discover the full size of the fleet, but it is thought to consist of many thousands of ships. In fact warships — battleships, carriers, destroyers, escorts, troop transports and fighters — make up only a minority of the armada, being greatly outnumbered by ships serving more mundane functions as such manufacturing, warehousing, agriculture, living quarters, research and a variety of other specialties. Here the Iriimnir go through the activities of everyday life just like humans, although with a highly militaristic bent. These ships are rigorously defended by the Iriimnir warships and are kept far away from any combat.

CAMPAIGNS

Numerous types of stories can be told here, but the most obvious campaigns are military ones. There is a war going on, and player characters from all over the Terran Sphere have been conscripted to serve against the Iriimnir. Originally assigned to one of the fleet's support and training ships, the green recruits are suddenly thrown in the middle of the action as their home base is destroyed by an Iriimnir sneak assault, forcing them to redeploy to the flagship — the mighty *Ouroboros* herself. There, they will be taken under the wing of more experienced pilots and aces, until they

become members of that select group. The setting also has the potential for more intrigue and even romantic twists. The Iriimnir are quite obviously humans, or are related to Humanity in some ways — perhaps the Earth was colonized by a stranded fleet long ago, or maybe Terran history is lacking some significant periods in the far past. This means that spies can be exchanged between the two sides, and falling in love with one of the enemy pilots is a long and proud anime story tradition. If this is not the players' cup of tea, the ESF and its fighters can be dropped in just about any space opera campaign.

MECHA DESIGN

The Variable Fighter (also commonly referred to as aerospace fighter, or more rarely, just Space Ranger) has been at the forefront of technology advances in service to the ESF. These transforming mecha combine speed, deadly weaponry and adaptability into one versatile unit. Variable fighters can perform tasks such as air or space dogfighting, ground combat, urban assaults, rescue missions, and much more.

All ESF variable aerospace fighter designs are built around thermonuclear turbine engines mounted in the legs, designed for dual atmosphere/space use and powered by a central fusion core. Retractable air intakes allow use in the denser Earth-type and similar atmosphere. Independantly-orientable vectored exhausts are used for greater maneuverability and V/STOL performance; thrust can be directed both aft and to the front of the vehicle for optimal vector changing speed. In addition, several high-maneuver vernier thrusters are mounted on the nose, wingtips and vertical stabilizers.

Six variable configuration hardpoints are mounted on the fuselage and wings of the ASF-102, and an additional two hardpoints are mounted on the ASF-104 fighter. These hardpoints can be used to hold a variety of different ordinance types, including long, medium, or short-range missiles, but they are almost always filled with the MM-36 multi-mission weapon pod, which holds the previously listed weapons internally and can also be carried in a rifle-like fashion by the Ranger mode. The

hardpoints have been incorporated in the variable frame, moving their payload to the backpack area of the Ranger mode body.

The variable fighters are equipped with an advanced cockpit layout that provides monitors all around the pilot in addition to the standard HUD. Flight and combat information is displayed directly on those screens, along with audio cues as needed. Data is provided by a dedicated flight computer that administer the incoming datastreams flowing from the nose mounted main sensor array and its smaller brethren disseminated throughout the airframe.

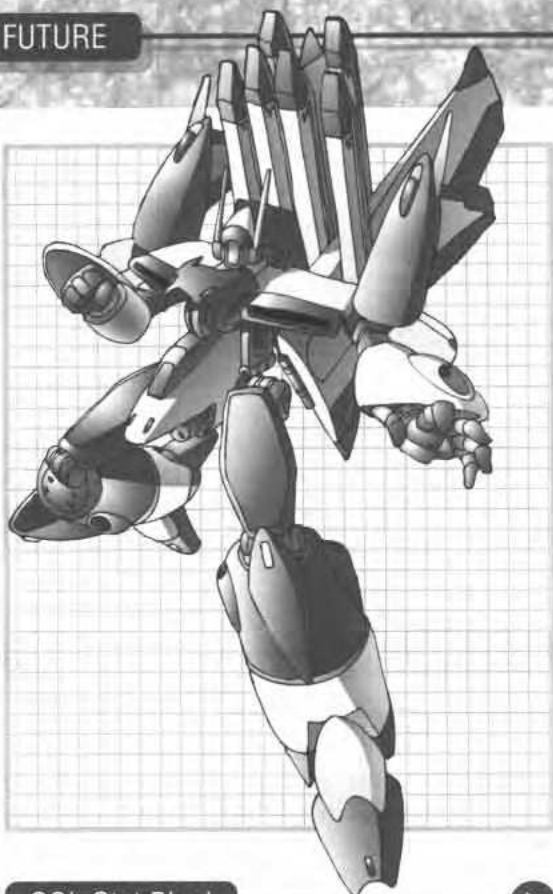
Iriimnir Mecha

Little is known about the Iriimnir technology, though it seems to match up well against Earth science. Few of their combat machines have been captured so far, and none of them were more than wrecked hulls. The only sure thing is that all appear to have been mass-produced on an automated line.

The cockpit of all Iriimnir combat vehicles share many similarity and all are quite simple to figure out, presumably to reduce training time. Flight data and outside views are displayed using simple, brightly colored iconography on the holographic monitors that surround the padded pilot couch. Controls are similarly obvious, with both foot pedals and hand controls operating basic flight and combat functions, with most of the rest being taken care of by the onboard computers.

Other Uses

The Vampire and Nightstalker could represent a new invader threat in the Beast Lords setting, able outrun the Lords in air and outfight them on the land; the Shagiirid and Purkhishi change their names to Squid and Turtle, Beast Lords of the Sea, possibly combining with the other Lords to form an even more powerful guardian. Any of the Ouroboros mecha could be could be dangerous new types of Guardian Armors or Golemsuits, upsetting the status quo. Alternatively, the two variable fighters can be deployed as super-secret prototypes in any near-future or espionage campaigns.



OGL Stat Block

Type:	Vehicle/Giant Robot
Size:	Gargantuan (Long/Tall, 13.4 m)
Hit Points:	66 (MP: 52)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	15 (MP: 75)
Defense:	6
Strength:	-/40 (+15) (MP: -/90)
Speed:	Air 1,600 kph (Ceiling 48 km), Dramatic Space Flight 1.2 g/Land 96 kph, Dramatic Space Flight 1.0 g (MP: 2000/390)
Tactical Speed:	Air 2671 m/Land 160 m
Initiative:	-4/-3 (MP: 0/45)
Maneuver:	-4/-3 (MP: 0/45)
Total MP Cost:	3219 (without weapon pods)
Total Money Cost:	6,438,000 credits

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Hystar Lasers *	2d10	S	120m	n/a	2x Long Range, Semiautomatic, Unlimited Shots	Arc of Fire (Fr)	103

Weapon Pods (see next page)

NOTE: * Laser Weapon

ASF-102 VAMPIRE

The ASF-102 *Vampire* has been Earth's frontline variable aerospace fighter for almost twenty years, and it is well represented in the various colonial defence forces as well. It is a second generation design, with the lessons Terran Defense Technologies learned from the previous generation resulting in a smoother transformation sequence and improved functionality of subsystems across both operation modes. In addition to general increases in acceleration and manoeuvrability compared to earlier fighters and upgraded electronic systems, the Vampire also uses an innovative system of multi-mission ordnance pods to increase its versatility.

Whereas earlier aerospace fighters required extensive re-fitting to fill different roles while maintaining their transformation capability, the Vampire can be equipped with up to six MM-36 weapon pods that can be swapped out in under ten minutes to change its combat role. Standard pods include laser cannons (which unfold into a rifle mount for use in Ranger mode), short range tactical missiles, long range heavy missiles, long range high resolution sensors, decoys

Special Abilities:

Booster (Air +1,600 kph, 1 hour, MP: 750), Ejection Seat (MP: 3), Searchlight (MP: 2), GPS (MP: 2), Inertial Navigation System (MP: 2), Long Range Radio (Interplanetary, Secure, MP: 14), Laser Com (Secure, MP: 4), Tactical Radio (Secure, MP: 4), Life Support (MP: 16), Radar (Global, 50km, MP: 200), Infrared (3km, MP: 9), Laser Warning Receiver (MP: 2), Radar Warning Receiver (MP: 2), Re-entry Shield (MP: 12), Stabilisation Gear (MP: 10)/Same plus Jumping (x3, MP: 12), remove Booster

Exotic Abilities:

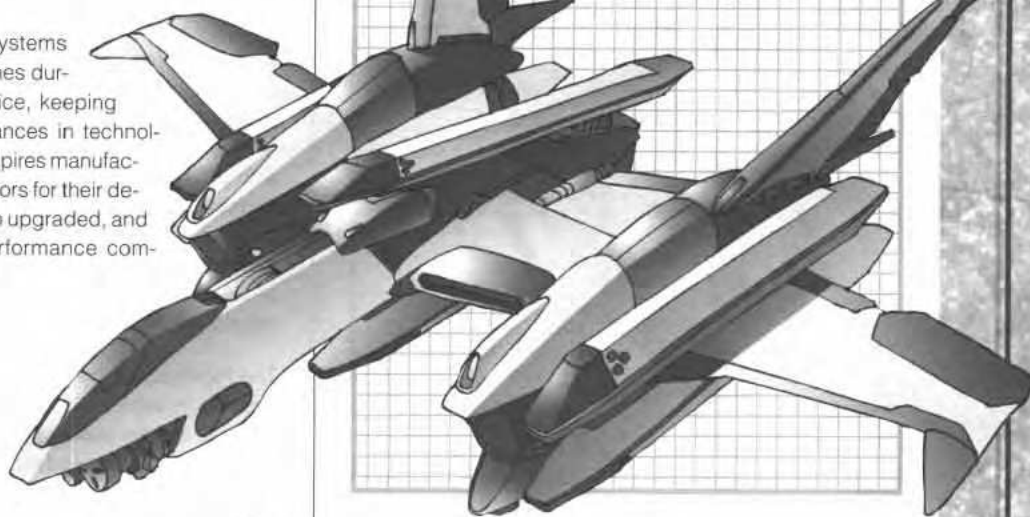
Transformation (Fighter/Ranger, MP: 119)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (20 hours, MP: -20), Start Up Time (1 minute, MP: -2), Stall Speed (240 kph, MP: -225)

and electronic countermeasures. This versatility has meant that the Vampire has replaced several earlier specialist models, cutting costs and simplifying support and repair logistics. Fixed armament consists of two Hystar laser cannons, which are powered directly by the Vampire's CosmoDynamics central fusion reactor for increased battlefield endurance.

The Vampire's electronic systems have been updated three times during its two decades of service, keeping the design in line with advances in technology. Unfortunately, many Vampires manufactured by colonial subcontractors for their defence forces have never been upgraded, and they suffer from inferior performance compared to ESF Vampires.



Variants

SPACE SUPERIORITY:

1 x Laser Pod, 4 x SR Missile Pod, 1 x Decoy Pod

Stat Changes: add Defensive ECM (+4, MP: 12), Radar Jammer (+4, MP: 12) (Total MP Cost: 3585)

TORPEDO BOMBER:

1 x Laser Pod, 4 x LR Missile Pod, 1 x Decoy Pod

Stat Changes: add Defensive ECM (+4, MP: 12), Radar Jammer (+4, MP: 12) (Total MP Cost: 3501)

RECONNAISSANCE:

1 x Laser Pod, 2 x Sensor Pod, 1 x Decoy Pod

Stat Changes: add Defensive ECM (+4, MP: 12), Radar Jammer (+4, MP: 12), High Rez Radar (Global, 100 km, MP: 600), Electronic Emission Sensor (MP: 10) (Total MP Cost: 3992)

WEAPON PODS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Laser Pod *	4d8	A	96m	50	Automatic, Extra Ammo, Hardpoint, Long Range	Arc of Fire (Fr)	(96)
SR Missile Pod **	8d6	A	144m	10	Armor Penetrating, Automatic, Blast, Guided (IRH, ARH, LG), Hardpoint, Indirect, Long Range	Arc of Fire (Fr), Less Ammo	(280)
LR Missile Pod **	10d8	SS	480m	4	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Hardpoint, Indirect, 2x Long Range	Arc of Fire (Fr), 3x Less Ammo	(225)
Melee Pod ***	1d12	SS	n/a	n/a	Armor Penetrating, Hardpoint Incr. Threat (18-20), Muscle Powered	Melee (Huge)	(33)

Note: * Laser Weapon, ** Blast Weapon, *** Slashing Weapon

ELECTRONIC WARFARE:

1 x Laser Pod, 2 x Decoy Pod, 1 x ECM Pod

Stats: add Defensive ECM (+6, MP: 18), Radar Jammer (+6, MP: 18), Radio Jammer (+6, MP: 12) (Total MP Cost: 3289)

GROUND SUPERIORITY:

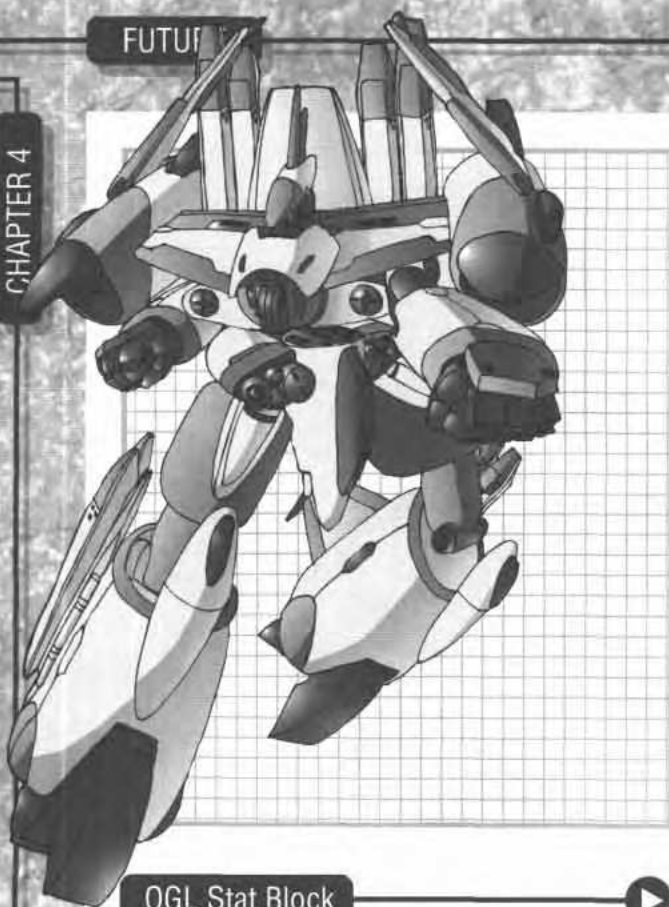
1 x Laser Pod, 1 x Melee Pod, 2 x SR Missile Pod, 1 x Decoy Pod

Stats: add Defensive ECM (+4, MP: 12), Radar Jammer (+4, MP: 12), Laser Designator (RI: 300m, MP: 4) (Total MP Cost: 3527)

ACE:

2 x Laser Pod, 2 x SR Missile Pod, 1 x Melee Pod, 1 x Decoy Pod

Stats: add Defensive ECM (+4, MP: 12), Radar Jammer (+4, MP: 12) (Total MP Cost: 3534)



OGL Stat Block

Type:	Vehicle/Giant Robot
Size:	Gargantuan (Long/Tall, 14.2 m)
Hit Points:	72 (MP: 64)
Occupancy:	1 operator, no cargo (MP: 10)
Armour Hardness:	16 (MP: 80)
Defense:	6
Strength:	-/44 (MP: -/102)
Speed:	Air 1,720 kph (Ceiling 48 km), Dramatic Space Flight 1.4 g/Land 120 kph, Dramatic Space Flight 1.2 g (MP: 2274/472)
Tactical Speed:	Air 2872 m/Land 201 m
Initiative:	-4/-2 (MP: 0/10)
Maneuver:	-4/-2 (MP: 0/10)
Total MP Cost:	3630
Total Money Cost:	7,260,000 credits

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Hystar lasers *	2d10	S	120m	n/a	2x Long Range, Semiautomatic, Unlimited Shots	Arc of Fire (Fr)	103

Weapon Pods (see next page)

NOTE: * Laser Weapon

ASF-104 NIGHTSTALKER

With the increase in tension between Earth and its colonies, the ESF faced the prospect of its first real combat against a comparably armed foe. Alarmed that its potential enemies were equipped with the same Vampire fighters that it deployed itself, the ESF decided it required a superior weapon. In response, TDT began development on the ASF-104 *Nightstalker*.

In many ways, the Nightstalker is just a bigger Vampire. Its larger fusion generator provides more power to the propulsion turbines, which in turn yields more thrust and carrying capacity. This allows the Nightstalker to carry heavier armor and two additional variable geometry hardpoints for ordinance pods. The fire control system shows only slight improvement over the Vampire's, and the two shoulder mounted HyStar laser cannons remain unchanged.

The Nightstalker does incorporate two revolutionary new systems, however. The first is the Avatar command system, which gives the pilot precise control and feedback as to the fighter's position and movement when in Ranger mode,

Special Abilities:

Booster (Air +1,720 kph, 1 hour, MP: 860), Ejection Seat (MP: 3), Searchlight (MP: 2), Global Positioning System (MP: 2), Inertial Navigation System (MP: 2), Long Range Radio (Interplanetary, Secure, MP: 14), Laser Com (Secure, MP: 4), Tactical Radio (Secure, MP: 4), Life Support (MP: 16), Radar (Global, 50 km, MP: 200), Infrared (3km, MP: 9), Laser Warning Receiver (MP: 2), Radar Warning Receiver (MP: 2), Re-entry Shield (MP: 12), Stabilisation Gear (MP: 10)/Same plus Jumping (x3, MP: 12), remove Booster

Exotic Abilities:

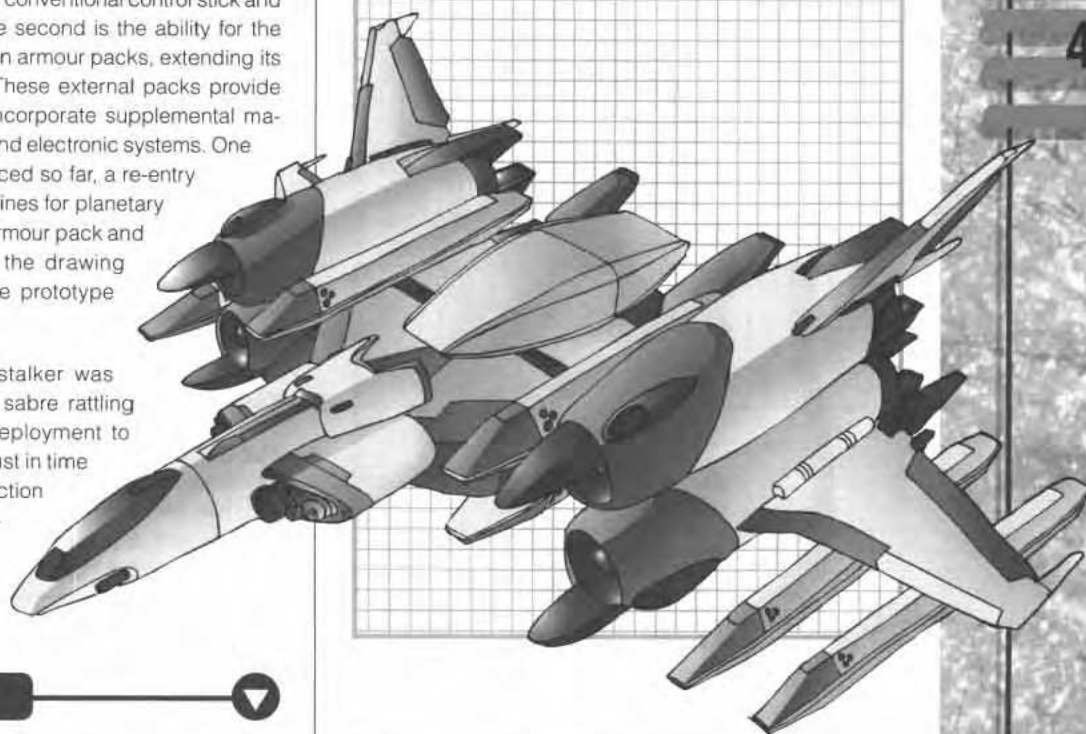
Transformation (Fighter/Ranger) (MP: 224)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (20 hours, MP: -20), Start Up Time (1 minute, MP: -2), Stall Speed (240 kph, MP: -240)

which make human-like movement and heights of agility unheard of with the Vampire's conventional control stick and fly-by-wire arrangement. The second is the ability for the Nightstalker to accept add-on armour packs, extending its capabilities and versatility. These external packs provide additional armor and can incorporate supplemental manoeuvre verniers, weapons and electronic systems. One armor pack has been produced so far, a re-entry system used by the ESF marines for planetary assaults. Plans for a heavy armour pack and a stealth pack are still on the drawing board, but should enter the prototype stage in the near future.

Development of the Nightstalker was originally viewed as Terran sabre rattling by the colonies. Limited deployment to aces and elite units began just in time for the Nightstalker to see action at the start of the Human-Irimnir War.



Variants

SPECIAL FORCES:

1 x Particle Pod, 2 x SR Missile Pod, 2 x LR Missile Pod, 1 x Sensor Pod, 1 x Melee Pod, 1 x Decoy Pod

Stat Changes: add Defensive ECM (+4, MP: 12), Radar Jammer (+4, MP: 12), High Rez Radar (Global, 50 km, MP: 300), Electronic Emission Sensor (MP: 10) (Total MP Cost: 4354)

ACE:

1 x Particle Pod, 1 x Laser Pod, 4 x SR Missile Pod, 1 x Melee Pod, 1 x Decoy Pod

Stats: add Defensive ECM (+4, MP: 12), Radar Jammer (+4, MP: 12) (Total MP Cost: 4006)

SPACE SUPERIORITY:

1 x Particle Pod, 6 x SR Missile Pod, 1 x Decoy Pod

Stats: add Defensive ECM (+4, MP: 12), Radar Jammer (+4, MP: 12) (Total MP Cost: 4058)

MARINE:

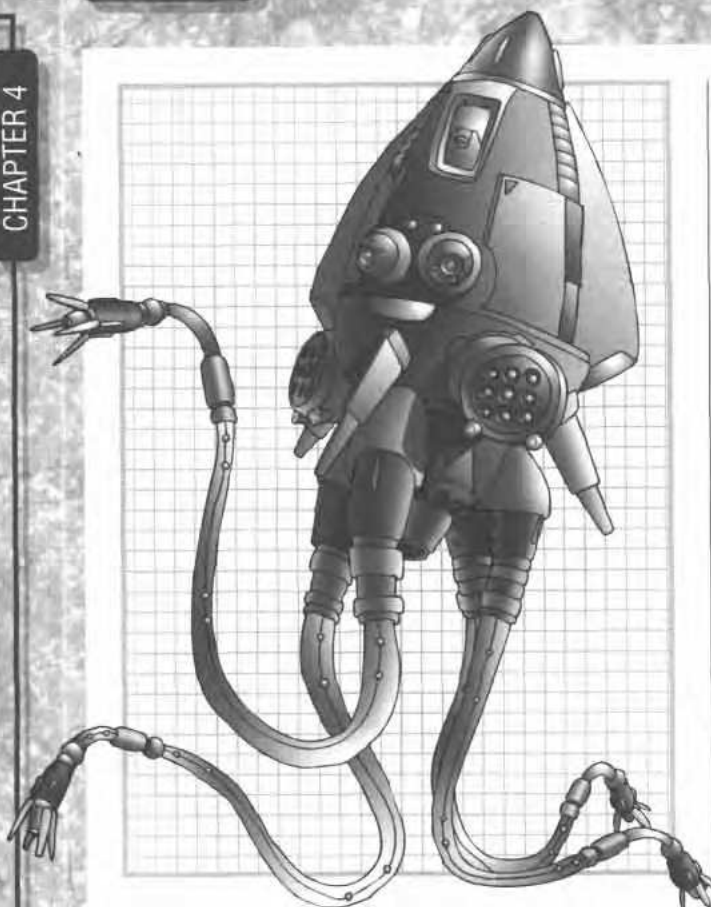
Assault Armor Pack, 1 x Railgun Pod, 1 x Laser Pod, 4 x SR Missile Pod, 1 x Melee Pod, 1 x Decoy Pod

Stats: add Chobham Armor (MP: 16), Defensive ECM (+4, MP: 12), Laser Designator (RI: 300m, MP: 4), Radar Jammer (+4, MP: 12), change Hit Points to 80 hp (MP: 80) (Total MP Cost: 4053)

WEAPON PODS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Laser Pod *	4d8	A	96m	50	Automatic, Extra Ammo, Hardpoint, Long Range	Arc of Fire (Fr)	(96)
Particle Pod **	5d10	S	75m	30	Hardpoint, Semiautomatic	Arc of Fire (Fr), Space Optimized	(55)
Railgun Pod ***	4d10	A	60m	50	Automatic, Extra Ammo, Hardpoint	Arc of Fire (Fr)	(88)
SR Missile Pod **	8d6	A	144m	10	Armor Penetrating, Automatic, Blast, Guided (IRH, ARH, LG), Hardpoint, Indirect, Long Range	Arc of Fire (Fr), Less Ammo	(280)
LR Missile Pod **	10d8	SS	480m	4	Armor Penetrating, Blast, Guided (IRH, ARH, LG), Hardpoint, Indirect, 2x Long Range	Arc of Fire (Fr), 3x Less Ammo	(225)
Melee Pod ***	1d12	SS	n/a	n/a	Armor Penetrating, Hardpoint, Incr. Threat (18-20), Muscle Powered	Melee (Huge)	(33)

Note: * Laser Weapon, ** Blast Weapon, *** Ballistic Weapon, **** Slashing Weapon



OGL Stat Block

Type:	Vehicle
Size:	Gargantuan (Long, 10.8 m, 20.3 m with tendrils fully extended)
Hit Points:	44 (MP: 8)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	12 (MP: 60)
Defense:	6
Speed:	Air 1,360 kph (Ceiling 48 km), Dramatic Space Flight 1.5 g (MP: 1490)
Tactical Speed:	Air 2271 m

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Swarm Missiles*	8d6	A	144m	24	Armor Penetrating, Automatic, Blast, Guided (IRH, ARH), Long Range	—	392
Orb Laser**	4d10	S	120m	-	Long Range, Semiautomatic, Unlimited Shots	Arc of Fire (L)	205
Orb Laser**	4d10	S	120m	-	Long Range, Semiautomatic, Unlimited Shots	Arc of Fire (R)	(20)
Tendrils***	3d12	SS	n/a	n/a	Flexible, Unlimited Shots	Melee (Gargantuan)	117
Anti-Missile System	4d6	SS	18m	n/a	Increased Threat (19-20), Unlimited Shots	Low Penetration, Short Range	42

Note: * Blast Weapon, ** Laser Weapon, *** Bludgeoning Weapon

SHAGIIRID

In the first ever sighting of Irimnir craft by humans in 2214, colonial military commanders dismissed claims by a deep space salvage crew that they had spotted several 'space squid.' Three years later, almost every human can recognize its distinctive silhouette and knows its destructive power. The Shagiirid is the most numerous Irimnir small craft, used for patrol, reconnaissance and attack. It is heavily armed for its size, with three launch tubes firing self-guided missiles and two 'orb' lasers providing a broad field of fire. The four long trailing tendrils serve multiple functions, housing manoeuvring thrusters and acting as control surfaces in atmospheric flight, while their tips contain lasers for missile defence and they can even grapple enemy craft in close combat.

Fast and manoeuvrable, the Shagiirid's primary defect is its light armor, which can easily be penetrated by a Vampire's laser rifle. Irimnir commanders tend to treat Shagiirid as disposable, and deploy them en masse to make up for their fragility. As a result, the factory ships of the Khukadi Triumvirate churn out Shagiirid in their hundreds to make up for combat losses and Shagiirid pilots, if they survive, are eager to find other postings. Despite this, the Shagiirid is the favoured fighter of several Irimnir aces due to its agility. ESF pilots often destroy one Shagiirid to discover that several of its wing mates now have them surrounded.

Initiative:	-4 (MP: 0)
Maneuver:	-2 (MP: 10)
Total MP Cost:	1330
Total Money Cost:	266,00
Special Abilities:	
Booster (Air +1,360 kph, 1 hour, MP: 510), Ejection Seat (MP: 3), Long Range Radio (Secure, MP: 4), Life Support (MP: 16), Radar (Global, 40 km, MP: 160), Laser Core (Secure, MP: 4), Infrared (3 km, MP: 9), Radar Warning Receiver (MP: 2), Re-entry Shield (MP: 12), Stabilization Gear (MP: 10)	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (16 hours, MP: -20), Start Up Time (1 minute, MP: -2), Stall Speed (192 kph, MP: -144)	

PURKHISHI

The Purkhishi assault craft is a heavily armed and armored vehicle used by squadron commanders and veteran units. Like all vehicles built by the Guumse Triumvirate it is rugged and can withstand direct hits by human weapons. Its main armament consists of two heavy beam cannons capable of independent targeting; these can damage capital ships, although their slow rate of fire and traverse can make hitting faster moving fighters difficult. Such targets are usually engaged with the single pulse laser mounted in the Purkhishi's 'head,' while a pair of multibarrel projectile guns protect it against missiles and infantry. It is capable of atmospheric and space operations, although it is an ungainly flier and fares better on the ground where its stubby wings unfold to form sturdy legs. The Purkhishi's main drawback is its low agility; it is vulnerable to rear attacks.

Wherever possible, Iriimnir tactics call for Purkhishi's to be screened by a force of lighter craft while they engage major enemy targets. In response, ESF fighter pilots attempt to attack them at long range with missiles, or else engage them in close combat where fire by the Purkhishi's escorts risk hitting them by mistake. Several human aces have eagles clutching tortoises in their claws painted on their fighters, displaying their willingness to close through heavy fire to crack open these difficult targets.

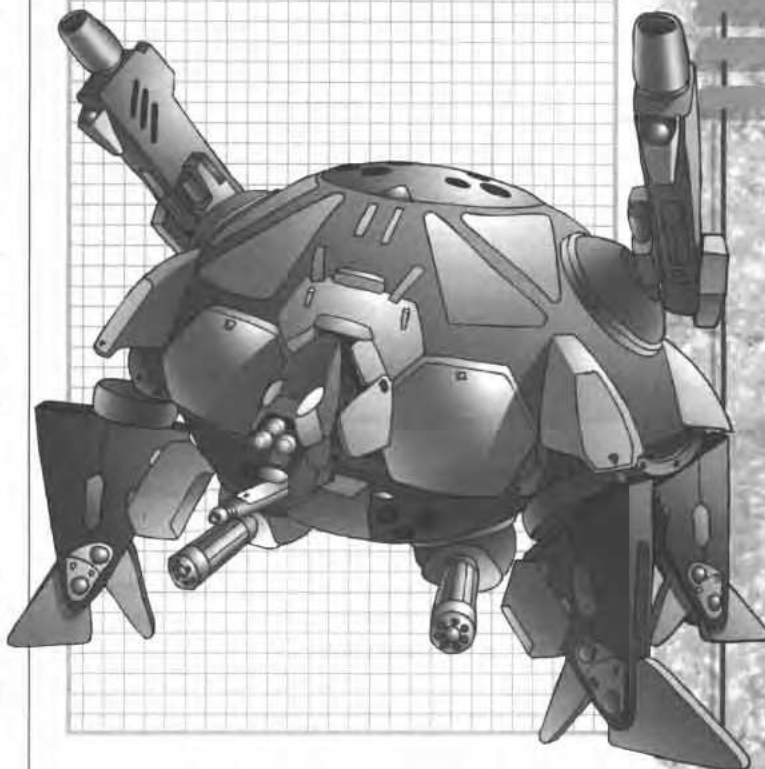
OGL Stat Block

Type:	Vehicle
Size:	Gargantuan (Long, 15 m)
Hit Points:	68 (MP: 17)
Occupancy:	2 operators, no cargo (MP: 20)
Armor Hardness:	15 (MP: 75)
Defense:	6
Speed:	Air 1,080 kph (Ceiling 48 km), Dramatic Space Flight 1.1 g, Land 38 kph (MP: 1534)
Tactical Speed:	Air 1803 m, Land 63 m
Initiative:	-4 (MP: 0)
Maneuver:	-5 (MP: 5)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Beam Cannon*	6d12	S	240m	20	Long Range, Semiautomatic	Arc of Fire (F)	104
Beam Cannon*	6d12	S	240m	20	Long Range, Semiautomatic, Different Gunner	Arc of Fire (F)	104
Rotary Cannon**	4d8	A	48m	50	Automatic, Extra Ammo	—	7
Rotary Cannon**	4d8	A	48m	50	Automatic, Extra Ammo	—	7
Head Laser*	4d6	A	72m	n/a	Automatic, Long Range Unlimited Shots	Arc of Fire (Fr), Space Optimized	8

Note: * Laser Weapon, ** Ballistic Weapon



Total MP Cost: 2673

Total Money Cost: 5,346,000 credits

Special Abilities:

Booster (Air +1,080 kph, 1 hour, MP: 506), Ejection Seat (MP: 6), Searchlight (MP: 2), Inertial Navigation System (MP: 2), Long Range Radio (Secure, Interplanetary, MP: 14), Life Support (MP: 16), Radar (Global, 50 km, MP: 200), Laser Com (Secure, MP: 4), Infrared (3 km, MP: 9), Radar Warning Receiver (MP: 2), Re-entry Shield (MP: 12), Stabilization Gear (MP: 10)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (2 days, MP: -15)

OUTWORLD CHANGELINGS

The year is 2435, and humanity has gone to the stars. The Terran Hegemony controls dozens of star systems and provides for the safety of their citizens. But the sudden appearance of a xenophobic alien race called the Dvor in 2424 has thrown the Hegemony into turmoil. Waging a genocidal war against the Hegemony, the Dvor already have control of several of the Hegemony's outlying worlds. Fighting a desperate rearguard battle, the Hegemony now sends child soldiers and their hulking battle machines to contested planets to prevent a Dvoran incursion closer to the core. Many of those sent to fight never return. Those that do cannot help but be changed by their experiences.

These outworld changelings may be humanity's only chance of survival.

HISTORY

The galaxy is home to over two dozen known starfaring races. A loose collective, created mainly to facilitate trade and mediate disputes, unites the races as the Starward Alliance, but for the most part they carry out their own agendas. The Dvor, a highly xenophobic and belligerent race, joined the Alliance to simplify the task of warning other races away from their territory. Although they conducted some trading with the other races, contact with the Dvor was always through robot intermediaries, and convoys that allegedly strayed out off designated trade routes were destroyed. The Dvoran military forces outnumbered those of any other race however, and only weak protests were lodged against the Dvor, even when they attacked other races' colony worlds they claimed were too close to their territory.

This uneasy situation persisted for thousands of years until the Dvor were subtly persuaded to apply for, and were granted, exclusive rights to develop sector 478-D63-X, which was well separated from space controlled by any of the other races. However, the Dvoran scouts sent to the sector discovered that many of the inhabitable planets had in fact already been colonized, a fact not mentioned when the sector had last been surveyed 10,000 years earlier. Enraged, the Dvor were convinced that they had been tricked by the rest of the Alliance and almost declared war on them there and then. Only frantic searching of archived

records, proving the sector had indeed been unoccupied the last anyone had looked there, averted all out conflict.

Announcing their intention to remove the infestation that plagued their new planets, the Dvor warned the other races against interfering. Despite clear Alliance rulings on first contact situations, and concerns by some races about the possible genocide of a previously unknown species, none were willing to risk the ire of the Dvor by standing against them. The Dvor attacked the outlying worlds of this new race with proxy troops, distaining direct contact with another race even to kill them. Unprepared, the planets fell quickly, and the Dvor set about 'sterilizing' them. News of the fate of these planets filtered back to the Alliance, shocking some of the races out of their inaction. Still unwilling to risk war with the Dvor, they contacted the newcomers covertly.

Although initially suspicious, the new race, which called itself the Terran Hegemony, was eager for information on its enemy and the Alliance of races. Using the information provided, the Hegemony began an internal reorganization to better defend itself against the Dvor, but were at a technological and numerical disadvantage to their opponent. At the Hegemony's pleading, a few of the Alliance races, most notably the Gevar, began limited trade. They were still fearful of retaliation by the Dvor, however, and refused to give the Hegemony goods and information that had strict military applications that the Dvor might trace back to their source —

weapon systems, military vehicles and antimatter were strictly forbidden. The Starward Alliance had drawn a line, and would not cross it.

FACTIONS

The Terran Hegemony stands alone against the fury of the Dvor, an enemy they have never seen, never interacted with, and do not truly understand. All the meager information available has come from the Starward Alliance, a loose coalition of alien worlds that refuse to get involved in the conflict, for fear that they might become the Dvor's next target. Appeasement only go so far, however, and many in the Alliance have come to realize that the Dvor will have to be stopped at some point. The question is, will this be done before Mankind is devastated beyond recognition?

The Terran Hegemony

After the discovery of practical faster than light travel via subspace in the mid 23rd century, the people of Earth rushed to explore and populate nearby solar systems. By the early 2300s, seven planets claimed independence from Earth. Conflict was not far behind, with some worlds protesting against undue Terran influence and other colonies demanding recompense for their continued loyalty. Petty wars between the nations of Earth and their former colonies and between the planets themselves were fought sporadically for almost a century.

Finally, Earth itself was united under one banner. Calling itself the Terran Hegemony, the Earth government had a clear ideology: humanity was killing itself through internal bickering. Only through a strong central government could humanity grow and fulfill its destiny. United in purpose, the Hegemony brought the other planets in line through diplomacy and warfare. The next hundred years saw the development of a peaceful, if regimented, interstellar society. The attack by the Dvor on its periphery, known as the Outworlds, was a huge shock to the Hegemony. Its military forces were geared to quelling local unrest, not to fighting an interstellar war against a foe that wiped out entire planetary populations and refused to negotiate.

To cope with the situation and avoid mass panic the Hegemony began reorganizing society on more militaristic lines, taking even closer control of the economy and placing further restrictions on the flow of information. However, taking the fight to the enemy remained a problem. Ships in subspace could not be attacked due to the physics involved, restricting most combat to planetary surfaces. The Hegemony also need to stop the Dvor from setting up bases that would allow them to strike deeper into Hegemony space. A mobile force that could fight in any environment — space, ammonia atmospheres, high gravity, extreme temperatures, rough terrain — was required.

A protective suit for a soldier that would survive in any environment was so bulky as to render them immobile, but remote controlled drone units were too vulnerable to jamming and hostile takeover, and computer controlled units too easy to outwit. Luckily, Gaveran traders provided the solution. Advanced material technology provided the protection, while neural linkages allowed control of a Neural Rider while keeping the operators limbs safely within the torso. There was just one problem — an adult human's neural structures were too rigid, rendering their control slow and coarse. Only children under the ages of seventeen had the necessary neural flexibility to control the battlesuits in a combat-worthy manner.

Faced with utter destruction, the Hegemony did not blink, and began mass production of the battlesuits and large scale testing of children for those with suitable psychological and neurological make-up.

Super-Equipment: Parasitism

The Dvor use microscopic probes and tendrils to create more complex structures at the macroscopic level. A vehicle equipped with this system can merge with a non-resisting mass, such as another vehicle, and control it, requiring one full round per HP to take over the host vehicle (any damage suffered stops the operation). Use the stats of the target, adding up to 1d6 system (Weapons or Mecha Qualities) from the controller and 1d6 hp to the merged entity per size category. Mecha Cost: 100

Children as young as twelve were separated from their families and sent off for military training, formed into units and shipped to the front lines, finding themselves fighting on alien planets and amongst the ruins of outworld cities.

The shock of separation and the horrors of war place tremendous psychological strains on these child soldiers, and they are kept under constant supervision to guard against breakdowns, but these are all too common. Those that return home, their usefulness over once their neural pathways began to solidify, are found by family and friends to be altered beyond recognition by their experiences. Unable to fit into their old lives, many start to rebel and cause unrest, causing great alarm to the Hegemony. Yet the war effort relies on child pilots, and they cannot simply be disposed of once used. Faced with pressures from without and within, the Terran Hegemony is struggling to survive, while a growing chorus of youthful voices calls for change.

The Dvor

Despite the best efforts of the Hegemony diplomats and intelligence agents, very little is known about the xenophobic race known as the Dvor. They conduct all their negotiations (on the rare occasion where they do negotiate) and warfare through automated devices and other surrogates. No human being as ever seen a Dvor, or even been told what their physiology looks like.

The Dvoran technology is very advanced in all fields, mostly those pertaining to warfare and conquest. The biological cyborg construct codenamed Manticore is an example of their mastery of both genetic engineering and cybernetic systems.

CAMPAIGNS

Campaigns in this setting will be unusual, since most of the player characters will be young teenagers between the ages of twelve and seventeen. It is also a brutal place, where death can come quickly at the end of an horrible, teeth-gnashing atrocity, but it also offers many opportunities for heroic actions and adventures. A squad of Neural

Riders, dropped on an invaded planet, is a modern version of the dragonslayers of old, moving through the countryside to lend a hand to the helpless population, destroying monsters as they go. Though the Manticore is a fairly typical example of Dvoran creations, they also use several types of purely biological constructs, game stats for which are widely available.

It is also possible to play other roles more removed from the battlefield itself. Diplomatic missions are sent every week to appeal for more help from the Starward Alliance, and their people are instructed to look for anything that might remotely be useful for the war. The players can also take the difficult role of the human officers of the fleet, who must stand and direct the operations while never truly getting involved themselves; troupe-style play, where each player controls several characters of various importance, might be well suited for this type of story.

Adapting to your Own Campaign

There are several ways to fit this setting into an existing campaign. If the latter is entirely planet-bound, perhaps the war is taking place right then and there, with only the occasional newsflash on the holovision. That is, until the night a Dvor fleet shows up in the system. The characters might find themselves facing things they could never have imagined in their worst nightmare, or they may be drafted on the spot to help fight the invader. (This situation can also be adapted to present-day Earth, though obviously it will be hard to fight the invaders without advanced technology.)

The requirement that the Neural Rider pilot be a teenager is not a mechanical one; rules-wise, anyone can hop in the mecha and pilot it. It is quite easy to change the setting slightly to allow adult pilots, though perhaps without the full benefits of the mind control linkage. This also allows a direct port over to another game setting (see *Use in Other Settings*, next page).

MECHA DESIGN

Though they are not very large when compared to an average human being, the Neural Rider is not a battlesuit but a giant robot. Its arms and legs are purely mechanical, responding to mental commands from the pilot located in the cockpit pod that is attached to the upper rear torso of the mecha.

The Rider and its operator are protected by numerous overlapping plates, many of them arranged in a skirt-like fashion around the waist of the suit. The light but sturdy composite materials required are provided by the Gaverans, ready to be formed and assembled as required. Unfortunately, this means that repair to damaged plates is near impossible, and they must often be replaced outright.

Power is supplied by another solid-state device purchased from the alien trader, the crystal-lattice battery. Terran scientists are still trying to understand them, but they seem to store immense amounts of "virtual energy" in the empty space around each atom. A cluster of these is located within the torso of the Rider to provide its main motive power, while additional batteries are placed in the legs and lower back to supply the energy required by the fusion thrusters that allow the mecha to bound over most obstacles in its way. These merely store electricity, and do not produce it on their own; they need to be periodically recharged by another source of energy. There are four ports located on the surface of the suit, and each can accept a wide variety of power connectors.

Cockpit and Electronics

The cockpit pod is nicknamed "the womb" by the field technicians, and for good reason. It is a padded, armored egg with just enough room to accept a small human being inside, along with a highly efficient life support system. The cockpit is quite claustrophobic, and most troopers need many sessions of hypno-therapy to overcome the feeling of being trapped (for some, the treatment works *too* well, and they prefer to spend most of their time locked up inside their protective pod).

A complex solid-state device supplied by Gaveran traders is linked to thousands of neural pickup sensors that lines the upper portions of the cockpit pod, interpreting them and feeding them to the control computers that serve as the brains of the Neural Rider. The entire cockpit assembly is self-contained and can be ejected from the rest of the body in case of catastrophic damage, to float gently down under a parasail; carrying handles are built into its surface to allow easy rescue by fellow mecha soldiers.

The pilot perceives the environment outside the Rider through a set of sensor clusters disseminated over the surface of the armor. There are two main clusters, one on each side of the front torso plate; each contains numerous types of optics, along with thermal imagery cameras and some rangefinders. The upper armor plates serve as a phased antenna for the powerful radar system that serves as the primary combat sense.

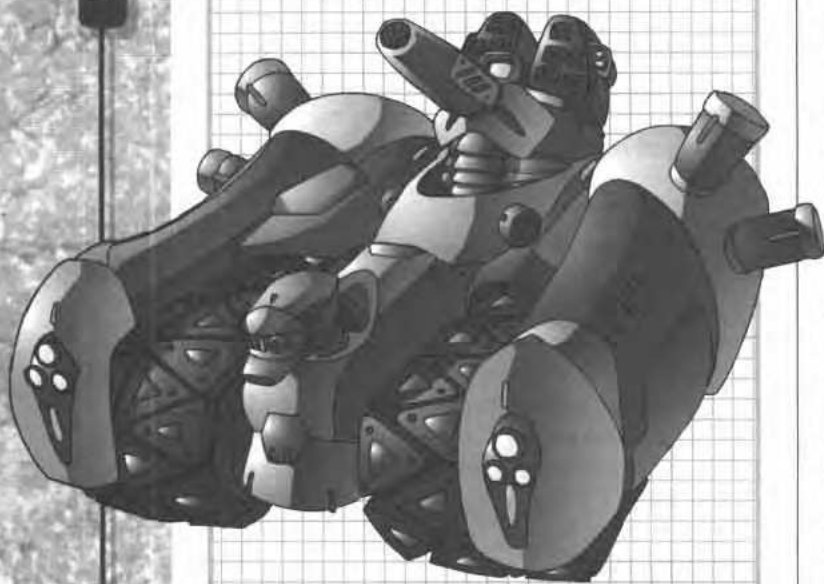
Weaponry

Armament design has always been one of the favorite pastime of Mankind, and the Dvor were no doubt surprised to discover it. Most of the current Terran technology is centered around missiles and projectile weapons — energy-based devices lack the proper punching power, and require too much in the way of power packs and heat sinks.

All weapons are highly computerized and feature self-diagnostic electronics, along with sophisticated target acquisition and three-axis stabilization features.

Uses in Other Settings

The M-344 and M-366, with or without the mind-interface system, could be a new generation of superheavy slave armor in the Phoenix Rising setting, while the Hermit Crab could be a highly advanced infiltration and terror weapon. Or it could be a guardian robot for ancient Olmonian facilities in Great Machine Decander or change its name to Mantis as a member of the Beast Lords, where the Manticore represents a new type of hybrid soldier used by the invaders.



M-46 SUPPORT TANK

The M-46 support tank, usual field denomination "Mommy," is an autonomous robot vehicle designed to extend the capabilities of a Neural Rider-equipped unit. It is controlled by a pseudo-intelligent computer core that can act decisively within its programmed areas of expertise but lacks the flexibility to deal with the unforeseen. Thus the M-46 can handle most battlefield situations but it does not cope well with enemy subterfuge or unusual situations, and so are never deployed without supervision. Powerful expert systems help it interact with the children it fights with.

The small turret is equipped with a smoothbore A-46 electromagnetic cannon firing various types of rounds. Indirect fire ability is provided by Mongoose brilliant missile launching cells, reloaded internally. The remainder of the tank's offensive power consists of an ECM pod designed to jam enemy sensors and communications. The support tank can also be used to extend a battlesuit unit's battlefield endurance by acting as a mobile recharging station for their life support systems and battery packs. Units in the field also often carry extra Mongoose missiles and railgun ammunition strapped to the sides of the tank. Finally, the rear deck unfolds to reveal a set of attachment points for two Neural Riders, allowing it to transport casualties out of danger.

OGL Stat Block

Type:	Vehicle
Size:	Gargantuan (Long, 8.2 m)
Hit Points:	60 (MP: 40)
Occupancy:	None, 10 tons cargo (MP: 100)
Armor Hardness:	20 (MP: 100)
Defense:	6
Speed:	Land 64 kph (MP: 80)
Tactical Speed:	Land 106 m/turn
Initiative:	-4 (MP: 0)
Maneuver:	-3 (MP: 5)
Total MP Cost:	1225
Total Money Cost:	\$3,258,500

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
A-45 Electromag Cannon*							
HVAP Ammo	4d12	SS	80m	25	Armor Penetrating	—	(78)
APF Ammo	4d12	SS	80m	25	Cone	Low Penetration	(104)
HE Ammo	4d12	SS	80m	25	3x Blast	—	(156)
A-12 Missiles**	6d10	S	90m	24	Armor Penetrating, Blast (3 m), Guided (IRH, ARH, LG), Indirect, Semiautomatic	—	594

Note: * Ballistic Weapon, ** Blast Weapon

Special Abilities:

Chobham Armor (MP: 20), INS (MP: 2), Long Range Radio (Secure, MP: 4), Tactical Radio (Secure, MP: 4), Laser Warning Receiver (MP: 2), Radar Warning Receiver (MP: 2), Defensive ECM (+6, MP: 18), Radar Jammer (+6, MP: 18), Radio Jammer (+6, MP: 12), Headlights (MP: 1), High Resolution Radar (Global, 5 km, MP: 30), Infrared (2 km, MP: 6), Workshop (MP: 5), Stabilization Gear (MP: 10)

Exotic Abilities:

Full AI (Abilities: Dex 12, Int 8, Wis 8, Cha 3, Level: Fighter 3, BAB: +3, Saves: Fort +3, Ref +1, Will +1) (MP: 155)

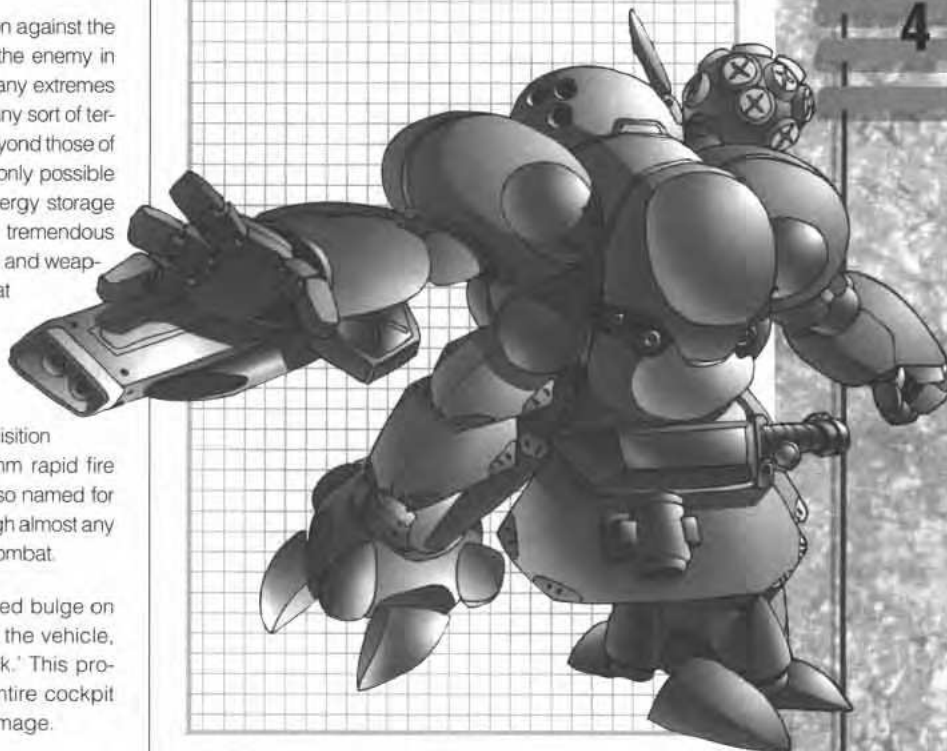
Mecha Defects:

Reduced Endurance (4 days, MP: -15)

M-344 NEURAL RIDER

The M-344 Neural Rider is Earth's frontline weapon against the Dvoran invaders, designed to carry the fight to the enemy in any environment. It can protect its operator from any extremes of temperature or conditions, all while traversing any sort of terrain. Unfortunately, the M-344's capabilities are beyond those of current Earth technology, and its construction is only possible through the use of Gaveran armor materials, energy storage and neuro-command technology, purchased at tremendous expense. Happily, Earth's mechanical, cybernetic and weapons technology proved more than a match for that of the invaders, and these important subsystems are all of Earth manufacture. The M-344's primary armament is the shoulder-mounted A-12 *Mongoose* genius missile launcher, with munitions capable of fully autonomous target acquisition and prioritization, and an arm-mounted A-5 6mm rapid fire railgun. These are supplemented by a slipknife (so named for the ability of its monomolecular edge to 'slip' through almost any armor) and various types of grenades for close combat.

The M-344's most notable feature is the armored bulge on its back from which the pilot mentally controls the vehicle, leading to the unofficial nickname 'Hunchback.' This protects the operator from enemy fire, and the entire cockpit can be ejected in the case of catastrophic damage.



OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall) (3.0 m)
Hit Points:	30 (MP: 40)
Occupancy:	1 operator, no cargo (MP: 0)
Armor Hardness:	15 (MP: 75)
Defense:	9
Strength:	26 (+8) (MP: 48)
Speed:	Land 32 kph (MP: 30)
Tactical Speed:	Land 54m/turn
Initiative:	-1 (+1 with Mind-Interface System) (MP: 0)
Maneuver:	0 (+2 with Mind-Interface System) (MP: 5)
Total MP Cost:	650

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
A-5 Railgun*	2d12	A	40m	100	Automatic, 2x Extra Ammo	Arc of Fire (Fr)	5
A-12 Missiles**	6d10	S	90m	12	Armor Penetrating, Blast (3 m), Guided (IRH, ARH, LG), Indirect, Semiautomatic	2x Less Ammo	352
A-201 Grenades***	6d6	SS	12m	3	Blast (6 m), Handheld	Arc of Fire (Fr), 3x Less Ammo, 2x Short Range	1
A-11 Slipknife***	2d6	SS	n/a	n/a	Armor Penetrating, Muscle Powered, Handheld	Arc of Fire (Fr), Melee (Medium)	1

Note: * Ballistic Weapon, ** Blast Weapon, *** Slashing Weapon

Total Money Cost: \$1,690,000

Special Abilities:

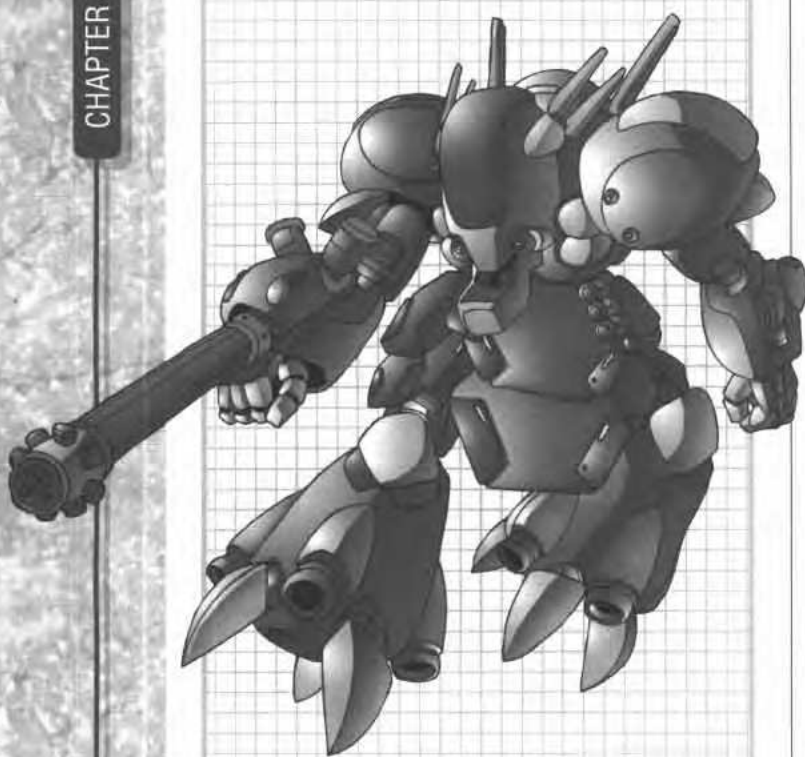
Chobham Armor (MP: 15), Ejection Seat (MP: 3), INS (MP: 2), Headlights (MP: 1), Secure Long Range Radio (MP: 4), Jumping (x3, MP: 6), Life Support (MP: 8), Global Hi-Resolution Radar (3km, MP: 18), Secure Tactical Radio (MP: 4), Infrared (2 km, MP: 6), LWR (MP: 2), Re-entry Shield (MP: 8), Stabilization Gear (MP: 10)

Exotic Abilities:

Mind-Interface System (MP: 10)

Mecha Defects:

Reduced Endurance (3 days, MP: -15)



OGL Stat Block

Type:	Giant Robot
Size:	Large (Tall, 3.2 m)
Hit Points:	34 (MP: 48)
Occupancy:	1 operator, no cargo (MP: 10)
Armor Hardness:	16 (MP: 80)
Defense:	9
Strength:	28 (+9) (MP: 54)
Speed:	Land 32 kph (MP: 32)
Tactical Speed:	Land 54 m
Initiative:	-1 (+1 with Mind-Interface System) (MP: 0)
Maneuver:	0 (+2 with Mind-Interface System) (MP: 5)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
A-5 Railgun*	2d12	A	40m	100	Automatic, 2x Extra Ammo	Arc of Fire (Fr)	5
A-12 missile launcher**	6d10	S	90m	12	Armor Penetrating, Blast (3 m), Guided (IRH, ARH, LG), Indirect, Semiautomatic	2x Less Ammo	352
A-201 grenade**	6d6	SS	12m	3	Blast (6 m), Handheld	Arc of Fire (Fr), 3x Less Ammo, 2x Short Range	1
A-11 slipknife***	2d6	SS	n/a	n/a	Armor Pen., Muscle Pow., Handheld	Arc of Fire (Fr), Melee (Medium)	1

Note: * Ballistic Weapon, ** Blast Weapon, *** Slashing Weapon

M-366 NEURAL RIDER

After the initial manufacturing run and deployment of the M-344 battlesuit, an extensive review of its operational use was conducted in 2204. Besides identifying a few mechanical and electronic deficiencies, most of the problems encountered were with the pilots. Despite the best training available, many of them were simply not capable of operating efficiently in a military command structure, leading to loss of morale, poor discipline, fratricide, and other problems. To rectify this, the concept of 'fighting packs,' lead by 'older siblings' (or 'sempai' as they are sometimes known) was established to run in parallel to the chain of command.

The M-366 Neural Rider was designed to be issued to older, more experienced pilots to take advantage of their improved fighting abilities and give them a presence that would enhance their ability to command. The M-366 is larger than the M-344 and is also more heavily armored. It incorporates a superior communications suite with ground to orbit capability, and a multi-frequency designator system for marking targets and mission objectives. Its weapons load is similar to the M-344's, although pilots usually have sufficient influence to be assigned additional weaponry if they so desire. The introduction of the M-366 and the new unit structure has proved successful, although coordination between different fighting packs remains a problem.

Total MP Cost:	680
Total Money Cost:	\$1,849,600
Special Abilities:	
Chobham Armor (MP: 16), Ejection Seat (MP: 3), INS (MP: 2), Headlights (MP: 1), Long Range Radio (Secure, MP: 4), Jumping (x3, MP: 6), Life Support (MP: 8), High Resolution Radar (Global, 3km, MP: 18), Tactical Radio (Secure, MP: 4), Infrared (2 km, MP: 6), Laser Warning Receiver (MP: 2), Re-entry Shield (MP: 8), Stabilization Gear (MP: 10), Microwave Comm (Secure, MP: 4), Laser designator (RI: 300 m, MP: 4)	
Exotic Abilities:	Mind-Interface System (MP: 10)
Mecha Defects:	Reduced Endurance (3 days, MP: -15)

NEURAL RIDER VARIANTS

To facilitate the war effort, all Neural Riders have been designed to share as many parts as possible. Likewise, a number of variants were developed to fulfill certain critical

battlefield roles that could not be adequately covered by the basic designs.

M-344 Variants

M-344M MARINE-TYPE: Designed for amphibious operations or deployment on water worlds, this variant replaces the Mongoose launcher with torpedoes and the jump jets with a caterpillar water drive system.

Stat Changes: add Speed: Underwater 35 kph/58m (Depth 180 m, MP: 136), Special Ability: Global Sonar (5 km, MP: 20), A-312 torpedo launcher. Remove Special Ability: Jumping (x3), A-12 missile launcher. (Total MP Cost: 580)

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
A-312 Torp Launcher	6d10	S	45m	12	Armor Penetrating, Blast (3 m), Guided (SH, WG), Semiautomatic	Less Ammo, Only in Water	132

NOTE: the A-312 is a Burst Weapon.

M-344R RECON-TYPE: The Recon-type adds an enhanced shoulder mounted sensor pod and anti-radiation baffles to reduce its sensor signature. It requires additional training to fully use the sensor systems, and is thus assigned only to the brighter kids.

Stat Changes: add Special Abilities: Electronic Emission Sensors (MP: 10), Magnetic Sensor (3 km, MP: 18), Stealth (Radar +3, Infrared +3, MP: 24); boost Hi-Rez Radar to Global (6 km, MP: 36), Infrared to (3 km, MP: 9); remove A-12 missile launcher (Total MP cost: 418)

FUSED NEURAL RIDER: this is not a true M-344 variant. Rather, it is an 'average' Hermit Crab (see page 169) that has fused with a salvaged M-344. The variable railgun appears to be attached to the side of the head with chewing gum, and the Hermit Crab's legs are melted into the body of the suit.

Stat Changes: as per the basic M-344; add Full A.I. (MP: 225), Parasitism (MP: 100), Self-Repair (MP: 11), 1 x Hermit Crab Variable Railgun (MP: 8); change Hit Points to 56 (MP: 92); remove operator (MP: 0). (Total MP Cost: 1036)

M-366 Variants

M-366H HEAVY WEAPONS-TYPE: Depending on unit commanders, these can be assigned on a per platoon basis, or organised into specialist heavy weapons units. They are equipped with a second Mongoose launcher and a hand held 30mm mass driver.

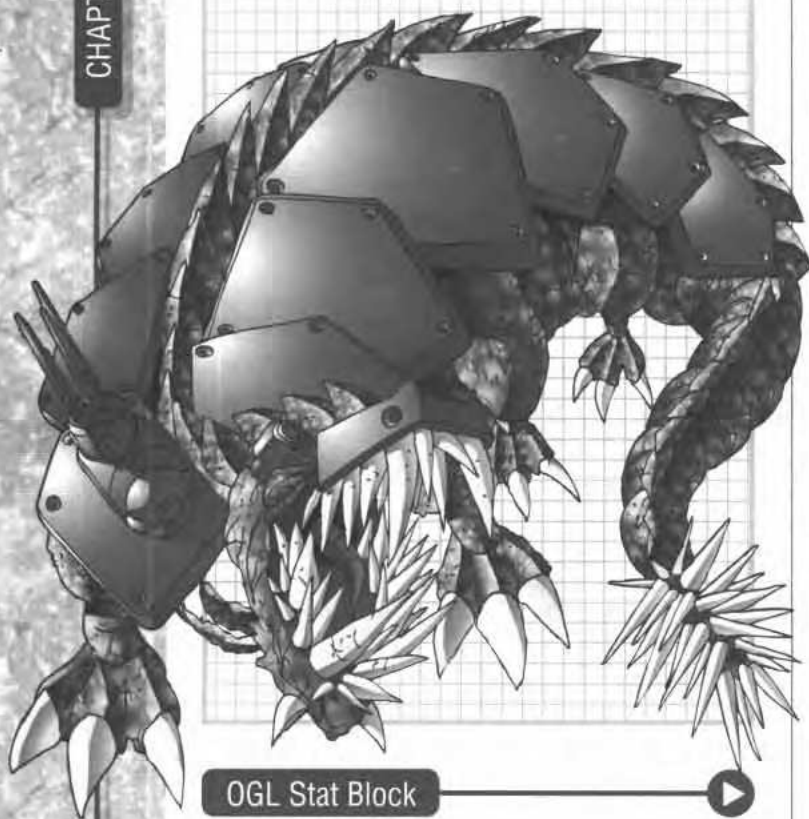
Stat Changes: add another A-12 missile launcher, A-37 cannon; remove A-5 railgun (Total MP cost: 719)

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
A-37 cannon	5d12	S	100m	25	Handheld, Semiautomatic	Arc of Fire (Fr)	9

NOTE: the A-37 is a Ballistic Weapon.

M-366C COMMANDO-TYPE: Commando units consist of only the most experienced and disciplined pilots and are rarely seen by regular units. The Commando-type uses classified stealth technologies and adds a second 6mm railgun for redundancy. A variety of additional equipment is carried depending on mission requirements.

Stat Changes: add Special Ability: Stealth (Radar +6, Infrared +6, MP: 48), A-5 Railgun (Total MP cost: 733)



OGL Stat Block

Type:	Giant Robot
Size:	Large (Long, 4 m)
Hit Points:	30 (MP: 40)
Occupancy:	None (MP: 0)
Armour Hardness:	12 (MP: 60)
Defense:	9
Strength:	30 (+10) (MP: 60)
Speed:	Land 36 kph (MP: 27)
Tactical Speed:	Land 60 m/turn
Initiative:	+2 (MP: 15)
Maneuver:	+2 (MP: 15)
Total MP Cost:	436

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Powered Bite*	2d8	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Medium)	9
Rending Claws**	2d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee (Medium)	1

Note: * Piercing Weapon, **Slashing Weapon

MANTICORE

The Manticore (Dvoran designation unknown) is weapon designed purely for terror. It is a genetically engineered cybernetic organism, combining the ferociousness and speed of a predator with the strength and robustness of a machine. From what Hegemony Intelligence has been able to ascertain, the creature's basic genotype is tweaked for specific planetary conditions, then clones are force-grown to a great size and implanted with sensors, armor plating, reinforced teeth and claws, and a neurological control system. The new Manticores can then be programmed with basic tactics and to not attack other Dvoran weapons systems. They are then unleashed on a planet's civilian population without further supervision or instruction. At the beginning of the current conflict, several Hegemony colonies were decimated and their societies paralyzed by Manticore attacks before military reinforcements could arrive.

Manticores have a deliberately terrifying appearance; rookie pilots often turn and flee when faced by one for the first time. They are cunning predators — against armed foes they adopt guerilla tactics, ambushing isolated units then disappearing into cover. Many colony worlds are still infested with large numbers of Manticores long after the evacuation or death of their civilian populations, and it is the thankless task of the Neural Rider battalions to root them out.

Total Money Cost: 174,400 credits

Special Abilities:

Jumping (x2, MP: 4), Stealth (Radar +2, Infrared +2, MP: 416), Infrared (3 km, MP: 9)

Exotic Abilities:

Full A.I. (Abilities: Dex 16, Int 3, Wis 14, Cha 3; Levels: Fighter 4; BAB +4; Saves: Fort: +4, Ref +4, Wil +4; Skills: Hide +6, Climb +1; Feats: Weapon Focus (Bite), Power Attack, Dodge, Mobility, Spring Attack; MP: 180)

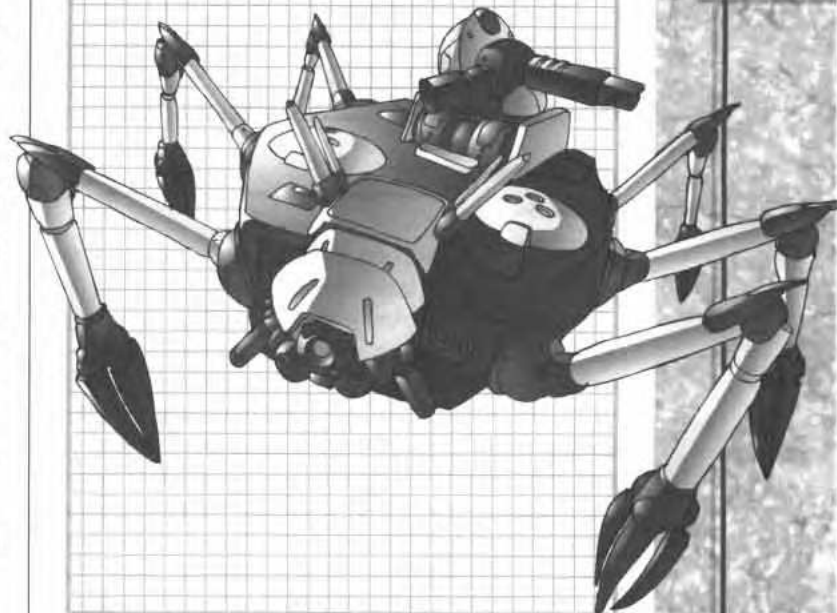
Mecha Defects:

None

HERMIT CRAB

One of the more unusual Dvoran weapons, the Hermit Crab is a master of infiltration and battlefield salvage. While the six legged gun platform is little more than a nuisance on its own, the ability that gives it its nickname makes it a considerable threat. Using nanomachine probes, a technology far beyond what the Hegemony can achieve, the Hermit Crab can bond with and control almost any equipment and weaponry it can find. Weapon systems can be grafted on, extra layers of armor attached to its frame, and equipment integrated into its systems. It can thus radically upgrade its performance, resupply anywhere on the battlefield, and even masquerade as an enemy vehicle. The Crab is controlled by a highly adaptable pseudo-intelligence, capable of hijacking the computers of absorbed vehicles and creating new tactics on the fly. Teams of Hermit Crabs have been observed exhibiting complex cooperative behavior, creating supply dumps, adapting themselves to specialize in different battlefield roles and even setting up ambushes with one of their number as bait.

Due to their uncanny behavior, highly variable capabilities and ability to 'eat' other vehicles, many Neural Rider units are reticent to engage Hermit Crabs in combat. One of the most horrific sights on the battlefield is a Hermit Crab bonded to a Rider, a dead pilot lolling out of the cockpit as it moves.



OGL Stat Block

Type:	Giant Robot
Size:	Large (Long, 3 m)
Hit Points:	26 (MP: 32)
Occupancy:	None (MP: 0)
Armour Hardness:	12 (MP: 60)
Defense:	9
Strength:	24 (+6) (MP: 42)
Speed:	Land 27 kph (MP: 20)
Tactical Speed:	Land 45 m/turn
Initiative:	0 (MP: 5)
Maneuver:	0 (MP: 5)
Total MP Cost:	663
Total Money Cost:	265,200 credits

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Variable Railgun*	2d12	A	40m	150	Automatic, 2x Extra Ammo	—	78
Rending Claws**	2d8	SS	n/a	n/a	Muscle Powered	Melee (Medium)	1

Note: * Ballistic Weapon, ** Slashing Weapon

Special Abilities:

INS (MP: 2), Long Range Radio (Secure, MP: 4), Laser Com (Secure, MP: 4), High Resolution Radar (Global, 3km, MP: 18), Seismic Sensor (1 km, MP: 6), Tactical Radio (Secure, MP: 4), Stealth (Radar +2, Infrared +2, MP: 16), Infrared (Global, 2 km, MP: 12), Wall Crawling (MP: 24)

Exotic Abilities:

Full AI (Abilities: Dex 14, Int 14, Wis 14, Cha 3. Level: Fighter 5. BAB: +5. Saves: Fort +4, Ref +3, Will +3. Skills: Disable Device +6, Hide +6, Move Silently +6, Spot +6. Feats: Weapon Focus (Railgun), Burst Fire, Strafe, Point Blank Shot, Dodge (MP: 225), Parasitism (MP: 100), Self-Repair (MP: 5)

Mecha Defects:

None

PROJECT GRAYBUSTER

When menacing aliens invade the Earth in anime and manga, it is usually up to a few heroes piloting giant robots to save the day. Sometimes these pilots are inexperienced, angst-ridden youths, and sometimes they're hardened veterans of previous battles. In the Project Graybuster setting, there is plenty of room for both types to exist, and humanity will need all comers in its deadly conflict with invaders from the stars: the Gray Menace.

HISTORY

It was no "weather balloon" the United States Army retrieved near the town of Roswell, New Mexico in July of 1947. The Army had shot down an alien spacecraft and recovered the bodies of three extraterrestrial beings. They were short, no more than 1.25 meters in height, and had large, black, oval-shaped eyes that dominated their faces. It was the color of their hairless, rough skin that gave the creatures their name, however: the Grays. The mere existence of these creatures alarmed the military, but what really shook them up was the fact that the Roswell Army Airfield was the home of the world's only atomic bomber unit: the Grays, it had seemed, had been scouting out humanity's offensive capability.

A handful of high-ranking officials took charge of the situation within hours of the first reports, initiating a cover-up operation that would insulate from the situation not only the public but also the military and the government. They recognized the menace posed by the Grays could prove too great for a single nation to take on. If the aliens turned out to be a threat, it would require the resources and cooperation of the world to handle. Through trusted contacts in other nations' militaries and, later, research and corporate institutions, these men laid the foundation for Project Graybuster, a multinational effort to safeguard all of Earth from the Gray Menace.

Over the next decade, the fledgling Project Graybuster intercepted and downed a handful of additional Gray saucers. Although there were never any survivors to interrogate, Project investigators gathered enough data to determine the location of the Grays' base: the Lunar far side. A burgeoning space program in the world's two

superpowers promised to bring the Gray outpost within the Project's grasp, but it wasn't until 1973 that the location was pinpointed and 2004 that a mission was launched against the aliens.

In that year, a team of astronaut marines outfitted with armored spacesuits and light ground vehicles made its way stealthily to the 185-km diameter Crater Tsiolkovsky, the complex central peak of which hid the alien base. Halfway across the crater floor, the marines were surprised when a 20-meter tall humanoid walking tank emerged from a ravine to attack. During the harrowing battle, the marines suffered heavy casualties but were able to defeat the creature and capture the base relatively intact. All Gray personnel died in its defense, but the outpost's crystalline data storage system was largely undamaged and contained a wealth of information. Project Intelligence operatives sifting through the data learned that the base was merely a forward reconnaissance station for an advancing invasion fleet. Furthermore, the giant walker the marines had fought was apparently the weakest variety fielded, and the approaching fleet had thousands of such machines available. According to the documents, the fleet had been underway for a century and was due to arrive in the Solar System in about 2050 AD.

Humanity had fewer than 50 years remaining to devise and implement a defense of the Earth that could handle the powerful armored walkers the Gray Menace was carrying. Moving its headquarters to the alien base in order to take advantage of the low-gravity environment and its seclusion, Project Graybuster set about designing and constructing the tools of humanity's salvation: the Graybuster armored walkers. It is now 2047, and there are little more than three years remaining before D-Day.

FACTIONS

There are two important factions in the world of Project Graybuster. Others exist and can provide interesting plots, but the Project Graybuster organization and the Gray Menace are the primary movers and shakers of the setting.

Project Graybuster

Formed shortly after the Roswell incident in 1947, Project Graybuster is a supranational organization comprising specialists in science, engineering and the military. The Project exists to safeguard the Earth and its holdings from the Gray Menace, and to this end, Project operatives routinely engage in battle against Gray forces currently residing within the Solar System. The bulk of Project missions are prevention, interception, rescue and recovery operations centered on Gray abduction activities. Recently observing its 100th year of existence, the Project remains shrouded in secrecy and out of the public spotlight, but this situation is scheduled to change in 2048 when the Project will go public with its own existence and that of the Gray Menace.

Project Graybuster is organized into several departments, the largest of which is Operations, its military division. Capable of meeting the enemy on land, at sea, in the air, and in space, Operations takes part in nearly every direct confrontation with the Gray Menace. The Intelligence Department is second in size, and it has a hand in virtually every other operation Project Graybuster conducts.

Project Bases

The Project has three major bases and numerous minor installations located throughout the world and on the moon. Avalon, Project headquarters, is located in the heart of rural England, where it masquerades as a moderately successful computer manufacturer. Tír fo Thuinn ("Land Beneath the Waves") is an underwater complex located in the Pacific Ocean near Japan. The largest and currently most important base is Tír na nÓg, in the central peak complex of Crater Tsiolkovskiy on the far side of the Moon. Tír na nÓg adjoins the old Gray outpost captured in 2004, and it was there that the Research and Development

Department created the Graybuster armored walker. Each of the three major bases maintains a full complement of Operations troops, but the Graybusters are presently stationed only at the Lunar base, where they are manufactured and where the designs continue to be improved daily.

Red Branch and the Fianna

The Operations Department is composed of several distinct military groups, each with a particular operational theater or combat strategy. One of the most notable modern groups is Red Branch, the Project's sole Graybuster unit. Named for the group of warriors who protected kings in Celtic legend, Red Branch is stationed at Tír na nÓg and is currently undergoing intensive training on the Lunar far side as it prepares for operational readiness. Still only a fledgling unit, Red Branch is expected to be instrumental in defending the Earth.

Another notable group is the Fianna, Project Graybuster's marine corps. Outfitted with Fingal powered armor, the Fianna have been the Project's primary defense against the Grays for fifty years; it was the Fianna that stormed the Lunar Gray base in 2004, and it is the Fianna who lead the charge during ground assaults in the present day. The Fianna have a strong rivalry with Red Branch, and there is some concern that morale will suffer when the latter goes operational.

External Relations

Contrary to popular conspiracy theory, Project Graybuster has nothing to do with the numerous intelligence agencies of the world's governments, such as the American CIA or the Russian SVR. Indeed, the Intelligence Department maintains an active counterintelligence section dedicated to keeping those agencies out of the Project's affairs. Most such organizations are fairly harmless in the Project's view, but present policy nevertheless requires that they be kept in the dark; this policy will change in 2048 when the Project will begin to bring the rest of the world up to speed in preparation for the 2050 invasion.

The Gray Menace

Humanity has precious little information about the Gray Menace; the scant intelligence available has come predominantly from the captured Gray base on the Lunar far side, with the rest from interviews with abduction survivors and from downed Gray saucers. The Grays' social, economic and political structures are virtually unknown, although they are presumed to follow a caste-based hierarchy in which a particular Gray's phenotype determines its position in society.

The motivation for the Grays' interest in Earth is entirely unknown. All contact with living Grays has been hostile, so it is assumed that the approaching fleet is bent on invasion, though to what end remains a mystery to the Project. Study of star charts discovered amongst the salvaged equipment in the Lunar base, combined with an analysis of the trajectory of the incoming Gray Fleet, indicates that the Grays' homeworld orbits Zeta-2 Reticuli, a Sol-like star 37.5 light-years from Earth — just as conspiracy theorists outside of Project Graybuster have claimed since the 1960s. The Grays are incapable of faster-than-light travel, and the distances involved in the invasion as well as the resources required to orchestrate it suggest the Grays mean to stay once they arrive, however.

Gray Phenotypes

Three distinct types of Gray are known to exist, and Intelligence hypothesizes that there may be others. Each is genetically related but physically quite different, with particular features adapted to a group of tasks. The **analyst** is the archetype of Gray physiology, for it is the type most often encountered by humanity: analysts conduct abductions and perform the "examination" of captive humans. They appear to be the technicians and researchers amongst the Grays, and they are believed to be the most intelligent. The **soldier** Gray is slightly larger than the analyst, and its musculature is far more adapted to physical activity than the latter's. Gray soldiers have only been encountered at the Lunar base, and they fought vigorously to defend it. The **giant** is the final known variety. Standing 15 meters tall, it is a virtually unintelligent brute incapable of surviving

outside of the protective life support system known as a *Graysuit* to Project Graybuster.

Sequencing of the DNA of Gray analysts and Gray soldiers suggests that the two are actually the same species. It is thought that a prenatal chemical trigger determines whether a particular individual will develop as an analyst or as a soldier, although there is no hard evidence for this supposition, and the difference may be due to some other environmental factor, possibly even a postnatal one. Gray giants are not of the same species as the analyst/soldier type, although they are demonstrably related. The fact that the giant cannot survive without its Graysuit indicates that this sort is likely a genetically engineered organism, which further suggests the Grays are expert genetic engineers. Interviews with abduction survivors indicate that the Grays have been collecting genetic samples of humans since their arrival from Zeta-2 Reticuli. The purpose of this activity is unknown, but it seems unlikely to be benign.

Language and Telepathy

The language of the Grays is as mysterious as any other aspect of their culture, largely because they do not appear to speak at all. Gray soldiers sometimes grunt in combat, but these sounds appear to reflect stress rather than to be attempts to communicate complex information. Instead, Grays use telepathy to communicate, both amongst themselves and with abductees. Survivors describe psychic contact with Grays as cold and emotionless, with their abductors conveying broad concepts such as hopelessness and placidity rather than issuing actual instructions. The full extent of the Grays' telepathic powers is unknown. Evidence suggests they are capable of planting suggestions in the thoughts of others, although strong-willed individuals seem able to shrug off such mental assaults.

The Grays do possess a written language, which is precise and mathematical. Project linguists have been marginally successful in deciphering it, but there is considerable room for improvement in their understanding.

CAMPAIGNS

Because the primary threat — the Gray Menace — has yet to arrive on the stage in full force, campaigns set in the world of Project Graybuster will likely feature themes of exploration, discovery and espionage in addition to classic giant robot adventure. The alien nature of the Gray Menace means these themes can continue easily into the full-scale invasion and war, and it should be no trouble to include them in the post-war phases.

Characters

Project Graybuster recruits personnel from all walks of life. When dealing with a truly alien and unknown culture such as the Gray Menace, nearly any skill can prove valuable. Most members of the Operations Division have had prior military training; Red Branch in particular tends to recruit combat pilots from Earth's air forces and astronauts from its space exploration corps. Even these units have their exceptions, however: the first pilot of the Cú Chulainn prototype was an Olympic swimmer, and the second was a ballet dancer who had lost the use of her legs in a car accident.

The Project strongly desires individuals who show signs of psychic talent, particularly telepathy. It is believed that such people will be crucial in the coming war, especially in the areas of counterintelligence and diplomacy.

Campaign Seed: Space Carrier Prydwen

It has been a well-known fact within the Project that abductions and other Gray incursions did not cease with the capture of the base on the Lunar far side. Although their frequency diminished during the first decade after the assault, they gradually became more common until they were occurring at roughly the same rate as in the mid-1970s. These data point to the likelihood that there is at least one other Gray base located somewhere in the Solar System. The Grays' graviton drive systems would allow them to situate such a base well out of Earth's reach: although humans have been capable of interplanetary travel for decades, it has always been costly and slow. The development of humanity's own graviton drive

system in 2046, however, has leveled the playing field, and Project Graybuster is preparing to embark on an active campaign in search of the other base or bases from which the Grays have been operating.

To this end, a Lunar transport has been outfitted with a prototype graviton drive. Named *Prydwen* after the sea-going vessel of the legendary King Arthur, the transport features several large bays, battleship-like gun turrets that mount powerful energy cannons, and a backup conventional drive. The *Prydwen* carries a full squad of early production Cú Chulainn Graybusters and a complement of Fianna marines. It has been conducting training operations in space above the Lunar base for a few months now, and it is finally ready for its maiden voyage. Intelligence has prepared a small list of candidate sites for possible Gray outposts: the moons of Jupiter, Saturn and Uranus are the strongest contenders, with those of Neptune following closely behind. The *Prydwen* is to investigate these worlds and destroy any Gray bases it may find.

Adapting to Your Own Campaign

Adapting Project Graybuster to your own campaign can be surprisingly easy, particularly in a modern or near-future setting. The Project is, after all, one of the best-kept secrets in human history, and its existence, by its very nature, changes everything we think we know about the universe. It can even fit into a far-future campaign, although the threat the Grays pose will need to be adjusted if other alien species exist or if interstellar travel is routine.

The primary mecha — the Graybusters themselves and the Graysuits they were designed to combat — can easily be adapted for other giant robot campaigns without the Project Graybuster setting. They might easily be advanced prototype exo-armors from the *Jovian Chronicles* setting, for example. (In fact, the mecha from the *Jovian Chronicles* would not be out of place in the Project Graybuster setting.)

MECHA

The world of Project Graybuster features numerous mecha on both sides of the impending conflict. Both humanity and the Grays operate spaceships, armored powersuits, and giant robots. Humanity still maintains conventional combat vehicles, of course, and the Project must assume that the Grays are capable of fielding such devices themselves.

Earth Technology

Although the human race has made tremendous advances in science and engineering, the technology of 2047 AD Earth is little different in principle from fifty years prior. The most significant advances have been in the fields of computing, medicine and energy science. Computing technology has reached unprecedented levels of miniaturization and distributed processing: it is not uncommon to find a one-use disposable coffee maker's CPU involved in a computing grid to do gene sequencing while also monitoring the temperature of its heating element, for example. In medicine, most of the diseases of the late 20th century and early 21st century have been tamed, though new ones continue to manifest around the globe on an almost daily basis. Energy science made a dramatic breakthrough in 2012 with the development of the fusion reactor, which has greatly reduced humanity's dependence on fossil fuels.

Humans continue to explore the Solar System, and there have been numerous advances in that field as well. The fusion drive is one of the most significant: using a fusion reactor to vaporize and propel reaction mass, the drive has made practical interplanetary transport possible. Most such travel is limited to the moon, however: through political maneuvering, Project Graybuster has ensured that humans do not venture too far from the protective embrace of Earth.

Graybusters

The encounter with the Graysuit on the Lunar far side in 2004 revealed an unanticipated gap in Project Graybuster's strategy for combating the

Gray Menace. Although the marines defeated the creature, the cost was too great to be a viable tactic in a long-term war. The Project's R&D department quickly settled on a solution, to fight fire with fire, and the Fingal powered armor suit became the basis of humanity's answer to the Graysuit: the Graybuster armored walker.

Standing twenty meters tall, the Graybuster is capable of holding its own against the alien giant. The Project elected not to attempt to breed its own giant to combat the monster, but instead developed a gargantuan robotic endoframe to fill out the enlarged Fingal armor. The two were eventually merged into one unit, but not until the endoframe could walk on its own, a complex task that took decades to perfect. The Graybuster's fusion reactor occupies its chest, and its pilot sits in a reinforced compartment in its head. It is controlled via a combination joystick/biofeedback interface, in which the pilot "wills" the vehicle to walk.

Weapon Systems

Classic chemically propelled ballistic weapons and missile systems remain common weapons of humanity, and electromagnetic rail cannons and mass drivers are widespread as well. Recent advances in technology have led to the development of particle weapons with different, exotic natures and to laser weaponry. These new systems have yet to be miniaturized to the personal scale, however, and are mounted only on vehicles the size of a light battle tank or larger.

The maneuverability of the Graybuster walkers has allowed for the development of advanced, dual-role systems known as "javelins." Bearing a striking resemblance to its namesake, a javelin consists of a particle generator located in the middle of a long, tapering shaft that serves as a collimation tube. In some models, both ends of the tubes are particle emitters, and in others, only one is, with the other end serving simply as counterbalance. The javelin may be fired like a long-range cannon, or it may be used as a melee weapon. In the latter case, the particle delivery is held until physical "stabbing" contact with the target, which triggers a massive, point-plank discharge that can punch clean through most armored plating. Javelins are particularly effective against Graysuits.

Gray Technology

Gray technology is far more advanced than Earth's. It includes powerful energy weapons, advanced genetic engineering, a scientific understanding of telepathy and other psychic phenomena, and the direct manipulation of gravitational fields. It is the latter — the Grays' graviton drives — that allow them to conduct an interstellar invasion; although they are incapable of exceeding the speed of light (or even a quarter of it), the ships of the Gray fleet can move about freely at high speeds and for extended periods.

The Grays make use of armored spacesuits much like Earth's powered armor, but they have taken the concept to a much larger scale: in addition to regular powered armor for soldier-type Grays, the invaders' arsenal includes the Graysuit, a 20-meter tall suit of powered armor built for a giant. The occupant is so massive (nearly 45 tons, with a height of 15 meters) that it cannot survive for long outside of its protective armor unless, like a whale, it is in a nearly weightless or neutrally buoyant environment. Even so, the giant is incapable of strenuous activity without the suit, which features a dozen large blood-flow regulators and pumps reminiscent of artificial hearts. The Grays field several models of Graysuit, each tailored around a specific military role; each is well armed, as well, and could single-handedly take on most conventional Earth forces with little effort.

Weapon Systems

The Grays use maser, laser and particle systems in combat rather than ballistic weapons. These devices are found at all scales, from the laser pistols and particle rifles of the Gray soldiers up to massive planet-busting particle cannons mounted on the largest ships of the Gray fleet. Project Graybuster Intelligence is concerned that the Grays may possess psychic weapons as well, such as the so-called "mind control lasers" conspiracy theorists and genuine abduction survivors popularize, although these have never been observed or detected in actual combat. The Project is uncertain how to defend against such things; those operatives with particularly strong wills are thought to stand a better chance against

them, much as they can resist Gray telepathic suggestions. Presumably, however, psychic weaponry would be much more powerful than a Gray's thought.

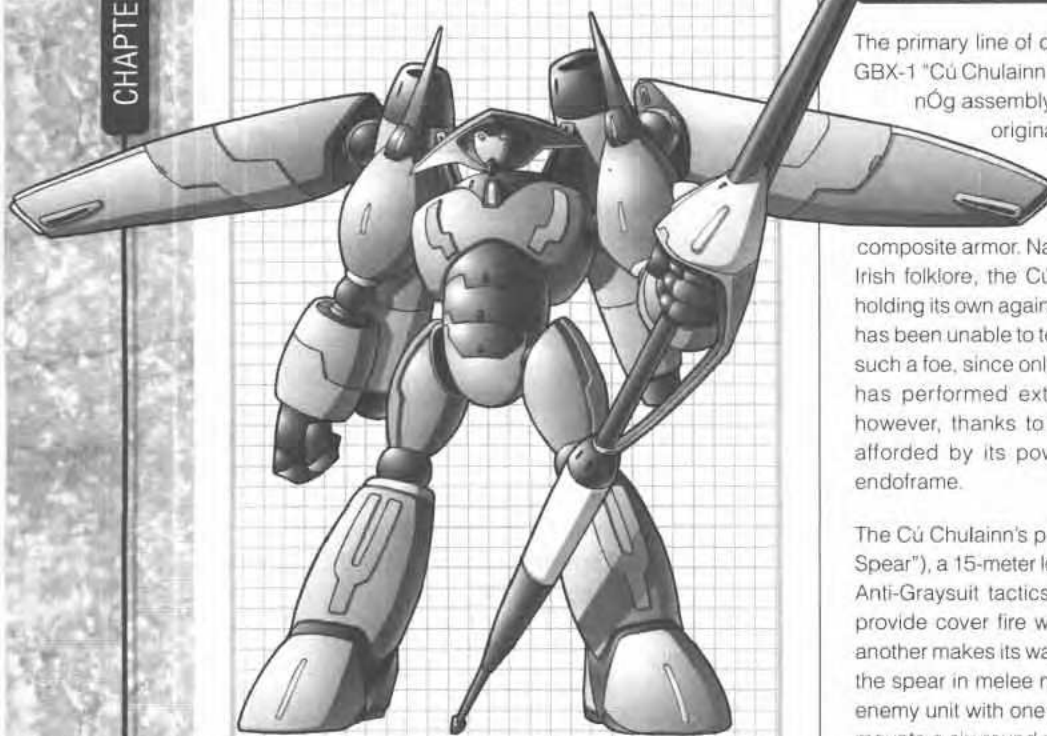
Graysuit Controls

The lumbering giant at the heart of the Graysuit is incapable of controlling its actions, thanks to its careful breeding at the four-fingered hands of the grays. Operation of a Graysuit is conducted via a telepathic metaconcert involving three Gray pilots and the beast's own primitive psyche. The pilots ride in a control saucer situated on the suit's back; one end of a neural umbilical channel taps into the giant's central nervous system and the other into a psychic resonator located on the control saucer's flight deck. Each pilot reclines on a couch during Graysuit operation, with its head enclosed in a helmet connected to the resonator. The pilots view the operation of the Graysuit from the beast's own vantage point.

In an emergency, the control saucer can be detached from Graysuit, flying free and operating as an unarmed scout saucer. The systems that regulate the blood flow of the gray giant are contained within the control saucer, however, and separation inevitably results in the death of the creature.

Controlling a Graysuit

The requirement of three Gray operators for a Graysuit is not rigid. In fact, a single non-Gray pilot can accomplish the task, although at significant penalty. For each non-telepathic pilot, the Graysuit suffers a -2 competence penalty to all attack rolls, saving throws and skill checks. For each absent pilot, the penalty is -4, with a minimum of one pilot absolutely required to operate the walker. Thus, a Graysuit commandeered by a lone Project agent with no telepathic ability will suffer a -10 competence penalty to its actions and saving throws.



CÚ CHULAINN GRAYBUSTER

The primary line of defense against the Gray Menace, the GBX-1 "Cú Chulainn" Graybuster first stepped off the Tír na nÓg assembly line in the year 2041. Although it was originally designed in 2005, it took over thirty years before Project Graybuster engineers had perfected the robotic endoframe beneath the machine's composite armor. Named for one of the greatest warriors of Irish folklore, the Cú Chulainn is theoretically capable of holding its own against a Graysuit. Unfortunately, the Project has been unable to test the machine's performance against such a foe, since only one has been encountered to date. It has performed extremely well against Gray saucers, however, thanks to the high degree of maneuverability afforded by its powerful vernier thrusters and flexible endoframe.

The Cú Chulainn's primary weapon is the Gáe Bolg ("Belly Spear"), a 15-meter long single-emitter javelin dual-weapon. Anti-Graysuit tactics call for one or two Cú Chulainns to provide cover fire with the javelin's particle cannon while another makes its way in for close combat. Lashing out with the spear in melee mode, the Graybuster can rip apart an enemy unit with one or two good swings. The Cú Chulainn mounts a six-round missile rack on its back to supplement the Gáe Bolg.

OGL Stat Block

Type:	Giant Robot
Size:	Colossal (Tall, 22 m)
Hit Points:	120 (MP: 40)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	30 (MP: 150)
Defense:	2 (-8 size)
Strength:	72 (+31, MP: 186)
Speed:	Land 45 kph, Realistic Space Flight (Thrust 1.5, G-Rounds 150) (MP: 84 + 675)
Tactical Speed:	Land 75 m
Initiative:	-4 (MP: 20)
Maneuver:	-4 (MP: 20)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Gáe Bolg Cannon	8d12*	SS	300 m	30	Increased Threat (19-20), Long Range	Space-Optimized	137
Gáe Bolg Lance	8d12	SS	—	30	Armor Penetrating, Increased Melee Threat (19-20), Muscle-Powered		156
Graybuster Mk II Missiles	9d12	SS	900 m	6	Blast, Guided (ARH, IRH), Indirect, 3x Long Range	Arc of Fire (Fr), 2x Less Ammo	351

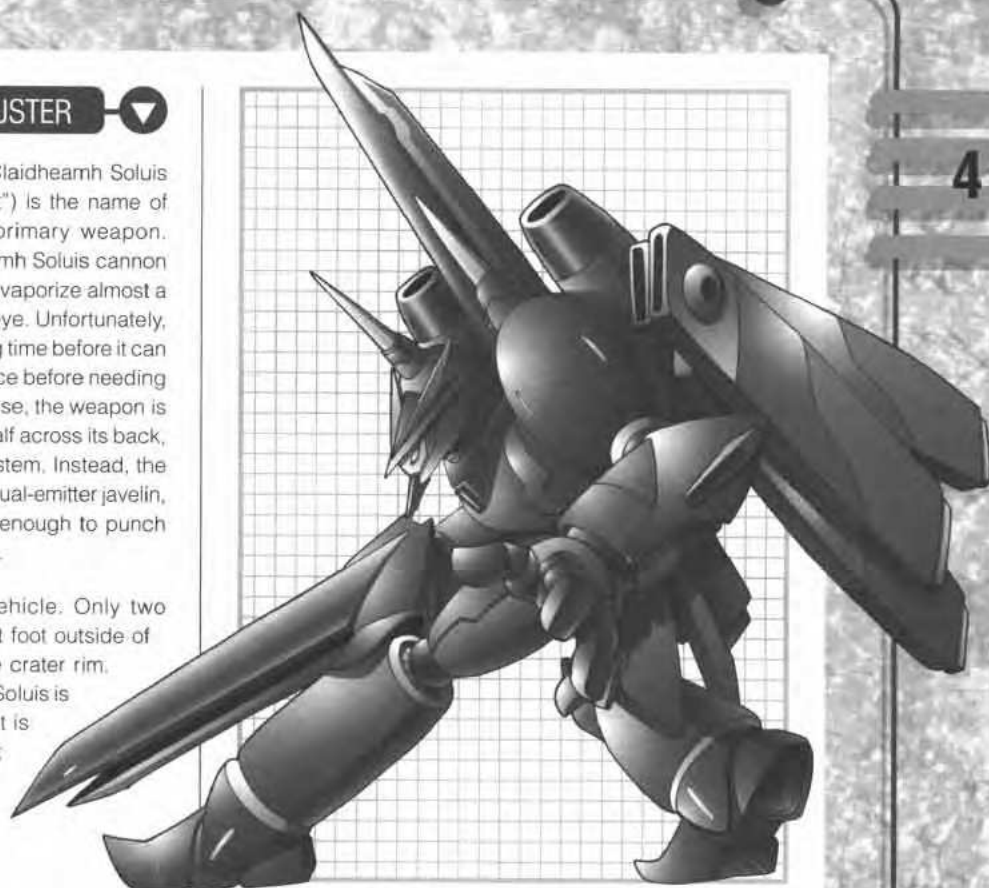
Note: *energy, **blast

Total MP Cost:	1957
Total Money Cost:	\$7,700,000
Special Abilities:	
Ejection Seat (MP: 3), GPS (MP: 2), Headlights (MP: 1), High-Res Radar (2 km, MP: 6), IR (2 km, MP: 6), Jump (x5, MP: 25), Laser Com (Secure, Interplanetary, MP: 14), Life Support (MP: 20), Magnetic Sensors (2 km, MP: 20), Optics (2 km, MP: 2), Radar Warning Receiver (MP: 2), Stabilization Gear (MP: 10), Tactical Radio (Secure, MP: 4)	
Exotic Abilities:	
Limited AI (Dex 3, Wis 3, Cha 1, MP: 35)	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start-Up Time (1 minute, MP: -2)	

CLAIDHEAMH SOLUIS GRAYBUSTER

Cú Chulainn's legendary weapon, the Claidheamh Soluis ("KLY-uhv SO-loos," the "Sword of Light") is the name of both the GBX-2 Graybuster and its primary weapon. Intended for anti-ship duty, the Claidheamh Soluis cannon is a massive laser weapon that can flash-vaporize almost a meter of armor plating in the blink of an eye. Unfortunately, the weapon requires considerable cooling time before it can be fired again, and it can be fired only twice before needing cleaning and recalibration. When not in use, the weapon is stored with its 20-meter barrel folded in half across its back, leaving no room for a backup missile system. Instead, the Claidheamh Soluis uses a 17-meter long dual-emitter javelin, the Gáe Assail, which is itself powerful enough to punch through layers of Gray vessel ship armor.

The GBX-2 is still an experimental vehicle. Only two prototypes exist, and neither has yet set foot outside of Crater Tsiolkovsky nor flown beyond the crater rim. Standing 25 meters tall, the Claidheamh Soluis is larger and heavier than the GBX-1, but it is every bit as maneuverable and just as fast as its sibling Graybuster. Project R&D expects to have a working early production model ready for field-testing by the end of 2047.



OGL Stat Block

Type:	Giant Robot
Size:	Colossal (Tall, 25 m)
Hit Points:	130 (MP: 60)
Occupancy:	1 operator, no cargo (MP: 10)
Hardness:	30 (MP: 150)
Defense:	2 (-8 size)
Strength:	74 (+32, MP: 192)
Speed:	Land 40 kph, Realistic Space Flight (Thrust 1.5, G-Rounds 150) (MP: 75 + 675)
Tactical Speed:	Land 65 m
Initiative:	-4 (MP: 20)
Maneuver:	-4 (MP: 20)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
2x Gáe Assail Cannon	10d12*	SS	300 m	30	Increased Threat (19-20), Long Range	Space-Optimized	173
2x Gáe Assail Lance	10d12*	SS	—	30	Armor Penetrating, Increased Threat (19-20), Muscle-Powered	Melee	195
Claidheamh Soluis Cannon	20d12*	1	1200 m	3	2x Armor Penetrating, Increased Threat (19-20), 2x Long Range, Stream	Arc of Fire (Fr), 3x Less Ammo, Slow-Firing, Space-Optimized, Static	228

Note: *energy

Total MP Cost: 2088

Total Money Cost: \$8,700,000

Special Abilities:

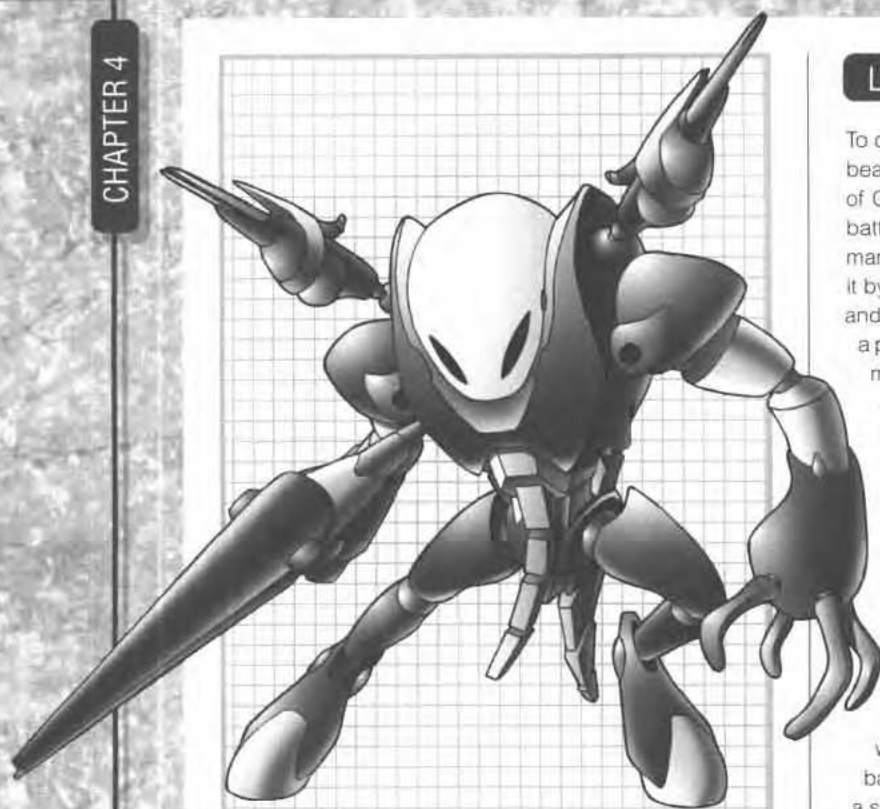
Ejection Seat (MP: 3), GPS (MP: 2), Headlights (MP: 1), High-Res Radar (2 km, MP: 6), IR (2 km, MP: 6), Jump (x5, MP: 25), Laser Com (Secure, Interplanetary, MP: 14), Life Support (MP: 20), Magnetic Sensors (2 km, MP: 20), Optics (2 km, MP: 2), Radar Warning Receiver (MP: 2), Stabilization Gear (MP: 10), Tactical Radio (Secure, MP: 4)

Exotic Abilities:

Limited AI (Dex 3, Wis 3, Cha 1, MP: 35)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15), Start-Up Time (1 minute, MP: -2)



LIGHT GRAYSUIT

To date, humanity has encountered only one Graysuit, the beast that met the Fianna marines halfway across the floor of Crater Tsiolkovskiy on the Lunar far side. The ensuing battle was fierce, despite the fact that there were twenty marines to the one Graysuit. The marines were able to defeat it by leading it back across the crater towards the rim wall and collapsing a portion of it down upon the creature using a pair of tactical nuclear mines. The blast and the rockslide managed to wound the giant mortally; the EMP triggered a feedback effect amongst the pilot metaconcert, causing their brain deaths well before the creature was trapped in the falling rubble. Disturbingly, evidence collected in the Gray base suggested this creature was merely a light-duty, low-powered Graysuit, and that the Gray Menace possessed far more powerful units.

The light Graysuit usually carries a low-yield particle cannon in a hand-held rifle mount as its primary weapon. A pair of rapid-fire laser cannons — one on each shoulder — provides backup firepower. Additional weaponry for the creature was discovered in the Lunar base, however, including a long-range laser rifle fitted with a sniper stabilizer and scope. The light suit is not capable of independent space flight.

OGL Stat Block

Type:	Giant Robot
Size:	Colossal (Tall, 20 m)
Hit Points:	100 (MP: 0)
Occupancy:	3 operators, no cargo (MP: 30)
Hardness:	25 (MP: 125)
Defense:	2 (-2 size)
Strength:	66 (+28, MP: 168)
Speed:	Land 40 kph (MP: 63)
Tactical Speed:	Land 65 m
Initiative:	-5 (MP: 15)
Maneuver:	-5 (MP: 15)
Total MP Cost:	1105

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Type-A Particle Rifle	8d12*	SS	300 m	30	Increased Threat (19-20), Long Range	Space-Optimized	137
2x Laser Gatling Gun	6d12*	A	150 m	150	2x Autofire, 2x Extra Ammo, Long Range	Arc of Fire (Fr), Space-Optimized	195
(Opt.) Laser Sniper Rifle	10d10*	SS	1200 m	10	Invisible, 3x Long Range	Less Ammo, Space-Optimized, Static	147

Note: s* energy

Total Money Cost:	\$2,400,000
Special Abilities:	
Ejection Seat (x3, MP: 9), GPS (MP: 2), Headlights (MP: 1), Jump (x5, MP: 25), Laser Com (Telepathic, Secure, Interplanetary, MP: 22), Life Support (MP: 20), Magnetic Sensors (2 km, MP: 20), Meta-Scanner (2 km, MP: 10), Optics (2 km, MP: 2), Radar Warning Receiver (MP: 2), Stabilization Gear (MP: 10), Tactical Radio (Telepathic, Secure, MP: 12)	
Exotic Abilities:	
Limited AI (Dex 3, Wis 3, Cha 1, MP: 35), Mind Interface System (MP: 10), Self Repair (10 hp/day, MP: 2)	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (1 day, MP: -15)	

MEDIUM GRAYSUIT

Serving the role of a general-purpose combat unit, the medium Graysuit is presumed to be the most common giant combatant in the Gray Fleet. Captured schematics show the medium model standing approximately two meters taller than the light model. Data suggest this height difference is due to the presence of a larger, tougher Gray giant occupant, indicating it will be even harder to stop than its sibling.

The medium Graysuit is equipped with a graviton drive, enabling it to travel through space and in a planetary atmosphere, probably with a high degree of maneuverability. Its standard armament includes a larger, more powerful particle rifle than the light Graysuit and an additional pair of rapid-fire laser cannons — bringing the total to two on each shoulder. The captured schematics show an additional rifle-like weapon thought to be similar to a Terrestrial grenade launcher. Instead of explosive munitions, however, the grenade rifle fires a spinning barrel containing dozens of particle emitters. This "particle grenade" can shower a large area with high-energy subatomic particles, causing a tremendous damage to unshielded targets within. Curiously, the assortment of weapons assigned to this type of Graysuit includes a battleaxe-like melee weapon. The need for such a device is unclear.

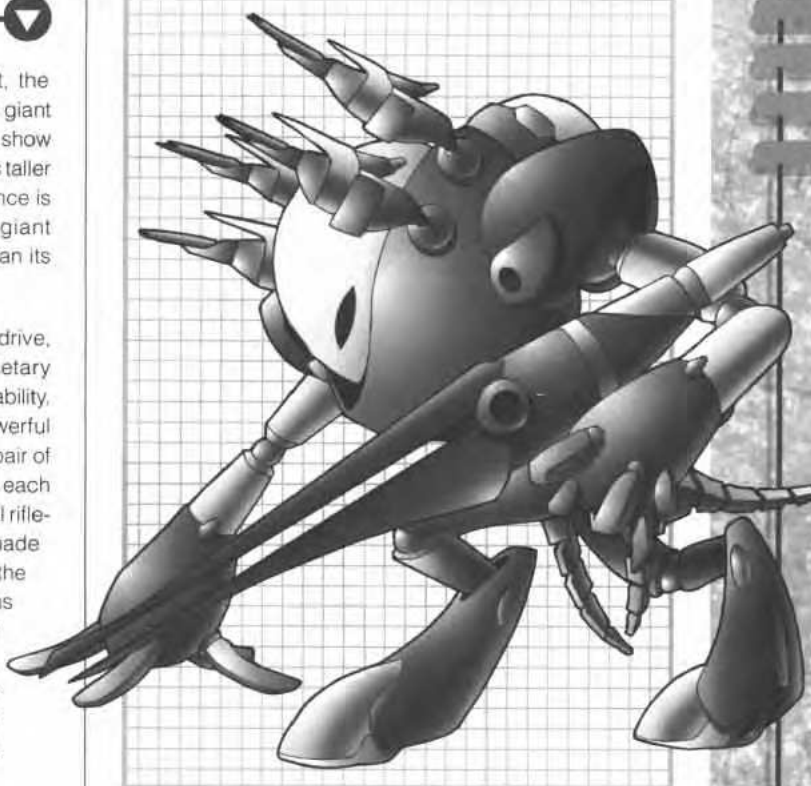
OGL Stat Block

Type:	Giant Robot
Size:	Colossal (Tall, 22 m)
Hit Points:	125 (MP: 50)
Occupancy:	3 operators, no cargo (MP: 30)
Hardness:	30 (MP: 150)
Defense:	2 (-2 size)
Strength:	72 (+31, MP: 186)
Speed:	Land 40 kph, Dramatic Space Flight (Thrust 2.0 g) (MP: 75 + 900)
Tactical Speed:	Land 65 m
Initiative:	-5 (MP: 15)
Maneuver:	-5 (MP: 15)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Type-B Particle Rifle	10d12*	SS	300 m	30	Increased Threat (19-20), Long Range	Space-Optimized	173
4x Laser Gatling Gun	6d12*	A	150 m	150	2x Autofire, 2x Extra Ammo, Long Range	Arc of Fire (Fr), Space-Optimized	195
(Opt.) Particle Shower Gren. Rifle	8d10*	SS	300 m	30	5x Emanation (20-m radius), Indirect, 2x Long Range	Low Penetration	587
(Opt.) Graysuit Battleaxe	4d8**	SS	—	—	Increased Critical (x3), Muscle-Powered	Melee (colossal weapon)	36

Note: *energy, **slash



Total MP Cost: 2536

Total Money Cost: \$12,900,000

Special Abilities:

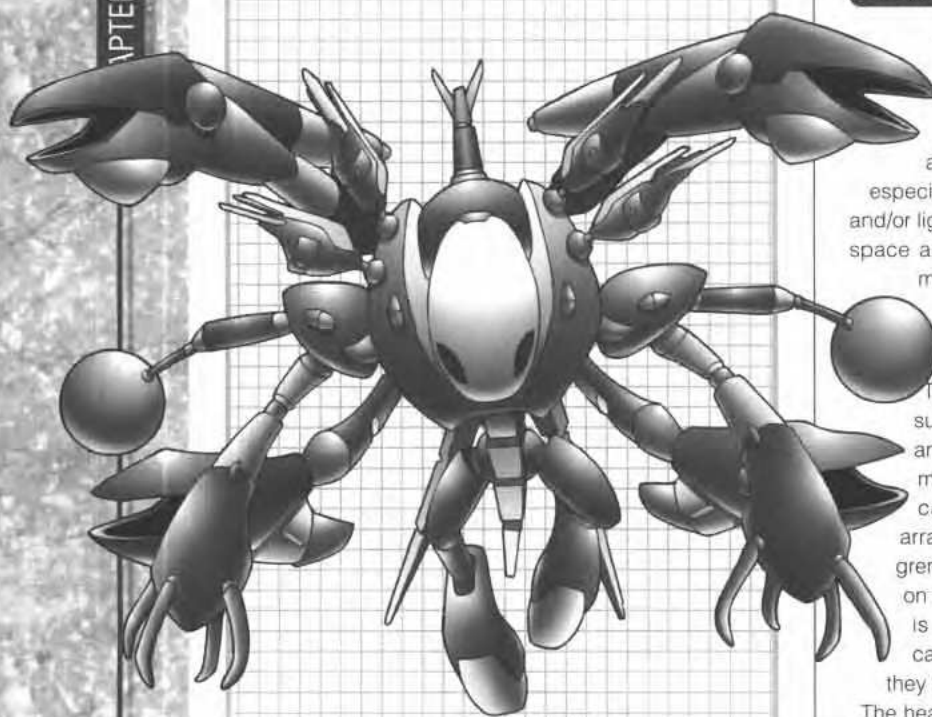
Ejection Seat (x3, MP: 9), GPS (MP: 2), Headlights (MP: 1), Jump (x5, MP: 25), Laser Com (Telepathic, Secure, Interplanetary, MP: 22), Life Support (MP: 20), Magnetic Sensors (2 km, MP: 20), Meta-Scanner (2 km, MP: 10), Optics (2 km, MP: 2), Radar Warning Receiver (MP: 2), Stabilization Gear (MP: 10), Tactical Radio (Telepathic, Secure, MP: 12)

Exotic Abilities:

Limited AI (Dex 3, Wis 3, Cha 1, MP: 35), Mind Interface System (MP: 10), Self Repair (10 hp/day, MP: 2)

Mecha Defects:

Noisy (MP: -5), Reduced Endurance (1 day, MP: -15)



HEAVY GRAYSUIT

The largest of the Graysuits, the heavy model stands 25 meters tall. With a giant occupant even tougher than the medium suit's and with thicker, sturdier armor plating, the heavy Graysuit will be a serious challenge for Graybuster teams, especially if it is deployed, as expected, with medium and/or light escorts. It is equipped with a graviton drive for space and atmospheric flight, but it is probably not as maneuverable as the medium suit. Current strategy calls for close-in combat against the beast, using the javelins in melee mode to crack its armor.

The heavy Graysuit has two roles, assault and fire support. In each case, its primary weapon system is an array of four cannons on independent, gimballed mounts attached to its back. The assault version carries high-energy particle cannons in this arrangement. The artillery version features particle grenade cannons similar to those sometimes carried on the medium Graysuit, although the artillery model is much more destructive. Four rapid-fire laser cannons provide backup fire for both models, and they both also mount a missile pod on each shoulder. The heavy Graysuit does not normally carry a hand-held weapon, however, but it can pick one up if needed.

OGL Stat Block

Type:	Giant Robot
Size:	Colossal (Tall, 25 m)
Hit Points:	150 (MP: 100)
Occupancy:	3 operators, no cargo (MP: 30)
Hardness:	35 (MP: 175)
Defense:	2 (-2 size)
Strength:	78 (+34, MP: 204)
Speed:	Land 40 kph, Dramatic Space Flight (Thrust 1.2 g) (MP: 88 + 770)
Tactical Speed:	Land 65 m
Initiative:	-5 (MP: 15)
Maneuver:	-5 (MP: 15)

WEAPONS:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
4x Type-C Particle Cannon	12d12	SS	900 m	30	Increased Threat (19-20), 2x Long Range	Arc of Fire (Fr), Space-Optimized	234
4x Laser Gatling Gun	6d12*	A	150 m	150	2x Autofire, 2x Extra Ammo, Long Range	Arc of Fire (Fr), Space-Optimized	195
2x Graysuit Missile Pod	7d12**	SS	900 m	30	Blast, Guided (ARH, IRH), Indirect, 3x Long Range	Arc of Fire (Fr)	546
(Opt) 4x Particle Shower Art. Can.	10d10*	SS	900 m	10	7x Emanation (100-m radius), Indirect, 3x Long Range	Arc of Fire (Fr), Less Ammo, Low Penetration, Static	358

*energy, **blast

Total MP Cost:	4367
Total Money Cost:	\$38,100,000
Special Abilities:	
Ejection Seat (x3, MP: 9), GPS (MP: 2), Headlights (MP: 1), Jump (x5, MP: 25), Laser Com (Telepathic, Secure, Interplanetary, MP: 22), Life Support (MP: 20), Magnetic Sensors (2 km, MP: 20), Meta-Scanner (2 km, MP: 10), Optics (2 km, MP: 2), Radar Warning Receiver (MP: 2), Stabilization Gear (MP: 10), Tactical Radio (Telepathic, Secure, MP: 12)	
Exotic Abilities:	
Limited AI (Dex 3, Wis 3, Cha 1, MP: 35), Mind Interface System (MP: 10), Self Repair (10 hp/day, MP: 2)	
Mecha Defects:	
Noisy (MP: -5), Reduced Endurance (1 day, MP: -15)	

GRAY SAUCER

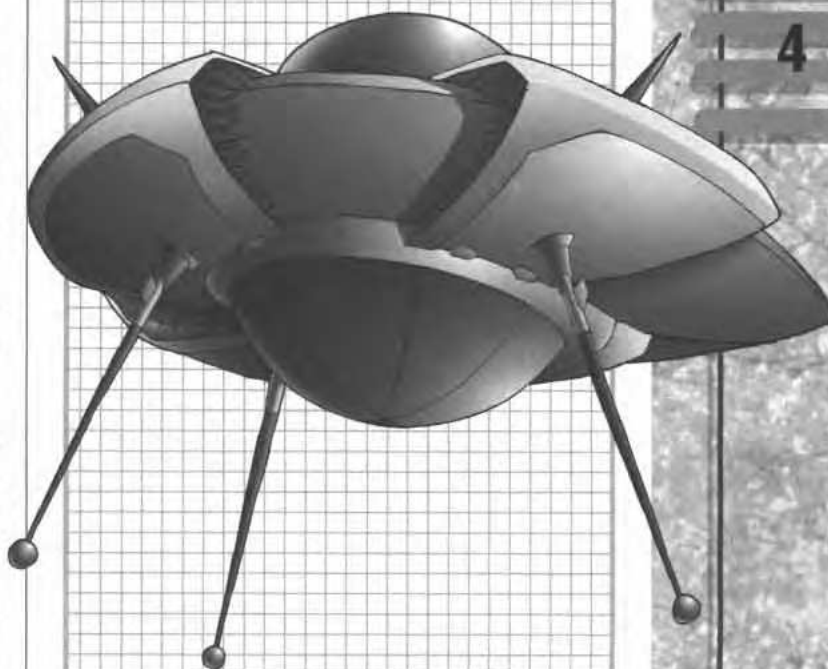
The classic "flying saucer" of UFO lore, this vessel is a versatile long-range spacecraft. Several different configurations are known to exist, and each has been observed operating in the vicinity of Earth. The base saucer features a graviton drive that allows it to cover large distances with ease; its range is limited by the available storage space for life support and supplies, however, and it is effectively incapable of interstellar travel. A crew of three operates the craft, with one pilot, one co-pilot and one operations specialist. The craft is controlled via a flight yoke similar to Earth aircraft, which surprises most humans who see the saucer's flight deck.

A modular operations bay occupies the rest of the craft's volume. In the classic abductor configuration, the bay contains limited medical facilities and a cramped holding pen for captives. In the scout configuration, it contains powerful surveillance equipment. The Graysuit control craft's bay holds the neural connection equipment used to tap into the nervous system of the Gray giant. The troop transport configuration can carry a dozen armored soldiers in its bay. Finally, in the fighter configuration, the bay holds energy cannon and missile systems. In each case, it is the operations specialist that oversees the use of the equipment, sometimes from the flight deck and sometimes from within the module itself.

OGL Stat Block

Type:	Vehicle
Size:	Huge (Long, 8 m)
Hit Points:	50 (MP: 60)
Occupancy:	3 operators, no cargo (MP: 30)
Hardness:	20 (MP: 100)
Defense:	8 (-2 size)
Speed:	Air 2000 kph (Ceiling 20 km), Dramatic Space Flight (Thrust 5.0 g) (MP: 2577 + 1200)
Tactical Speed:	Air 3350 m
Initiative:	+1 (MP: 15)
Maneuver:	+1 (MP: 15)

WEAPONS:						
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
2x Type-A Particle Cannon	8d12* SS		300 m	30	Increased Threat (19-20), Long Range	Arc of Fire (Fr), Space-Optimized
Saucer Missile Pod	7d12** SS		900 m	10	Blast, Guided (ARH, IRH), Indirect, 3x Long Range	Arc of Fire (Fr), Less Ammo
*energy, **blast						
variants						
Abductor: It is by means of the abductor configuration of the saucer that the Grays abduct helpless human beings for their sinister experiments. Remove all weapons and add a Sickbay. Total MP Cost: 4238. Total Money Cost: \$35,900,000.						



Total MP Cost: 4831

Total Money Cost: \$46,700,000

Special Abilities:

GPS (MP: 2), Headlights (MP: 1), Laser Com (Telepathic, Secure, Interplanetary, MP: 22), Life Support (MP: 20), Magnetic Sensors (2 km, MP: 20), Meta-Scanner (2 km, MP: 10), Optics (2 km, MP: 2), Radar Warning Receiver (MP: 2), Stabilization Gear (MP: 10), Stealth (+5 vs. meta-scanners, radar and thermal sensors, MP: 75), Tactical Radio (Telepathic, Secure, MP: 12)

Exotic Abilities:

Limited AI (Dex 3, Wis 3, Cha 1, MP: 35), Mind Interface System (MP: 10)

Mecha Defects:

Reduced Endurance (4 weeks, MP: -5)



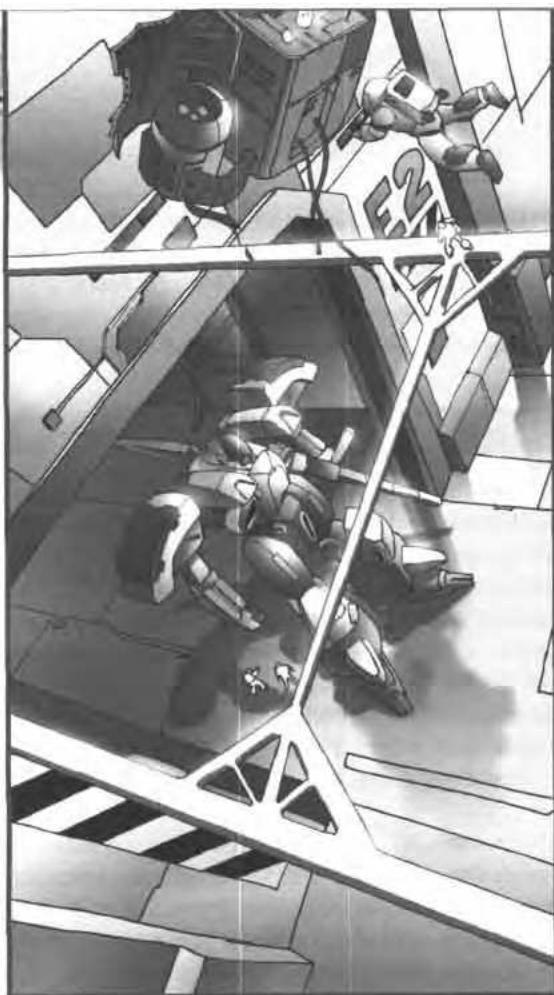
Chapter Five: Mecha Design

Mecha design is a multi-step process, much like character creation. It is up to the GM whether players can design their own mecha or whether they must select them from a limited range of existing designs. If the former is preferred, the GM should specify the Mecha Points budget and whether any particular abilities are required or forbidden.

Design a mecha by selecting various characteristics, such as hit points, armor hardness, occupancy, or special abilities or weapons. Each has a Mecha Point cost; sometimes this is positive, sometimes negative. There is no cost for a mecha's Type or Size, as the advantages and disadvantages tend to balance out.

Add all the costs together to find the Total Mecha Point Cost. This is the number of Mecha Points that it would cost to start with this mecha, or the total used in any Mecha Point Equivalence formula.

Since some d20 games use Imperial measurements and some use metric, all values are given both in Imperial and Metric equivalents. Both are rounded off for simplicity.



MECHA POINTS

Mecha Points are an abstract representation of the qualitative value of the mecha. Each mecha design costs a certain number of Mecha Points depending on its statistics and qualities; the more powerful the machine, the higher the point cost. The following budgets are recommended for starting characters.

Street Level (200 Mecha Points): This will buy the kind of vehicles and mecha one would expect in a game about street-level operatives, like bounty hunters or gangsters. It is also suitable for a team of modern soldiers. Thus, a crew of four player-characters could pool their Mecha Points and buy an M1 Abrams tank, or they could purchase four high performance bikes or cars.

Agent Level (400 Mecha Points): This will buy the kind of gear that super agents or cyberpunk anime heroes have. Personal powered suits, for example, or a "do anything" spy car.

Troopers Level (800 Mecha Points): This will buy a one-man mecha roughly as powerful as a modern-day battle tank or jet fighter. A group of characters who pool their Mecha Points could buy a small fighting ship or space cruiser. Many giant robot anime shows have mecha at this power level.

Super Mecha Level (1,200-1,600 Mecha Points): This will buy a mecha that is far beyond any modern day fighting machine. This is the standard power level for mecha in giant robot shows where the heroes' mecha are far tougher than the typical "grunt" mecha (usually built on 800 points) they face.

Guardians Level (2,000-2,400 Mecha Points): This will buy a mecha that is potentially world-shaking in its power. Campaigns similar to anime series where the characters are the only beings preventing the destruction of Earth will often start with mecha at that this level.

STEP 1: CHOOSE TYPE

There are three broad types of mecha. Decide which to create: a Suit, a Giant Robot, or a Vehicle. There is no base Mecha Point cost associated with any of the types.

Suit: A form-fitting suit of armor, worn rather than driven. This includes exoskeletons and powered armor suits that are at least as big but no more than 1.5 times as large as the wearer. A suit has no room for extra gear: the operator must wear tight or no clothes, no armor (except for ultra-tech skintight armor), and bring no extra equipment.

Giant Robot: A giant robot is a piloted humanoid or animal-shaped vehicle that is larger than its operator and has creature-like agility and/or manipulatory ability, via means of limbs and/or a flexible body and jaw. Like a suit, a giant robot has the advantage that it moves like a character or creature — there is no need to use the vehicle movement rules when it goes into combat.

Vehicle: A vehicle is a piloted mecha that is notably larger than its pilot and not classed as a giant robot. Vehicles include everything from ordinary wagons and cars to pirate galleons and space battleships. As they don't buy Strength, they are cheaper than giant robots but less versatile.

STEP 2: CHOOSE SIZE

Decide the physical size of the mecha: medium, large, huge, gargantuan or colossal. Specify its major dimensions (tall or long); most vehicles are long, while suits and giant robots tend to be tall if humanoid, or long otherwise. Specify the mecha's longest dimension (height if tall, length if long) and empty weight (or mass), choosing from within the available ranges given on the Size and Weight chart. There are some restrictions on size, depending on the the mecha type.

Suit Size Restrictions: If creating a mecha suit, it must be the exact same size as the intended wearer. A suit for a human is medium size; a suit worn by a colossal being will also be colossal.

Giant Robot and Vehicle Size Restrictions: If creating a vehicle or giant robot, it must be at least one category larger than the largest being it is intended to carry. Thus, a giant robot or vehicle

big enough for a human to ride inside must be at least large. Exception: If the occupant will ride on it, like a bike, it can be the same size. Many giant robots or vehicles will be more than one size category larger than their intended occupants.

STEP 3: CHOOSE HIT POINTS

Hit points measure the damage a mecha can sustain before being knocked out of action — see the table for costs and examples. The overlap between size categories is intentional, as a smaller mecha might be tougher than a larger one if made from especially durable materials. Hit points on the lower end of the scale are appropriate to mecha that are smaller or more lightly built within a category; larger or heavier mecha have more hp.

In general, vehicles and mecha will have fewer hit points than equivalent-sized creatures, because they have hardness to protect them. They can only sustain a few penetrating shots from heavy cannon or missiles before they are destroyed.

MP Costs: Base HP are free and come automatically at the chosen Size. Each additional hp after this costs 2 points per additional hp, regardless of the mecha's size.

Mecha Sizes

Size	Class Example	Modifier*	Dimensions	Empty Mass
Medium	Motorcycle	+0	4-8' (1.2-2.5m)	up to 1 ton
Large	Small car	-1	8-16' (2.5-5m)	1/2 to 4 tons
Huge	Luxury car	-2	16-32' (5-10m)	2 to 40 tons
Gargantuan	Heavy tank	-4	32-64' (10-20m)	10 to 400 tons
Colossal	Jumbo jet	-8	64+ (20m+)	500+ tons

Note: *The modifier is the size modifier of the mecha.

Mecha Hit Points

Sizes	Typical Range	Base HP	Cost/+hp	Examples
Medium	10-25 hp	0	2	Motor scooter (15 hp)
Large	20-40 hp	10	2	Compact family car (30 hp)
Huge	30-50 hp	20	2	APC (48 hp)
Gargantuan	40-120 hp	40	2	Main Battle Tank (64 hp)
Colossal	100+ hp	100	2	Destroyer-sized warship (150 hp)

STEP 4: CHOOSE OCCUPANTS & CARGO

Occupants come in two categories, operators and passengers. Operators are crew members who can use the mecha's systems in action: pilots, gunners, commanders, etc. Many mecha have only one operator, the pilot or driver; others have several. In a large naval vessel or starship, these are usually the bridge crew and gunners. Passengers are everyone else. This includes actual passengers, but also maintenance crew and off-duty ops crew for any smaller mecha carried aboard.

Decide how many occupants are carried by the mecha. There are some restrictions, depending on the mecha's type and size. For realism's sake, total weight of occupants and cargo in a giant robot or vehicle should rarely exceed half the mecha's weight. Treat occupants (including seats, etc.) as 400 lbs. (200 kg) each (five to a ton).

Suit: A mecha suit's occupancy is a single operator whose size is the same as that of the suit. A suit has no cargo capacity and may not carry passengers.

Giant Robot and Vehicle: For vehicles and giant robots, decide how many occupants are carried. An occupant may be a crew member or passenger, usually seated but sometimes standing. The maximum is 2 occupants if medium-sized, 4 if large, 10 if huge, 20 if gargantuan; if a colossal mecha, the only limit is the optional realism considerations detailed above.

Mecha Point Cost: 10 per operator; 4 per passenger.

Exception: If mecha is colossal and has 25+ passengers aboard, their cost decreases: 26-50 passengers cost 100 points, 51-100 passengers are 150 points, 101-200 passengers cost 200 points, etc. at +50 points per doubling of capacity.

Cargo

A mecha may devote space to cargo. This can be either an internal cargo hold or trunk, or an external cargo bed, or even underwing pylons. Some or all of a mecha's cargo space may be designated as liquid tankage or a hangar if desired; there is no extra cost for this, but it cannot be used for anything else.

Mecha Point Cost: 1 per 200 lbs. (100 kg), or 10 per ton. Exception: If mecha is colossal and has 10+ tons (or tonnes) of cargo aboard, cost is less: 10-20 tons cost 100 points, 21-40 tons cost 150 points, 41-80 tons cost 200 points, etc., at +50 points per doubling of capacity.

STEP 5: CHOOSE ARMOR HARDNESS

Mecha are tougher than living creatures and can shrug off minor damage. Assign the mecha a hardness value (also called Damage Reduction). This is a value from 1 to 30 which is subtracted from any damage received before it affects the mecha's hit points.

The chart below gives sample hardness values for real-world vehicles. These are suggestions and not meant to constrain designs. Alternatively, decide what sort of weapon the mecha can routinely ignore (stop the average damage of that attack). For example, if a 0.50-caliber machine gun does 2d12 damage (an average of 6.5 points per d12) and the mecha is to stop most 0.50-cal. bullets, a hardness of 13+ is good.

Mecha Point Cost: 5 per point of hardness. Keep in mind that a high hardness value will increase the cost of speed later on.

Hardness Example

Vehicular Example	Typical Hardness
Rubber raft, rowboat	0-2
Motorcycle, oared galley	2-5
Automobile, light aircraft	4-6
Large sailing ship, jet airplane	4-8
Pick-up truck, jeep	5-7
Semi-truck, cargo steamship	5-9
Attack helicopter	7-10
Armored car or limousine	10-11
Typical "powered armor" suit	10-14
Armored Personnel Carrier	9-14
Infantry Fighting Vehicle	13-16
Medium tank (WWII)	12-18
Battleship (WWII)	18-20
Main battle tank (modern)	18-25
Powerful giant robot	15-30

STEP 6 (OPT.): CHOOSE DEF. BONUS

A mecha's armor can also provide an equipment bonus to Defense, depending on the concept for the mecha. If you think of it primarily as a vehicle, it gets no defense bonus. If you think of it as a monster or a super suit of armor for a character, it gets a defense bonus. It's best not to mix the two methods in one setting. The "mecha as vehicle" method works best for realistic settings, and the "mecha as character" for the more fantastic ones.

Choose a Defense value for the armor from +1 to +10. How big a bonus depends on what level of opposition the mecha should be (or face): decide on the character level of the mecha's opponents and what their chance to hit would be, and then base the defense bonus on that. This defense bonus depends more on the shape and material of armor than its thickness.

Defense (Def): Determine the mecha's actual defense (Def) number using this formula: 10 + defense bonus (if any) + size modifier. The size modifier is -1 if large, -2 if huge, -4 if gargantuan or -8 if colossal. This Def can be increased by the pilot's Dex bonus and any class abilities or feats that increase mecha Def.

Mecha Point Cost: 5 points per +1 to defense up to Def +5; for defense 6+, cost is (defense x defense).

Defense Bonus Example

Materials	Def. Bonus
Ordinary (wood, synthetics or light metal)	+1 to +3
Paramilitary (partial armor or steel plate)	+4 to +6
Military (composite laminates, sloped steel battleship armor, etc.)	+6 to +10

Note: A defense bonus can also represent a force shield that deflects rather than absorbs damage, or a combination of armor and a force shield.

STEP 7: CHOOSE STRENGTH

If the mecha is a suit or a giant robot, select a Strength score for it (see the table below for appropriate ranges). A vehicle does not have (or need) a Strength score as such, since it cannot lift or manipulate objects.

A mecha suit's Strength ability score is an equipment bonus to its wearer's Strength score.

A giant robot's Strength ability score replaces its wearer's Strength score when operating the mecha. Record the Str ability modifier in parenthesis after the Str value. It is equal to (Ability x 1/2) -5, rounding fractions down. Thus, Str 50 gives a +20 bonus: Str 50 (+20).

Mecha Point Cost: For suits, this is 3 per +1 Str. For giant robots, this is (Str-10) x 3 points.

Strength

Size	Giant Robot	Suit bonus
Medium	Str 10-25	Str 0 to +15
Large	Str 15-35	Str +5 to +25
Huge	Str 20-50	Str +10 to +40
Gargantuan	Str 30-75	Str +20 to +65
Colossal	Str 40-100	Str +30 to +90

STEP 8: CHOOSE SPEED

There are seven types of movement modes, each with its own speed rating: Land, Air, Water, Underwater, Burrowing, Space and Faster-than-Light (FTL). A mecha can have ratings for some or even all of them.

A mecha's speed (except for Space or FTL) is measured in miles per hour (or kph). See also *Combat Speeds for Mecharounded to nearest whole number.credits*, page xx. Use the rules below for determining vehicle or giant robot speed. Special rules apply to mecha suits; if designing one, refer to the *Mecha Suit Movement* sidebar.

Combat Speed for Mecha

It is also important to calculate the combat speed of the mecha. This is its speed when moving during six-second combat rounds. Various d20 systems use different values for combat speeds. Use whichever suit the campaign, rounding off to the nearest 5', 1.5m or yard, or square.

Mph to FeetMultiply mph by 8.8 to get speed in feet per round.

Mph to Yards Multiply mph by 2.93 to get speed in yards per round.

Mph to Squares (5') Multiply mph by 1.76 to get squares per round.

Mph to Squares (50') Multiply mph by 0.176 to get speed in 50' "chase squares" per round.

Kph to Metres Multiply kph by 1.67 to get speed in metres per round.

Kph to Squares (1.5m) Multiply kph by 1.1 to get speed in 1.5m (5') squares per round.

Kph to Squares (15m) Multiply kph by 0.11 to get speed in 15m (50') "chase squares" per round.

Mecha Suit Movement

Unlike a giant robot or vehicle, a suit's movement is based on the capabilities of its wearer. For example, a human's suit will let the wearer walk, a dragon's suit will let him walk and fly, and a mermaid's will let her swim. Sometimes the suit's weight will slow the wearer down, but mecha suits often (but not always) include a powered assist that allows the wearer to run faster and jump greater distances.

Select the suit's speed multiplier. This can be x2/3, x 1, x 1.5, x 2, or x 3.

The speed multiplier will be applied to the suit wearer's normal speed to determine his speed when using the suit. Thus, a human's normal speed is 30' (10m), so in a suit with a x1.5 multiplier he would move at 45' (15m)' per turn. A speed multiplier of x2/3 means the suit has no power assist, slowing the wearer to 2/3 his speed, much like a normal suit of medium or heavy armor does.

If the wearer is capable of multiple movement types, select the multiple for each movement type, paying Mecha Points separately.

A suit may also buy air, water, or space (but not land) movement if its wearer does not normally possess that capability. For example, a human's suit could buy air speed and maneuverability, representing a jet pack or mechanical wings. Use the rules for giant robots to determine the point cost of this movement.

Mecha Point Cost: 2 x speed multiplier x Hardness (treat Hardness 1-4 as 5 for costing purposes).

Land Speed

Land speed is the maximum speed the mecha can move on land. A mecha will have a land speed statistic if it is capable of sustained movement and maneuver on the ground (legs, wheels, tracks, or a combination). It is unnecessary if the mecha cannot move on land, like a helicopter or a boat, or only does so as a short takeoff or landing run, like an airplane.

Select the land speed in mph (or kph), then calculate its combat speed. Exception: suits use special rules, see *Mecha Suit Movement*.

Mecha Point Cost: (1 per 10 mph/16 kph) x Armor Hardness (treat hardness 1-4 as 5 for cost purposes).

Land Speed Examples

10 mph (16 kph)	bulldozers, steam-powered mecha
30-50 mph (48-80 kph)	giant robot, modern tank
100 mph (160 kph)	ordinary car
150-175 mph (240-280 kph)	sports car, racing bike
750 mph (1,200 kph)	jet aircraft, rocket-powered car

Burrowing Speed

A mecha given a burrowing speed can move earth and/or tunnel underground. Top speed assumes the mecha is going through sand or packed earth; tunnelling through solid rock is 1/10 speed. The tunnel it leaves behind can be either permanent or collapse after it — specify which when the mecha is created.

Mecha Point Cost: (10 if medium, 20 if large, 30 if huge, 40 if gargantuan or 50 if colossal size) per 2 mph (3 kph) or fraction of burrowing speed.

Water and Underwater Speeds

This is the maximum speed the mecha can move in or under water. If the mecha can move underwater, select an underwater speed and a surface speed that is the same or higher than the underwater speed.

Select the mecha's water speed in mph (or kph), and then calculate its combat speed. Exception: suits use special rules; see *Mecha Suit Movement*, page 187.

Water Speed Examples

5 mph (8 kph)	sailing craft, row boats
10 mph (16 kph)	fast sailing craft, galleys, mini-subs, amphibians
25-35 mph (40-56 kph)	modern ocean-going ships
50 mph (90 kph)	speed boats, hydrofoils
318 mph (511 kph)	jet-powered speed boat

If the mecha can dive and travel underwater, select its maximum *dive depth*, in feet or metres. Historically, the first submarines could dive no deeper than 50' (15m). By World War II, subs reached 600' (200m); today's nuclear subs dive to 1,000-1,500' (300-500m). Specialized research/salvage craft can dive much more deeply — 36,000' is a world record.

Mecha Point Cost: (1 per 5 mph/8 kph) x hardness (if hardness is 1-4, treat as 5 for cost purposes). Double cost for underwater movement. If the mecha can travel underwater but has a faster surface speed, buy the underwater speed, and pay normal cost for each extra 5 mph (8 kph) over the underwater speed.

Each (10'/3m x hardness) of diving depth costs 1 mecha point, or 2 points if the mecha is of colossal size.

Air Speed

Some mecha can fly through the air. Decide how — wings and jets or propellers, rotors, rockets, anti-gravity, flapping wings, etc. — then select maneuverability and air speed. Select the mecha's flight ceiling in feet (or metres). This is the highest altitude it can comfortably fly at.

Flight Ceiling Examples

500' (150m)	Jetpack-equipped robot or suit
7,500-15,000' (1,500-5,000m)	Helicopters
10,000-40,000' (3,000-12,000m)	Propeller aircraft
30,000'-80,000' (10,000-24,000m)	sJets

Select the mecha's air speed in mph (or kph), and then calculate its combat speed. If the mecha lacks a propulsion system (e.g., a flying building or tethered balloon), pay only for its ceiling. Exception: suits use special rules; see *Mecha Suit Movement*, page 187.

For very fast mecha such as fighter jets, it is more cost-effective to give the mecha an air speed only half their maximum speed, then take the Booster special ability (page 192). This represents the use of afterburners. A tethered balloon has no speed; other balloons should take a low speed and the wind powered defect (page 207).

Mecha Point Cost: 10 for a ceiling of up to 500' (150m); for a higher ceiling, +1 per 1,000' (300m). Each 10 mph (16 kph) of air speed costs 1 per point of hardness; if hardness is 1-4, treat as hardness 5 for costing purposes.

Air Speed Example

20 mph (30 kph)	Balloon
55 mph (90 kph)	Peregrine falcon
150 mph (240 kph)	Fast helicopters, light propeller aircraft
400 mph (640 kph)	Fast, late WWII propeller fighter
550 mph (880 kph)	Civilian jet, ground attack fighter
750 mph (1,200 kph)	Speed of sound, jet fighter without afterburners
1,500 mph (2,400 kph)	Fast interceptor using afterburners
2,200 mph (3,520 kph)	Fastest jet aircraft
17,000 mph (27,400 kph)	Speed required to reach orbit
25,000 mph (40,000 kph)	Earth's escape velocity

Space Speed

The mecha can propel itself in space. There are four ways to travel around in space: Realistic Space Flight, Dramatic Space Flight, Space Sails, and Faster-Than-Light (FTL). The GM may rule that some of these methods are not available in a game. For example, in a "hard science fiction" setting, only Realistic Space Flight or Space Sails may be available. On the other hand, a space opera setting might use Dramatic Space Flight and FTL Drive exclusively.

Realistic Space Flight

The space drive blasts out mass (often heated or energized) to produce thrust. It is limited by the amount of reaction mass carried aboard. Depending on the technology, the reaction mass could be anything from rocket fuel to alchemical powder. Many science fiction spacecraft are fusion drives, using water or hydrogen.

Thrust: This is how fast the spacecraft can increase its velocity or change its course — both are the same thing. It is measured in gravities, or G: a thrust of 1 G is an acceleration equal to Earth's gravity, roughly 32' or 9.8m per second per second. In game terms, it can be assumed — with a great deal of abstraction — that each G of thrust lets the mecha increase or decrease its current velocity by about 1,000'/300m per round.

G-Rounds: This is a measure of how long the mecha can accelerate before using up its onboard reaction mass (once this happens it can just coast). A mecha uses up 1 G-Round each time it uses 1 G of thrust for one round. If it accelerated at 2 G (assuming it can) for five rounds, it would use up 10 G-Rounds; if it accelerated at 0.1 G for 1,000 rounds, it would use up 100 G-Rounds, and so on.

Delta-V: For the realism-inclined, this delta-V is a measure of the top speed a mecha can build up to before it runs out of reaction mass and must coast; most mecha, when traveling, will only accelerate to a velocity no more than half their delta-V, to ensure they have a reserve to decelerate again (since deceleration is an application of reverse-thrust). Note that exhausting all onboard reaction mass isn't the same as running out of power or life support — a mecha with a reaction engine can still function perfectly normally if it's out of reaction mass; it just can't accelerate or decelerate in space.

$\text{Delta-V} = \text{G-Rounds} \times 125 \text{ mph (200 kph)}$; thrust does not figure into this. If a mecha has a thrust of over 1 G and a delta-V of 25,000 mph (40,000 kph) or more, however, it has enough thrust to lift off from Earth and boost itself into orbit.

Select the mecha's thrust in G (this may be a fraction) and its G-rounds (usually a multiple of acceleration). Most short-range "space fighter" type mecha should have a number of G-rounds equal to at least 10 x their acceleration. Long-range spaceships should have enough G-rounds to give them a delta-V of 1,000 or more, which usually means accepting a lower acceleration.

Mecha Point Cost: $\text{Thrust (in G)} \times \text{G-Rounds} \times \text{hardness} \times 0.1$. If hardness is 1-4, treat as 5 for costing purposes.

Dramatic Space Flight

The mecha can accelerate constantly for as long as it has power — it ignores mundane considerations like reaction mass, so the top speed is limited only by its endurance (see Defects, page 206) or any physics-based considerations the GM wishes to impose, like the speed of light. In some settings, all spacecraft accelerate much faster. If appropriate, the GM can replace "thrust in G" with "in 10s of G," or "in hundreds of G" or another value appropriate for the campaign setting.

Select an acceleration in G: each G lets the mecha increase its speed by 1,000'/300m per round (thus, 0.1 G would allow 100', while 6G would allow 6,000'). If it stops accelerating, it will continue moving at its listed speed. It can decelerate instead of accelerating, reducing its speed by its thrust rating (thus, -100' for 0.1 G or -6,000' for 6G).

Mecha Point Cost: $(1 + \text{thrust in G}) \times 10 \times \text{hardness}$. Treat thrust under 1/20 G as 1/20 G, and hardness 1-4 as 5 for costing purposes.

Space Sails

Stars, such as our own Sun, emit both light and a powerful "solar wind" of high-energy particles such as protons. Enormous sails — often many tens or even hundreds of kilometres across — can be constructed to allow spacecraft to catch the stellar winds (though the sails can certainly be much smaller depending on the technology of the campaign setting). Space sails may have their acceleration increase dramatically if their thrust can be boosted by an appropriate outside source, for example, a giant laser cannon beaming energy into a light sail, a solar storm, etc.

Use the rules for Dramatic Space Flight above, but with thrust ratings under 1 G, clumsy space maneuverability, and the Wind Powered defect. A realistic light sail or magnetic sail that catches solar photons or protons has a thrust of well below 1/10 G, but a magical ether sail may be much more effective.

FTL Drive

This allows a mecha that is already in space to travel between the stars at faster-than-light (FTL) speeds. Some stardrives let a mecha fly at impossible speeds, while others side-step normal space by travelling through some kind of hyperspace or instantly jumping from point to point.

Some FTL drives are only good for interstellar trips, and require ordinary reaction drives, space sails, or dramatic drives as well. For example, if the FTL drive may not function close to a planet's gravity, thus requiring the first few tens of thousands of miles to be made using a conventional drive. Alternatively, it might only connect certain natural or artificial "jump points" or "wormholes" that must first be reached.

Many FTL drives have no maneuverability at all: the navigator programs in a course, and the spacecraft flies in a straight line (either through normal space or some form of hyperspace), or ducks out of space together and reappears at the destination, either instantly, or after a set time has elapsed.

Others let the mecha maneuver freely, but at many times the speed of light. Note that if this capability exists and is not limited as described above, it will render conventional space flight obsolete and let FTL-equipped vessels fly rings around ordinary craft.

The GM should decide exactly how each FTL drive works, whether a trip is instant, or takes hours, weeks, or months, and if it has a maximum range or other limits. There may be problems that prevent a ship instantly escaping, such as engines that take a long time to recharge or those that exhaust their fuel between trips. Navigation could be tricky, requiring a Navigate check to avoid being lost in space or ending up some place unintended (perhaps with a DC based on distance in light years). In some campaigns, only large spaceships have the room to mount a Stardrive. If so, the GM may require a minimum of ship Size as a prerequisite.

The GM should assign a base interstellar speed (or distance, for instant jumps) in light years, or

parsecs, e.g., 1 light year/day or 1 parsec/week. This is the speed of the slowest starship. FTL speed is expressed as a multiplier to that speed, for example, FTL x3 means it can travel 3x as fast as the slowest spacecraft. The GM may wish to set a maximum multiplier, for example, x6 or x10. The GM is free to have only one FTL speed, e.g., if jump involves going through a jump gate or wormhole to whatever point connects it, then it is reasonable to assume that all ships travel to that point at the same pace.

Mecha Point Cost: (20 x hardness) per multiple of standard interstellar speed; if hardness is 1-4, treat as 5 for costing purposes. If it can maneuver in FTL space, multiply the cost by 5. If it "breaks the rules" (jumps without a wormhole when other ships require one, etc.) apply a x1 to x10 cost multiplier depending on how much of an advantage this gives with the campaign.

STEP 9: HANDLING

Handling qualities are represented by two values: Initiative and Maneuver. Each is chosen separately and don't have to be equal. Initiative and Maneuver values only apply to giant robots and vehicles; mecha suits do not have them.

Many d20 games use a single Handling statistic for vehicles. If the GM chooses to use a generic Handling statistic instead of separate Initiative and Maneuver, use the cost of Maneuver alone.

Maneuver

This value adds to checks made to maneuver the mecha. It is based on how agile and quick to accelerate or turn the mecha is. The default Maneuver value is 0 if medium, -1 if large, -2 if huge, -4 if gargantuan, or -8 if colossal. Agile mecha like giant robots or motor bikes usually add +1 to +4 points — for example, a typical motorcycle might have a +3 Maneuver, a car might have a +0, while a large tank has -4. Maneuver should not go above +10 or below -10.

Mecha Point Cost: 0 points for the default value given above. Each +1 over this size-derived base value costs 5. Each -1 below this starting value gives back the same points.

Initiative

This value adds to initiative checks. It is usually based on a vehicle's mass and momentum, and thus is normally a negative number equal to the size modifier: 0 if medium, -1 if large, -2 if huge, -4 and gargantuan, or -8 if colossal.

Initiative is rarely increased above the starting value, but an increase could be justified for a mecha that (for example) flew using anti-grav technology or was fast to accelerate. It should not go above or below +/-10.

Mecha Point Cost: 0 points for the default value given above. Each +1 over this size-derived base value costs 5. Each -1 below this starting value gives back the same points.

STEP 10: CHOOSE SPECIAL ABILITIES

Special Abilities are innate gadgets and other capabilities that a mecha may possess. They are all optional — no mecha has to have any of the special abilities described in this section.



Accessories

These are additional features the mecha has, which provide useful but mundane non-combat-related advantages. Examples of accessories include: airlock, burglar alarm, camera, cell phone, emergency lights and siren, loudspeaker, luxurious decor, personal computer, revolving license plate, stereo system, tow cable, or wet bar.

A mecha need not acquire accessories that are implied by its other capabilities (a mecha with Space Travel can be assumed to have appropriate navigational systems) or which are fairly ubiquitous (like safety belts in a modern vehicle).

Mecha Point Cost: 1 per Accessory.

Booster

A booster is any system that gives a mecha a temporary "kick" of speed. Types of boosters include afterburners for aircraft, nitro-injection for cars, antimatter injection for starships, or even strap-on auxiliary rockets. Some giant robots have boosters that represent various types of super-technology.

A booster will only affect one type of movement (air, land, water, underwater, or space flight) — specify which. A mecha can take different boosters for different movement types, however.

Boosters provide an increase in speed for a short period of time (no more than one hour or 10% of the mecha's endurance, whichever is less). Exception: a space flight booster adds additional G of thrust for a number of G-rounds, just like realistic space flight (page 189); G-rounds may not exceed 600.

Mecha Point Cost: Each 20 mph (32 kph) of air, land, or water booster speed costs 1 per point of hardness (treat hardness of 1-4 as 5 for costing purposes). For space flight (either realistic or dramatic), cost is the same as realistic space flight; just give the booster a shorter number of G-rounds and a higher thrust.

Chobham Armor

The mecha has composite-laminate armor (often called Chobham armor after its place of invention). This armor type is particularly effective in defeating shaped-charge armor-penetrating attacks such as the high-explosive anti-tank (HEAT) warheads of most anti-tank missiles and light anti-tank rockets.

Chobham armor doubles the mecha's hardness against armor-penetrating explosives (weapons that have both the Blast and Armor-penetrating qualities). This will also affect weapons from other d20 books (for example, the M72 LAW rocket) that use shaped-charge or HEAT-type warheads.

Mecha Point Cost: +1 per point of hardness the mecha has.

Communications

Normally the pilot can still be heard from inside through some means (even if buried inside a 50' tall suit of armor). This basic speaker system does not cost any points. The following systems can be added for improved communication abilities. If desired, the entries marked "options" can be added to any of the base communications types.

Long Range Radio: High frequency (HF) band radios provide hundreds or thousands of miles of range for low power by bouncing signals off the ionosphere. The down side is that the signals are easily intercepted or jammed by other long-range radios in range. In space or worlds that lack an ionosphere, range is as per tactical radio (see below).

Tactical Radio: A very high or ultra-high frequency (VHF/UHF) communicator. It can be intercepted, but range is limited to line of sight transmissions (unless using relay towers), about 1-10 miles/1-16 km in atmosphere, 100 times that in space, which makes it much more secure beyond the immediate area.

Laser Com: A tight-beam communicator that is nearly impossible to jam or intercept without physically imposing something in the way, but is limited to line of sight transmission and is

vulnerable to atmospheric effects. Maximum range is usually limited to about 5 miles/8 km on the ground due to the horizon, but if there is a clear line of sight it is about 50 miles/80 km in atmosphere, 1000 times that in space.

Microwave Com: A microwave uplink that is often used for communication with orbiting relay satellites or spaceships, or space-to-space communications. Treat as laser com, but double range in atmosphere. The beam is wider; anyone in its path (or within a few degrees to either side) with a microwave com can eavesdrop.

Option - Interplanetary: A system with much greater range; good for communications anywhere in a solar system. Apply this to long-range radio, microwave, or laser com system.

Option - Interstellar: A faster-than-light comm system that allows instantaneous communication over vast distances; it may not exist in some settings. Apply this option to a long range radio communicator for broadcast systems or "laser" or "microwave" for a directional signal. Range may be interstellar (usually no more than a few hundred lightyears, sometimes less), or galactic (anywhere in the galaxy).

Option - Scanner: If taken with a tactical or long-range radio, the comm system can scan multiple frequencies to eavesdrop on other transmissions in range. This requires a DC 10 Electronic Warfare check when used against a long range radio or DC 20 when used against a tactical radio.

Option - Secure: The communicator is frequency-agile, uses unusual parts of the spectrum and is encrypted, making it very hard to jam or intercept. Electronic Warfare checks made against the system have their DCs increased by +3.

Mecha Point Cost: 2 per system (10 if telepathic/psionic in nature). Scanner adds +1 point and Secure adds +2 points. Interplanetary is +10, interstellar is +50, galactic is +70.

Countermeasures

These systems are used to warn the mecha of potentially hostile sensor uses within their immediate area, allowing them to take preventive actions before they are attacked.

Laser Warning Receiver (LWR): Warns the crew if the mecha is being tracked by a laser designator (page 196) or high-res ladar.

Radar Warning Receiver (RWR): Warns the crew if mecha is being locked onto by a radar, or being tracked by an active radar-homing missile.

Electronic Emission Sensor (EES): The sensor will detect and precisely locate any operating radar within twice the radar's range (non-global radars only if they are pointing at the mecha), or half range if high-res radar. It also functions like a radar warning receiver.

Mecha Point Cost: 2 per RWR or LWR; 10 for EES.

Ejection Seat

A rocket-powered escape system that allows the crew to eject from a damaged mecha. It is possible that not all crew will be equipped with them. They are not usable in mecha suits.

As a free action, the character sitting in an ejector seat may eject at any time. Any canopy or rooftop is blasted clear by explosive bolts, and the seat launched at least 100' (30m) into the air by a rocket motor. If the user ejected in an atmosphere, on the next round, the rocket motor stops and a parachute unfolds, carrying the occupant down to earth. The ejectee may make a Pilot skill check (DC 20) to guide the parachute to a specific place within 300' (100m) of the mecha. If the occupant has no Pilot skill, or fails, the GM randomly determines where he lands.

Usually, ejection seats are controlled by the person seated in them, but some vehicles (for example, spy cars) may have seats that are controlled by another crewman. These may omit a parachute.

Mecha Point Cost: 3 per ejection seat.

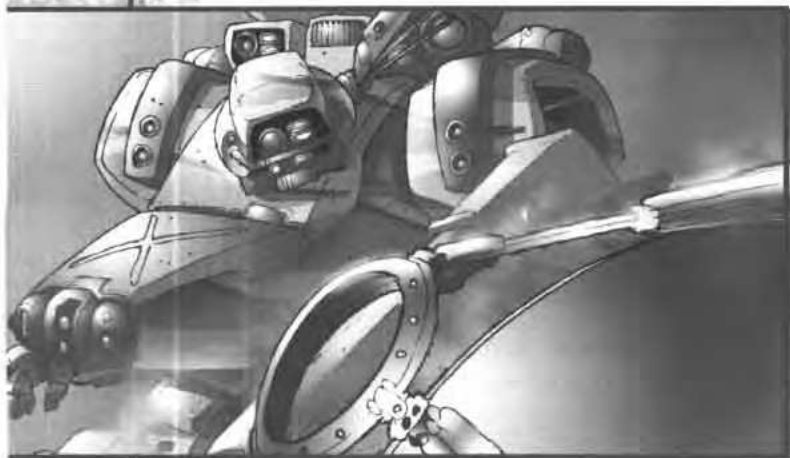
Electromagnetic Armor

The mecha's armor can generate a powerful electromagnetic field, disrupting the particle jet produced by armor piercing attacks such as shaped-charge warheads (see *Chobham Armor* for a definition of these weapons). This triples the mecha's hardness against weapons that have both the Blast and Armor-penetrating qualities.

Electromagnetic armor also has some effect against ballistic weapons that have only the Armor-piercing quality: add +1 hardness against such attacks.

The activation of the armor produces a transient electromagnetic pulse — this may be easily detected by some sensors. Electromagnetic armor may also not be combined with Explosive Reactive or Chobham armor.

Mecha Point Cost: +2 per point of hardness the mecha has.

**Electronic Counter-Measures (ECM)**

The mecha is equipped with an electronic countermeasures jamming suite. ECM can be any of the following sub-types: radar jammer (jams radar sensors), radio jammer (affects communications), defensive jammer (jams missile homing systems).

Assign each category of ECM system possessed an equipment bonus from +1 to +9; this may vary by category. This is added to the DC of affected electronic warfare attempts.

Radar Jammer: Adds to the DC of any attempt to spot a target with radar, and adds to Def against attempts to lock on with a radar homing or semi-active radar homing missile. This DC increase is reduced by 1 for every 500' (150m) from the jammer; in space, it is reduced by 1 for every 5000' (1.5 km) distant. The jamming area will be detected, but not the mecha itself. No effect on high-res radar/ladar.

Radio Jammer: Jams all radio signals within 1000' (300m) x equipment bonus, or 10 times that area in space. At an extra cost, it may also jam FTL radio.

Defensive ECM: Adds a circumstance bonus to the mecha's defense against an attack or lock-on attempt made by any infrared-homing missile.

Mecha Point Cost: 3 per +1 for radar or defensive jammer, 2 per +1 for radio jammer (+20 if jams FTL radio).

Environmental Systems

These systems maintain the internal climate of the mecha to make it comfortable for crew and passengers. Needless to say, they cannot be used on open-topped or ridden mecha (though the GM may decide that low-level force fields are available to do the trick).

Climate Control: The mecha has climate controls that allow the crew to be comfortable in a wide variety of temperatures (such as arctic to sweltering jungle). Beyond that, the mecha needs Life Support.

Nuclear-Biological-Chemical (NBC) Filter: The mecha can filter gasses, radioactive fallout, dust and germs from external air, protecting its mechanisms and pilot much as if they had an environmental suit and gas mask. Includes climate control.

Life Support: The mecha can operate in space, at high altitudes, underwater, or on a world without a breathable oxygen atmosphere. Any occupants have their own air supply (lasts as long as the mecha operates for). An NBC Filter is not needed, as the environment is completely air tight. Includes climate control.

Mecha Point Cost: 1 if medium, 2 if large, 3 if huge, 4 if gargantuan, 5 if colossal, for climate control; twice the cost for NBC filters; four times the cost if life support.

Explosive Reactive Armor (ERA)

The mecha's armor is covered by a layer of explosive tiles in metal trays. If hit by an armor-piercing blast attack (see *Chobham Armor*) such as a shaped-charge warhead, one of the ERA tiles will detonate. This slams the metal plate covering it into the path of the particle jet produced by the warhead, disrupting it and effectively negating the armor-piercing quality of the attack.

Reactive armor works on a roll of 1+ on 1d20. Each time it successfully detonates, however, add +1 to the DC, as the mecha gradually becomes vulnerable through the depletion of its ERA tiles. Thus, the second time, it works on a 2+, and so on. When the reactive armor detonates, anyone within 10' (3m) radius will take 1d10 damage as per an attack with the Blast quality. This includes the mecha; as a result, reactive armor is rarely used with a hardness rating under 10. It takes about six hours to replace a full set of reactive armor tiles.

Mecha Point Cost: 8 for the full set-up, regardless of size.

Extra Arms

A giant robot is assumed to have two arms by default, but it could have more — a robot octopus, for example. This option cannot be taken by mecha suits or vehicles.

Mecha Point Cost: Each extra arm costs 1 per 2 points of Strength the mecha has (round down).

Firing Ports

The mecha has one or more firing ports sufficient to let passengers fire out of the mecha with their own ranged weapons. The firing ports provide 9/10 cover (equivalent to arrow slits).

Mecha Point Cost: +1 per individual firing port.

Hangar

Any portion of a mecha's cargo capacity can be designated as a hangar bay for storage of other (smaller) mecha. For example, if the mecha has a 200-ton cargo capacity, it might designate that 150-tons are devoted to its hangar bay. Use common sense in determining the maximum number of mecha that can fit in a bay of the specified capacity, based on their described size and mass. This option cannot be taken by mecha suits.

Mecha can also be carried as ordinary cargo, but cannot be effectively launched into battle, refuelled, etc. while in the cargo bay — in fact, it will take several rounds (or possibly much longer) to unload them.

Mecha Point Cost: In addition to the cost of cargo capacity, equal to the largest size of mecha that can fit through the bay's opening: 15 if medium, 20 if large, 25 if huge, 30 if gargantuan, or 100 if colossal.

Headlights or Searchlight

The mecha has either headlights equivalent to those of a modern automobile, allowing it to drive at night (range 500'/150m), or a longer-ranged searchlight (5,000'/1,500m).

Mecha Point Cost: 1 point for headlights, 2 points for searchlight.

MECHA DESIGN

Jumping ▶

The mecha can make very high unaided vertical jumps, but not actually fly. It may use jets, powerful leg muscles, etc. Assign the mecha a jump multiplier from x2 to x10. This option cannot be taken by vehicles.

Mecha Point Cost: Jump multiplier x1 if medium size, x2 if large, x3 if huge, x4 if gargantuan, or x5 if colossal.

Laser Designator ▶

A laser designator projects a modulated laser beam that is used to mark targets for laser-guided projectiles. Range increment is 500' (150m); it can reach out to ten range increments. It cannot designate through smoke.

Mecha Point Cost: 2 per 500' (150m) of range increment.

Launch Catapult ▶

This system uses steam or an electromagnetic massdriver to accelerate aircraft or other mecha, boosting them to top speed. This can allow flyers to take off in a much shorter distance. If launching into battle, the catapult also provides a +1 initiative bonus on the first round of combat. In space combat, it adds 5000'/1500m of speed on the first round.

Mecha Point Cost: This is determined by the size of the catapult, which sets the maximum size of mecha that can be launched: 2 if Medium, 4 if Large, 8 if Huge, 16 if Gargantuan, or 32 if Colossal.



Navigation Aids ▶

Appropriate basic navigation is free in most cases. Superior navigation capabilities are also available. Modifiers are not cumulative. Note that having accurate positional data is very useful for accurate indirect fire.

Basic Navigation: Maps, compass, lodestones, etc., give a +2 equipment bonus to Navigate checks.

Inertial Navigation System (INS): A gyroscopic system that provides a +3 equipment bonus to Navigate checks.

Global Positioning System (GPS): An advanced radio beacon system that uses a network of orbiting satellites to locate the mecha's position anywhere in the world. It gives a +4 equipment bonus to Navigate checks, but requires the existence of a friendly satellite network (or some other system, depending on the campaign setting) — no bonus if such a network is unavailable.

Mecha Point Cost: 1 for basic navigation, 2 for INS, 2 for GPS.

Reflective Coating

The mecha's armor is optimized to reflect laser beams. The mecha gets an extra defense bonus against any attack defined as inflicting laser-type damage. However, the reflective coating does make the mecha easy to spot visually or detect by radar — the same defense bonus is also applied to all rolls to spot or locate it.

Mecha Point Cost: 2 per +1 defense bonus vs. lasers, to a maximum of +10.

Parachute or Re-entry Shield

The mecha has a parachute that can be deployed (move action) to allow the mecha to "soft land" if air-dropped. The mecha can also be equipped with a re-entry capsule or shield that allows it to drop from orbit into a planetary atmosphere and land safely via parachute or flying.

Make a Reflex save to avoid falling damage (treat a 30'/10m fall). The DC is 10, or DC 15 if landing in woods, mountain or urban areas. Add +5 to the DC if dropping from orbit.

Mecha Point Cost: 3 if medium, 4 if large, 5 if huge, 6 if gargantuan, 10 if colossal. Double the cost for re-entry shield.

Rooms

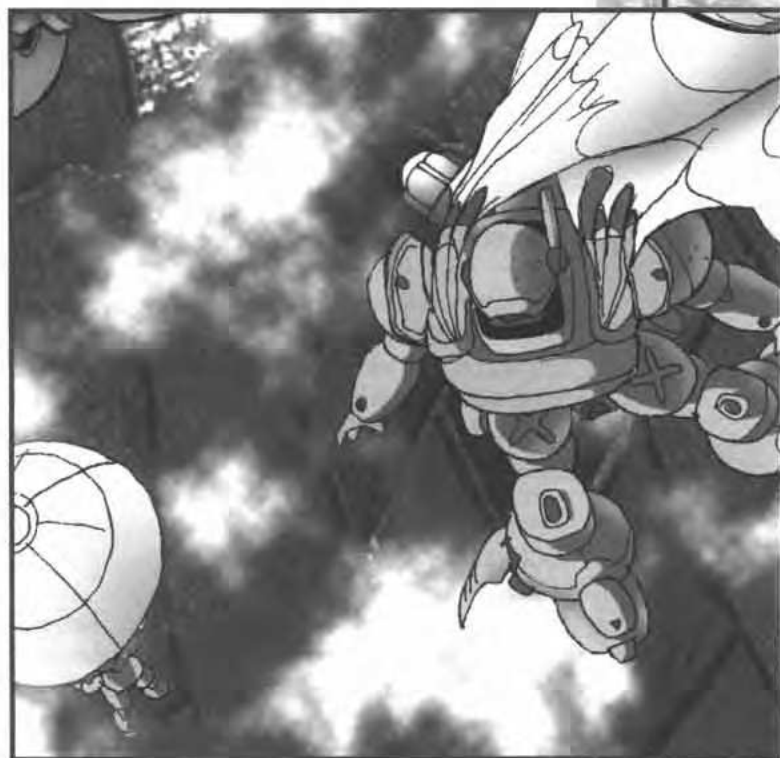
Colossal-sized vehicles (but not mecha suits or giant robots) may have internal rooms. Since they take up some volume, the room reduce the maximum occupancy available to a mecha of that size and occupant capacity.

Kitchen: Allows meals to be prepared aboard the mecha, providing room for two cooks to work (buy multiple kitchens for larger facilities). Counts as three occupants.

Conference Room: Allows meetings to be held. Counts as a number of occupants equal to its capacity.

Science Lab: A fully-equipped science lab, giving a +2 Equipment bonus to any relevant scientific

skill check. Allows two scientists to work at a time; for larger facilities, buy multiple labs. Counts as five occupants.



Sick Bay: A fully-equipped sick bay with surgical and diagnostic features. Allows two people to be treated at one time; for hospital facilities, buy multiple sick bays. Counts as five occupants.

Workshop: A fully-equipped machine shop with a broad variety of specialized tools and spare parts. It grants a +3 equipment bonus on Repair checks for mechanical or, if technology allows, electronic, devices and lets character to make Craft (mechanical), (electronic), or (structural) checks without penalty. Counts as five occupants.

Mecha Point Cost: 1 for a kitchen or conference room, 5 for a science lab, sick bay or workshop.

Remote Control

The mecha has some form of control mechanism that enables it to be operated by remote control. A remote control mecha is sometimes called a drone or remotely piloted vehicle (RPV). If the remote control mecha has a crew requirement, a team equal in size to that requirement must be used to control it.

Basic Remote Control: The mecha is controlled from outside by the owner, who will use a radio (or other) control system. Doing so requires the operator's full attention: he cannot do anything else, just as if actually inside the mecha and piloting it. The mecha uses the operator's stats as if he was aboard it. This also means the operator can only run one mecha at once. The control system must be specified as located in another mecha, a base, or a hand-held unit. The GM should decide what limitations (range, susceptibility to ECM, et cetera etc.) it has.

Advanced Remote Control: As Basic Remote Control, but the mecha requires less supervision. The operator can also do other things at the same time (including operating his own mecha, or controlling more than one advanced remote control mecha). If he divides his concentration in this way, the character suffers a cumulative -2 penalty on all actions for each mecha he is remotely controlling.

Mecha Point Cost: 5 for Basic Remote Control, 10 for Advanced Remote Control.

Sensors

Mecha may be equipped with various instruments and electronics to enhance their ability to detect things at a distance. Sensors are usually used to make Spot skill checks. Instead of the normal penalty of -1 per 10' (3m), the range increment penalty is -2 per 1,000' x range in miles (-1 per 100m x range in km). The maximum range is 10 increments.

Sensors noted as useful for targeting can be used when aiming attacks or navigating in the dark, bad weather, etc.; this negates the effects of darkness

or concealment that the sensor can see through. Not all sensors are useful for targeting.

Infrared, meta-scanner, and radar sensors detect targets in a single direction — usually in a cone in front of the mecha, unless another direction is specified. A sensor can be specified as "global" (seeing in all directions) for double cost. Seismic and magnetic sensors are unaffected by solid objects in the way and can "see" over the horizon; other sensors cannot scan through solid objects nor over the horizon.

Infrared (IR): The mecha has infrared television sensors. These give its crew the ability to see in the dark (clearly but in monochrome) as if it were day; this is effectively *Darkvision*, except that the range is much greater. Infrared cannot see through solid objects; it can pick out heat shapes, see through ordinary darkness, smoke or fog, and detect people hiding in trees or bushes. It is useless underwater, but very effective in space, due to the contrast between objects and the background. In space, range is 100 times greater. The sensor cannot see over the horizon, which limits practical range on the ground. It can target opponents.

Optics: These are telescopes or electro-optical TV cameras. They do not provide any ability to see through concealment, but simply increase the range at which objects can be visually spotted. They can be used for targeting.

Optics, Low-light: These are like optics but provide limited night vision capabilities (halving penalties for darkness only). They cannot see through smoke, vegetation, etc. They can be used for targeting.

Radar: The mecha bounces radio waves off objects and analyzes the reflections to determine range and direction. Radar lets the crew detect objects at long distances, but does not resolve color or fine detail. It only gives the approximate size, range and course of the object detected. Radar is an active sensor, so it can be jammed or detected. This is effectively *Blindsight*, except that it does not work underwater, and works in vacuum. It can see through darkness, fog, smoke and vegetation; ignore concealment modifiers. In

space, multiply range by 10. Radar can target opponents.

Radar, High-Resolution: An advanced high-resolution radar or laser-based radar sensor (ladar) that provides a detailed visual image of the target's surface. It won't reveal color, but will show texture and detail. Otherwise, treat as radar, above.

Meta-Scanner (MS): The mecha has hyper-tech sensors, or perhaps uses magic. A meta-scanner can work like a high-res radar or infrared sensor, or it can be set to detect life forms, metals, chemicals or radiation sources. They are often vulnerable to particular weather conditions, stellar storms, radiation from local ore, and anything else the GM believes could interfere with them; these can reduce range to practically zero. They cannot scan through force fields, and their scanning radiation can be picked up by other meta-scanners at the same range, so another vessel will also always know when they're being scanned. In space, multiply range by 100 due to the absence of atmospheric interference. It can target opponents.

Sonar: The mecha has sonar sensors like a submarine or dolphin, used to detect objects underwater. It may use passive sonar to listen for moving or noisy objects, or use active sonar to resolve the object's exact range and shape, or detect objects that aren't making noise, search the sea floor for wrecks, and so on. If active sonar is used, passive sonar on other submarine mecha can detect it at longer distances: add the range of the active sonar to their passive sonar detection range. Sonar does not work in space, and gets only 1% of its normal range if used in air. Active sonar can target opponents.

Seismic: This can detect large moving objects by the vibration they produce in the ground. They are less precise than other sensors (-8 on rolls to spot targets) and cannot be used for targeting. Seismic sensors ignore concealment or intervening objects, but cannot detect stationary things (unless they're produce vibrations, for example, jumping up and down, drilling, etc.). Both the mecha and the object must be on the ground. Seismic sensors can provide an approximate size of the target (medium, large, etc.) but no information as to

shape or nature. They can detect large explosions and earthquakes at many times their base range. A seismic sensor is "global" automatically. It is +5 to spot burrowing targets.

Magnetic: These sensors detect ferrous metal objects or objects with powerful magnetic fields, such as electromagnetic railguns or fusion power plants. They are less precise than other sensors (-8 to scan) and cannot be used for targeting. Like seismic sensors they only give approximate mass, direction, and distance only, but can be unaffected by concealment or intervening objects. One of their main advantages is that they are unaffected by water.

Mecha Point Cost: 1.5 per mile (1 per km) of range if optics; 3 per mile (2 per km) of range if low-light optics, radar or sonar; 5 per mile (3 per km) if infrared or high-res radar/ladar; 8 per mile (5 per km) if meta-scanner; 10 per mile (6 per km) if seismic or magnetic sensor. Global sensors are twice the cost; seismic or magnetic are global at no extra cost.

Shield

A shield is a hand-held barrier that mecha can interpose to absorb damage from attacks. A mecha requires at least one arm in order to use a shield; if the mecha only has one arm, it can't use a hand-held weapon and a shield at the same time. A shield may give a defense bonus of up to +5.

A mecha operator must have Shield Proficiency and the Giant Robot Fighting feat to use a shield without suffering a -2 armor check penalty on all attack rolls, and all skill rolls that involve moving or maneuvering.

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Mecha Point Cost: 3 per +1 defense, up to Def +3; after that, it is (defense bonus x defense bonus).

Stabilization Gear

The mecha's ranged weapons are gyrostabilized. They can be fired without penalty when moving, even if the gunner lacks special feats. Exception: weapons with the Static quality can still only be fired when the mecha is stationary.

Mecha Point Cost: 10 for the entire mecha, regardless of the number of weapons carried.

Stealth

The mecha is designed to be harder to detect via sensors, using its shape, materials or electronics to foil detection attempts. Stealth imposes a penalty to any checks to spot the mecha using non-visual sensors. It must be bought individually for radar, thermal-imaging, sonar, seismic and meta-scan sensors.

Mecha Point Cost: 3 if medium-sized, 4 if large, 5 if huge, 6 if gargantuan or 10 if colossal, per +1 DC on attempts to detect the mecha, per sensor type blocked.

Targeting Bonus

A mecha may have a targeting bonus as a result of a built-in ballistic computer or sighting system. The targeting bonus must be bought individually for each weapon. The targeting bonus usually ranges from +1 (superior sights) to +5 (advanced targeting laser and radar coupled to a ballistic computer).

Mecha Point Cost: 5 points per +1 targeting bonus.

Wall-Crawling

The mecha can use spikes, adhesive pads or some other means to climb walls and ceilings like an insect. The mecha must have a land speed to use this ability. It gets +8 on all Climb checks and may Take 10 while climbing. Wall-Crawling is not useable by vehicles.



Mecha Point Cost: 2 per point of hardness (treat hardness 1-4 as 5 for costing purposes).

STEP 11: CHOOSE EXOTIC ABILITIES

Some mecha have exotic abilities that are the product of advanced science or even magic. The GM may forbid some or all Exotic Abilities, especially if the game is intended to have a more "realistic" tone.

Artificial Intelligence (A.I.)

The mecha is controlled by an artificial intelligence of some sort.

Limited A.I.: The mecha can operate on its own, but has no self-initiative. It can be given orders or programmed with directives, but obeys in a slavish, unimaginative fashion. The mecha has no emotions or desires itself. In short, it behaves much like a Construct. A mecha with Limited AI will have Dexterity, Wisdom and Charisma abilities, but its Charisma cannot exceed 1.

Full A.I.: The mecha is capable of exercising (or at least simulating) self-initiative and creativity, but remains loyal to the character that owns it. A mecha with full A.I. has Dexterity, Intelligence, Wisdom and Charisma abilities.

Mecha Point Cost: Equal to the sum of the mecha's ability scores, multiplied by 5. Individual scores may not exceed 18 without GM permission.

Invisibility

The mecha can blend into the background using technology to make itself virtually invisible. It is possible to attack while invisible, but moving through snow, rain, water, pain, footprints, vegetation, etc., may reveal the mecha's approximate position. Use the normal rules for *Invisibility* from the Special Abilities section of the DM's Guide.

"Cloaking" devices are often vulnerable to damage, since they're on the surface of the mecha. If the mecha loses more than half its starting hit points, its cloaking device will stop working.

Mecha Point Cost: 150 if medium, 200 if large, 250 if huge, 300 if gargantuan, or 500 if colossal size. Add 10% to cost per sensor type (radar, IR, etc.) it works against in addition to vision and optics.

Force Field

Some mecha possess force fields. A Force Field is different from armor in that it can be battered down by a sufficiently powerful attack. A Force Field can be up or down; the status must be set at the start of the mecha operator's actions for the round and cannot be changed until his turn to act in the next round. When down the field does not stop any damage; when up, it is often invisible (GM's option), but meta-scanners and possibly other sensors can usually detect it.

An "up" Force Field provides extra hit points that absorb damage if the mecha is hit. Decide how many hp the field has. This must be at least 10 hp if medium size, 20 if large, 30 if huge, 40 if gargantuan or 50 if colossal. Damage is first applied to the Force Field, before hardness is subtracted.

A Force Field can quickly recover if undisturbed. The field recovers 1 hp per round if a medium size mecha, 2 hp if large, 3 hp if huge, 4 hp if gargantuan or 5 hp if colossal. The field may not recover hp in any round it took damage, whether it is "up" or not.

Limited Duration Force Field: Some force fields can operate only for a brief time before running out of power or burning out. If the field is "up" for more than a minute (10 rounds), it has a 1 in 6 chance each round after that of burning out or running out of power. This disables it until repaired or recharged (GM's option).

Limited Protection Force Field: Some force fields only protect against certain damage types. If the field can only protect against a single type of energy (for example, lasers, fire, etc.) or vs. fast-moving projectiles (ballistic damage type) it will be cheaper.

Mecha Point Cost: 3 per Force Field hp, or 2 per hit point if either limited duration or limited protection, or 1 per hit point if both.

Merging

Merging allows several mecha to combine into a single bigger mecha, which is usually more powerful. This requires a move action by all involved.

Design the merged mecha; three specific criteria apply to it.

1. The combined mecha must be able to carry all crew and passengers of the component mecha;
2. Its hit points must equal the combined hit points of all the component mecha that made it up;
3. Its size must be equal to or greater than the size of the component mecha.

Decide which one of the crew pilots the mecha. Other crewmembers may fire individual weapons (if the mecha has more than one) or run other equipment — who operates what should be specified when the mecha is designed.

The mecha cannot merge if any component mecha are reduced to 0 or less hp. If damaged mecha merge together, the hit points of the combined mecha is based on the components' total hit points. If a combined mecha separates, divide the current (damaged) hp by its original undamaged hp and multiply this by each mecha's undamaged hps to find their uncombined hit points remaining.

Mecha Point Cost: The combined mecha must be assigned a point total. Merging costs each component mecha a number of points equal to that value divided by (5 times the number of mecha combining). For example, four mecha can combine to form a 1,000 point mecha. It will cost each one of them 1,000 points divided by 20 (5 x 4 mecha), or 50 Mecha Points.

Mind-Interface System

The mecha has a system that links the pilot's nervous system with its controls, enhancing its handling. When activated, a mind interface system provides an equipment bonus to maneuver, initiative and melee attack rolls, and to Reflex saves. This provides a +3 bonus if the mecha is a suit, +2 if a giant robot, or +1 if a vehicle.

If the mecha takes damage, the feedback through the interface may shock the user. If the mecha is badly damaged (loses half or more of its hps from a single attack) or is disabled by cumulative damage the operator must make a Fortitude save (DC 15) or be stunned for 1d6 rounds.

Mecha Point Cost: 10 for the entire system, regardless of mecha size or type.

Self-Repair or Regeneration

The mecha is capable of repairing itself. This can represent a self-healing bio-mechanical creature, an auto-repair system, or even a good repair crew. A mecha cannot heal or regenerate if it is destroyed. Each period (see below), the mecha will heal 1 hp. Hit points that are part of a Force Field do not benefit from Regeneration or Self-Repair. A mecha cannot have both Self-Repair and Regeneration.

Self-Repair: The mecha can heal hit points every day of rest.

Regeneration: The mecha can regenerate hit points every round, whether resting or not.

Mecha Point Cost: 1 per full 5 hp if self-repair; 1 per hp if Regeneration.

Summonable

The mecha is linked to one special owner and can appear or disappear on command. This lets you bring a mecha into situations where dragging one along is normally unacceptable, like school, an embassy ball, or jail.

Decide whether the mecha appears beside the character or forms around him. The mecha takes several rounds to summon (GM's option, or roll 2d6). The character can do nothing else — he may be concentrating, calling it, assembling it from smaller parts, etc.

Summonable (Fast): The mecha takes only one round to summon.

Summoning Objects: Some summonable mecha have a special item that the character must have for the mecha to appear. Typical summoning objects include medallions or amulets, swords, items of clothing, bracers, rings, cubes, eggs, or even suitcases (with the mecha folded up inside).

Mecha Point Cost: 30 for a medium mecha, 45 for a large mecha, 60 for a huge mecha, 75 for a gargantuan mecha, 90 for a colossal mecha. Add +15 for Summonable (Fast). If the mecha requires a summonable object, note this in parenthesis; the cost is -15 points.



Super-Equipment

The mecha has some item of equipment not otherwise defined that possesses special abilities that could have a significant effect on game balance. Examples of special equipment would be a "transporter" device that allows the crew members to be teleported great distances, a built-in magical laboratory, or a doomsday bomb that, if activated, could destroy a city or even an entire planet. It is up to the GM to specify the abilities of special equipment, and to establish appropriate limitations given the game's scope and setting.

Mecha Point Cost: Up to the GM, based on how common the equipment is, how powerful it is relative to other systems, and how easily it is countered. For example, a space opera teleport chamber that followed conventions (range of about 10,000 miles; requires a "lock on" when transporting someone back; transports a half-dozen people at once; can't work through force fields; odd mineral concentrations, ion storms, etc. can disrupt it) might cost 1,000 if a rare advantage, or 200 if common enough that every ship has one.

Transforming Mecha

Certain mecha have the ability to change shape or combine. Some can mechanically alter their shape or function. It is also possible for mecha to change between giant robot, vehicle, and suit types.

Decide on the number of different forms the mecha has. Design and buy the most expensive single form. Each extra form costs 1/5 what it would normally cost.

Each form must be big enough for any occupants or cargo that the previous form contained. Otherwise, conservation of size and mass is realistic, but is certainly not a requirement (mecha may shunt extra mass into a pocket dimension, or use magic, to get around such physical limits).

It takes a mecha one round (and a full action) to transform from one form to another during which time its crew cannot take other actions.

If a mecha has three or more forms, the designer must name each form and specify a transform sequence. For example, if a mecha has a "walker," a "hybrid" and a "flyer" form, the sequence may be walker-hybrid-flyer." The mecha can turn from hybrid into walker or flyer, but not from flyer to walker (or vice versa). A mecha can ignore this limitation and perform non-sequential transformation for an extra Mecha Point.

One-Way Transformation: The mecha cannot transform back to a prior form without considerable work at the hands of mechanics or lab technicians (taking a few hours time). For example, the original mecha might include a rocket booster to help it get to space, then it would "transform" into its more agile form by ejecting the boosters. Another example is a robot that sheds its human-like skin and pops out various weapon pods.

If a transformation is one-way, it costs only half as many Mecha Points (1/10 cost of each extra form).

STEP 12: MECHA DEFECTS

These are defects that affect the workings of the mecha. Unlike all other systems, Defects reduce the total Mecha Point cost. They cannot reduce the Mecha Point cost of a mecha below 1 point. If this happens, treat the mecha as costing 1 Mecha Point.

[Direction]-Optimized Armor

The armor's full hardness protects against attacks from one direction (usually front-optimized). Attacks from other directions (for example, the side, rear, top and bottom) are protected at 2/3 hardness (round down).

Explosive Reactive armor can also be [direction]-optimized. If so, it only protects in the optimized direction.

Mecha Point Cost: -1 per point of hardness the mecha has. If taken for explosive reactive armor, this is worth -2 points.

Flammable

The mecha's structure and armor are made of wood or similar material. Its hardness does not protect at all against fire, plasma or other fire-based damage. Saves against fire are made at a -4 penalty. See *Fire*, page 238.

Mecha Point Cost: -1 per point of hardness.

Glider

Glider can be taken by a mecha that can fly and does not have the Hovercraft or Wind-Powered defects. It means the mecha can only take off if launched from a fast-moving vehicle or high place. It can only gain speed by diving, and gain altitude by riding thermals.

A glider has a glide ratio of about 60:1 if average maneuverability for its size, 30:1 if poor maneuverability, or 20:1 if clumsy. A 60:1 glide ratio means (for example) that if dropped from a height of 1 mile, it could glide for 60 miles before landing. A pilot check

(DC 10) can extend the glide ratio by 10% for every point by which the check succeeded by.

Mecha Point Cost: -2 per 10 mph (16 kph) of air speed.

Hangar Queen

The mecha spends much of its time in a garage, shop, port, etc. undergoing repairs. For every hour it was used, it should be given at least an hour of maintenance. If this is not available, the GM may impose breakdowns of various systems whenever dramatically appropriate. If a mecha is transformable, this Mecha Defect is only allowed if all forms possess it.

Mecha Point Cost: -10, regardless of the mecha's size.

High Ground Pressure

This defect can only be taken if the mecha has a land speed. It means that the contact area of its wheels, feet or tracks is slight compared to the mecha's weight, and it tends to sink into the ground. Most civilian cars and trucks possess this Defect.

The mecha will bog down in any swamp, deep snow or mud (no movement). It moves at 1/2 speed when crossing sand, light snow or soggy ground. This is cumulative with the penalties for the Road Vehicle defect.

Mecha Point Cost: -1 per 10 mph (16 kph) of land speed.

Hovercraft

This defect can only be taken if the mecha can fly. It means the mecha's ceiling is divided by 100, usually no more than 10' (3m) above ground. Take this for hovercraft or wing-in-ground-effect vehicles.

Mecha Point Cost: -5, regardless of the mecha's size.



Naked Operator

One or more of the crewmembers must be naked to crew the mecha. The naked operator is usually floating in some sort of neural-interface tank, often with electrodes or tubes connecting them to the mecha's life system. The disadvantage of this, aside from embarrassment, is the time it takes to get dressed and undressed.

Mecha Point Cost: -5 if one operator must be naked; if 2+ crewmembers, -10 if all must be naked.

Noisy

The mecha is noisier than an ordinary person is. A noisy mecha is detected more easily by sonar or Listen checks, and can never attempt to Move Silently. Exception: mecha whose only type of movement is Space or FTL may not be Noisy.

Noisy: The mecha is as loud as an ordinary car engine: +10 on Listen or sonar checks to notice it,

and weapons with the Sonar Homing quality get a +4 to lock on and attack.

Very Noisy: The mecha is as loud as an aircraft engine: +20 on Listen or sonar checks to notice it, and weapons with the Sonar Homing quality get a+8 to lock on and to attack.

Mecha Point Cost: -5 if Noisy, or -10 if Very Noisy, regardless of the mecha's size.

One Hand/No Hand

A giant robot is assumed to have two arms with hands, but it could have only one, or even none. If it has one hand it cannot hold onto something at the same time it punches someone or uses a hand-held weapon. This defect cannot be taken by mecha suits or vehicles.

Mecha Point Cost: -1 per 2 point of Strength if one hand, or -1 per point of Strength if it has no hands.

Open

The mecha's hardness does not protect the crew or passengers, only the mecha itself. This is common for mecha like galleys, jeeps, motorbikes, open-frame exoskeletons, open-cockpit planes, speedboats or robot horses. The mecha provides 1/2 cover, or no cover if the mecha size is the same as the rider's.

Mecha Point Cost: -2 per point of hardness the mecha has.

Poor Visibility

The crew has very poor visibility, due to small or no windows and a lack of compensating sensors. The only way to get unrestricted vision is to actually stick one's head out a hatch or window (leaving one with only half cover, as per the Open defect). Otherwise, attempts to spot something visually from inside are at -2 if looking directly forward and -4 if looking in any other direction. Mecha with the Open defect cannot have this defect.

Mecha Point Cost: -5 points, regardless of the mecha's size.

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Reduced Endurance

By default, a mecha has an indefinite range — it can operate for months at a time, provided supplies of food or water hold out. If the mecha must refuel or recharge before then (something that should take at least half an hour of effort) it has Reduced Endurance.

Select an operation time from the listing in the cost entry below. In this context, "several" means 5-30 (specify whichever fits the design); "a few" means 1-4.

Mecha Point Cost: -5 if a few weeks, -10 if several days, -15 if a few days, -20 if several hours, 25 if a few hours, -30 if several minutes.

Restricted Path

For one reason or another, the mecha cannot leave a narrowly restricted area. This may be due to control programming, or a railway or cable that cannot be left. Decide if it is a long path (like a railway line) or a short path (like a tether or a building's interior).

Another way to interpret this is a mecha that is attached to a generator by a power cable. The mecha can operate normally unless the cable is unplugged, then has only a few rounds reserve power (and an enemy mecha that grabs it might unplug it).

Mecha Point Cost: -15 if medium, -20 if large, -25 if huge, -30 if gargantuan, or -50 if colossal; twice the cost if a short path.

Road Vehicle

Most wheeled vehicles have this defect. The mecha attains full land speed only on a smooth flat surface such as a paved road or dry lake bed. Its land speed is cut in half in other circumstances, e.g., on a dirt road, off-road, etc.

Mecha Point Cost: -1 per 10 mph (16 kph) of land speed.



Service Crew

The mecha is large enough that it requires a crew of engineers, sailors or other individuals to perform maintenance, man rigging, etc. Their training and skills will depend on the technology of the mecha.

Service crew are in addition to any operators (pilot, commander, equipment operators or gunners). The mecha must have sufficient passenger occupancy to carry that many crew. If a mecha loses service crew it will not stop functioning (provided there is someone to pilot it), but it will not run smoothly.

For each 25% (round up) a mecha is undercrewed, a -2 penalty is put on all mecha-related skill checks. Alternatively, pick a system (sensors, Force Fields, weapon) that has gone unmanned and thus cannot be used. A short, overworked crew is also more likely to make mistakes, leading to equipment breakdowns.

Mecha Point Cost: -2 if one crewmember, -4 if two crew, -6 if 3-4 crew, -8 if 5-8 crew, -10 if 9-16 crew, -12 if 17-32 crew, -14 if 33-64 crew, -16 if 65-128 crew, etc.

Stall Speed

This defect can only be taken by a mecha that has a ceiling and air speed. If the mecha has a stall speed, it must always fly faster than the stall speed to remain in controlled flight. If it does not, it will go out of control.

Ordinary airplanes will have a stall speed. Other types of flying mecha (vertical-takeoff aircraft that use thrust vectoring, helicopters, antigravity flyers, hovercraft) will not have a stall speed.

A typical stall speed is about 10-25% of air speed. Decide on the speed in mph or kph, and also determine the combat stall speed.

Mecha Point Cost: -1 per 10 mph (16 kph) of stall speed x hardness (treat hardness 1-4 as 5 for costing purposes).

Start-Up Time

If the mecha is shut down, a character cannot just climb into it and blast off cold. For example, it might be a complicated powered armor suit that takes a few minutes to put on, or a power plant that takes time to warm up. Start-Up Time should only be taken for mecha that have Limited Endurance of a day or less, as the time is trivial if the mecha runs constantly.

Mecha Point Cost: -2 if 1 minute (10 rounds), -4 if 10 minutes, -8 if an hour, -16 if 4+ hours.

Volatile

Fuel, a boiler, or ammunition may explode if the mecha is disabled or destroyed. If the attack that disables or destroys the mecha dealt damage past its hardness equal to or greater than half its normal full hit points, the mecha will explode after 1d6 rounds.

This deals 1d6 damage per full 5 hp the mecha had when undamaged (minimum 2d6) to everyone within the mecha (Reflex save, DC 20, for half damage). Half that damage is inflicted to everyone and everything within a number of feet equal to the

mecha's full hit points (or metres equal to one-third full hp) of the blast (Reflex save, DC 15, for half damage).

Mecha Point Cost: -1 per full 5 hp mecha has.

Weak Point

Due to a flaw in the design, there is a weak point in the mecha. If an attacker knows where it is (this may require study of enemy wreckage, espionage, sensor scans, etc.), an attack to that point is much more likely to cripple or even destroy the mecha.

A critical hit strikes the weak point and ignores the mecha's hardness. If an attacker knows about the weak point, an attack made at a -8 penalty may deliberately target the weak point and ignore the mecha's hardness.

Mecha Point Cost: -1 per point of hardness the mecha has.

Windows

The mecha has a canopy or large and numerous windows (like a car or jet liner) which do not protect against attacks aimed through them. This defect may not be taken in conjunction with the Open defect.

If a mecha's occupants are attacked, they can only claim three-quarters cover. Occupants that lean out of windows (to shoot, for example) will get only one-half cover. An attack can deliberately target a window at -4 to hit, ignoring the vehicle's hardness.

Mecha Point Cost: -1 per point of hardness the mecha has, if it has hardness 2+. Otherwise, none.

Wind-Powered

The mecha is a sailing craft, powered by the wind. This is most appropriate for mecha with Water Speed, though wind-powered land or air vehicles are possible. It's usually inappropriate for mecha with top speeds over 30 mph (48 kph). This cannot be taken by mecha suits or giant robots, or in conjunction with the Glider defect.

The mecha's top speed will never exceed the present velocity of the wind, and it cannot move against the wind (it can tack upwind, but cannot move directly against the direction from which the wind is blowing).

Wind-Powered can also be used with Dramatic Space Drive for space sails. The exact effects depend on drive technology: for example, a light sail will have its acceleration decline with the square of distance from the sun (measured in multiples of Earth's average distance from the sun).

Mecha Point Cost: -1 if medium or large, -2 if huge, -3 if gargantuan, -5 if colossal.



STEP 13: DESIGN WEAPONS

A mecha doesn't have to be armed, but if it does it may have one or more weapons. If the mecha has multiple weapons, design each one individually. Each can attack if the pilot can make multiple attacks or there are multiple crew assigned as gunners aboard the mecha. If you want one weapon to have multiple ammo choices or settings, see *Alternate Ammo*, page 211.

A "weapon" does not necessarily mean a single gun or missile. A set of multiple missiles on rails or pods is best treated as a single weapon with several shots. A ship-of-the-line's broadside of dozens of cannons facing in the same direction is best handled as 1-3 weapons with extra damage and qualities such as Volley.

Unarmed Attacks: A mecha suit or giant robot's fists do damage even if it has no weapons. Basic slam damage is 1d4 if medium, 1d8 if large, 2d6 if huge, 2d8 if gargantuan, and 4d6 if colossal, plus strength modifiers. More potent attacks — including bite or claw attacks — should be built using the weapon creation rules.

Weapon Stat Blocks

Name: The weapon's name (made up by the creator), for example, "20mm railgun."

Damage: The dice of damage, for example, 6d10. If no damage, list the special effect and level, for example, Nerve Gas (level 5).

Critical: The critical threshold. This is "20" unless modified.

Type: The type of damage inflicted, for example, Ballistic, Piercing, Electricity, Laser, etc.

Increment: The range increment (as modified by qualities and restrictions). Use "—" if a melee weapon.

Rate of Fire: Record the rate of fire: SS if single shot, A if the automatic qualifier, S if semi-automatic qualifier, 1 if slow-firing or thrown qualifiers. Use "—" if a melee weapon.

Magazine: List the weapon's ammunition capacity (as modified by qualities and restrictions). Use "—" if melee or unlimited shots.

Size: List the weapon's Size, if important (for example, if it is a melee or handheld weapon).

Cost: List the Mecha Point cost, so that the weapon can be swapped out for other weapons if desired.

Notes: List any qualities or restrictions, either in full or via footnotes. List qualities first, separated by commas, then a semi-colon, then restrictions. If a quality or restriction is taken multiple times, use 2x, 3x, etc. to indicate this. Example: Armor Penetrating, 2 x Long Range; 3 x Low Ammo.

If the weapon has variable ammo or settings, each setting should have its own line.

Damage

Most mecha attacks do direct physical damage: select the type and number of dice of damage inflicted, for example, 4d4 or 6d10. Some attacks do not cause ordinary damage, but have other effects instead: Flare, Nerve Gas, Riot Gas, Smoke, or Tangle. These are covered in the next section.

Critical: A weapon's normal critical threshold is 20. This can be modified by taking qualities.

Damage Type: Some mecha armor or creatures may be resistant or immune to certain types of damage. Specify the primary type of damage that the attack does:

Ballistic (bullets and other high-velocity projectiles), Piercing (pointed thrusting or ranged weapons like spears, arrows, etc.), Slashing (swords, whips, etc.), Bludgeoning (clubs, fists, tails, etc.), Energy (of a specific type: Fire, Plasma, Laser, Electrical, Cold, Sonic), or Blast (explosions).

Mecha Point Cost: If the attack does physical damage, multiply the number of dice by the cost shown for the chosen dice size on the *Weapon Damage Cost* table. For example, a missile that does 5d6 damage, with the cost of each d6 being 7 points, will cost $5 \times 7 = 35$ points.

Weapon Damage Cost

Dice:	d2	d3	d4	d6	d8	d10	d12	d20
Cost:	3	4	5	7	9	11	13	22

Weapon Examples

12-lbr. smoothbore cannon (12-lb. cannon ball)	3d8, Slow-firing, Static
7.62mm (0.30-caliber) machinegun	2d10, Automatic
12.7mm (0.50-caliber) heavy machinegun	2d12, Automatic
20mm Vulcan cannon	3d10, 2 x Automatic
25mm chaingun with HE ammo	4d12, Automatic, Blast
88mm anti-tank gun (circa AD1942)	9d10, Slow-firing
M72 LAW Anti-tank rocket	10d6, Armor-penetrating, Blast
TOW-2 anti-tank missile	10d10, Armor-penetrating, Blast
120mm tank gun with APFSDS ammo	10d12, Armor-penetrating

Special Attacks

These cause damage or otherwise affect a target, but only indirectly. They are all considered to be ranged touch attacks.

Flare: If hit (or in the radius of a Blast or Emanation effect), the target may be blinded. Everyone looking in the direction of the flash must make a Fortitude save with a DC of 15 plus the level of the attack, or be blinded for 2d6 rounds.

Nerve Gas: If hit, this will kill individuals who fail a DC (15 + level of the attack) Fortitude save. Anyone wearing a pressurized suit, or in a mecha with NBC Filters or Life Support is unaffected. This must be combined with the Emanation quality.

Riot Gas: If hit, this requires individuals in the area of effect to make a Fortitude save against DC (15 + level of the attack), or be blinded and stunned for 2d6 rounds. Anyone using a gas mask, wearing a pressurized suit, or in a mecha with NBC Filters or Life Support is unaffected. This must be combined with the Emanation quality.

Smoke: The attack produces an obscuring smoke cloud. This must be combined with the Emanation quality. Smoke gives a 50% concealment modifier,

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and is also treated as 3/4 cover vs. lasers. The smoke remains for a number of rounds equal to the level of the attack. If the attack is assigned more levels of the Emanation quality, the base duration doubles (or the area of effect double, as per the normal Emanation rules).

Hot Smoke: As smoke, but affects infrared sensors as well.

Tangle: The attack projects a web or net. Treat as a *Web* spell, except it requires an attack roll. If combined with Blast, it will affect everyone in the area. If combined with Emanation, it is sticky, and will affect anyone who moves into the area as well. The DC to break free is (20 + level of the attack).

Mecha Point Cost: The cost is equal to (level of attack + 10), multiplied by x1 if smoke, x2 if flare, hot smoke, riot gas or tangle, and x3 if nerve gas. For example, a level 5 nerve gas attack costs $(5 + 10) \times 3 = 45$ Mecha Points.

Rate of Fire

The default ranged weapon rate of fire is single shot (SS): the weapon can fire one shot per round. Weapons may have faster or slower rates of fire as a result of their chosen qualities or restrictions; record the abbreviation appropriate to the rate of fire: SS for single shot, S if semi-automatic, A if automatic, 1 if slow-firing.

Range Increment

If the attack does physical damage, the increment shown on the table for the weapon's die type is multiplied by the dice of damage to get the increment. For example, 2d8 has a default range increment of $40' \times 2$ (for the two d8) = 80 feet. A special attack weapon's default range increment is always 50' (15m).

The maximum combat range is ten range increments. Keep in mind, if reproducing existing weapons, that various feats and devices allow experienced gunners to multiply their range increment by 1.5 to 2.



The range increment can be modified by taking weapon qualities or restrictions. Each level of Long Range may up to double the range; each level of Short Range may up to halve it.

Default Range Increment per Die Type

Dice Type	d2	d3	d4	d6	d8	d10	d12	d20	Special
Increment (feet)	10'	15'	20'	30'	40'	50'	60'	100'	50'
Increment (m)	3m	5m	7m	9m	12m	15m	20m	30m	10m

Magazine

A weapon has a default ammo capacity, or magazine, of 17-30 shots (select the desired number within that range) before running out of projectiles or power. This may be modified via Extra Ammo quality or the Low Ammo restriction.

Multiple Weapons

A single operator on a mecha, can, generally, only attack with a single weapon at a time, no matter how many are built into a mecha. Exception: If he has multiple attacks, and uses a full attack action these extra attacks can be made with the same weapon (unless it has the Slow-Firing qualifier, giving it RoF 1) or they may use a different Alternate Weapon (or Ammo).

Alternate Weapons (or Ammo): If the mecha's operator has access to multiple different attacks, each one costs less, since he can only use one weapon per round. For 1/10 the original cost (minimum 1 point), a mecha can be given another weapon that is of the same or lower point cost than the mecha's most costly weapon. This can represent either a new weapon or the same one with alternate ammo or setting.

Different Gunners: Weapons are normally used by the mecha's pilot. If the mecha has multiple operators, however, some may control their own weapons. If a weapon is in this category, note it as requiring a "different gunner" and pay for it at full cost. After it is acquired, additional alternate weapons may also be bought for that extra gunner, at the reduced cost given above. Note: Two characters may not fire the same weapon in a round, even if using multiple attacks.

Hand-Held Weapons: It is assumed that weapons are attached to the mecha, but they may, instead, be designated as hand-held. A hand-held weapon can be lost or grabbed by an enemy, and the mecha must have arms to hold it. Mecha can, however, swap hand-held weapons with other mecha. To do this both weapons must be the same size and may not have a higher point total. Handheld weapons can never be assigned to gunners; they must be fired by the pilot.

Multiple Attacks with Hand-Held Weapons: The wearer of a suit or pilot of a giant robot may use the normal rules for multiple attacks with two weapons if his mecha has a weapon in each hand.

Qualities and Restrictions

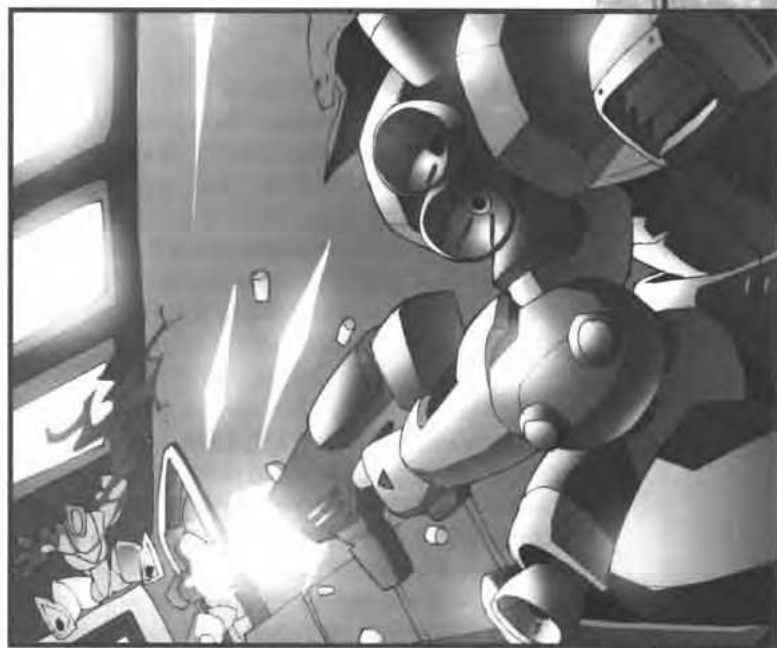
Some weapons have additional capabilities beyond simply doing damage. A weapon may have qualities or restrictions: a quality is something advantageous; a restriction is something limiting. Both will affect the Mecha Point total.

If the weapon has no extra qualities, its cost is unmodified. If it has 1, multiply its cost by 1.5. If it has 2 or more, multiply the cost by the number of qualities. Thus, a weapon with three qualities costs three times as much.

If the weapon has no restrictions, use its cost as modified by the number of qualities. If it has 1, divide that cost by 1.5. If it has 2 or more, divide the cost by the number of restrictions. Thus, a weapon with two restrictions costs one-half as much.

Qualities and restrictions can only be taken once unless specifically permitted. Some are especially powerful and so count as two or even three qualities or restrictions for costing purposes. If a cost is fractional, drop all fractions. Thus, 22.7 Mecha Points is rounded to 22 Mecha Points.

Example: A weapon has an unmodified cost of 30 Mecha Points. We give it one quality and three restrictions. The cost is 30 times 1.5 (the quality) divided by 3 (three restrictions) = 15 Mecha Points.



(Quality) Armor Penetrating (AP)

This weapon is especially good at punching through heavy armor. This quality often represents shaped-charge High Explosive Anti-Tank (HEAT) and armor-piercing fin-stabilized discarding sabot (APFSDS) ammunition used by tank guns and missiles.

Game Effects: The attack ignores the first 10 points of hardness or the target's hardness protects at half value (round down), whichever gives the best effect. Armor penetrating can be taken multiple times: two levels ignore the first 20 points of hardness (or divide hardness by 3), three levels ignore the first 30 points (or divide by 4), and so on.

(Quality) Automatic

Automatic (A) weapons fire a burst or stream of shots as long as the trigger is held down (until they run out of ammunition). They can be set on auto-fire or be used with feats that take advantage of automatic fire.

Game Effects: Automatic weapons have two modes of fire available to them. Pick one every time the weapon is used.

Area Auto-fire — This affects an area and everyone in it, not a specific creature. The character sprays an 10' x 10' (3m x 3m) area, or strafes an area twice as long and half as wide, and makes an attack roll vs. defense 10. If it succeeds, every creature or mecha in the affected area must make a Reflex save (DC 15) or take damage. Area auto-fire expends 10 shots; and can only be used if the weapon has 10+ shots left.

Burst Auto-fire — This is fired at a specific target, and may expend from 2 to 5 shots (decide before firing). The target is attacked normally. Roll once to hit. A successful attack means the target is hit once; for every 5 the attack succeeded by over the target's defense, it is hit by an additional shot, up to a maximum of the number of shots that were fired in the burst. Roll damage individually for each shot that hit; if the target has damage reduction or hardness, subtract it separately from every shot's damage.

Automatic can be taken twice. This emulates Gatling guns or multiple linked machine guns. They can fire as above, or instead use Saturation Auto-fire or Extended Bursts. Saturation Auto-fire is treated as Area Auto-fire, but requires expending 50 shots, covers twice the area, and victims must make a DC 20 Reflex save. Extended Bursts may fire 10-50 per burst, at a +1 to hit per 10 shots.



(Quality) Blast

The attack affects not only the target but anyone adjacent, such as an explosive warhead or plasma blast.

Game Effects: The radius of effect is 10' (3m). Blast can be taken multiple times, each time doubling the radius; thus, taking it four times gives an 80' (24m) blast radius. Use the rules for grenade-like missiles to determine the effect of a miss.

When a target is hit, everyone caught in the blast — other than the target directly hit — may make a Reflex save (operators roll for their mecha) against DC 15 to halve damage. The target of the attack, if hit, takes full damage with no Reflex save allowed.

Alternatively, an attacker may fire a Blast weapon at the ground next to a target (treat as Defense 10), rather than the target itself. This is a ranged touch attack. It can have a better chance of hitting, but has the disadvantage of always granting a Reflex save. This tactic is not possible against a flying or space target unless the attack has the Guided quality.

(Quality) Burning

This represents flaming liquid, acid or other similar weapons that do continuing damage.

Game Effects: If the initial attack hits, the target takes continuous damage each round, for the next five rounds, or until somehow neutralised (GM call: it depends on the type of attack). Armor or Force Fields do protect against the damage.

The first level of Burning counts as two qualities. It can be taken multiple times; each extra doubles the duration.

(Quality) Concealed

A mecha's weapons are normally obvious, at least to someone who knows where to look for a tell-tail gun barrel, missile port or laser lens. This quality installs a disguised or retractable weapon that makes a craft look unarmed.

Game Effects: It takes a move action to "pop up" a hidden weapon so that it can be used in battle. It is not otherwise detectable.

(Quality) Cone

A cone attack shoots away from the weapon in the direction the firer designates. A flamethrower is a possible Cone weapon.

Game Effects: A cone starts in a square adjacent to the mecha and widens out as it goes. A cone's width, at a given distance, equals its current range — a cone is 50' wide when 50' away from the attacking mecha. At its far end, a cone is as wide as the effect is long. A cone attack's maximum range is one range increment (cone attacks have very short range). *Cone counts as three qualities.*

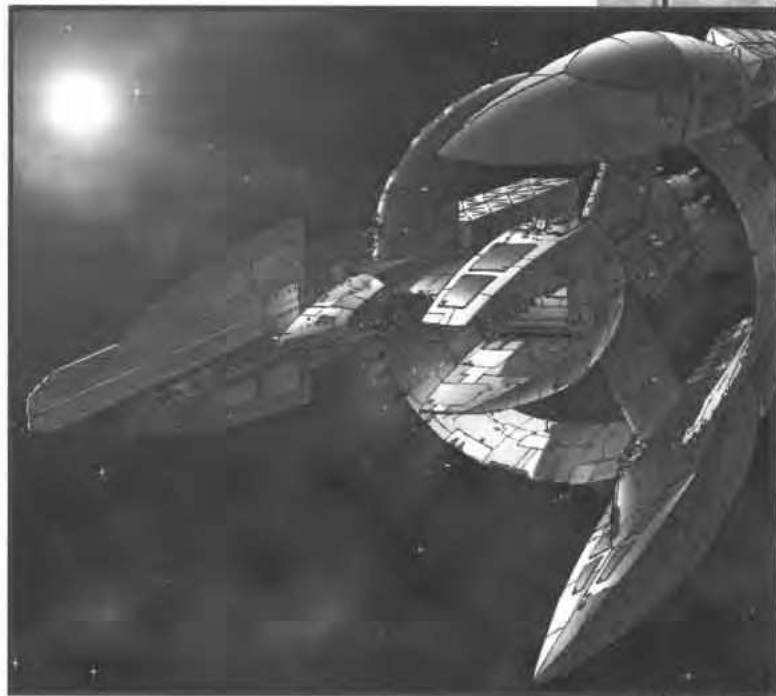
A cone attack hits everything in the target area, but everyone gets a Reflex (DC 20) save. Success means they take half damage, failure means they take full damage. Cover will give a bonus to the Reflex save, and if good enough (such as a slit trench, building, etc. — GM discretion), success means the target moved behind the cover and takes no damage.

(Quality) Emanation

Some attacks have an area like a blast, except that the effect continues to radiate from the point of origin for multiple rounds.

Game Effects: The effect is the same as Burning, lasting five turns, but affects everyone who enters the area only for as long as they remain in it (unless also combined with Burning). The radius of effect is 5' (or 1.5m).

The first level of Emanation counts as two qualities. The quality can be taken additional times. Each time it is taken, double the radius or the duration, designer's choice.



(Quality) EMP

The weapon's damage is an electromagnetic pulse that has no effect on living things but will do normal damage to any mecha with electrical or electromagnetic systems. This is a quality since it allows safe use of anti-mecha weaponry in situations that would otherwise put bystanders at risk.

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(Quality) Extra Ammo

This increases the weapon's total shots from the default range, up to 50. It can be taken multiple times: twice gives up to 150 shots; three times is up to 600 shots, four times is up to 2,500 shots, five times is up to 10,000.

(Quality) Flexible

This represents long, flexible or extendible attacks like a whip, energy-lash, razor-ribbon, or similar weapon.

Game Effects: A flexible attack can be used like a giant whip to disarm or trip any opponents of equal or smaller size than the weapon's size; for example, a huge whip can trip or disarm opponents up to huge size. A character can make a trip attack with it a flexible weapon by succeeding at a ranged touch attack; this does not provoke an attack of opportunity. A flexible weapon also gives a +2 bonus on an opposed attack roll when attempting to disarm an opponent (including the roll to keep from being disarmed if the character fails to disarm the opponent).

If this ability is chosen for a weapon, the Melee restriction must also be taken. A flexible weapon can reach out farther than normal, however: 15' (5m) for a medium weapon, doubled for each successive size class.

(Quality) Guided Missile

The weapon fires a projectile that homes in on its target. The weapon has its normal range (usually ten increments). On the round the projectile is fired, the attacker must normally specify a target. Each round (on the firer's attacker's initiative point) the missile moves toward the target, closing a distance equal to its range increment, and making up to a 45-degree turn, climb or dive. When it reaches the target, an attack roll is made, with no range penalties to hit. Other rules depend on the guidance system used: pick one (or more) of these systems.



Operator-Guided (OG): The weapon fires a missile that is steered toward the target by the attacker, transmitting commands via a wire or tight-beam radio. The attacker must take full actions each round to guide the projectile. He uses his own attack bonus: the guidance system negates range penalties, but has no other effect.

Laser-Guided (LG): The weapon fires a missile that homes in on reflected laser light. Launching the missile is an attack action. The missile will fly straight ahead; at any point in its flight, the attacker or an ally (who need not be in the mecha) must use an attack action each round to aim a laser designator (page 196) on the target, which must be in front of the missile (if the missile has already flown past it, it will automatically miss). The missile closes on the target as long as someone continues to designate the target; if interrupted, the missile automatically misses. If the designating character is injured/distracted, a Concentrate skill check is required to stay on target (as if casting a spell). When the missile reaches the target, the designating character makes the attack roll, at a +5 bonus.

Semi-Active Radar Homing (SARH): The weapon fires a missile that homes in on radar reflections emitted by the mecha's radar. The mecha must have a radar, high-res radar or meta-scanner, and must lock onto the target (a ranged touch attack, using the radar's Spot range increment); failure allows additional attempts. Once a lock-on is achieved, launching the missile is an attack action. Once fired, the radar must continue to track the target (if the radar only faces forward, that means keeping the mecha pointed at the enemy) or the missile will automatically miss, but no other character actions are required. As long as it does so, the missile closes on the target. When the missile reaches the target, it attacks on its own, with a +8 attack bonus.

Infrared Homing (IRH): The weapon fires a missile that tracks the target's heat emissions. The attacker must lock onto the target (a ranged touch attack, using the weapon's range increment); failure allows additional attempts. If successful, the missile can be launched with an attack action and will follow the target with no further intervention required. When it reaches the target, it attacks by itself with a +10 attack bonus. ECM or concealment effective against infrared will penalize the attack.

Radar Homing (ARH): The missile uses its own onboard radar. Treat as Infrared Homing, above, except that ECM or concealment effective against radar will penalize the attack.

Sonar Homing (SH): The missile — a torpedo — uses its own onboard sonar. It can only be fired at underwater targets. Treat as Infrared homing, except that ECM or concealment effective against sonar will penalize it.

Emission Homing (EH): The missile is an "anti-radiation" missile that homes in on the radiating emissions of an operational radar, radio or radar jammers (the mecha should have an Electronic Emissions Sensor to spot such targets). Treat as IRH, but it can only lock onto a target that is using a radar, radio or radar jammer. If the target turns off the system before the missile can reach it, the missile will still go for its last known location (unless the target moves, it is in trouble).

Inertial Guided (IG) or Satellite Guided (SG): The attacker programs in a set of map-coordinates and the missile homes in on that point. This is only good for attacking stationary targets, such as buildings. When the missile reaches its target, make an attack roll at +3 if using inertial guidance or at +5 if using satellite guidance. Satellite guidance is only effective if the mecha has access to a friendly GPS satellite system.

Other Homing (?): The GM may allow players to create other specialized homing missiles, for example, ones that home on magical emanations. Use the above rules as a guideline.

Game Effects: An incoming missile can be shot at. It has a Defense of 25; if hit, roll damage: 15+ points of damage disables/destroys it, otherwise it is unaffected.

Guided cannot be combined with Cone or Melee. It can be combined with Automatic, representing a salvo of missiles; when the missile makes its attack roll, it is treated as a burst attack using however as many missiles as were fired, minus any that were shot down. "Smart bombs" can be created simply by adding the Short Range quality.

The first level of Guided Missile (regardless of type) counts as two qualities. A weapon may take multiple guidance options by taking this quality multiple times. This makes it harder to jam the weapon, and gives it a second lock on or attack roll if the first one fails. For example, many modern torpedoes are both sonar-homing and operator-guided.

(Quality) Indirect Fire

The weapon can fire shots in a high ballistic arc, like a grenade launcher, missile or howitzer. This lets the gunner shoot at targets hidden behind obstacles (or shoot over the horizon, if the range is long enough).

Game Effects: If making an indirect fire shot, the attacker must be able to see the target, or someone else must spot it and communicate its position to the attacker. This will usually require a Spot check. In most cases, indirect fire involves using weapons with the Blast quality to attack an area. If a creature

or mecha, rather than area of ground, is attacked, it is treated as having full concealment. A weapon with indirect fire ability can be used normally at no penalty.



A weapon can fire indirectly at ten times the usual number of increments (thus, 100 increments for most weapons). The actual range increment is not increased, thus, long range fire will be very inaccurate. An observer can note where the attack hit and send a correction (or the attacker can correct by himself, if the target is in sight). It takes a full action for a distant observer to transmit a correction via communicator. Each correction gives a +2 bonus to hit, but only to cancel range increment penalties.

Indirect Fire counts as two qualities of type) counts as two qualities. It cannot be combined with Melee, Cone or Stream.

(Quality) Increased Threat

Most weapons have a default Threat of 20. Take this quality to increase the Threat range by 1 (for example, to 19-20). It can be taken multiple times, further increasing the threat range.

(Quality) Invisible

Most weapons produce some visible muzzle flash or beam, revealing the position of the shooter. Take this quality for any weapon (except one with the Melee or Thrown weapon restriction) that has no visible flash or beam.

(Quality) Long Range

This Quality increases the range increment from the default one. The default range increment is suitable for machine guns, short range rockets, and light cannons. Taking one level of Long Range is good for tank guns and guided missiles. Taking two levels is good for long-range missiles and spacecraft weaponry.

Game Effects: Long Range can be taken multiple times; each time, double the increment. A lower increase can be specified if desired — for example, Long Range can multiply the increment by 1.1 to 1.99 rather than a full x2 (useful if trying to simulate an existing weapon).

(Quality) Muscle-Powered

This lets the mecha add its Strength bonus to damage if this weapon is used as a one-handed melee weapon, or 1.5 times the Str bonus if used as a two-handed melee weapon, or half the Str bonus if the weapon is thrown.

Game Effects: A muscle powered weapon can make any number of attacks unless it has the Thrown Weapon restriction (in which case it can make another attack only after it is recovered).

A weapon can only be muscle-powered if it has the *Melee Range* or *Thrown Weapon* restriction.

(Quality) Semiautomatic

A semiautomatic (S) weapon fires one shot per attack, effectively acting as a single shot weapon. Some feats, however, allow characters armed with semiautomatic weapons to fire shots in rapid successions, getting in more than one shot per attack.

(Quality) Silent

Most weapons usable at range are assumed to be noisy, making a loud bang! or zap! Take this quality for a very quiet or silent weapon that does not have the *Melee* or *Thrown Weapon* restriction.

(Quality) Stream

Game Effects: The effect of a stream weapon is similar to a cone, except that the weapon's effect is narrow and linear (affecting everyone in a stream 5'/1.5m wide). Otherwise, use the rules for Cone, including the reduction of the range, with the exception that a successful save always negates damage rather than halves it. *Stream counts as two qualities.*

(Quality) Stun

This quality is used to create non-lethal weapons, such as riot guns.

Game Effects: The attack only inflicts subdual damage.

(Quality) Hardpoint/Handheld

A "hardpoint" weapon is mounted on a hardpoint, pod or pylon. It can be traded in a later mission for any weapon of the same size and same or lower Mecha Point value, subject to its availability.

Game Effects: It takes about ten minutes to remove and replace a hardpoint weapon with another. A character may buy spare weapons at 1/10 their

Mecha Point value; these are kept at the base for replacement. Or, he may swap weapons with other mecha of similar size and type.

A handheld weapon is carried in the hand. It is treated as a hardpoint weapon except that it is vulnerable to being disarmed, lost, dropped, etc., but can be exchanged in only one round. A mecha cannot have more handheld weapons ready to use than it has hands.

(Quality) Trap

This weapon lays a minefield, spikes, or some other similar device. The projectile "sits and waits" until someone triggers it.

Game Effects: If someone walks into the target area, they get a Reflex Save (DC 15) to avoid it. Trap can be taken with the *Melee* restriction to simulate a booby trap placed by hand or dropped from the mecha. Without these restrictions, it can be deployed at range: a successful ranged touch attack means the Trap was fired into the correct area.

(Quality) Unlimited Shots

The weapon does not run out of ammunition or power. It can fire indefinitely, usually drawing on the mecha's own power supply.

Game Effects: *This counts as four qualities.* This need not be taken if the weapon has *Muscle-Powered*. It cannot be taken in conjunction with *Automatic*, *Guided Missile* or *Volley*.

(Quality) Volley

An attack with the Volley quality fires a large volley of poorly guided projectiles, such as a salvo of unguided rockets or a broadside of cannonballs from multiple guns.

Game Effects: The attacker may fire a number of shots up to the weapon's entire magazine capacity. He may not add a Base Attack Bonus or Dexterity Bonus, but does add +1 per projectile fired. The maximum number of shots that can hit (see Volley

Hits table) is the number fired. On a critical hit, rather than increasing damage, double the number of shots which hit (up to the maximum).

If firing against a group, the attacker determines how many shots to aim at each target. Separate attack rolls are made for each target. Determine how far the furthest two targets are from one another in yards. The attacks are made as for ripple volley fire against one target, but for each 10m/30' or part thereof that separates the furthest two targets, all the attack rolls suffer a -1 penalty.

Volley Hits

Attack Succeeded by	Number of hits
0-4	1 hit
5-9	1d4 hits
10-14	1d8 hits
15+	1d12 hits

(Restriction) Crew-Served

The weapon requires two or more people to operate it — usually the gunner and one or more loaders.

Game Effects: This must be taken in conjunction with the Slow-Firing restriction; it can be taken multiple times. Each time, double the number of crew required to load the weapon; they must all perform full actions to do so. Thus, a cannon that requires a crew of 8 to operate counts as three restrictions (2, 4, 8).

(Restriction) Dropped

The weapon is a bomb, mine, etc. that must be dropped from a mecha, usually a flying one.

Game Effects: Instead of the usual ten range increments, the dropped weapon can reach a base one range increment per 1,000' (300m) of the (sum of altitude and speed) of the releasing mecha. Bombs take a -4 instead of -2 penalty per range increment. This cannot be used with Cone, Stream, Melee or Thrown.

The gunner must be outside the mecha's armor on the round the weapon fires (and stay exposed until his next action in the following round).

Game Effects: An exposed character can be fired at with no armor protection. An example of this restriction would be a machine gun mounted atop a tank whose gunner must lean out the hatch to use. This cannot be taken if the mecha already has the Open defect.

(Restriction) (Fixed) Arc of Fire

The weapon has a limited arc of fire and must be aimed by pointing the mecha. For example, a set of fixed forward-firing guns or a ramming prow. Specify the arc of fire: Front (Fr), Rear (Re), Left (L), Right (R), or Top (T). Mecha that can fly or move underwater can also specify a Bottom (B) arc.

Game Effects: The weapon can only be fired at targets in the specified arc. This may require a successful Pilot skill check (which can be opposed by the pilot of a target mecha).

(Restriction) Less Ammo

The weapon is only good for a few rounds of firing, and then runs out of ammunition, power or burns out.

Game Effects: This restriction can be taken up to five times. Taking this restriction once means the weapon has 9-16 shots; twice limits it to 5-8 shots; three times to 3-4 shots; four times to 2 shots, five times to a single shot. If the weapon is Slow-Firing, the number of shots refers to the total ammunition aboard the mecha, not in the magazine.

(Restriction) Low Penetration

The attack is easily defeated by armor (like a shotgun blast or hollow-point bullet).

Game Effects: Hardness or Damage Reduction stops twice as much damage as usual. If the target's armor grants an equipment defense bonus, it is doubled vs. the attack.

(Restriction) Melee

The weapon can only be used as a melee weapon.

Game Effects: It can be used to attack or parry with within the mecha's natural reach. Specify the weapon's Size class (within one level of the mecha that will wield it) and whether it is bludgeoning, piercing or slashing.

Melee counts as two restrictions. It is usual to take this restriction in conjunction with the Muscle-Powered quality.

(Restriction) Only In (Environment)

The attack or weapon can only target objects that are on or in a particular environment, for example, "only in water" (a torpedo) or "only in space" (a powerful weapon that requires a vacuum to work). The environment should not be one that is ubiquitous — "only in air" is not valid unless a lot of the campaign will take place in airless environments.

(Restriction) Short Range

The weapon cannot fire very far, or loses striking power rapidly over range, or is not very accurate.

Game Effects: This restriction halves the default range increment (round down). It can be taken twice if desired, to get 1/4 range. (An even lower increment can be specified if duplicating an existing d20 weapon with a low increment, but there's no extra cost benefit). Short range may not be taken if the weapon has Melee or Thrown Weapon restriction.

(Restriction) Slow-Firing

It takes a full action (to aim, charge, or load the weapon) before making each attack. Thus, the weapon fires every other round.

Game Effects: The weapon cannot be used to attack multiple times in a round, nor can a different character fire it on the round it is being loaded. This cannot be used with Semiautomatic or

Automatic. Record a rate of fire of 1, reflecting the fact that the weapon must be reloaded or charged after each shot.

Slow-Firing counts as two restrictions. This can be taken multiple times; each time, loading requires an extra round's full action.



(Restriction) Space-Optimized

The weapon's energy is easily absorbed by air and require a vacuum to function well. It is a common restriction for laser and particle beams.

Game Effects: Its full range only applies in vacuum. In atmosphere, its base maximum range is five rather than ten increments; it cannot penetrate thick smoke, fog, water, etc. This should only be taken by ranged weapons doing energy-type damage, and cannot be taken by Melee weapons.

MECHA DESIGN

(Restriction) Static

This restriction is commonly taken for artillery-type weapons (especially in conjunction with Indirect Fire). Perhaps the weapon is too bulky, requires precise aim, or drains too much power, or maybe the mecha's fire control system is not advanced enough to compensate for movement.

Game Effects: The weapon cannot be fired while the mecha is moving under its own power. This does not prevent firing while drifting, coasting, etc.

(Restriction) Thrown

The weapon can be thrown by an arm-like mechanism. Once thrown, it is useless until retrieved.

Game Effects: Specify the weapon's size class and whether it is bludgeoning, piercing or slashing. The weapon's range increment is divided by ten, and it can be thrown a maximum of five increments.

Thrown may be taken with Automatic (representing a handful of small thrown objects) and is often taken in conjunction with Muscle-Powered. It may not be taken in conjunction with the Melee or Slow-Firing restriction.

Thrown Weapon counts as two restrictions. Record a rate of fire of 1, reflecting the fact that the weapon must be retrieved after each shot.

(Restriction) Unreliable

The weapon is shoddily built or capricious, and tends to jam or not work.

Game Effects: Any time an attack roll is a natural 1 or 2, the weapon fails to fire and jams, over-heat or otherwise malfunction. It will not work until repaired: make an appropriate skill roll, one try per round. While doing this, the operator cannot do anything else.

**STEP 14: MECHA POINT EQUIVALENCE**

There are different mechanisms to represent the value of equipment and gadgets, from gold pieces to various unique point systems. Here are a few guidelines for converting Mecha Points into other values.

Character Level

Some Gamemasters may prefer to assign a specific requisition level to each mecha; characters must be of that level or greater to use the mecha. This can also be used for games that typically assign characters equipment, requisition or gadget point per level.

Take the square root of its Mecha Point cost, then divide the result by 4, rounding fractions up. That is the level equivalent. This can also be used as a mecha's Challenge Rating/Effective Character Level.

Thus, a mecha that cost 400 Mecha Points would have a level equivalent of 5, since the square root of 400 is 20, which when divided by 4 is 5.

Dollars

An approximate dollar value in modern U.S. dollars can be found using this conversion. Multiply the cost by x2 if the mecha was built for a government agency or the military, by x5 if it can fly or travel in space, and by x10 if it is a custom-built machine or experimental prototype. All increases are cumulative; a mecha built for the military, that flies and is a prototype, is $2 \times 5 \times 10 = 100 \times$ cost.

Dollar Value = (Mecha Points x Mecha Points) x \$2

Gold Pieces

In fantasy settings, mecha may be priced in comparison to things like full plate armor or galleys, or compared to magic items or constructs such as golems. This cost scheme gives a price in gold pieces. It assumes that very powerful mecha are rare, and intended to give a reasonable price for sailing ships and other vehicles that are also built using this system.

Apply a x2 cost multiplier if the mecha requires technology in advance of the campaign setting, or magic, to create. Magical mecha can also use the *Mecha as Magic Items* alternate rules (see appendixes).

Gold Pieces = (Mecha Points x Mecha Points) x 2 gp.

Interstellar Credits

In some science fiction settings, the cost in credits, or whatever other monetary unit is in use, will be roughly the same as the cost in dollars. For this, just use the Dollar price.

In other settings, mecha are pretty cheap: any rogue can own a star freighter and any mercenary aristocrat can have a giant robot. Use this cheaper formula instead. Apply the same cost multipliers detailed for U.S. dollars.

Interstellar Credits = Mecha Points x 200 credits

Purchase Difficulty Class

Some d20 games have characters roll to determine if they can acquire equipment, based on a wealth ability score or other attribute. Add +4 to the DC if the mecha was built for a government agency or the military, +7 to DC if it can fly or travel in space, and +10 DC if it is a custom-built machine or experimental prototype. All increases are cumulative; a mecha built for the military, that flies and is a prototype, is +4 plus +7 plus +10 = +21 DC.

For example, a main battle tank may cost 700 Mecha Points. The square root of 700 is 26.45, rounded to 26. The DC is 41, but since it is military hardware, it is DC 46.

Pur. DC = (Square root of Mecha Point Cost) + 15, rounded to nearest whole number.credits



Chapter Six: Mecha Action

This chapter covers the rules that govern the interactions of the vehicles and other high-tech items used in the game: rules for movement, detection and action, plus the effect of damage on vehicles and items. They can be used from everything, from a bicycle race to a battle involving an armada of gigantic ships.

Remember that these rules exist to make your life easier. If they truly get in the way, you can alter or discard them as you see fit, provided all the players are made aware of the change(s). Gamemasters should be the final arbiter of the rules and make sure that everything is fair for everyone involved.

In this chapter, "mecha" is the universal descriptor for a mechanical construct (a ship, vehicle, giant robot, etc.). Mecha use the standard d20 action and combat rules, unless specifically mentioned otherwise in the text. Other d20-based games often have their own rules for vehicle combat or chases. If preferred, these can be used instead of the ones shown here (mecha stats are pretty standard for the d20 system).



Running Mecha Encounters

Combat sequences involving mecha of any kind can be realistic, cinematic or duel-like. No matter what, however, a mecha encounter needs to be fast-paced and dynamic. Note that combat doesn't imply silence — pilots can talk over the radio or by viewscreen, and even use their Bluff and Intimidate skills on their opponents.

Before the encounter begins, the Gamemaster must set the scene (cover, layout, story opportunities, etc.). The players need to know the rough layout of the area(s) where the encounter will take place. On the Gamemaster's side, he needs to know the game stats (such as hardness and hit points) of the items in presence, whether scenery or other mecha, including any cover they provide. To be interesting, it's always best to have plenty of places to hide or take cover in; these also provide opportunities to cause plenty of collateral damage. The sidebar below list some examples of buildings and structures.

Running Big Battles: Long-term adventures may climax with enormous battle sequences involving literally thousands of mecha on both sides. Obviously, they cannot all be GM-controlled, but the players need a way to affect the outcome of the battle. In general, the best way to deal with is to keep battle in the background, and center on the characters' actions. The overall battle will

reflect their success: for example, if there are five PCs and three NPCs present, and their fleet is outnumbered 2-1 by the enemy, they will have to face sixteen enemy mecha. The rest of the fight takes place off-stage: the PCs see explosions, mecha zooming around, etc. without affecting them. Any loss is represented proportionally (in this example, each enemy mecha killed represents a casualty rate of one-sixteenth their total numbers for the enemy fleet).

Buildings and Structures

Buildings should be given hit points and hardness depending on their size and construction. Wooden buildings have the Flammable defect (page 204). Villains' secret bases are usually Volatile (page 207).

Characters can hit buildings automatically with melee attacks. If the building is reduced to 0 or less hit points, it is wrecked and systems in it (power, phone lines, etc.) stop working; if it drops to minus its total hit points, some parts of it collapse, becoming rubbles.

Anyone in or adjacent a collapsing building takes damage equal to 1d6 for every 20 hit points the building possessed originally, unless they can get away (GM's discretion, but a DC 15 Reflex save to leap out a window or find a structural member to shelter under may negate or halve damage).

Sample Structures

Type	Size	Hardness	Hit Points
Phone Booth	Large	2	20
Wood Shed	Huge	4	40
Outdoor Garage, Bungalow	Gargantuan	6	60
Concrete Bunker	Gargantuan	20	80
Large House	Colossal	10	100
Small Office Building	Colossal	14	120
Tower, Mid-sized Office Building	Colossal	16	160
Fortress, Large Skyscraper	Colossal	24	240

Crew

Mecha generally have crew, unless the machine is computer-controlled. The number of crewmembers, their positions and their personal abilities all help determine what the mecha can do. Operators are crew assigned to control the mecha's movement, weapons, sensors, etc. Passengers are crew that do not directly control a mecha's systems.

Many giant robot designs have only one operator who handles everything, though more are possible; suits naturally have only one. Simple vehicles can be driven or piloted by a single person, though additional crew are common as vehicles grow in size. A single character can handle more than one position (for example, the commander can also be a gunner), though he will have to divide his attention and actions.



Pilot: This is the generic term for the person directing the movements of the mecha. They can also be called driver, helmsman, conductor or a more setting-specific term. Only one person at a time can pilot a mecha. Operating the controls is a move action; the pilot may have other use with his attack action.

Commander: Some designs have a commander to give orders and coordinate the crew. They can

also be called captain, controller, leader or a more setting-specific term. Only one person at a time can command a mecha. If located in an appropriate location (bridge, command seat, etc.), the commander may assist any crew (giving advice, choosing a target or changing direction) by taking an Aid Another action; doing so is a move action.

Gunner: A gunner is required for each built-in weapon that is not controlled by the pilot. They have their own crew station, often located next to the weapon.

Loader: If a weapon has the Crew-Served restriction (page 218), it needs an appropriate number of loaders, which must be stationed next to the weapon. They spend the entire round taking care of the weapon. Loaders often double as mechanics or service crew outside of combat.

Equipment Operator: Not all mecha have these. They are crew assigned to deal with specialized pieces of equipment (such as a radio or sensors), which avoid the -5 "spotter distracted" penalty that a character doing something else (like shooting or piloting) would normally suffer.

Passenger: All other characters aboard are considered passengers for combat purposes. While they may have their use or assigned tasks (cook, medic, damage control team, etc.), they do not directly impact the mecha's combat abilities.

Crew Quality

Mecha statistics may include a crew quality descriptor to avoid statting out the entire crew. It is an average of the crew's skills and personal aptitude. If used, the check modifier is applied to all skill checks related to the operation of the mecha (including Drive and Repair checks). The attack bonus is applied to all attack rolls performed by the crew.

Crew Quality

Crew Quality	Check Modifier	Attack Bonus
Rookie	-4	-2
Qualified	+2	+0
Veteran	+4	+2
Elite	+8	+4
Legendary	+12	+8/+3

Boarding Mecha

Mecha suits take the same time to don or remove as plate armor. Vehicles and giant robots are entered with a move action. It is assumed that the designers included provisions to facilitate this, such as steps or built-in ladders.

A mecha is started with a second move action. This may take additional time if the mecha has the Start Up Time defect, page 207.

Combat Set-up

In order to cover as many situations as possible, both the time frame and the ground scale of the encounter can be customized to fit the forces in presence.

Mecha use the same size categories as all d20 characters and creatures. If need be, see *Big and Little Creatures in Combat*, Player's Handbook, Chapter 8.

Character Scale: This is the standard movement scale used in most d20 system games. It's a square grid, with the side of each square representing 5 feet (1.5m). Use it for situations involving both characters and mecha.

Most mecha will occupy multiple squares according to their physical dimensions. Obviously, no more than one mecha can occupy the same squares at the same time.

When moving, count the squares from the mecha's rear. When turning, pivot the mecha on the rear square toward which it is turning. When firing weapons, count squares from the location of the weapon.

Chase Scale: This is a square grid, with the side of each square representing 50 feet (15m). It is calibrated for high speed chases and long range gun battles.

In this scale, most mecha occupy only one square, and multiple mecha can fit in one square. Mecha in the same square are considered to be in melee range for attack purpose.

Abstract Scale: The GM keeps track of spatial relationships, describing distances in feet (or metres) as appropriate. This is used if distances are very great, action switches rapidly between the two previous ones, or no map is used.

The GM should keep a general, mental note of relative distances (in squares, feet, or metres) between combatants or important objectives. A general, rounded-off idea of the overall distance is enough.

Initiative

There are two options for determining initiative in mecha combat. Only one should be selected and used throughout the campaign.

Per Character: Determine individual initiative just as in normal combat, with each character rolling separately. This is the best method if most or all characters are aboard different mecha; if characters are all aboard the same mecha, this can result in a lot of delayed or readied actions as passengers wait for pilots to perform manoeuvres.

Per Mecha: Determine initiative for each mecha, using the mecha's initiative modifier. This is appropriate when most or all characters are in the same mecha, since it allows everyone aboard to act more or less simultaneously.

Spotting

The standard d20 rules are used to determine surprise and awareness. The following exceptions apply, however.

Spot Checks: These are affected by a number of factors. These include sensor capabilities (see *Sensors*, page 198) and modifiers to Spot and Listen checks (see *Stealth*, *Noisy*, *Windows and Restricted Vision defects*, chapter five).

Multi-Tasking: A -5 penalty is given to a character performing another task while spotting (driving controlling a system, etc.).

Underwater: Due to the murky conditions, spotting targets underwater uses a 1' rather than a 10' increment unless sensors are used.

Space: Due to the lack of obstructions, visual spotting in space uses a 100' rather than 10' increment unless sensors are used.

Movement and Actions

Movement and action use standard d20 combat rules unless specifically noted. The following rules define what a mecha's pilot can do in a single round.

Facing: The mecha's facing (the direction it's pointing toward) is important. It indicates the direction of travel (unless moving in reverse) and determine which weapons can be brought to bear.

Mecha Suit

Actions: The wearer can perform any actions while wearing a mecha suit, just as if he were wearing any other type of armor. If the suit as a strength bonus, it is applied to the operator's Strength.

Moving: Mecha suits have a movement multiplier; this applies to the wearer's speed and jump distance. Run actions tire the wearer as usual, regardless of actual speed.

Vehicle

Choose Speed: The pilot may increase or decrease the mecha's speed category by one (see *Declaring Speed*, page 227).

Optional Attack Action: The pilot can use his attack action before moving. He will be limited to a single stunt during movement, however.

Movement: The pilot moves the mecha as determined by its speed. He may perform any number of simple maneuvers, limited only by movement costs. The pilot may attempt a single stunt, two if he didn't take his attack action already.

Optional Attack Action: If the pilot did not take an attack action before moving, and performed one or fewer stunts, the pilot has an attack action left.

Giant Robot

A giant robot can move either as a vehicle or as a character (if it moved no faster than 750' (225m) on the previous round).

Transition: A giant robot that is using land movement may move as a character; if using another type of movement, it may transition to land movement if moving at the High speed category (see *Declaring Speed*) or less on the previous turn, and it is now on a solid surface. If so, see *Giant Robot Agility*, instead.

The pilot of a giant robot that moved at no greater than high speed on his last round may declare he is using character movement. A mecha that was already using character movement may continue to do so, or may go to either of Stationary, Slow or Tactical speeds.

Moving as a Character: The pilot may have the robot perform any actions a living creature of the same size and shape could. When taking a normal move, the robot moves at up to one quarter its land combat speed or 100' (30m), whichever is less. When taking a Double Move, it can move up at up to half its top speed or 250' (75m), whichever is less. If running, it can move at up to its top speed or 750' (225m), whichever is less. The pilot doesn't tire from running, unless the robot has the Muscle-Powered defect.



Declaring Speed

At the beginning of his action, the pilot must declare his speed category for the round. The pilot can choose to go one category faster or slower than the category used in the previous round, if his mecha is fast enough to do so. For an exception to this, see *Climbing and Diving*, page 228.

The six speed categories and the minimum top speed, per round, at which the vehicle must be moving, are listed in the table. If a mecha cannot reach the minimum speed of a given category, it cannot select it.

Move: The first number listed under Move (Turn) is the range of distances a mecha can travel at this speed category and scale, per round.

(Turn): The second, parenthetical number is the speed's Turn number, whose use is explained under *Turn*, page 228.

Defense Modifier: The bonus a mecha receives to its Defense when moving at the listed speed.

Maneuver Modifier: The modifier to any maneuver checks or rolls when moving at this speed.

Speed Categories

Speed Category	Move (Turn) (abstract feet)	Move (Turn) (abstract metres)	Move (Turn) (5' squares)	Move (Turn) (chase squares)	Defense Modifier	Maneuver Modifier
Stationary	No move (0)	No move (0)	No move (0)	No move (0)	-	-
Low	1 to 100' (5')	Up to 30m (1.5m)	1-20(1)	1-2 (1)	+0	+0
Tactical	101'-250' (10')	31m-75m (3m)	21-50(2)	2-5 (1)	+1	-1
High	251'-750' (20')	15m-225m (6m)	51-150(4)	5-15(2)	+2	-2
Very High	751'-2,500' (40')	226m-750m (12m)	151-500 (8)	16-50 (2)	+4	-4
Extreme	2,500'+ (100')	750m+ (30m)	501+ (20)	51+ (3)	+8	-8

Moving the Mecha

Action Cost: Controlling a vehicle or giant robot is a move action, taken by the mecha's pilot.

Facing: Unless it changes direction, a mecha always moves in the direction of its facing (or in the opposite direction, if moving in reverse).

Move Distance: The Speeds and Modifiers Table lists a movement range for each speed category. During his move action, the pilot may move the mecha any distance that falls within its current speed category, provided that it doesn't exceed the mecha's listed top speed.

Turning and Maneuvering: While moving, the pilot can attempt maneuvers to change course or affect the next round's speed. These can be attempted at any point. The pilot can choose to use his attack action to attempt additional maneuvers. These are covered further under *Simple Maneuvers and Stunts*.

Stationary Mecha: A stationary mecha cannot move, with these exceptions: a stationary giant robot can turn to any direction on land, as can a stationary flyer with no stall speed, or any mecha that is underwater. A stationary mecha can change to low speed in either forward or, in some cases, in reverse. Mecha cannot go faster than low speed in reverse; flying mecha can only do so if they have no stall speed; mecha cannot do so in or under water.

Stalling: A flying mecha will stall if, at the end of a round, it has not moved faster than its stall speed (see *Stall Speed* defect, page 207). If a flying mecha starts its round in a stall, the pilot must make an immediate DC 15 check to avoid losing control (see *Losing Control*, page 233). Even if the pilot avoids losing control, the mecha cannot perform any maneuvers or stunts other than to Dive, although he may alter the mecha's speed. It pulls out of its stall if it can end the round having moved faster than its stall speed. If not, repeat the stall procedure on the next round.

Simple Maneuvers

A simple maneuver is a free action and can be taken as many times as desired. They cost movement, however, reducing the actual distance moved. Simple maneuvers don't require skill checks.

If using a square grid, mecha can move diagonally; every second diagonal square costs two squares' worth of movement. A suit moves like a character; a giant robot *may* move like a character. Mecha in space move differently; see *Space Movement*, p. 189.

45-Degree Turn: The mecha must move forward at least a number of squares, feet, or metres equal to its current Turn number before it can turn. At Extreme speed, a mecha can only make one such turn. At character or abstract scale, each 45-degree turn counts as 5' (1.5m) of movement.

Ram: At character scale, a pilot only needs to move his mecha into the target's space, and a collision occurs (see *Collisions and Ramming*). If moving in three dimensions (air, space, underwater) a mecha must also be at the same altitude.

At chase scale, however, more than one mecha can occupy the same square and not collide: ramming then requires a simple maneuver. The pilot moves his mecha into the target's square (and altitude) and states his intention. Resolve the ram as a collision (see page 231), except that the pilot of the target mecha gets a Reflex save (DC 15) to reduce the damage to both mecha by half.

Sideslip: A sideslip allows a mecha to avoid obstacles or weave in and out of traffic by moving to the side without changing facing. In character or abstract scale, a sideslip moves a mecha 5' (1.5m) forward and the same distance to the right or left. It costs 15' (4.5m) of movement. In chase scale, a sideslip moves a mecha 1 square forward and 1 square to the right or left. It costs 3 squares of movement.

Climbing and Diving while Flying: A mecha that is flying can use some or all of its movement to increase or decrease altitude. Keep track of altitude with a note.

If it has no stall speed, the mecha can use all of its movement to climb or dive. If climbing, each unit of distance counts as two units.

If the mecha has a stall speed, it can use any of its movement to dive, but can spend no more than half its movement climbing. Each unit of distance counts as two units. It must move horizontally a distance equal to its Turn number between a climb or dive.

If a mecha spends at least half its movement climbing, and doesn't dive, on its next round its pilot may not increase its speed category.

If a mecha spends at least half its movement diving, and doesn't climb, on its next round its top speed is increased by up to double normal or by +1,000' (300m), whichever is less. The mecha may not decrease its speed category, and may increase its speed by up to two categories (if its new top speed allows this).

A flyer that dives into the ground will crash. A flyer lacking life support cannot climb beyond the altitude where its crew can breathe, or so high that its engines (if they are air breathing) run out of oxygen.

Climbing and Diving while Underwater: A mecha moving underwater is treated as a mecha with no stall speed, but otherwise uses the same rules as a flyer. The speed increase while diving, however, is limited to double speed or +500' (150m), whichever is less. It cannot climb above the surface, or safely dive below its rated dive depth.

Stunts

Stunts are difficult maneuvers that allow a pilot to change his mecha's speed or heading more radically than with a simple maneuver. A stunt is a move action. It can be taken as part of a move action to control the mecha, and a second stunt can be attempted in lieu of the pilot's attack action.

Stunts *always* require a Drive or Pilot check to perform successfully. Unsuccessful stunts often result in the mecha ending up someplace other than where the pilot intended. When this happens, the mecha collides with any objects in its path. The Maneuver modifier from the Speed Categories Table (page 227) affects all Drive or Pilot checks made by the pilot, and all attack rolls made by occupants of the mecha. Some stunts will require a Drive or Pilot check to retain control if failed (see *Losing Control* for more details).

Avoid Hazard: When a mecha tries to move through a space and altitude occupied by a hazard, the pilot must succeed on a Drive or Pilot check to avoid it and keep moving. The DC varies with the hazard's nature and size.

Structures larger than 5' (1.5m, or one square) across cannot be avoided. If a pilot cannot make a check (if all his actions for the round have been used), he automatically fails to avoid the hazard.

On a failed check, the mecha hits the hazard. Failing to avoid an object results in a collision (see *Collisions and Ramming*). Caltrops or minefields make a single attack against the mecha. An oil slick forces the pilot to make a Drive or Pilot check (DC 15 plus the Defense Modifier of the speed category) to retain control.

Stunt Reference Table

Name	DC	Description	Page
Avoid Hazard	Depends on obstacle's size	Allow move through an occupied square	229
Bootlegger	Depends on direction change	Allow a radical change in direction	229
Hard Brake	DC 15	Reduces the mecha's speed by one or two categories	229
Hard Turn	DC 15	Allows a turn in a short distance without losing speed	230
Jump	Depends on the distance and speed	Jumps across a gap	230
Sideswipe	DC 15	Deal some damage or cause the target to lose control	230

Typical Hazards

Hazard	DC	Note
Small	5	Tire, light debris
Medium	10	Small Crate
Large	15	Pile of Wreckage
Huge or larger	n/a	Cannot be avoided
Caltrops Patch	15	Piercing; only on Ground
Minefield	15	Blast; can be designed for any environment
Oil Slick	15	Slippery; only on Ground

Bootlegger: This allows a mecha moving on land to radically change direction without turning while coming to a stop. Before making a bootlegger, a mecha must move in a straight line for a distance equal to its Turn number, and cannot be at Extreme speed.

The DC for a bootlegger depends on the desired facing change. If successful, change the mecha's facing to the desired direction; movement ends at Stationary speed. On a failed check, the mecha only changes facing by 45 degrees; make a Drive check to retain control against the attempted turn's DC.

Bootlegger

Facing Change	DC
45 degrees	5
90 degrees	10
135 degrees	15
180 degrees	20

Hard Brake: This reduce the mecha's speed by up to two categories if on land (or one category otherwise), in addition to any speed change made at the beginning of the pilot's action. The mecha's movement for the round ends as soon as it has moved the minimum distance for its new speed category; if it has already moved that far before attempting the hard brake, it ends its movement immediately.

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The DC for a hard brake is 15. On a failed check, the mecha doesn't change speed categories; make a Drive or Pilot check (DC 15) to retain control. If performed by a flying mecha, a successful hard brake automatically results in a loss of altitude equal to the mecha's turn number.

Hard Turn: This allows a mecha to make a turn in a short distance without losing speed. A hard turn functions like a 45-degree turn simple maneuver, except that the mecha only needs to move forward a distance equal to half its turn number (rounded down).

The DC for a hard turn is 15. On a failed check, the mecha continues to move forward a number of squares equal to its turn number before turning, just as with a simple 45-degree turn. Make a Drive or Pilot check (DC 15) to retain control.

Jump: The pilot of a mecha moving on land or water can attempt to jump it across a gap. To make a jump, the mecha must move in a straight line for a distance at least equal to its turn number. If the mecha doesn't have enough movement left to clear the gap, it must complete the jump at the start of its next turn. The DC depends on the width of the gap, modified by the mecha's speed category.

On a failed check, the mecha fails to clear the gap, and instead falls into it or collides with the far side; see *Collisions and Ramming*. The Jump Difficulty table lists equivalent object sizes for damage purpose. If the gap is filled with water, the mecha takes only half damage from the collision. If the water is too deep or the bottom too soft (GM's discretion), the mecha might not be able to move further. The mecha can only drive out of the gap if the walls are not too steep.

Jump Difficulty

Gap	Width	DC	Size
1-3' (1m)	Ditch	15	Medium*
4-8' (2m)	Culvert	20	Huge
8-15' (3-5m)	Creek, small ravine	25	Colossal
16-25' (6-8m)	Narrow road, small pond	35	Colossal
26-40' (9-13m)	Wide road, small river	45	Colossal

*if the jump is failed, treat the far side as a Medium hazard to continue moving.



Jump Speed Modifier

Speed Category	Move (Turn)	DC Modifier
Slow	1 to 100' (5')	+10
Tactical	101'-250' (10')	+5
High	251'-750' (20')	+0
Very High	751'-2,500' (40')	-5
Extreme	2,500'+ (100')	-10

Sideswipe: During movement, a pilot can attempt to sideswipe a target, either to deal some damage or to cause the target's pilot to lose control.

At abstract or character scale, a mecha must be side by side with its target (occupying the square or squares directly to its side) and moving in the same direction. Attempting a sideswipe costs 5', 1.5 m, or 1 square of movement. At chase scale, the mecha must be in the same square as its target and moving in the same direction; there is no movement cost.

The DC for a sideswipe is 15, modified by the relative size and speed of the target. If successful, both mecha take damage as if they had collided (see *Collisions and Ramming*, page XX), except that the collision multiplier is 1/4, and the pilot of the target mecha can make a Reflex save (DC 15) to reduce the damage to both mecha by half of that result. The pilot of the sideswiped mecha must succeed at a Pilot or Drive check (DC 15) at the beginning of his next action or lose control of the mecha.

On a failed check, both mecha take damage as though the sideswipe attempt was a success. The other pilot doesn't need to make a check to retain control, however.

Sideswipe Modifier

Target Condition	DC Modifier
Each size category larger	-5
Each size category smaller	+5
Each speed category of difference	-2

Hide and Seek

"Hide and seek" tactics are useless in open country, at high altitude in good weather (or if your foe has sensors), in deep space, or at sea. However, a pilot can attempt a Hide check to lose a pursuer in heavy traffic, complex terrain or clouds. A Bluff check will misdirect a pursuer before a sudden change of direction, e.g., turning onto an off-ramp or a side street, canyon, etc.

Hide: To make a Hide check, use the normal rules for hiding (see the Hide skill description). This can only be attempted in fairly heavy traffic or very complex terrain (such as a jungle, mountains or cinematic asteroid belt). The size modifiers apply, but because the pilot is hiding among Large or Huge mecha and features, he gains a +8 bonus on the check. In lighter traffic, the GM might not allow it or apply a -4 penalty to the check.

Bluff: A successful Bluff makes a pursuer think the target is going a different direction from what the pilot intends. Just before making a sudden turn, make a Bluff check opposed by the pursuer's Sense Motive check. If the pilot is successful, the pursuer takes a -5 penalty on any Drive/Pilot check

needed to follow the pilot. If the pursuer doesn't have to make a Drive/Pilot check to follow, the Bluff attempt has no effect.



Collisions and Ramming

A collision occurs when a mecha strikes another mecha or a solid object. When a mecha collides with a moving target, the target can attempt a Reflex save (DC 15) to reduce the damage by half. These rules are applicable to mecha whether moving as characters or as vehicles.

The base damage dealt by a mecha collision depends on the speed and size of the objects involved. Use the highest speed and the smallest size of the two colliding objects and refer to the Collision Damage table.

MECHA ACTION

Collision Damage

Highest Speed	Damage Die Type
Slow	d2
Tactical	d4
High	d8
Very High	d12
Extreme	d20
Per added 10,000' (3,000m)	+1 per die

Size Multiplier

Smallest Object/Creature Size	Number of Dice (+ adds)
Colossal	20
Gargantuan	16
Huge	12
Large	8
Medium-size	4
Small	2
Tiny	1
Smaller than Tiny	0

After finding the base damage, consult the Collision Direction table for the collision's damage multiplier based on how the mecha struck each other. For mecha moving in reverse, consider the back end to be the mecha's "front" for determining the collision multiplier.

Collision Direction Table

Colliding Mecha's Target	Multiplier
A stationary object	x 1
A moving mecha, striking head-on or 45° from head-on	x 2
A moving mecha, striking perpendicular	x 1
A moving mecha, striking from the rear or 45° from the rear	x 1/2
A mecha being sideswiped (see <i>Sideswipe</i>)	x 1/4

Once the damage has been determined, apply it to both mecha (or objects or creatures) involved in the collision. Both mecha reduce their speed by two speed categories if they are within one size class of one another. If one is two or more size classes larger (if both are colossal, if one is at least 4 x the mass or 2 x longest dimension, if mass unknown) its speed is unaffected but the other loses 3 speed categories.



If the colliding mecha moved the minimum distance for its new speed category before the collision, it ends its movement immediately. If not, it pushes the other mecha or object aside, if possible, and continues until it has moved the minimum distance for its new speed category.

The pilot of the mecha that caused the collision must immediately make a Drive or Pilot check (DC 15) or lose control. The pilot of the target mecha must succeed on a Drive or Pilot check (DC 15) at the beginning of his next action or lose control. Exception: a mecha that was large enough that it did not lose speed doesn't make a collision check.

Collision Damage to Occupants

When a mecha takes damage from a collision, its occupants may take damage as well. The base amount of damage depends on the cover offered by the mecha.

If individuals are not strapped in, move one line up the table (no extra increase if no cover).

Losing Control

A collision or failed stunt can cause a pilot to lose control of his mecha; in these cases, a Drive or Pilot check is required. The Maneuver modifier from the Speed Categories table (page 229) applies to all Drive or Pilot checks.

If this check is successful, the pilot maintains control of the mecha. On a failure, a mecha on land or water goes into a spin (see below), or a roll/capsize if it fails by 10 or more; a mecha in the air or underwater veers off course (see below) and loses altitude or depth, or if it fails by 5 or more, suffers a tailspin.

An out-of-control mecha may strike an object or other mecha. When that happens, a collision occurs (see *Collisions and Ramming*, previous).

Veer and Depth/Altitude Loss: Roll 1d6 — on a 1-3, the mecha veers 45 degrees right; on a 4-6, it veers 45 degrees left. It may not make other maneuvers this round, and loses depth or altitude equal to its current turn number. It may not voluntarily increase speed next round, unless required by diving. The sudden loss may cause it to crash or run aground.

Spin and Tailspin: At character or abstract scale, a mecha spinning on land, water, or in space moves in its current direction a distance equal to the turn number for its speed, then ends its movement if on land or water. At chase scale, the mecha moves 1 square and ends its movement. Once it stops, roll 1d8 to determine its new facing and reorient the mecha accordingly. A colossal mecha, such as a ship, has too much momentum to spin around completely (see table) but other effects are the same.

If the mecha is flying or underwater, the mecha goes into a tailspin, continuing on the same course but diving vertically at its maximum rate and spinning about its axis. Make a Pilot or Drive (DC 15) check at the start of each round to recover; failure means it continues to dive out of control and can make no other maneuvers, nor attack. When the mecha pulls out, roll 1d8 to determine direction as above. A mecha in a tailspin loses all Defense bonuses from the pilot's Dex, feats and levels.



Collision Damage to Occupants

Cover	Damage to Occupants	Occupant Save
No Cover	Same as damage taken by mecha	Reflex save (DC 15) to take 1/2 damage
One-quarter cover	1/2 damage taken by mecha	Reflex save (DC 15) to take 1/2 damage
One-half cover	1/4 damage taken by mecha	Reflex save (DC 15) to take 1/2 damage
Three-quarters cover	1/10 damage taken by mecha	Fortitude save (DC 10) to take 1/2 damage
Nine-tenths cover or more	No damage to occupants	None required

MECHA ACTION

Facing after a Spin/Tailspin

1d8	New Facing (Sma-Gar)	New Facing (Colt+)
1	No change	No change
2	Right, 45 degrees	Right, 45 degrees
3	Right, 90 degrees	Right, 45 degrees
4	Right, 135 degrees	Right, 45 degrees
5	180 degrees	Left, 45 degrees
6	Left, 135 degrees	Left, 45 degrees
7	Left, 90 degrees	Left, 45 degrees
8	Left, 45 degrees	No change

Roll, Fall, or Capsize: The mecha tumbles, taking damage. This is referred to as "capsizing" if a mecha is on water. At character scale, the mecha rolls in a straight line in its current direction for a number of squares equal to the turn number for its speed, then ends its movement. At the end of the mecha's roll, reorient the mecha perpendicular to its original direction of travel (determine left or right randomly). At chase scale, the mecha rolls one square before stopping and reorienting.

At either scale, a mecha takes damage equal to (2d6 x Turn number for its speed). The mecha's occupants take damage equal to (2d4 x Turn number for its speed); they are allowed a Reflex save, DC 15, for 1/2 damage. Anyone not inside or strapped in will fall off.

After a mecha rolls or capsizes on the ground or water, roll 1d6. On a 1-3 it right-side up and (if not disabled) can continue to operate normally. On a 4-6 it is upside down. If it is a giant robot, it can right itself using its arms (if not disabled). Otherwise, it is effectively out of action, unless it can fly.

If the mecha rolls in a situation that could cause it to topple off a cliff or into a ravine, the pilot may make a Reflexes check save (DC 25) to avoid falling all the way down. The mecha will sustain damage as above, plus an additional 1d6 damage for each 15'/5m fallen.



Mecha Combat

The following rules provide a further framework for combat involving mecha.

Firing Arcs: A fixed weapon built into a mecha can be mounted to fire in one of four directions — forward, aft (rear), right, or left — or be built into a partial or full turret, or an arm. A partial turret lets a weapon fire into three adjacent fire arcs (such as forward, left, and right), while a full turret or arm lets it fire in any direction. For mecha with weapons, a weapon's arc of fire is given in the mecha's description. See the Fixed Arc of Fire restriction, page 218.

Mecha Combat Actions

Actions during mecha combat are handled the same way as actions during personal combat. A character can take two move actions, one move action and one attack action, or one full-round action in a round. Free actions can be performed normally, in conjunction with another action.

Free Actions: Communicating orders and ducking down behind a door are examples of free actions. Characters can perform as many free actions as the GM permits in a single round.

Move Actions: Changing position within a mecha is usually a move action, especially if the character has to trade places with another character. If the character's movement is short and unobstructed, the character can do it as the equivalent of a 5-foot step. Otherwise, it requires a move action.

Attack Actions: Anyone aboard a mecha can make an attack with a personal weapon, and pilots and gunners can make attacks with any mecha-mounted weapons controlled from their positions.

Full-Round Actions: Since the pilot must use a move action to control the mecha, he can't take a full-round action unless he starts it in one round and completes it on his next turn (see Start/Complete Full-Round Action).

Attack Options

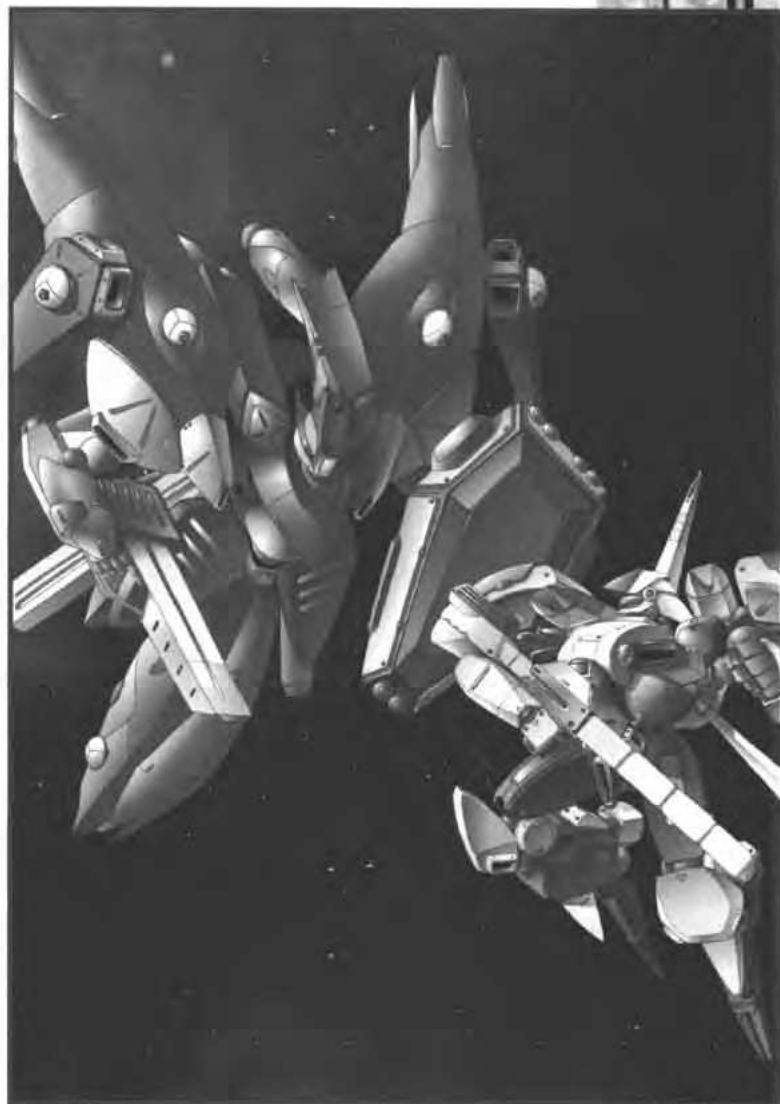
Firing a mecha's weapon requires an attack action and uses the pilot's or a gunner's ranged attack modifier.

A pilot with 5 or more ranks in the Drive or Pilot skill gains a +2 synergy bonus when firing fixed forward-firing mecha-mounted weapons while driving.

Some military mecha are equipped with targeting systems, such as computers. These systems grant equipment bonuses on attack rolls with the mecha-mounted weapons to which they apply.

Maneuver Defensively: Just as in melee combat, one can maneuver defensively while controlling a mecha. This option, usually called "evasive action,"

grants a +2 dodge bonus to the mecha's Defense and applies a -4 penalty on attack rolls made by occupants of the mecha.



Total Defense: A pilot can choose the Total Defense action, which grants a +4 dodge bonus to Defense but doesn't allow the pilot to attack (gunners or passengers take a -8 penalty on attack rolls). These modifiers last until the pilot's next round of actions.

Full Attack Action: A pilot cannot normally make a full attack, since controlling the mecha requires a move action. Gunners or passengers, however, can take full attack actions, since they don't have

to use a move action (except, perhaps, to change positions in the mecha). Taking a full attack action is useful only if a character has a base attack bonus high enough to get multiple attacks. A passenger can make multiple attacks with his own weapon. A gunner can make multiple attacks with one or more weapons controlled from his position.



Targeting

An attack made against a mecha uses the mecha's Defense, modified by its speed category and any appropriate feats or class abilities.

Cover: When a character fires from a mecha, objects or other mecha in the way can provide cover for the target. Use the normal rules for cover, bearing in mind the size of the mecha. Thus, a medium-sized suit could take cover behind a tree, but a huge giant robot could not.

Concealment vs. Sensors: Concealment is ineffective if sensors used by the firer attacker can see through it. For example, normal smoke is ineffective against radar or thermal imaging, so it provides no concealment.

"Hull Down" Vehicles: A common tactic for tanks and similar vehicles (or giant robots with weapons mounted in their heads) is to be "hull down" behind a ridge with only the turret or head exposed. This counts as three-quarter cover.

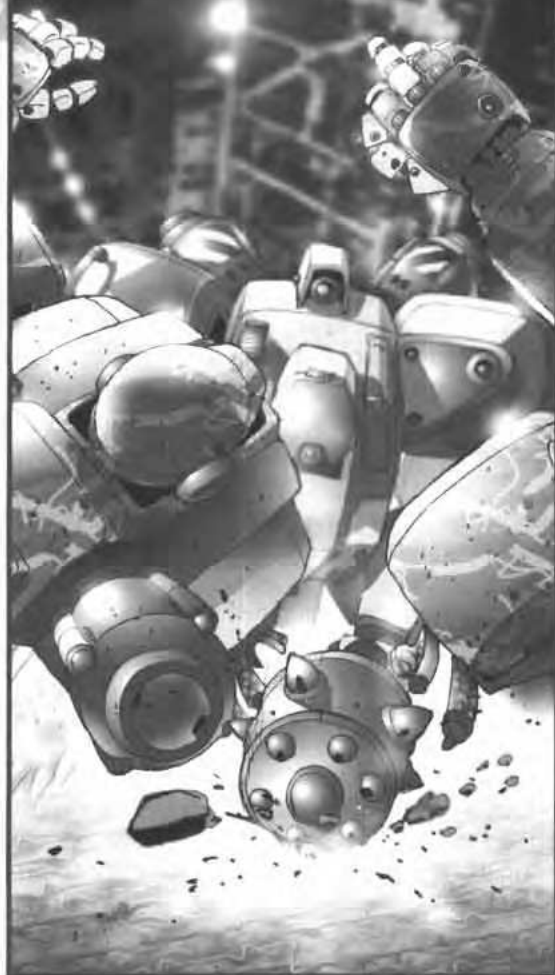
Targeting Occupants: Attackers can choose instead to target specific mecha occupants. An attack against a mecha occupant is made like any other attack. A character in a mecha gains bonuses to Defense from both the mecha's speed and any cover it provides.

DAMAGING MECHA

All mecha have hardness and hit points. Whenever a mecha takes damage, first subtract the mecha's hardness from the damage dealt to determine the actual hit point loss.

Damage Types and Mecha: Mecha are immune to subdual damage, but unlike ordinary constructs, can suffer critical hits. Mecha take half damage from acid, fire, and lightning attacks unless they have a defect that indicates their vulnerability. Cold attacks deal 1/4 damage to mecha. Apply these multipliers after hardness.

Mecha Suit Damage: If a mecha suit takes hit point damage, the wearer of the suit takes the exact same damage. This is because a suit (unlike a vehicle or giant robot) is form-fitting. An attack may kill or disable the wearer without doing the same to the suit, in which case someone else could salvage it. Damage might disable the suit while the wearer still has hp left, in which case he is trapped in it until it is removed.



Hit Point Transfer: For characters, high hit point totals represent experience, luck and skill as much as they do increased durability. As such, if a mecha takes damage, its pilot may voluntarily choose to take some of the damage to his own hit points instead of the mecha's, providing this doesn't reduce his hit points below his Constitution score. (In d20 games that split hit points into vitality and wounds, the pilot may use his vitality).

Major System Damage

If a vehicle or giant robot takes damage from a critical hit, or any time it loses more than half its original hit points from a single attack, the GM can have it suffer major system damage: something important breaks. Determine system damage by rolling randomly on the table below. If a result cannot happen, the mecha suffers no extra effect.

Multiple Targets: When multiple possibilities exist for a given damage result, a single die is rolled. If the result is an odd number, the defender chooses which system in the category is damaged. If the result is an even number, the attacker chooses which system is damaged.

System Damage Table

d20 Roll	Suit	Vehicle/Giant Robot
1-4	Controls	Controls
5-6	Cargo	Cargo
7-8	Special	Crew
10-12	Propulsion	Propulsion
13-16	Weapon	Weapon
17-18	Special	Passenger
19-20	Special	Special

Controls: The mecha's ability to maneuver is damaged. This may represent a flat tire, damaged leg, hydraulics rupture, fallen rigging, etc. The mecha is at -4 on all maneuvering checks. In addition, its pilot must make an immediate check (as if making a Stunt, at the -4 penalty above) to avoid loss of control.

Cargo: The cargo or auxiliary craft carried aboard are hit. The GM determines the effect, usually applying the damage to an item carried.

Crew: A key crew member takes the same damage that the mecha sustained. This damage is halved on a Reflex save (DC 15). If the mecha has multiple key crew members, roll randomly.

Special: One of the mecha's special abilities (sensor, communication device, airlock, etc.) is knocked out. Roll randomly to see which.

Propulsion: The mecha's engine, batteries or means of movement is knocked out. The mecha must decelerate one speed category each turn until it reaches stationary speed. (If in space, it will simply drift at its current speed.)

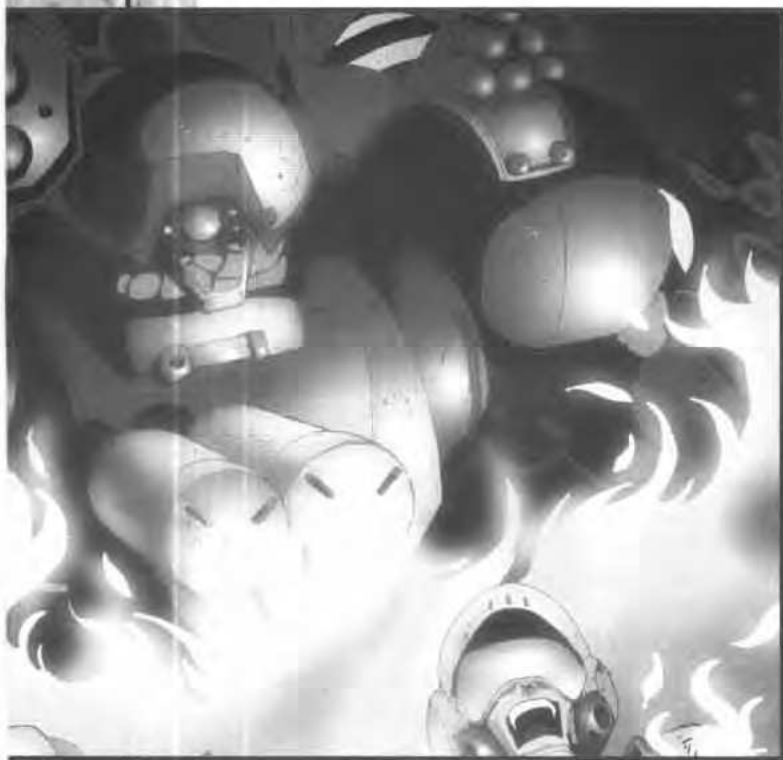
Passenger: As Crew, above, but to a random passenger.

Weapon: The mecha's weapon is knocked out. If it has a number of weapons, roll randomly to select which.

Fire

If a mecha loses 10 or more points hit points due to fire or explosion, it will catch fire if it fails a fire save. Mecha that have the Volatile Defect automatically catch fire.

The fire save's DC is 10 + the damage inflicted. The mecha has no bonus — simply roll 1d20 and add the mecha's fire extinguisher bonus, if any. If it catches fire, the mecha takes 1d10 damage directly to hit points each round until extinguished; if a 10 is rolled, the fire grows in size as well: add another fire.



Anyone inside is exposed to the fire and must make a Reflex DC 15 reflex check or save to avoid taking 1d6 damage: the DC is 20 if the mecha is large, DC 18 if huge, DC 16 if gargantuan, or DC 12 if colossal. If the mecha is a medium-sized mecha, or a suit, the crew cannot avoid the damage.

Characters may try to fight a fire instead of avoiding it. This is a DC 15 reflex Reflex check. Success puts the fire out. Add the mecha's fire extinguisher bonus to any attempt to fight fires.

Disabling and Destroying Mecha

When a mecha is reduced to 0 hit points or less, it is disabled. Although it might be repairable, it ceases functioning. Weapons, special abilities such as sensors (excluding ejection seats), and exotic abilities such as force fields no longer function (or are frozen in the current form, for something like transformation). If smaller craft (life pods, fighters, etc.) are carried, each still works on a roll of 1-4 on 1d6. A mecha may explode if it has the Volatile defect (see page 207).

Mecha don't "die" when they reach -10 hit points. Instead, a mecha is destroyed when it loses hit points equal to twice its full normal total. A destroyed mecha cannot be repaired.

On the Ground: A vehicle drops one speed category each round until it comes to a stop or hits something. The pilot cannot attempt any maneuvers except a 45-degree turn. A giant robot or suit trips and falls over. It tumbles, losing two speed categories per round, and taking half normal collision damage each round until it stops or hits something.

In the Air: A disabled airborne mecha drops one speed and altitude category each round (unless diving enough to force an increase in speed, in which case there is no change) until it is stationary or stalls, then it falls from the sky. The pilot cannot climb, nor attempt any maneuvers except a 45-degree turn or a dive.

In Water: A mecha moving on the water drops one speed category each round until it comes to a stop. The pilot cannot attempt any maneuvers except a 45-degree turn.

The mecha will also take in water and start to sink. The mecha takes 1d6 points of flooding each round. When the flooding reaches (2 x total hp - current hp) the mecha will sink, or if a submarine that is underwater, will be unable to surface, and continue to sink.

A sinking mecha drops at a rate of at least 50'/15m per round until it hits bottom, or breaks up due to pressure. Occupants will start to drown, unless they escape and make it to the surface, or can survive underwater. Occupants inside a large vessel may take several rounds to escape; if the vessel has sunk deep enough, they may be unable to escape due to water pressure without special gear.

If a colossal-sized vessel sinks, it may suck people on deck or nearby swimmers down with it. This affects a radius equal to the mecha's longest dimension. Anyone in that radius must make a DC 15 Swimming check, to which they may add their Strength bonus; failure means that they go down with it.

In Space: A mecha that is disabled in space will continue drifting in the same direction at whatever speed it had before it was disabled. If it is disabled in a low orbit, its orbit may decay in minutes or hours. This assumes "realistic" physics: if the mecha uses a dramatic drive or faster-than-light drive that defies normal laws of motion, it may come to a dead stop, slowly decelerate (as if an aircraft), or drop out of hyperspace, depending on how the drive works (GM's call).

Repairing Mecha



Repairing damage takes a full hour of work, an appropriate tool kit (mechanical tools for most modern mecha), some raw material (spare parts, etc.) and a garage, workshop or some other suitable facility. Without tools or spares, a character takes a -4 penalty on his Repair check. At the end of the hour, make a Repair check (DC 20). Success restores 2d6 hit points. If damage remains, the character may continue to make repairs for as many hours as it takes to restore all of the mecha's hit points.

Very large mecha require extra time to repair. Multiply repair time by x2 for huge, x4 for gargantuan, or x8 for colossal mecha.

MECHA AS MAGIC ITEMS

In a fantasy setting, mecha might be present as wondrous magic items, crafted by wizards and priests, imbued with arcane and divine power — examine the typical swords and sorcery robot, in fact, and one finds a magic suit of armor, a magic weapon or two, and perhaps some powerful spells all rolled into one. The following material provides guidelines on how to apply the standardized D20 magic item creation rules (see the *DMG*), *Creating Magic Items*) to create a magic mecha, rather than the more mechanically-oriented approach of this manual.

THE DESIGN PROCESS

Designing a magic mecha consists of three steps. First, decide whether the mecha will be a standard magic item or an artifact. This decision will help determine approximately how many Mecha Points to spend, which in turn determines the costs of creating it. As a general rule of thumb, a mecha designed with 350 or fewer Mecha Points will be a "standard" magic item. The creation costs for such a mecha are reasonable enough for a mid- to high-level spell caster to afford. Beyond 350 Mecha Points, however, the costs reach such astronomical proportions that even the most powerful wizards will be hesitant to construct one, assuming the mecha is within their power at all. These items are classified as artifacts, and only the gods themselves can create the most powerful ones.

The next step is to design and construct the mecha. When magic is added to the process, two new exotic mecha abilities may come into play: the ability to generate spell effects, like many common magic items, and the capacity to use magic equipment. (The latter is applicable to non-magic mecha as well.) These abilities — and their Mecha Point costs — are defined below.

After the mecha is designed, determine the costs and the prerequisites needed to create it. Material costs and experience point costs follow the standard rules for magic item creation, summarized in the table below. The table shows only the base costs; each cost may be modified by the

costs of expensive spell components to determine the final costs. Derived costs always use the base price, however, and never the final market price.

When determining the creation costs, it is important to note that a mecha with limbs and grasping appendages may make use of equipment that is not an integral part of its structure. This advantage may greatly reduce the cost of creating a magic mecha, and the costs of these items should not be included in the Mecha Point costs used to derive its gold piece and experience point costs.

For simplicity, standard magic mecha should be treated as wondrous items, thus requiring the Craft Wondrous Item feat as their base prerequisite. Spell prerequisites will vary greatly; at a minimum they include some variety of magical animation spell, such as the divine magic spell *Animate Objects* or the arcane magic spell *Limited Wish*. Other spell prerequisites depend on the mecha's abilities. For example, a flying mecha will obviously require the *Fly* spell, magical headlights require some form of *Light* spell, and a spell effect requires its particular spell. Magic mecha also require an artisan's touch: eight ranks in an applicable Craft skill are required to assemble the raw materials, and eight ranks in Knowledge (architecture and engineering) are required for mecha with clockwork mechanisms.

Magic Mecha Categories

Mecha Points	XP Cost to Create	Category
< 100	< 800	Low-power magic item
100 - 250	800 - 5000	Mid-power magic item
250 - 350	5000 - 9800	High-power magic item
350 - 500	9800 - 20,000	Minor artifact
> 500	> 20,000	Major artifact

Magic Mecha Cost Summary

Base Price* (gp)	Mecha Point Total x Mecha Point Total x 2
Base Creation Cost** (gp)	Base Price / 2
Base Creation Cost (XP)	Base Price / 25
Time to Construct (days)	Base Price / 1000
*Also known as the base market price.	
**Also known as the base materials cost.	

New Mecha Exotic Ability: Spell Effect

A magic mecha may be created with the ability to generate spell effects in much the same way that a magic ring can be enchanted. Using this ability requires a command word to be uttered by a designated crewmember; as with all command-word activation actions, it does not provoke attacks of opportunity and is a standard action.

With the game master's consent, any spell can be used as the basis of a mecha spell effect. The creator of the magic mecha sets the caster level — it must at least be the minimum level required to cast the spell and may not be greater than the creator's spell-casting level, as normal.

Mecha Point Cost: Spell Level x Caster Level x Number of Uses per Day. If the spell effect can be used an unlimited number of times per day, treat it as 10 times per day for the purpose of determining the Mecha Point cost.

New Mecha Exotic Ability: Magic Equipment

Just as a mecha may be crafted as a magic item, so may its equipment. The most common pieces of magic equipment for mecha are shields and weapons. Other types are possible, but mecha cannot wear magic armor or headgear — mecha occupy those "slots" for their crews, and they will not benefit from their magic effects. Furthermore, spell completion items (such as scrolls) and spell trigger items (such as wands and staves) have their usual requirements, so they may not be useful to the typical mecha crew. Finally, a non-living mecha cannot benefit from a potion, although certain magical oils might be useful.

Use the standard magic item creation rules for creating the equipment. Magic equipment may be used by any kind of mecha, whether it is magical or not.

Mecha Point Cost: Square Root of (Market Price of Equipment / 2).

For magic shields and weapons, compute a base Mecha Point cost as though it were an ordinary piece of mecha equipment. Add to that base cost

a Mecha Point cost based on the equipment's total effective enhancement bonus as determined by its actual enhancement bonus plus the equivalent bonuses of its special abilities. For convenience, the following table shows these costs.

Magic Equipment MP Costs

Enhancement Bonus	Shield MP Cost	Weapon MP Cost
+1	22	31
+2	44	63
+3	67	95
+4	89	126
+5	111	158
+6*	134	189
+7*	156	221
+8*	178	252
+9*	201	284
+10*	223	316

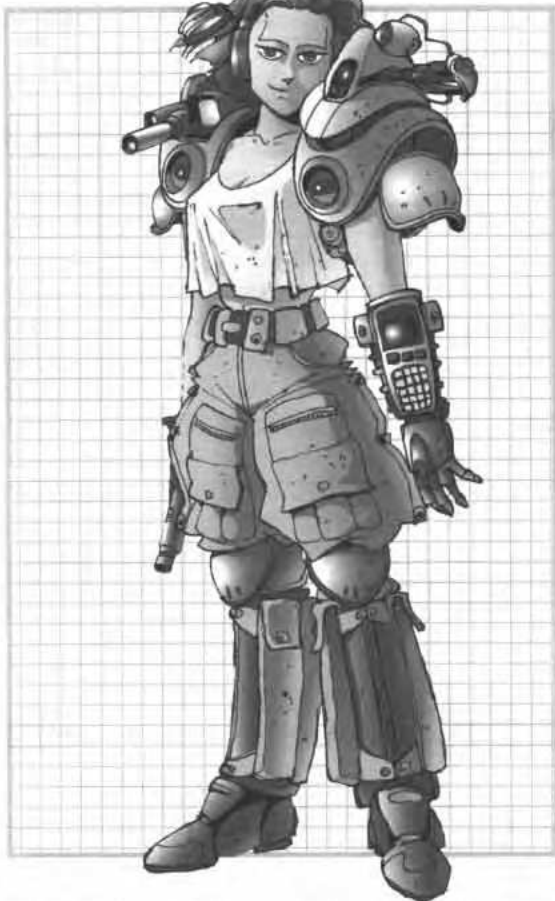
* A weapon or shield can't actually have an enhancement bonus greater than +5. Use these bonuses to determine the MP cost when special abilities are added in.

Examples

A towering magic knight is equipped with a +2 animated shield. It is a large shield, with an armor bonus of +2 in addition to the magic enhancement bonus of +2. Its Mecha Point cost is 95: 6 for its armor bonus, as determined by the mundane shield special ability, plus 89 for its effective enhancement bonus of +4 (+2 for the actual enhancement bonus and an additional +2 for the animated special ability).

The same towering magic knight also wields a +2 shocking longsword. The sword's Mecha Point cost is 119: 24 as determined by the calculations for mundane weapons plus 95 for its effective enhancement bonus of +3 (+2 for the actual enhancement bonus and +1 for the shocking special ability).

FIELD TECHNICIAN



The Field Technician is an experienced builder and repairer of mechanical and electronic devices. Thanks to the adventurous nature of most campaigns, Field Technicians are often experts on affecting repairs without proper tools or spare parts and tend to favour durability over high performance or looks. Most Field Technicians are justifiably proud of the finely-tuned machines they work on, and tend to take a dim view of reckless pilots who ruin their hard work.

Select this advanced class if you want your character to be an expert in building and repairing machinery in adverse conditions.

The fastest path into this advanced class is from the Smart hero basic class, though other paths are possible.

Requirements

To qualify to become a Field Technician, a character must fulfil the following criteria.

Skills: Craft (electronic) 6 ranks, Craft (mechanical) 6 ranks, and Repair 6 ranks.

Class Information

The following information pertains to the Field Technician advanced class.

Hit Die: 1d6

Action Points: 6 + one-half character level, rounded down, every time the Field Technician attains a new level in this class.

Class Skills: The Field Technician's class skills (and the key ability for each skill) are: Computer Use (Int), Craft (electronic, mechanical) (Int), Demolitions (Int), Disable Device (Int), Drive (Dex), Knowledge (earth and life sciences, physical sciences, technology) (Int), Navigate (Int), Profession (Wis), Read/Write Language (none), Repair (Int), Research (Int), Speak Language (none), Spot (Wis).

Skill Points at Each Level: 7 + Int modifier.

Field Technician

Class Bonus	Base Attack Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus	Level
1st	+0	+0	+0	+2	Field repair	+1	+0
2nd	+1	+0	+0	+3	Jury-rig +2	+1	+0
3rd	+1	+1	+1	+3	Bonus feat	+2	+1
4th	+2	+1	+1	+4	Tune up	+2	+1
5th	+2	+1	+1	+4	Mastercraft	+3	+1
6th	+3	+2	+2	+5	Bonus feat	+3	+2
7th	+3	+2	+2	+5	Jury-rig +4	+4	+2
8th	+4	+2	+2	+6	Mastercraft	+4	+2
9th	+4	+3	+3	+6	Bonus feat	+5	+3
10th	+5	+3	+3	+7	Mastercraft	+5	+3

Class Features

The following features pertain to the Field Technician advanced class.

Field Repair: A Field Technician halves any penalties to Craft or Repair checks for lacking the appropriate tools or spare parts.

Jury-Rig: A Field Technician of 2nd level or higher gains a +2 competence bonus on Repair skill checks made to attempt temporary or jury-rigged repairs. See the Repair skill for details on jury-rigging.

At 7th level, this competence bonus increases to +4.

Tune Up: With fine tuning and high performance parts a Field Technician can enhance the functionality of a machine.

By spending 1 action point and making either a Craft (electronic) or Craft (mechanical) check (whichever is appropriate for the machine in question), the Field Technician can temporarily improve a machine's performance-at the risk of causing the machine to need repairs later. The DC for the Craft check depends on the type of improvement being made, as shown on the //Tune-Up Improvements// table.

The Field Technician performs the tune up in 1 hour. The Field Technician can't take 10 or take 20 on this check. If the check succeeds, the effect of the improvement lasts for a period of hours equal to his Field Technician class level, beginning when the object is first put into use. The Field Technician selects the single improvement he wants to make prior to making the check. Multiple improvements of different types can be added to the one machine by repeating the process. After the duration of the effect ends a repair chance percentile roll is made, adding the Field Technician's class level to the roll. The result of this roll indicates whether the machine requires repairs before it can be used again. If repairs are not required the Field Technician can maintain the improvement for the another time period by immediately spending another hour and making the Craft Check, otherwise the machine reverts to its previous state.

Tune-Up Improvements

Improvement	Craft DC	Repair Chance (d%)
Ranged Weapons		
+1 to damage	15	01-25
+2 to damage	20	01-50
+3 to damage	25	01-75
+5 ft. to range increment	15	01-25
+10 ft. to range increment	25s	01-50
Electronic Devices		
+1 equipment bonus	15	01-25
+2 equipment bonus	20	01-50
+3 equipment bonus	25	01-75
Vehicles		
+1 on initiative checks	20	01-25
+1 to maneuver	25	01-50
+2 to maneuver	30	01-75
+5% to Top Speed	15	01-25
+10% to Top Speed	25	01-50

Bonus Feats

At 3rd, 6th, and 9th level, the Field Technician gets a bonus feat. The bonus feat must be selected from the following list, and the Field Technician must meet all the prerequisites of the feat to select it.

Builder, Cautious, Combat Expertise, Educated, Gearhead, Personal Firearms Proficiency, Point Blank Shot, Studious.

Mastercraft

At 5th level, the Field Technician becomes adept at creating mastercraft objects. He applies the mastercraft ability to one of his Craft skills (electronic or mechanical). From this point on, he can build mastercraft objects using that skill.

With Craft (electronic), the Field Technician can build electronic devices. With Craft (mechanical), the Field Technician can build mechanical devices, including weapons.

On average, it takes twice as long to build a mastercraft object as it does to build an ordinary object of the same type. The cost to build a mastercraft object is increased by 33% for each point of bonus provided by the mastercraft feature.

A Field Technician can add the mastercraft feature to an existing ordinary object by paying 33% of the object's cost for each point of mastercraft bonus and then making the Craft check as though he were constructing the object from scratch.

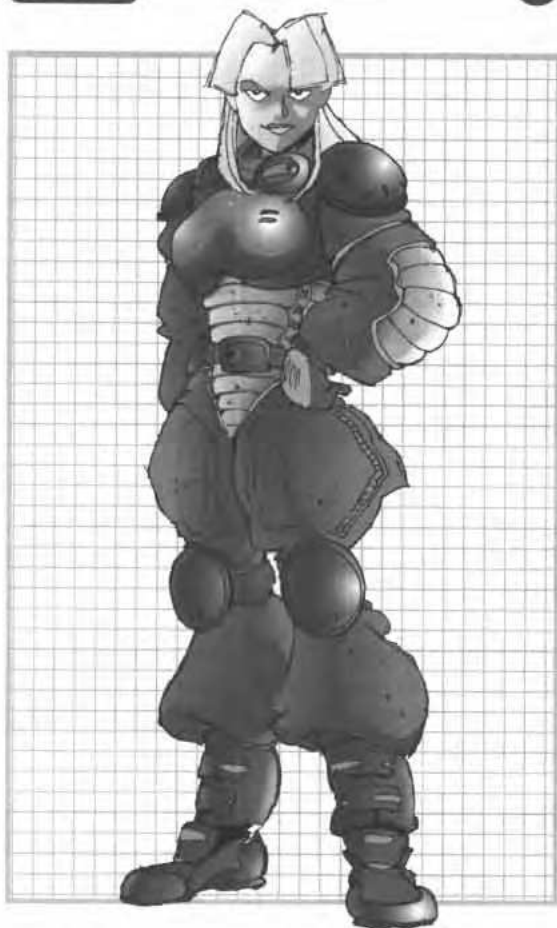
When successfully completed, a mastercraft object provides a +1 bonus to its quality compared to an ordinary object of the same type. All weapons and armor, and certain other types of equipment, such as computers and electronic devices, can be constructed as mastercraft objects.

At 8th level, the Field Technician can add the mastercraft ability to another Craft skill, or he can improve his ability in the skill selected at 5th level, so that his mastercraft objects provide a +2 bonus.

At 10th level, the Field Technician adds another +1 bonus to his mastercraft ability. If the Field Technician focuses his ability on one Craft skill, his mastercraft objects now provide a +3 bonus. If the Field Technician already has the ability for both Craft skills, he chooses which one to improve to a +2 bonus.

The Craft DC for a mastercraft object is the same as for a normal object of the same type, as described in the Craft skill, with the following modification: For a +1 object, add +3 to the Craft DC; for a +2 object, add +5 to the Craft DC; and for a +3 object, add +10 to the Craft DC.

PILOT



The Pilot is an expert in piloting vehicles, be they air, ground or watercraft. A lot of Pilots are trained by military forces, where they command jet fighters, combat mecha and tanks, but many are civilians, working as airline pilots, racing drivers or smugglers. There will always be a demand for skilled pilots and drivers.

Select this advanced class if you want your character to be an expert at piloting vehicles. It concentrates on defensive abilities, but also allows faster reactions and greater precision at high speeds.

The fastest path into this advanced class is from the Fast or Tough hero basic classes, though other paths are possible.

Requirements

To qualify to become a Pilot, a character must fulfil the following criteria.

Base Attack Bonus: +2

Skills: 6 ranks in either Drive or Pilot, plus 3 ranks in Navigate.

Feat: Vehicle Expert

Class Information

The following information pertains to the Pilot advanced class.

Hit Die: 1d8

Action Points: 6 + one-half character level, rounded down, every time he attains a new level in this class.

Class Skills: The Pilot's class skills (and the key ability for each skill) are: Craft (electronic, mechanical) (Int), Disable Device (Dex), Drive (Dex), Information Warfare (Int), Knowledge (tactics, technology) (Int), Navigate (Int), Pilot (Dex), Profession (Wis), Read/Write Language (none), Repair (Int), Speak Language (none).

Skill Points at Each Level: 5 + Int modifier

Pilot

Class Bonus	Base Attack Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus	Level
1st	+0	+0	+2	+0	Maneuvering expertise	+1	+0
2nd	+1	+0	+3	+0	Vehicle specialization	+1	+0
3rd	+2	+1	+3	+1	Bonus feat	+2	+1
4th	+3	+1	+4	+1	Defensive maneuvers +1	+2	+1
5th	+3	+1	+4	+1	Quick off the mark	+3	+1
6th	+4	+2	+5	+2	Bonus feat	+3	+2
7th	+5	+2	+5	+2	Defensive maneuvers +2	+4	+2
8th	+6	+2	+6	+2	Speed Demon	+4	+2
9th	+6	+3	+6	+3	Bonus feat	+5	+3
10th	+7	+3	+7	+3	Defensive maneuvers +3	+5	+3

Class Features

The following features pertain to the Pilot advanced class.

Maneuvering Expertise: When in control of a vehicle and using an attack action, the Pilot can take a penalty of up to -5 on all attack rolls made by occupants of a vehicle and add the same number (up to +5) to the vehicle's Defense as a dodge bonus. This number may not exceed the Pilot's base attack bonus. These modifiers last until the Pilot's next round of actions.

Vehicle Specialization: At 2nd level, the Pilot chooses a single vehicle type (civilian aircraft, civilian cars, civilian motorcycles, civilian trucks, civilian walker vehicles, civilian water vehicles, military aircraft, military ground vehicles, military walker vehicles or military watercraft) When the Pilot is in control of a vehicle of the selected type he gains a +2 competence bonus on skill checks, ability checks and saving throws involving the vehicle.

Bonus Feats

At 3rd, 6th, and 9th level, the Pilot gets a bonus feat. The bonus feat must be selected from the following list, and the Pilot must meet all the prerequisites of the feat to select it.

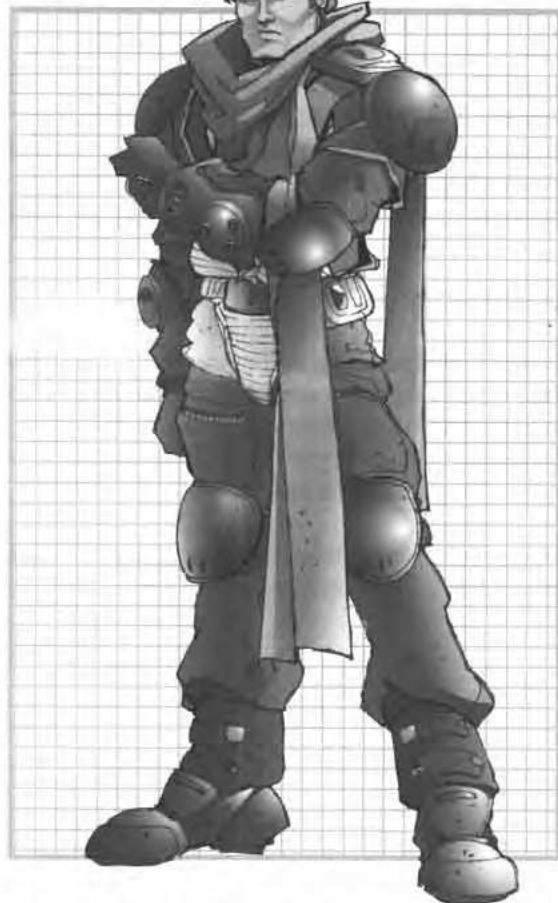
Aircraft Operation, Drive-By Attack, Gearhead, Surface Vehicle Operation, Vehicle Dodge, Vehicle Expert, Vehicle Weapon Proficiency.

Defensive Maneuvers: At 4th level, the Pilot adds a +1 dodge bonus to the Defense of a vehicle he controls. The bonus increases to +2 at 7th level and +3 at 10th level.

Quick off the Mark: At 5th level, the Pilot gains a +2 competence bonus on initiative checks when in control of a vehicle.

Speed Demon: At 8th level, the Pilot halves the Check/Roll modifiers for speeds above Street speed when in control of a vehicle.

DUELIST



This prestige class has been designed for the Heavy Gear world but can be used in any setting where personal and faction honor plays a great role.

At the front of every Gear regiment stands a single pilot who bears on his shoulders the history and reputation of his unit. These are the Duelists, champions and diplomats for their regiments, representing them in honorable single combat. Outside the military, others also take the mantle of Duelist. They represent their cities in regulated sporting duels or their gangs in bloody underground fights, but they too understand the difference between a duel of honor and the indiscriminate carnage of the battlefield. Regardless of their origin, Duelists almost invariably follow a strict code of conduct based on honor and personal glory. In the eyes of most Terranovans, Duelists are heroes of legend.

Select this prestige class if you want your character to excel at close combat in walker vehicles and uphold the honorable traditions of the Duelist.

The fastest path into this prestige class is from the Pilot advanced path, though other paths are possible.

Requirements

To qualify to become a Duelist, a character must fulfil the following criteria.

Base Attack Bonus: +5

Skills: Drive 10 ranks, Dueling 5 ranks, Knowledge (civics) 5 ranks, Knowledge (tactics) 10 ranks.

Feats: Surface Vehicle Operation (walker), Vehicle Weapon Proficiency (melee).

Special: Vehicle Specialization (military walker)

Class Information

The following information pertains to the Duelist prestige class.

Hit Die: 1d8

Action Points: 7 + one-half character level, rounded down, every time he attains a new level in this class.

Class Skills: The Duelist's class skills (and the key ability for each skill) are: Diplomacy (Dex), Drive (Dex), Dueling (Dex), Information Warfare (Int), Knowledge (civics, tactics) (Int), Navigate (Int), Profession (Wis), Read/Write Language (none), Repair (Int), Speak Language (none).

Skill Points at Each Level: 5 + Int modifier

Duelist

Class	Base							
Bonus	Attack Fort	Ref	Will	Special	Defense		Reputation	Level
Save	Save	Save	Save		Bonus		Bonus	
1st	+0	+0	+2	+0	Weapon focus		+1	+2
2nd	+1	+0	+3	+0	Weapon specialization		+1	+2
3rd	+2	+1	+3	+1	Greater weapon focus, signature move		+2	+2
4th	+3	+1	+4	+1	Greater weapon specialization		+2	+3
5th	+3	+1	+4	+1	Macromove		+3	+3

Class Features

The following features pertain to the Duelist advanced class.

Weapon Focus: At 1st level, the Duelist gains the Weapon Focus class feature, providing the benefit of the feat with the same name. The Duelist chooses a specific vehicle melee weapon, such as a vibroblade or manipulator arm punch.

The Duelist adds +1 to all attack rolls made using the selected weapon.

Weapon Specialization: At 2nd level, a Duelist gains weapon specialization with a specific vehicle melee weapon that he also has applied the Weapon Focus feat or class feature to. The soldier gets a +2 bonus on damage rolls with the chosen weapon.

Greater Weapon Focus: At 3rd level, the Duelist gains greater weapon focus with the weapon he selected at 1st level. This ability increases the bonus on attack rolls to +2 when using the selected weapon.

Signature Move: At 3rd level, the Duelist chooses a vehicle stunt (avoid hazard, bootleg turn, dash, hard brake, hard turn, jump or sideswipe).

The Duelist can always take 10 when performing

the chosen stunt.

Greater Weapon Specialization: At 4th level, the Duelist gains greater weapon specialization with the weapon he selected at 2nd level. This ability increases the bonus on damage rolls to +4 when using the selected weapon.

Macromove: At 5th level, the Duelist may attempt an additional Macromove each round.

Gear Krieg Miniatures



Longstreet (U.S. walker), DP9-601



Longstreet (in vehicle mode), DP9-605



General Early (U.S. walker), DP9-603



General Early (in vehicle mode), DP9-609



Roundhead (British walker), DP9-607



Cavalier (British walker), DP9-608



Valkurie (German walker), DP9-602



Valkurie (in vehicle mode), DP9-606



Loki (German walker), DP9-604



Loki (in vehicle mode), DP9-610



Uller (German walker), DP9-611



Donner (German walker), DP9-616

Heavy Gear Miniatures



Mammoth Strider, DP9-209



Long Fang Naga Strider, DP9-214



Hunter, DP9-215



Headhunter, DP9-224



Jager, DP9-217



Command Jager, DP9-226



Jaguar, DP9-216



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Wyvern, DP9-402



Wyvern Marine, DP9-414



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Syreen, DP9-412



Ryu, DP9-421



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Brimstone, DP9-423



Stormrider, DP9-431

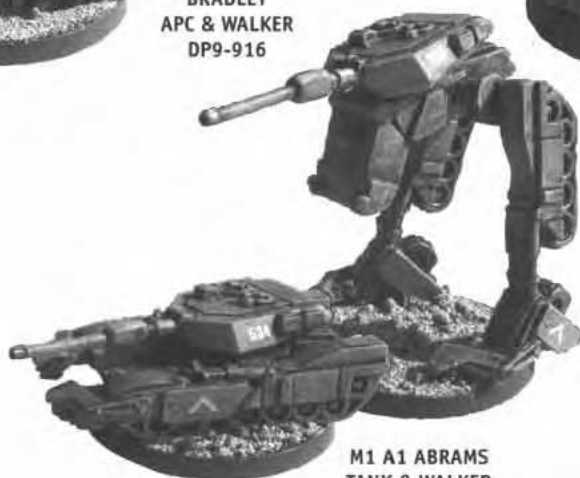
Gear Krieg Modern



BRADLEY
APC & WALKER
DP9-916



HUMVEE
VEHICLE & WALKER
DP9-918



M1 A1 ABRAMS
TANK & WALKER
DP9-917

Fantasy Mecha



BLASTFURNACE GARDIAN ARMOR
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