d20 CYBERSCAPE™

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This product requires the use of the *d20 Modern Roleplaying Game* by Bill Slavicsek, Jeff Grubb, Rich Redman, and Charles Ryan, and *d20 Future* by Christopher Perkins, Rodney Thompson, and JD Wiker. Rules mechanics are based on the *d20 Modern Roleplaying Game,* the original Dungeons & Dragons® rules created by E. Gary Gygax and Dave Arneson, and the new Dungeons & Dragons game designed by Jonathan Tweet, Monte Cook, Skip Williams, Richard Baker, and Peter Adkison.

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"Okay, let's say you're right. We can rebuild her. But for this kind of investment, my people are going to expect her to become a real asset. What's she going to be able to do that a squad of Special Forces with just as much money invested in gear can't do? The advancement of science is all fine and well, and I approve of helping out a war veteran, but I need to justify this as an item on my budget."

—General Henry Harkin to Operations Director Silversmith

The Cyberscape is the realm of all imaginable cybernetics—artificial components designed to become part of a living biological creature. It covers everything from peg legs to entire body replacements, but it's more than just replacement parts; it includes every imaginable add-on, be it driven by machinery, chemistry, magic, psionics, or vat-grown specialty organs, and it consists of everything from simple limb replacements to chemical brain boosters, psychic circuitry, wetware poison filters, grafted animal claws, and bone runes.

This book is based on the rules for cybernetics found in *d20 Future* and is fully compatible with those rules, but offers expansions, alternatives, and clarifications to them. The list of cybernetic devices has been expanded considerably and new ways of handling cybernetics in a campaign are provided. Use *d20 Cyberscape* to enhance a game set in the modern day, or the fantastic world of the mystic old west, the far-flung future, a true medieval fantasy, or anything in-between.

USING THIS BOOK WITH OTHER D20 SYSTEM GAMES

d20 Cyberscape is specifically designed for use with the *d20 MODERN Roleplaying Game*, and it assumes the reader has access to *d20 Future* as well. However, everything a player needs to use cybernetics in other settings is provided, so the Cyberscape can be added to a DUNGEONS & DRAGONS game, or any d20 SYSTEM setting.

CYBERNETIC PROGRESS LEVELS

As with all technology, cybernetics breaks down into various Progress Levels (PL), as defined on page 5 of *d20 Future*. The simplest of cybernetic devices (wooden teeth, peg legs, and hook hands) can be bolted onto or shoved into a patient at very low PLs, but the devices commonly thought of as true cybernetic devices don't appear until late PL 5. Advanced cybernetic devices don't appear until PL 6, and by PL 8 the technology is well understood and commonplace.

However, not every campaign has cybernetics at the same Progress Level as other technologies. To accommodate a high level of cybernetics without adding all the other trappings of advanced technology, a campaign might set its cybernetic PL higher than its base PL. For example, a campaign designed to look much like the everyday world we live in—with the exception that bionic super-spies are common—could be a PL 5 (cybernetics 6) campaign. As a rule, a cybernetic PL should not be more than one higher than the general PL of a campaign, though a setting is certainly possible in which rare devices available to only a few individuals are 2 PLs higher than the campaign setting.

If the game's cybernetic PL exceeds the campaign's PL, the higher PL applies only to cybernetic devices and not to the ancillary equipment that might typically accompany them. For example, in a PL 5 (cybernetics 6) campaign, a character can have an external weapon mount, which is a PL 6 device (see page 195 of *d20 Future*). However, he is restricted to PL 5 weapons to use in the mount. He cannot install a laser weapon in the mount, because lasers are not available at the campaign's PL.

Even if cybernetic devices aren't powered by technology, instead drawing their power from magic or psionics, they should have a PL. This represents the upper limit of achievement possible with cybernetics in the campaign. Since the PL for such devices has nothing to do with the actual technology level of the campaign, it's an exception to the rule that a campaign's PL and cybernetic PL should not be more than 2 apart (there's nothing wrong with a PL 3 campaign with a magical cybernetic PL of 7—although it's going to have a very different feel from a typical fantasy game). The alternate cybernetic devices presented in Chapter Four each have a PL for this reason, though many devices are appropriate in low-tech, high magic campaigns.

The various Progress Levels and examples of the kinds of cybernetic devices available at each one are presented below.

PL 0–1

At best, a cybernetic device at this level is a leather cup placed over the stump of a limb. Only games that employ magic can have more advanced cybernetics of any kind (see Chapter Four).

PL 2

Peg legs and crude metal hooks are options at this PL, unless your setting is using the magic options from Chapter Four.

PL 3

Realistic cybernetic devices at this level include glass eyes, wooden teeth, and high-quality melee weapons attached to severed limbs. In a game with more fantastic clockwork devices, a few individuals might have access to PL 5 cybernetic devices based on springs, gears, and lightning (for example, a
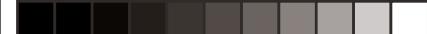
large, obvious artificial heart that must be wound up every 12 hours).

Nonmagical cybernetic devices are restricted to PL 5 in a PL 3 campaign; they count as three devices toward the recipient's limit, and no creature can have more than one PL 5 device. Recipients take double damage from all electricity attacks (see Standard Cybernetics Rules, page 7), and take a –3 penalty on Fortitude saves against massive damage. Additionally, any cybernetic device must be recharged (for example, wound or stoked with coal) no less than every 12 hours.

In addition, at this level a campaign might add crude wetware or psychic circuitry devices as the work of specific geniuses and mad scientists. For example, the work of Dr. Frankenstein can be seen as necrotics grafted onto a PL 3 campaign.

PL 4

The first functional cybernetic replacements at PL 4 are crude and not as good as the organs and limbs they replace. Devices such as artificial hearts aren't ready for human trials, but arms with simple claws that can open and close, as well as human-shaped feet instead of peg legs, are not uncommon.

In a pulp or fantastic technology game, governments and exceptional individuals might have access to experimental PL 5 or PL 6 cybernetics. These devices are unreliable, expensive, and rare. Nonmagical cybernetic devices (restricted to PL 6) are clumsier and more restricted than in a typical game. They each count as two devices toward a recipient's maximum number and recipients take double damage from all electricity attacks (see Standard Cybernetics Rules, page 7). Additionally, any cybernetic device must be recharged (for example, wound or stoked with coal) no less than once every 48 hours.

PL 5

True cybernetic devices are still in the formative stages. Most prosthetic devices are of the nonpowered variety, but medical associations have approved certain electronic regulators for life-threatening conditions. The artificial heart is the most recognized example. Other common examples are pacemakers, artificial kidneys, and pancreas monitors (for high-risk diabetics). Nearly all PL 5 cybernetic attachments are designed to keep their recipients alive and reasonably healthy; the cybernetic devices are not enhancements, they are life-preserving necessities.

Elective cybernetic devices are developed late in PL 5 when methods of linking computer microchips to the human nervous system are discovered. These advances become the foundation for all future cybernetic components. A few PL 6 cybernetic devices could exist as prototypes or extremely expensive devices.

PL 6

This era sees the first use of independently powered cybernetic devices, including replacement limbs and subcutaneous cellular telephones. These cybernetic enhancements begin mostly in military applications but soon become available to the public. Household pets all over the world are implanted with subcutaneous identity chips—as are important government figures and their families—after the technology proves safe and effective on prison inmates.

However, the world of cybernetics is still new; its adoption is not universal. Most people prefer mundane equipment, which is generally cheaper, safer, and less troublesome to repair, replace, or upgrade. Cybernetic devices become the preferred choice only when mundane equipment is impractical or unavailable.

Medical plans eventually come to offer at least baseline prosthetics to compensate for disabling injuries, such as the loss or partial loss of a limb, though such plans do not cover elective cybernetic surgery. Their concern is overall health—not "cosmetic" enhancement. For those who want more than just replacements, a new kind of clinic appears, offering cybernetic enhancements.

A PL 6 (cybernetics 7) campaign allows for a fair range of technologies, with cybernetic devices performing as well as biological organs. Chapter Five presents CyberRave, an example of a PL 6 (cybernetic 7) campaign.

PL 7

By this era, cybernetics has become a safe, accepted science. Flaws in earlier designs have been corrected. Cybernetic devices become a status symbol—luminous skin grafts become the fashion accessory of choice. In some societies, newborn children are implanted with identity chips as an antikidnapping measure. Military applications include replacement eyes with heads-up targeting and GPS displays. The first total-body cyborgs (robots with transplanted human brains) are successfully created.

Insurance regulations relax considerably toward cybernetic replacements at Progress Level 7; enhancements are perfectly acceptable, though only as part of a prosthetic, rather than as elective cybersurgery.

Individual geniuses regularly make breakthroughs in cybernetics, making PL 8 prototypes and specialty gear surprisingly common. In a campaign that includes psionics or magic, the technology to boost such abilities with cybernetics begins to appear at this PL.

PL 8

Cyborgs are a common sight at PL 8. In some societies, the medical insurance industry frowns on noncybernetic replacements, because mechanical body parts are less expensive than flesh. Cybernetic technology has improved so much, in fact, that some cyborgs are virtually indistinguishable from living beings—except they never appear to age.

The sky is the limit to cybernetics in a PL 8 campaign. Anything the laws of physics allow can be accomplished, and even a few things that seem to break those laws. The near-magic of PL 9 is right around the corner and individual geniuses are beginning to touch on it. The line between advanced cyborgs and a new species begins to blur. Most PL 8 campaigns use the unlimited cybernetics rules (see page 8), since the majority of drawbacks and side effects have been eliminated from the technology.
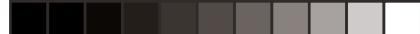
Chapter One:
CYBERNETICS RULES

> *"If ya get chopped in a right proper clinic, they keep records. Any 'lancer with access to a noderunner can look up every fleck of chrome you've had installed. If ya go somewhere a little shadier, you're letting a hack gut you, and hoping he can't make more selling your liver than sticking in the chrome you picked out.*
>
> *Me? I have friends, man. Done a hack or two favors enough they want to keep me around. No one else gets to work on me. Period."*
>
> —Jene-Eric, cyborg insider

The baseline assumption in *d20 Cyberscape* is that cybernetic devices are treated like any other gear for purposes of acquisition, but with consequences for implanting too many cybernetic devices. (This is the same set of rules used for *d20 Future*.) If you have money and time to spare, and can find a cybersurgeon you trust, you can have a cybernetic device implanted.

That's a common and valid method, but it's not the only way a GM can handle cybernetics. A campaign might limit cybernetics to a few individuals who must earn them (treating them as rewards), allow them only for characters who take a specific advanced class, or limit their availability so greatly than finding a cybersurgeon to build and implant a particular cybernetic device constitutes an adventure in its own right. A few rule paradigms are presented below.

**A cyborg rescue team
drops into a burning building**
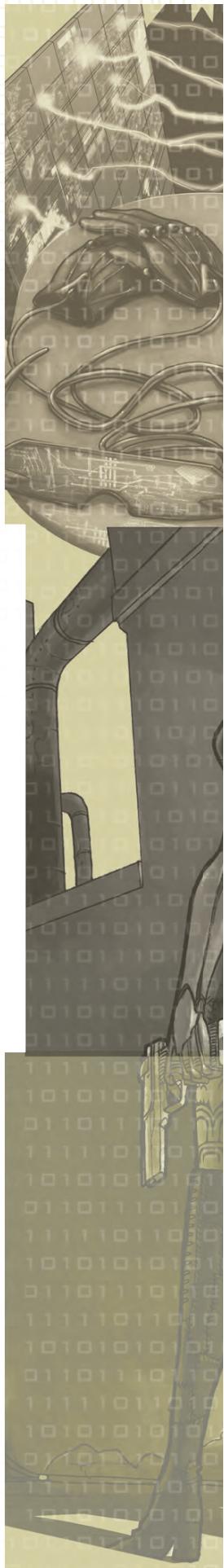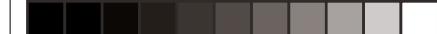
STANDARD CYBERNETICS RULES

Under the standard rules, a character can arrange for cybernetic devices to be implanted just as he would arrange for any other surgery. He must make a Wealth check to buy the cybernetic device, and the cost of implantation is included.

These rules are perfect for games that include cybernetics but don't focus on the concept. A few characters might choose to invest in one or two implants, but not everyone will consider them worth the cost and risk.

Availability and Installation

The primary limits to cybernetic acquisition under the standard rules are affordability and availability. Any cybernetic device within the campaign's PL is as common as any other piece of equipment, and cybersurgeons to install it are equally common. Successfully installing, upgrading, or removing a cybernetic implant takes 1d4 hours per implant and requires a DC 20 Treat Injury check. (The cybersurgeon takes a –4 penalty if he does not have a surgery kit, as well as a –4 penalty if he doesn't have the Cybernetic Surgery feat and a further –4 penalty if he doesn't have the Surgery feat.)

A typical NPC cybersurgeon has a Treat Injury skill modifier of +10. Characters can choose to get their surgery through a more skilled surgeon; for each +1 increase of the surgeon's Treat Injury skill modifier, increase the purchase DC of the implant by 1. (Conversely, obtaining one's surgery through a back-alley clinic can reduce the purchase DC of the implant by up to 2, but each 1-point drop in purchase DC reduces the surgeon's Treat Injury skill modifier by 1.)

The consequences of a failed surgery check are severe: If the check result fails by 5 or more, the installation or removal of the cybernetic attachment causes undue physical trauma to the patient, who takes 1d4 points of Constitution damage. If the check result fails by 10 or more, the Constitution damage is treated as Constitution drain instead.

Drawbacks

Under the standard rules, cybernetic implants have a number of drawbacks. First, anyone with cybernetics who doesn't also have an anti-shock implant (see page 196 of *d20 Future*) takes 50% more damage from any electricity attack. Second, a character cannot have more cybernetic devices than his Constitution modifier +1 (minimum 0) without suffering serious physiological and psychological effects. A character with more than his maximum allowable number of cybernetic devices gains one negative level for each extra cybernetic implant. The negative level remains until the number of cybernetic devices is reduced or the character's cybernetic device limit is increased (through an increase in Constitution, or the addition of a feat or class ability).

TABLE 1–1: MASSIVE DAMAGE EFFECTS

d%	Effect of Failed Fortitude Save
01–30	Normal effect
31–60	Attachment disabled
61–80	Normal effect and attachment disabled
81–100	Attachment damaged and side effect

Additionally, characters with cybernetic implants might experience unusual effects after failing a Fortitude save against massive damage. On a failed save, the recipient must roll on Table 1–1 to determine the result.

Normal Effect: The character immediately drops to –1 hit points and is dying.

Attachment Disabled: One cybernetic attachment (determined randomly or chosen by the GM) ceases to function until repaired (see Construction and Repair, page 193 of *d20 Future*). The character suffers the effects of the disability—as explained in the description of the cybernetic attachment—for as long as the attachment remains disabled.

Attachment Damaged: One cybernetic attachment (determined randomly or chosen by the GM) continues to function but develops an unpleasant side effect that persists until the attachment is

Adam suffers massive damage

CYBERNETICS RULES

repaired (see Construction and Repair, page 193 of *d20 Future*).

Side Effect: The character suffers a debilitating side effect as the result of a damaged attachment. Various side effects are presented on Table 1–2: Side Effects; the GM can select one or roll randomly.

TABLE 1–2: SIDE EFFECTS

d%	Side Effect
01–08	*Blurred Vision:* Character suffers a 20% miss chance on all attacks.
09–17	*Constant Trembling:* Character takes a –2 penalty on Dexterity-based checks.
18–25	*Cybernetic Rejection:* Character takes 1d4 points of Constitution damage per day.
26–34	*Dizziness:* Character takes a –1 penalty on attack rolls, saving throws, ability checks, and skill checks.
35–42	*Impaired Hearing:* Static distortion imposes a –2 penalty on Listen checks.
43–50	*Impaired Vision:* Distorted images impose a –2 penalty on Spot checks.
51–59	*Insomnia:* Character can only sleep for minutes at a time and gains insufficient rest to heal naturally.
60–67	*Muscle Cramps:* Character moves at half speed.
68–76	*Muscle Fatigue:* Character takes a –2 penalty on Strength-based checks.
77–84	*Power Surge:* Character is shaken for 1 round if wounded; Fortitude DC 12 negates.
85–93	*Psychosis:* Character takes 1d4 points of Charisma damage per day, lapsing into a coma if the score drops to 0.
94–100	*Sensory Overload:* Character is stunned for 1 round if wounded; Fortitude DC 15 negates.

SPACE AND CYBERNETIC IMPLANT SLOTS

There are a limited number of places a human can have cybernetic devices implanted. To simplify matters, each creature is considered to have a number of locations that might be flesh or cybernetic. Each location has one or more implant slots, representing the amount of space that can be taken up with cybernetic devices. Once a given location has been replaced or enhanced with a cybernetic device it cannot have another cybernetic device installed, but the old cybernetic device can be replaced by a new one (requiring another surgery, with all the associated risks). It's also possible to install multifunctional cybernetics (see The Gadget System, page 17), or to upgrade a cybernetic device (though this might require new surgery).

Most cybernetic devices take up one implant slot, though a few take two or more, and a very few don't take any. Table 1–3 gives the number of cybernetic device locations available within the body. This assumes some flesh is left in that location, because even a cyborg needs some biomass to function. It's possible to stuff one more

slot of implants in any given location, but doing so has the same effect as exceeding a character's maximum total number of implants (the character gains a negative level until the cybernetic device is removed or the character's limit is increased).

The device slots given on Table 1–3 are appropriate for Medium-size creatures. Small and Tiny creatures have half as many slots, while larger creatures gain room for one cybernetic device slot at each location for every size category larger than Medium-size.

TABLE 1–3:
STANDARD CYBERNETIC DEVICE LOCATIONS

Location	Device Slots
Head	1
Torso	2
Left arm	2
Right arm	2
Left leg	2
Right leg	2

The number of slots a character has doesn't vary by size. Larger creatures need more connective implants to make the same devices work, and smaller creatures require less. That said, cybernetic devices do cost more when made for different sizes of characters (larger cybernetic devices use more materials, and smaller ones require miniaturization). For every size category larger or smaller than Medium-size, the purchase DC of a cybernetic device increases by 3.

UNLIMITED CYBERNETICS

An unlimited cybernetics campaign does away with the drawbacks of the standard cybernetics rules, allowing characters to acquire cybernetic implants more easily and to have a much larger number of implants. The only limits to cybernetics are cost and the ability to find skilled cybersurgeons. This alternate rules module is appropriate for campaigns with a higher cybernetic PL than the standard technology base, and assumes that cybernetic devices are commonplace and well understood.

An unlimited cybernetics campaign will become cyborg-heavy very quickly. Cybernetic devices are too useful for PCs to ignore if no drawbacks are associated with them.

AVAILABILITY AND INSTALLATION

The only limits to acquisition under the unlimited cybernetics rules are affordability and accessibility. Any cybernetic device within the campaign's PL is considered to be as common as any other piece of equipment, and surgeons to install it are equally common.

In an unlimited cybernetics campaign, cybernetic surgery is considered commonplace. Installing, upgrading, or removing a cybernetic implant takes 1d3 hours per implant and requires a DC 25 Treat Injury check. (The cybersurgeon
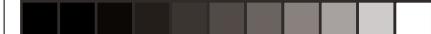
takes a −4 penalty if he does not have a surgery kit, as well as a −4 penalty if he doesn't have the the Surgery feat.)

The consequences of a failed surgery check are mild. The cybernetic device is considered ruined (and must be repaired or replaced). Additionally, if the check fails by 10 or more, the installation or removal of the cybernetic attachment causes undue physical trauma to the patient, who takes 1d4 points of Constitution damage.

Drawbacks

There are no drawbacks to cybernetic devices in an unlimited cybernetics campaign. There is no limit to the number of cybernetic devices a character can safely have, no extra damage is taken from electricity attacks, and no unusual results come from failing a Fortitude save against massive damage.

Space and Cybernetic Implant Slots

Though characters are still limited to a number of implant slots in each body location, those limits are higher, as given in Table 1–4. Using all those slots assumes no flesh is left, but there is no penalty for that status.

The device slots given on Table 1–4 are appropriate for Medium-size creatures. Small and Tiny creatures have half as many slots, while larger creatures gain room for one cybernetic device slot at each location for every size category larger than Medium-size.

TABLE 1–4:
UNLIMITED CYBERNETIC DEVICE LOCATIONS

Location	Device Slots
Head	2
Torso	3
Left arm	3
Right arm	3
Left leg	3
Right leg	3

PIECE OF YOUR SOUL

The "piece of your soul" rules described below allow characters to have all the cybernetic devices they want, but not without a cost. Each piece of flesh replaced by cold, hard metal (or even bioengineered, vat-grown replacement organs) has a cost in terms of the character's spirit and vivaciousness.

Using this rule set, a character must pay an XP cost to have cybernetic devices of any kind installed. This represents the indescribable loss that accompanies having part of yourself replaced with something extraneous, something alien.

Availability and Installation

Cybernetic implants are common and are available to characters wealthy enough to afford them. A cybernetic

device within the campaign's PL is considered to be as common as any other piece of equipment, and surgeons to install it are equally common.

Although the standard rules apply for who can perform surgery and the amount of time it takes, characters normally don't have to worry about a successful installation check. Instead, an XP penalty is paid to represent the pain and loss caused by the surgery. Only if surgery is attempted under unusual circumstances should a GM require a Treat Injury check to be made to determine its success. In any case, a character never pays an XP cost for a cybernetic device that isn't successfully installed.

Drawbacks

A character with a cybernetic implant must pay an XP cost. This cost is equal to the purchase DC of the cybernetic device to be installed × 10. Thus, an internal gyro (purchase DC 21) costs 210 XP. This cost is paid each time a new cybernetic device is installed, but not if an existing device is replaced. Thus, a character with robotic arms must pay 270 XP when they are initially implanted, but nothing if they are broken and replaced. A character with a cyberport pays XP for the port only, not for the cybernetic devices attached to it.

A character cannot lose a level as a result of this XP loss. If a character loses too many XP for his current level, he is considered to have one XP more than the minimum for his level. The remaining points go into an XP debt pool, and all XP the character earns goes toward paying off the debt pool first. As long as a character has a debt pool, he takes a −2 morale penalty on attack rolls, weapon damage rolls, ability checks, skill checks, and saving throws.

In this rule set, characters with cybernetic devices take no extra damage from electricity attacks and no unusual results come from failing a Fortitude save against massive damage.

Space and Cybernetic Implant Slots

Space and implant slot limitations are the same as those for the standard cybernetics rules (see page 7). A character exceeding the slot limitation in a body location must pay double the XP penalty for that cybernetic device, rather than gaining a negative level.

SUPERSPY CYBERNETICS

The "Superspy" rule set forces characters to gain cybernetic devices as special abilities by taking appropriate feats or advanced classes. This allows for campaigns where one or two characters might have very extensive cybernetic implants, but others have none at all. These rules work best in campaigns in which cybernetic devices might be very advanced, but aren't common. Most likely they are too experimental and expensive for characters to attain them easily. Only rare and exceptional characters have cybernetic

devices, and they generally don't pay for them (instead receiving them at the behest of a government agency, or possibly after being captured by a mad scientist).

AVAILABILITY AND INSTALLATION

Cybernetic implants are available only to characters who gain them through the use of a feat (such as Cyborg) or as a class ability (such as those of the Cyberwarrior advanced class). Also, though a skilled surgeon must install the cybernetic implant, a skill check is not made. Since the character is gaining the cybernetic device through a feat or class selection, the surgery to install it is assumed to go smoothly (although the standard rules apply if the cybernetic device must be removed or reinstalled later).

The cost of a cybernetic device is covered by the feat or class ability—the character is not required to make a Wealth check. A government agency might be spending six million dollars on his enhancements, but the character isn't concerned with the cost because it's covered as part of the benefit of the feat or class ability.

DRAWBACKS

The chief drawback to superspy cybernetics is the cost in feats and class levels. A character choosing to focus on cybernetics has fewer options than those who do not, which preserves game balance. The GM might decide to employ one or more of the limitations from the standard cybernetics rules module (especially if PCs have access to higher-PL cybernetics as experimental equipment), but it's not necessary for game balance. Characters who opt not to get cybernetics are free to take other useful feats and classes, preventing the cyborg character from having an unfair advantage.

SPACE AND CYBERNETIC IMPLANT SLOTS

Implant slots and space rules are the same as those in an unlimited cybernetics campaign (see page 8).

CYBERNETIC FEATS

A number of new feats relating to cybernetics are described below. Not every feat is appropriate for every cybernetics rule set.

CRAFT CYBERNETICS

You can construct cybernetic attachments.

Prerequisites: Craft (electrical) 10 ranks, Craft (mechanical) 10 ranks, Knowledge (life sciences) 5 ranks.

Benefit: You can build any of the cybernetic attachments described in Chapter Two. You must first make a Wealth check against the purchase DC of the attachment (to acquire the necessary components), then invest 24 hours in

its construction. At the end of that time, you must succeed on a DC 25 Craft (mechanical) check and a DC 25 Craft (electrical) check. (You gain a synergy bonus of +2 on each check.)

If both Craft checks succeed, the cybernetic attachment functions properly and can be installed at any time (see the Cybernetic Surgery feat, below). If either or both checks fail, the attachment's design is flawed; another 24 hours must be spent fixing the problems, and two new checks must be made at the end of that time.

Special: This feat does not allow you to build a cybernetic attachment of a Progress Level higher than the campaign's PL.

CRAFT NANITES

You can design and construct nanites.

Prerequisites: Craft (electrical) 10 ranks, Craft (mechanical) 10 ranks, Knowledge (life sciences) 10 ranks, Craft Cybernetics.

Benefit: You can build any of the nanoaugmenters described in Chapter Four. You must first make a Wealth check against the purchase DC of the cybernetic device (to acquire the necessary components) and then invest 120 hours in its construction. At the end of that time, you must succeed on a DC 30 Craft (mechanical) check and a DC 30 Craft (electrical) check. (You gain a synergy bonus of +2 on each check.)

If both Craft checks succeed, the nanoaugmenters function properly and can be installed at any time. If either or both checks fail, the nanoaugmenters' design is flawed and all work is ruined. The process must begin over from scratch, with new Wealth and Craft checks.

CYBERNETIC SURGERY

You can graft cybernetic devices onto living tissue as well as safely remove them.

Prerequisites: Treat Injury 8 ranks, Surgery.

Benefit: You can make a DC 20 Treat Injury check to install or remove a cybernetic attachment. If you do not have a surgery kit or access to a medical facility, you take a −4 penalty on the check. Cybernetic surgery takes 1d4 hours.

Normal: Characters without this feat take a −8 penalty on Treat Injury checks made to perform cybernetic surgery (−4 penalty if they have the Surgery feat).

CYBERNETIC WEAPONS PROFICIENCY

You are proficient with weapons you have mounted as cybernetic gear.

Benefit: You can use any weapon you have in an external or internal weapon mount (see pages 195–196 of *d20 Future*) without penalty.

Normal: A character without this feat must be proficient with a weapon he has mounted as a cybernetic device or take a −4 penalty on attack rolls.

Cybertaker

You can have more cybernetic attachments than normal without suffering ill effects.

Benefit: The maximum number of cybernetic attachments you can have without gaining negative levels increases by 1 (see Standard Cybernetics Rules, page 7). This additional cybernetic device cannot be placed in an area if it exceeds that area's normal limit.

Special: You can gain this feat multiple times. Its effects stack.

Cyborg

You have had part of your body replaced with mechanical replacements and augmentations.

Prerequisite: Constitution 13.

Benefit: You gain a number of cybernetic devices equal to the number of times you have taken this feat (one cybernetic device the first time the feat is selected, two more the second time, and so on). These devices must have a purchase DC no greater than your wealth bonus +15, but no actual Wealth check is required.

You must find a cybersurgeon to implant the cybernetic devices, but no check is required and there is no risk of failure.

Normal: In some campaigns, a character cannot have cybernetic devices without taking this feat.

Special: This feat is only appropriate for campaigns not using the standard cybernetics acquisition rules. It can be taken more than once, as described above.

Implant Awareness

You are very alert to the location and positioning of your external implants and move in a way to keep them guarded from attack.

Benefit: You gain a +4 bonus to Defense against any attack that attempts to sunder an implant.

Cybernetic Advanced Classes

In a game with extensive cybernetics, a few advanced classes become available as viable options. A GM might restrict cybernetics to members of these classes in a low-cybernetics campaign, or could use them to represent characters who have a particular aptitude with implants.

Bionic Agent

A Bionic Agent is more than a character who has some cybernetic devices—she's someone who has accepted cybernetics as an integral part of her body and her life. Bionic Agents are often experienced adventurers or soldiers who have suffered terrible accidents (crashing a test plane, being caught in an explosion, falling from a great height, or suffering exposure to intense radiation) that leaves them barely alive and requiring extensive cybersurgery to survive.

Roxanne, a Bionic Agent

Because of their value as agents, the wrecked remains of Bionic Agents-to-be are assembled using the most advanced technology their allies or employers can afford.

Bionic Agents are one part superspy and one part unique troubleshooter. They are equipped with tools and abilities not available to less advanced cybernetic agents, and thus used in situations others can't handle. Some Bionic Agents are free agents, using their abilities to right the wrongs their newfound powers let them tackle, but most work for an agency or group, and might be such groups' greatest secret weapons. In extreme cases, Bionic Agents are even retooled for important missions, receiving upgrades or whole new cybernetic systems to help deal with a specific threat (most often thanks to one or more cyberport implants).

The fastest path into this advanced class is from the Tough hero basic class, though other paths are possible.

Requirements

To qualify to become a Bionic Agent, a character must fulfill the following criteria.

Skills: Climb 6 ranks, Spot 6 ranks.

Feats: Cybertaker, Toughness.

Implants: A Bionic Agent must have no fewer than three cybernetic implants, at least one of which must be an
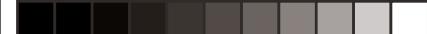
enhancement and all of which must be of a PL equal to or higher than the campaign PL.

CLASS INFORMATION

The following information pertains to the Bionic Agent advanced class.

HIT DIE

A Bionic Agent gains 1d10 hit points per level. The character's Constitution modifier applies.

ACTION POINTS

A Bionic Agent gains a number of action points equal to 6+ one-half her character level, rounded down, each time she attains a new level in this class.

CLASS SKILLS

The Bionic Agent's class skills are as follows.

Balance (Dex), Climb (Str), Computer Use (Int), Concentration (Con), Drive (Dex), Escape Artist (Dex), Hide (Dex), Jump (Str), Knowledge (current events, pop culture, streetwise) (Int), Listen (Wis), Move Silently (Dex), Pilot (Dex), Profession (Wis), Ride (Dex), Search (Int), Sleight of Hand (Dex), Spot (Wis), Survival (Wis), Swim (Str).

Skill Points at Each Level: 5 + Int modifier (4 + Int modifier for nonhumans).

CLASS FEATURES

The following class features pertain to the Bionic Agent advanced class.

BIONIC TOLERANCE

A Bionic Agent gains increased tolerance to cybernetic devices, allowing her to increase the total number of implants she has without penalty. At 1st level, a Bionic Agent gains one additional implant slot at any one location, and implants placed in this slot do not count toward her maximum. A Bionic Agent gains an additional implant slot at 4th and 8th level.

INTEGRATED SYSTEMS

A Bionic Agent becomes comfortable with her cybernetic devices and can use them more easily and smoothly than a typical cyborg. When using a cybernetic weapon, a Bionic Agent gains a +1 bonus on attack rolls and damage rolls against targets within 30 feet. When using a cybernetic device that grants access to a skill or gives a bonus on one or more skills, a Bionic Agent gains a +1 bonus on checks with the relevant skill.

At 7th level all these bonuses increase to +2.

BONUS FEAT

At 3rd, 6th, and 9th level, a Bionic Agent gains a bonus feat. The bonus feat must be selected from the following list, and the Bionic Agent must meet all the prerequisites of the feat to select it.

Acrobatic, Alertness, Athletic, Cautious, Cybernetic Weapons Proficiency, Cybertaker, Cyborg, Endurance, Great Fortitude, Improved Damage Threshhold, Improved Initiative, Lightning Reflexes, Nimble, Renown, Run, Toughness.

MAXIMIZED SYSTEMS

At 5th level, whenever a Bionic Agent spends 1 action point to improve a die roll regarding an action taken with a cybernetic system, she rolls an additional 1d6. She can then select the highest die roll to add to her d20 roll.

Any attack made with a weapon in a cybernetic weapon mount (see *d20 Future*) or a cybernetic limb, and any skill check that is granted by or modified by a cybernetic implant, qualifies for this ability.

BIONIC MASTERY

At 10th level, a Bionic Agent can take 10 any time she makes a skill check with a skill she gains from an implant, or that gains a bonus from an implant, even if stress and distraction would normally prevent her from doing so. A Bionic Agent becomes so accomplished in the use of her skill-enhancing implants that she can use them reliably even in adverse conditions.

TABLE 1–5: THE BIONIC AGENT

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+2	+2	+0	Bionic tolerance	+1	+1
2nd	+1	+3	+3	+0	Integrated systems	+1	+1
3rd	+2	+3	+3	+1	Bonus feat	+2	+1
4th	+3	+4	+4	+1	Bionic tolerance	+2	+2
5th	+3	+4	+4	+1	Maximized systems	+3	+2
6th	+4	+5	+5	+2	Bonus feat	+3	+2
7th	+5	+5	+5	+2	Integrated systems	+4	+3
8th	+6	+6	+6	+2	Bionic tolerance	+4	+3
9th	+6	+6	+6	+3	Bonus feat	+5	+3
10th	+7	+7	+7	+3	Bionic mastery	+5	+4

CYBERWARRIOR

A Cyberwarrior is an integrated killing machine, a combination soldier and weapon of war. Cyberwarriors are designed to be the ultimate warriors, generally as the result of extensive experimentation by a wealthy nation's military. Armed with impressive cybernetic augmentation, Cyberwarriors can be dropped into any conflict with little need for support or supply. Cyberwarriors can specialize to act as commandos, Special Forces strike teams, or even hostage rescue troops, or be general warriors prepared for any circumstance.

A Cyberwarrior is set apart from other cyborgs by the invasive and preeminent nature of his implants. They aren't mere tools for his use, they're a growing and dominant part of his body. To ensure that an enemy who captures a cyberwarrior doesn't take his implants, the implants are imbued with a limited ability to grow and respond to outside stimulus. Though not quite as advanced as nanites, the cybernetic systems can modify, repair, and expand themselves. As a Cyberwarrior grows more experienced, his cybernetic devices literally grow with him, eating away at his biological organs and replacing them with more effective cybernetic alternatives.

A Cyberwarrior is most appropriate in a PL 7 or higher campaign.

The fastest path into this advanced class is from the Strong hero basic class, though other paths are possible.

REQUIREMENTS

To qualify to become a Cyberwarrior, a character must fulfill the following criteria.

Base Attack Bonus: +3.
Skills: Knowledge (tactics) 3 ranks.
Feats: Implant Awareness, Personal Firearm Proficiency.
Implants: One internal or external weapon mount (see pages 195–196 of *d20 Future*).

CLASS INFORMATION

The following information pertains to the Cyberwarrior advanced class.

HIT DIE

A Cyberwarrior gains 1d8 hit points per level. The character's Constitution modifier applies.

ACTION POINTS

A Cyberwarrior gains a number of action points equal to 6 + one-half his character level, rounded down, every time he attains a new level in this class.

CLASS SKILLS

The Cyberwarrior's class skills are as follows.

Climb (Str), Computer Use (Int), Drive (Dex), Jump (Str), Knowledge (tactics) (Int), Listen (Wis), Pilot (Dex), Profession (Wis), Spot (Wis), Survival (Wis), Swim (Str).

Skill Points at Each Level: 3 + Int modifier (2 + Int modifier for nonhumans).

Djiefos

Russell Whitfield, a Cyberwarrior

TABLE 1–6: THE CYBERWARRIOR

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+1	+2	+0	+0	Expanded implants	+1	+0
2nd	+2	+3	+0	+0	Expanded implants	+1	+0
3rd	+3	+3	+1	+1	Bonus feat	+2	+0
4th	+4	+4	+1	+1	Expanded implants	+2	+0
5th	+5	+4	+1	+1	Hardened implants	+3	+1
6th	+6	+5	+2	+2	Bonus feat	+3	+1
7th	+7	+5	+2	+2	Expanded implants	+4	+1
8th	+8	+6	+2	+2	Unified implants	+4	+1
9th	+9	+6	+3	+3	Bonus feat	+5	+2
10th	+10	+7	+3	+3	Expanded implants	+5	+2

Class Features

The following class features pertain to the Cyberwarrior advanced class.

Expanded Implants

At 1st, 2nd, 4th, 7th, and 10th level, a Cyberwarrior gains an additional cybernetic implant. The implant grows from the Cyberwarrior's existing implants, drawing material from the Cyberwarrior's body and environment. No surgery nor any Wealth check is needed to acquire the new implant. The Cyberwarrior selects the implant; its PL must be equal to or lower than the campaign's PL, and its purchase DC cannot be more than 25 + the character's Cyberwarrior level.

The implant must follow all normal rules for implant slots and a character's maximum number of cybernetic devices.

Bonus Feat

At 3rd, 6th, and 9th level, a Cyberwarrior gains a bonus feat. The bonus feat must be selected from the following list, and the Cyberwarrior must meet all the prerequisites of the feat to select it.

Cybernetic Weapons Proficiency, Cybertaker, Cyborg, Endurance, Frightful Presence, Implant Awareness, Improved Damage Threshhold, Run, Toughness, Weapon Focus (for a cybernetic weapon-mounted weapon only), Weapon Finesse (for a cybernetic weapon-mounted weapon only).

Hardened Implants

At 5th level, each of a Cyberwarrior's implants draws upon the resources of the Cyberwarrior and his other implants to toughen themselves. Each implant a Cyberwarrior has gains 50% more hardness (if it has a hardness rating) and 3 additional hit points.

Unified Implants

At 9th level, a Cyberwarrior's implants are such an accepted part of his body that they actually draw upon his natural resources to heal themselves. A Cyberwarrior can heal up to his level in hit points of damage to his cybernetics each day, spreading the healing among all his damaged cybernetic devices.

IMPLANT HACK

An Implant Hack is a cyborg who specializes in putting together (and taking apart) other cyborgs. Most Implant Hacks are illegal cybersurgeons, using their own implants to aid them in black market surgeries under less than ideal circumstances. Many are walking surgery rooms, able to perform cybernetics surgery in a back alley with little or no assistance. When crooks, freelance enforcers, undercover agents, and secretive heroes need someone to help with any cybernetic medical problem, it's an Implant Hack they seek out.

Of course, what they can put in, Implant Hacks can also take out. Some become buzzards—bootleggers who strip expensive cybernetic devices or even valuable organs from downed foes to sell on the black market. These scavengers are the worst perversion of the medical occupation, causing pain and maiming their victims to make a quick buck. They're also frighteningly common, making any black market surgery for cybernetics extremely risky.

The fastest path into this advanced class is from the Dedicated hero basic class, though other paths are possible.

Requirements

To qualify to become an Implant Hack, a character must fulfill the following criteria.

Skills: Knowledge (technology) 6 ranks, Treat Injury 6 ranks.

Feats: Cyber Surgery, Surgery.

Implants: External tool mount or internal tool mount (surgery kit).

Class Information

The following information pertains to the Implant Hack advanced class.

Hit Die

An Implant Hack gains 1d6 hit points per level. The character's Constitution modifier applies.

Action Points

An Implant Hack gains a number of action points equal to 6 + one-half his character level, rounded down, every time he attains a new level in this class.

Class Skills

The Implant Hack's class skills are as follows.

Bluff (Cha), Computer Use (Int), Concentration (Con), Craft (electronic), Craft (mechanical), Diplomacy (Cha), Disable Device (Int), Forgery (Int), Gather Information (Cha), Intimidate (Cha), Knowledge (behavioral sciences, business, current events, earth and life sciences, streetwise, technology) (Int), Profession (Wis), Read/Write Language, Repair (Int), Research (Int), Search (Int), Sense Motive (Dex), Speak Language, Treat Injury (Wis).

Skill Points at Each Level: 7 + Int modifier (6 + Int modifier for nonhumans).

Class Features

The following class features pertain to the Implant Hack advanced class.

Fast Operation

With the aid of built-in surgery tools, an Implant Hack can perform surgery faster than normal. An Implant Hack can attempt to perform any surgery in one-tenth the normal time. (For example, a surgery that would normally take 5 hours instead takes 30 minutes.) The Implant Hack takes a –5 penalty on his Treat Injury check. On a failed check, the surgery fails and the patient takes 2d6 points of damage. An Implant Hack can't attempt a fast operation a second time; once a surgery has failed, it takes proper conditions to attempt it again.

SURGICAL GENIUS

Starting at 2nd level, whenever an Implant Hack spends an action point to improve the result of a Treat Injury check, he rolls an extra 1d6, adding it to the bonus added to his skill check.

BONUS FEAT

At 3rd, 6th, and 9th level, an Implant Hack gains a bonus feat. The bonus feat must be selected from the following list, and the Implant Hack must meet all the prerequisites of the feat to select it.

Alertness, Brawl, Builder, Cautious, Craft Cybernetics, Cybernetics Weapon Proficiency, Educated, Frightful Presence, Gearhead, Low Profile, Medical Expert, Personal Firearms Proficiency, Run, Track.

CYBERNETIC GENIUS

Starting at 4th level, an Implant Hack gains a +2 bonus on Craft, Knowledge, and Treat Injury checks dealing with cybernetic implants.

ADDITIONAL SPECIALTY

At 5th and 10th level, an Implant Hack gains the ability to perform delicate procedures other than surgery much more quickly than normal. At each of these levels an Implant Hack chooses one skill from the following list: Computer Use, Craft (electronic), Craft (mechanical), Disable Device, or Repair. The Implant Hack must have a tool kit appropriate to the skill installed as an external or internal tool mount.

The Implant Hack is then able to perform the functions of the skill in half the normal time by taking a –5 penalty on his skill check. On a failed check, the item being worked on is ruined (if being built or repaired), or set off (if an alarm, trap, or sensor). In any case, the skill check is failed, and the Implant Hack cannot attempt it again without taking the normal amount of time to do so.

FORCED ANESTHESIA

It's often in an Implant Hack's best interests to take a target alive rather than kill a potential source of live organs.

Elliot Klein, an Implant Hack

Beginning at 7th level, an Implant Hack can choose to deal nonlethal damage with a weapon that normally deals lethal damage without taking the normal –4 penalty on his attack roll.

MEDICAL MASTERY

By 8th level, an Implant Hack has mastered the art of surgery under distracting conditions. He can always take 10 on a Treat Injury check, even if stress and distractions would normally prevent him from doing so.

TABLE 1–7: THE IMPLANT HACK

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+2	+0	+2	Fast operation	+0	+1
2nd	+1	+3	+0	+3	Surgical genius	+1	+1
3rd	+1	+3	+1	+3	Bonus feat	+1	+1
4th	+2	+4	+1	+4	Cybernetic genius	+1	+2
5th	+2	+4	+1	+4	Additional specialty	+2	+2
6th	+3	+5	+2	+5	Bonus feat	+2	+2
7th	+3	+5	+2	+5	Forced anesthesia	+2	+3
8th	+4	+6	+2	+6	Medical mastery	+3	+3
9th	+4	+6	+3	+6	Bonus feat	+3	+3
10th	+5	+7	+3	+7	Additional specialty	+3	+4

STANDARD CYBERNETICS

> "A liver, huh? Yeah, I can get you a liver, but it ain't gonna be cheap. And if you need a rare blood type or something young and healthy, that'll cost you extra. Cash, half in advance, and I set up the organ-drop under my own terms. None of that's negotiable, and this'll take a few days. Now, if you wanted a nice gallbladder, that I can do today."
>
> —E.K.G., Implant Hack

This chapter presents a wide array of typical cybernetic devices ranging from PL 4 to PL 8, focusing on PL 6 and PL 7. All the cybernetic devices from *d20 Future* are presented here in revised and updated versions, as well as dozens of other implants new to this book.

Many of these implants allow weapons or equipment to be attached as cybernetic devices. A GM is free to restrict what weapons are available and should not feel obliged to allow a device in cybernetic form if he isn't including it as stand-alone equipment. The given PLs refer to the earliest level at which the cybernetic implant is available—not a restriction on the kinds of equipment that can be used with it. Even though an external weapon mount is PL 6 (see page 195 of *d20 Future*), it can be used for a laser pistol in a PL 7 campaign.

A cyborg fugitive tries to outrun the long arm of the law

THE GADGET SYSTEM

The gadget system is a way to customize cybernetic devices to more appropriately fit a given campaign or character. Since each campaign will likely use different items based on its unique setting, the gadget system allows total freedom in designing specific models of equipment from the generic base items found throughout this chapter.

Using the gadget system is a simple matter of mixing and matching various elements of a piece of gear until it fits what is needed. First, pick a piece of equipment to be modified. Select a gadget for the appropriate type that is either a universal gadget or a gadget from the same (or lower) Progress Level. Modify the purchase DC of the base item according to the gadget's instructions, and then purchase the gadget-modified item as normal. Some gadgets have additional restrictions placed on them that must be considered before making the gadget modification.

Cybernetic gadgets do not take up implant slots (and might even decrease the number of slots a cybernetic device takes up), but cannot be installed without a related cybernetic implant. They are modifications to existing cybernetic devices, not implants in their own right.

Universal Cybernetic Gadgets

The following gadgets are universal and can apply to cybernetic devices found in any era, provided all gadget-specific restrictions are observed. These are in addition to the gadgets presented in *d20 Future*.

Booby Trapped

Those characters with a more paranoid outlook on life might consider the booby trapped gadget for protecting their cybernetics. Any cybernetic device with this gadget is designed to function properly only for the recipient. The booby trap can be deactivated by the recipient as a move action and remains inert until reactivated (also a move action).

If an unauthorized character picks up the cybernetic device (should it be separated from the owner), or, more important, attempt to operate on or remove it, a special trap is immediately triggered. None of the traps affect the recipient as long as the cybernetic device is attached. (If the device is being operated on, the trap might do this damage to the tools being used for the surgery.)

Barbs: The cybernetic device rapidly projects spikes or blades, dealing 1d6 points of damage to the character tripping the trap.

Electric Shock: Power cells in the cybernetic device discharge and deal 1d6 points of electricity damage to the character tripping the trap.

Trigger Integrated Weapon: An integrated weapon is triggered and targets the character tripping the trap. This trap requires that the cybernetic device make use of the integrated cybernetics gadget (see below) and is typically used to trigger an explosive device.

Restrictions: Res (+2).
Purchase DC Modifier: +6.

Compact

By eliminating wasted space and using smaller components, some engineers are capable of producing cybernetic devices far smaller than their standard counterparts. Any cybernetic device that takes more than one implant slot is reduced by one slot by including this gadget. A device cannot be compacted more than once.

Restrictions: None.
Purchase DC Modifier: +2.

Hardened

Hardened cybernetic devices are designed to resist the effects of an electromagnetic pulse (EMP). Such implants do not count against the recipient when determining damage taken from an EMP and are not disabled by any electronic device designed to knock out cybernetic implants.

Restrictions: None.
Purchase DC Modifier: +4.

Inobvious

An inobvious cybernetic device doesn't look like a cybernetic device when not in use. Cybereyes appear to be nothing more than normal human organs, cyberlimbs show no sign of enhanced power or function, and even dermal armor is streamlined enough to not change the recipient's shape. A DC 25 Spot check is required to realize the recipient has the cybernetic device, and even then its exact function is not obvious until it is used.

Obviously, there are limits to what can be hidden. No externally mounted cybernetic device can be inobvious, and no amount of camouflage will hide the fact that a 5-foot-tall girl picking up a small car doesn't have some unusual ability, even if her cyberlimbs appear to be normal flesh and blood.

Normal camouflage for cybernetic devices applies only to casual, visual inspection. It's possible to camouflage devices against any form of detection or scan (including metal detectors and X-rays) with sensor baffling (see page 18). Even so, no cybernetic devices can remain hidden if the recipient is the target of a thorough medical examination.

Restrictions: Lic (+1).
Purchase DC Modifier: +2.

Integrated Cybernetic Devices

Integrated cybernetic devices combine the function of two or more cybernetic devices into a single device that counts as only one implant toward the character's maximum (see the Standard Cybernetics Rules, page 7).

Integrated cybernetic devices take up as many implant slots as the largest of the integrated implants.

Restrictions: None.

Purchase DC Modifier: The purchase DC is equal to the purchase DC of the most expensive single implant, +4 for each additional cybernetic device.

"You want to have all the advantages of an implanted microcomputer, but also need to get important calls, drive at night, and review information without looking at a clumsy screen. How's all that going to fit in your head? No worries. With the new ThinkBest™ Eye-Net™ you have all the advantages of a heads-up display, low-light optics, cellular modem, and a microcomputer, all in one slim package. Surf the VRNet, download data, and display it conveniently in front of you while keeping an eye out in the darkness. Sure, it costs more. But the benefits it provides are priceless."

—ThinkBest advertising, common in social VRNet nodes

Miniaturized

By eliminating wasted space and using microscopic components, some engineers are capable of producing cybernetic devices with reduced ability that are much smaller than more capable cybernetic devices. This can be done only to cybernetic devices available at a PL lower than the campaign's cybernetics PL. (This represents the reduced capacity of a miniaturized cybernetic device. A character in a PL 7 campaign can get a miniaturized skill implant, or a normal skill plexus (see page 199 of *d20 Future*).

A miniaturized cybernetic device takes up one less implant slot (minimum 0). A device can not be miniaturized more than once. A device can be both compact and miniaturized, with all the normal costs and restrictions.

Restrictions: None.

Purchase DC Modifier: +4.

Resilient

By using tougher materials, better bracing, and superior design, some engineers are capable of producing cybernetic devices far more resilient than their standard counterparts. An external cybernetic device can be given +2 harness and 50% more hit points. Internal cybernetic devices can also be resilient, but only gain 33% more hit points.

For a much greater cost, external cybernetic devices can be made even more resilient, gaining a total of +4 hardness and +100% hit points.

Restrictions: None.

Purchase DC Modifier: +2 (+5 for greater resiliency).

Sensor Baffling

From simple metal detectors to advanced x-ray scanners, there's always a way to detect cybernetics. As the Progress Level increases, so does the accuracy of such sensing devices. The ability to confuse these sensors can be invaluable, especially when smuggling weapon implants past security. Any cybernetic device with a sensor baffling gadget increases by 5 the DC of checks made to detect the device with sensors or other detection devices. Even so, no cybernetic devices can remain hidden if the recipient is the target of a thorough medical examination.

A cybernetic device can have sensor baffling without being inobvious, but this means the device is still clearly cybernetic when observed visually and the +5 DC applies only to scanners and similar detection methods.

Restrictions: Lic (+1).

Purchase DC Modifier: +3.

Storage Compartment

A cybernetic implant can have an internal storage compartment built into it. Each compartment can hold a single object of Small size or smaller. The recipient can remove objects from the compartment easily, but anyone attempting to do so against his will must both successfully pin the recipient and beat him at an opposed Strength check. Objects kept in cybernetic storage compartments gain a +4 bonus on checks made to conceal them.

Removing an object from a cybernetic storage compartment is a move action that provokes attacks of opportunity. A compartment can also be made into a weapon bin (at no additional cost). This allows it to hold a single type of weapon, which can be removed in the same way a weapon is drawn (a move action that can be combined with movement, and does not provoke attacks of opportunity).

For an additional cost (+1 to the purchase DC), a compartment can be spring-loaded. A single object can be removed from a spring-loaded compartment as a free action.

Restrictions: None.

Purchase DC Modifier: +2 (+3 for spring-loaded).

Ultralight Composition

The development of new and experimental alloys constantly allows cybernetic technology to advance to the point where once bulky and heavy devices become as lighter than the flesh-and-blood organs they displace. Each implant slot worth of cybernetics with this gadget reduces the recipient's weight by 10% (to a minimum of 60%), and grants the recipient a +1 bonus on Jump, Climb, and Swim checks. Thus, a 185-pound human with four implant slots of ultralight composition devices weighs only 111 pounds, and gains a +4 bonus on Jump, Climb, and Swim checks.

Restrictions: None.

Purchase DC Modifier: +4.

REPLACEMENTS

The *d20 MODERN Roleplaying Game* does not include rules for losing limbs or organs, so the likelihood of a character needing a replacement limb and organ in the course of a *d20 Future* campaign is slim. However, to tell a particular story, a GM and a player might agree to give a character a prosthetic replacement of some kind, perhaps to remind the character of some defining—if traumatic— past experience.

The most basic replacement limbs and organs don't bestow special benefits, but they have the usual drawbacks (see Benefits and Drawbacks, page 193 of *d20 Future*). Some replacements of higher PL are built to counter certain drawbacks. They don't add measurably to the recipient's weight.

If a player agrees to create a 1st-level hero with a prosthetic limb or artificial organ that provides no inherent benefit, the GM might (at his or her discretion) reward that character with an extra action point per level.

Described below are two replacement cybernetic devices in addition to those found in Chapter Eleven of *d20 Future*. Both replacement descriptions include the following information:

Benefit: What the cybernetic replacement allows its recipient to do.

Type: Replacements can be external or internal. External replacements are subject to sunder attacks; internal replacements are not.

Hardness/Hit Points: The hardness and hit points of the replacement.

Base Purchase DC: The purchase DC of the replacement (or the components to build it) at its specified Progress Level. Cybernetic attachments are cheaper to buy at higher Progress Levels; for each raised step in Progress Level, reduce the purchase DC by 2.

Restriction: The level of license required to purchase the replacement legally and an appropriate black market purchase DC modifier.

Hook (PL 4)

A hook is a simple melee weapon attached in place of a missing hand or forearm. The prosthetic begins at the elbow or wrist.

Benefit: A hook partially replaces the function of its biological counterpart. It allows limited manipulation, and any action that requires two hands is done at a −4 penalty. A hook can be treated as a simple weapon in an external weapon mount (see page 195 of *d20 Future*).

Type: External.
Location: One arm per arm replaced.
Hardness/Hit Points: 4/3.
Base Purchase DC: 12.
Restriction: None.

Peg Leg (PL 3)

A peg leg is a simple crutch attached in place of a missing foot or calf. The prosthetic begins anyplace at or below the knee.

Benefit: A peg leg partially replaces the function of its biological counterpart. It allows only limited speed, reducing the recipient's base land speed by 5 feet (as opposed to the more serious speed restriction imposed by having no leg). The recipient takes a −2 penalty on any skill check involving his legs (including Balance, Climb and Tumble), and can run at only his base speed ×3.

Type: External.
Location: One leg per leg replaced.
Hardness/Hit Points: 3/10.
Base Purchase DC: 11.
Restriction: None.

ENHANCEMENTS

Cybernetic enhancements are available starting at Progress Level 6. Unlike standard replacements, they bestow new abilities upon their recipients. Unless otherwise noted, enhancements don't add measurably to a recipient's weight.

Each enhancement description includes the following information:

Benefit: What the cybernetic enhancement allows its recipient to do.

Type: Enhancements can be external or internal. External enhancements are subject to sunder attacks; internal enhancements are not.

Location: This describes where the cybernetic device is installed and how many slots it takes up at that location. (See Standard Cybernetics Rules, page 7.)

Hardness/Hit Points: The hardness and hit points of the enhancement. Internal enhancements don't have hardness.

Base Purchase DC: The purchase DC of the enhancement (or the components to build it) at its specified Progress Level. Cybernetic attachments are cheaper to buy at higher Progress Levels; for each raised step in Progress Level, reduce the purchase DC by 2.

Restriction: The level of license required to purchase the enhancement legally and an appropriate black market purchase DC modifier.

General Enhancements

The following general cybernetic enhancements complement those found in Chapter Eleven of *d20 Future*. Enhancements are given in order of PL from lowest to highest.

Shepherd Chip (PL 5)

A shepherd chip is a tiny microchip containing the bearer's identification information implanted beneath the skin of

the wrist. Some computers can read a shepherd chip and extract its information; all shepherd chips can be made to receive information from other shepherd chips by way of a handshake—once a mere method of greeting, the handshake becomes a permanent way to introduce and clearly identify yourself to another person. Of course, a shepherd chip can be made to not broadcast information in this way for privacy's sake.

Benefit: In addition to basic identification information, many people have their banking and credit information keyed to shepherd chips so they no longer have to use physical money or credit cards. Businesses love this because it allows them to prevent shoplifting; if a person carries an item from the store, the item's value is immediately deducted from his bank account. Additionally, at PL 6 and higher, shepherd chips can be linked to computers (particularly neural implants) so that more information than just identification can be transferred between two shepherd chips—a great boon to the espionage community because it allows for discreet information transfers.

Some governments use shepherd chips (occasionally combined with nanobeacons; see page 65 of *d20 Future*) to monitor the activities of their citizens. This oppressive, watchful eye of the government is exactly the predicament the opponents of the shepherd chip fear. Additionally, a black market for forged or stolen shepherd chips emerges as soon as the chips become widespread, making identity theft and falsification ever-present crimes in some communities.

Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 12.
Restriction: None.

"I'm sorry, sir. According to your shepherd, you are Mr. Mendoza, and you're no longer welcome here. Additionally, you've just been fined for violating the court order to stay at least 100 yards from this establishment. In another 30 seconds, you'll be fined again. Thirty seconds after that, it'll automatically pay for the ambulance I'll order for you. You'll need it."

—Moondog, Bouncer at the Seventh Heaven club

Cosmetic Implants (PL 6)

Cosmetic implants on this level go well beyond the plastic surgery of PL 5 and early PL 6. This is full-blown body appearance modification, allowing the recipient to look like nearly any humanoid of approximately the same shape. It's possible to look like another species (such as an elf or an orc), or a humanoid with animal traits (dog-men and cat- or rabbit-women are particularly popular), change ethnicity, or simply mold features to achieve greater beauty (or greater ugliness, if preferred).

Benefit: The exotic appearance of a recipient with cosmetic implants makes the initial reaction of other characters more severe. Those who find themselves liking

the recipient are moved to greater helpfulness by his appearance. Those who initially dislike the recipient are pushed into true hostility by his unusual or highly sculpted looks. Any character who has an initial attitude of friendly toward the recipient has that attitude improved to helpful, and anyone with an initial attitude of unfriendly has it worsened to hostile.

Type: Internal.
Location: None.
Hardness/Hit Points: —/1.
Base Purchase DC: 21.
Restriction: None.

Identity Chip (PL 6)

Identity chips, more advanced versions of shepherd chips, provide identification without requiring visual recognition—a high-tech ID that functions even when the wearer is unrecognizable.

Benefit: An identity chip functions as both legal ID and a credit card. The recipient can make Wealth checks even when separated from his funds. It is extremely difficult to make a false identify chip, requiring the Craft Cybernetics feat as well as a DC 30 Computer Use check. The forger then makes a Forgery check. Any Computer Use or Forgery check made to attempt to identify a faked identity chip as a forgery gains a +5 bonus and is an opposed check against the original Forgery check used to create the fake chip.

Type: Internal.
Location: None.
Hardness/Hit Points: —/1.
Base Purchase DC: 5.
Restriction: None.

Artificial Muscle Fiber (PL 7)

The recipient's muscles are replaced with artificial muscle fiber that is much stronger and more resilient than flesh.

Benefit: Artificial muscle fiber gives the recipient a +2, +4, or +6 equipment bonus to Strength.
Type: Internal.
Location: One per limb, and one torso.
Hardness/Hit Points: —/4 (per location).
Base Purchase DC: 18 (for +2 Str), 26 (for +4 Str), or 34 (for +6 Str).
Restriction: None.

Artificial Twitch Fiber (PL 7)

Artificial twitch fibers enhance the recipient's reaction time, agility, and fine motor control with additional fast-twitch and slow-motor control fibers and nerve boosters.

Benefit: Artificial twitch fiber gives the recipient a +2, +4, or +6 equipment bonus to Dexterity.
Type: Internal.
Location: One per limb, and one torso.
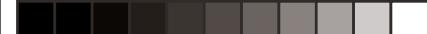
Hardness/Hit Points: —/4 (per location).
Base Purchase DC: 18 (for +2 Dex), 26 (for +4 Dex), or 34 (for +6 Dex).
Restriction: None.

Cyberport (PL 7)

A cyberport is an interface that can be used to easily attach other cybernetic devices. For example, a cyberport built into a character's arm is itself nothing more than a socket located at the shoulder, but any number of cyberlimbs can be jacked into the socket.

Benefit: By itself a cyberport does nothing; however, special cybernetic devices can be jacked into a cyberport as a full-round action, requiring no surgery or skill check. Cybernetic devices designed to be jacked into a cyberport cannot be installed through normal surgery, and those designed for surgical implantation can't be connected through a cyberport. A cybernetic device designed to be jacked into a cyberport has its purchase DC increased by 1, and is raised to PL 7 if normally PL 6 or lower.

A cyberport can take any cybernetic device that uses one slot in the port's location. For example, a cyberport set in the recipient's left arm can have any cybernetic device that takes one arm slot. If the cyberport is set in a limb, it replaces the existing flesh limb, so a character without a cybernetic device in that limb has no arm. Normal limb function is part of any cybernetic device designed to be jacked into a cyberport, so a character with a cyberport in his arm can use his arm normally when any cybernetic device is jacked into it.

Type: Internal.
Location: Any one.
Hardness/Hit Points: —/2.
Base Purchase DC: 16.
Restriction: None.

"So, you got yourself a knife and a hostage. I know what you're thinking, punk. You're thinking last time we met, I kicked your sorry street-trash butt with spurs, and that doesn't leave much room for a gun. So I can't jump over there and slice your arm off before you stick that poor citizen. Well, that's true. But I could've swapped those out for a nice auto-pistol any time the past few days. Doesn't look much different from this range. So what you have to ask yourself is, do you feel lucky?"

—Detective Henry "Trashman" Renton, Cybercrimes unit.

Dermal Motors (PL 7)

Dermal motors are tiny servos hooked into the recipient's skin and nervous system. They can pull or push the skin, causing it to take different shapes. The recipient can make his skin tighter or looser, change the shape of his ears or
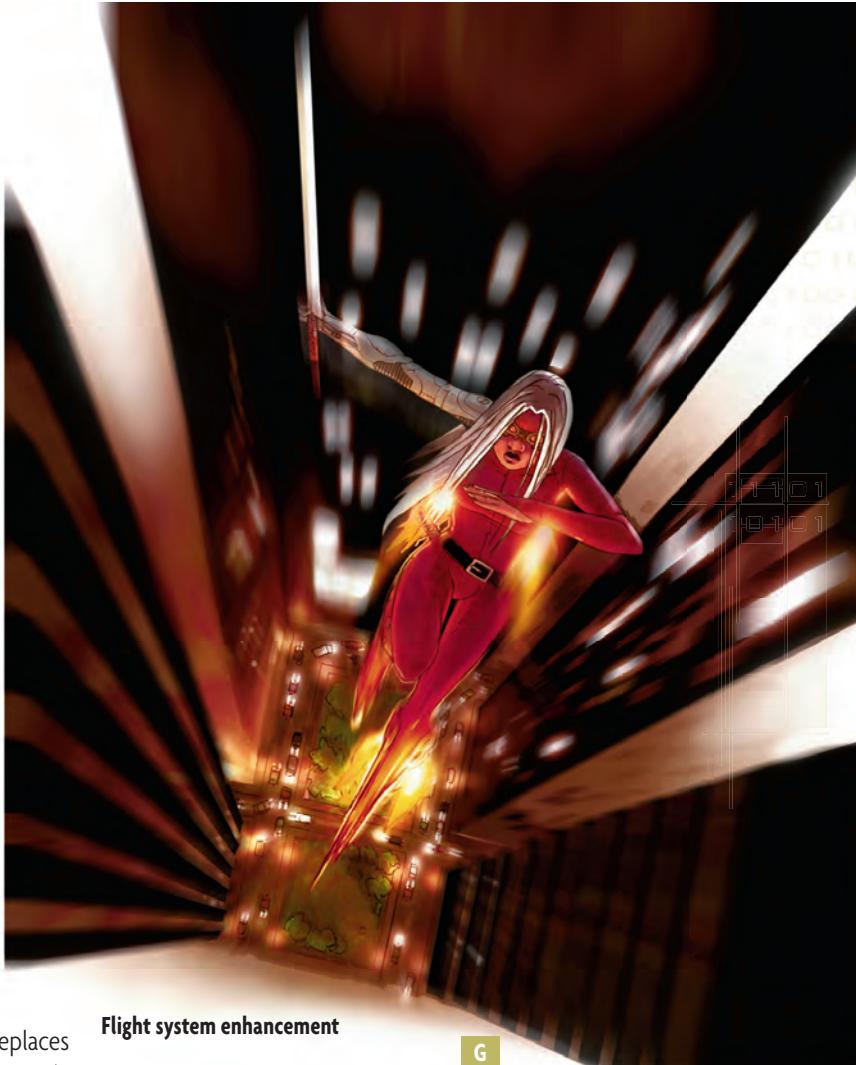
Flight system enhancement

nose, change the skin's texture, and even add or remove moles, wrinkles, and blemishes. In addition to the dermal motors, the system includes tiny reserves of pigment, allowing the recipient to change skin color as well.

Benefit: The recipient gains a +5 bonus on Disguise checks and does not take a penalty for not having the appropriate makeup and gear to attempt a disguise.

Type: Internal.
Location: None.
Hardness/Hit Points: —/4.
Base Purchase DC: 21.
Restriction: Lic (+1).

Flight System (PL 7)

A solar-powered cybernetic flight system includes large jets in the back that provide primary thrust and jets built into the feet or calves for directional control.

Benefit: A flight system allows the recipient to fly at a speed of 60 with good maneuverability. It provdes up to 10 minutes of flight when fully charged. It takes 1 hour to recharge.

Type: External.
Location: One torso, one in each leg.
Hardness/Hit Points: 7/15.
Base Purchase DC: 24.
Restriction: Res (+2).
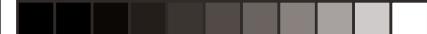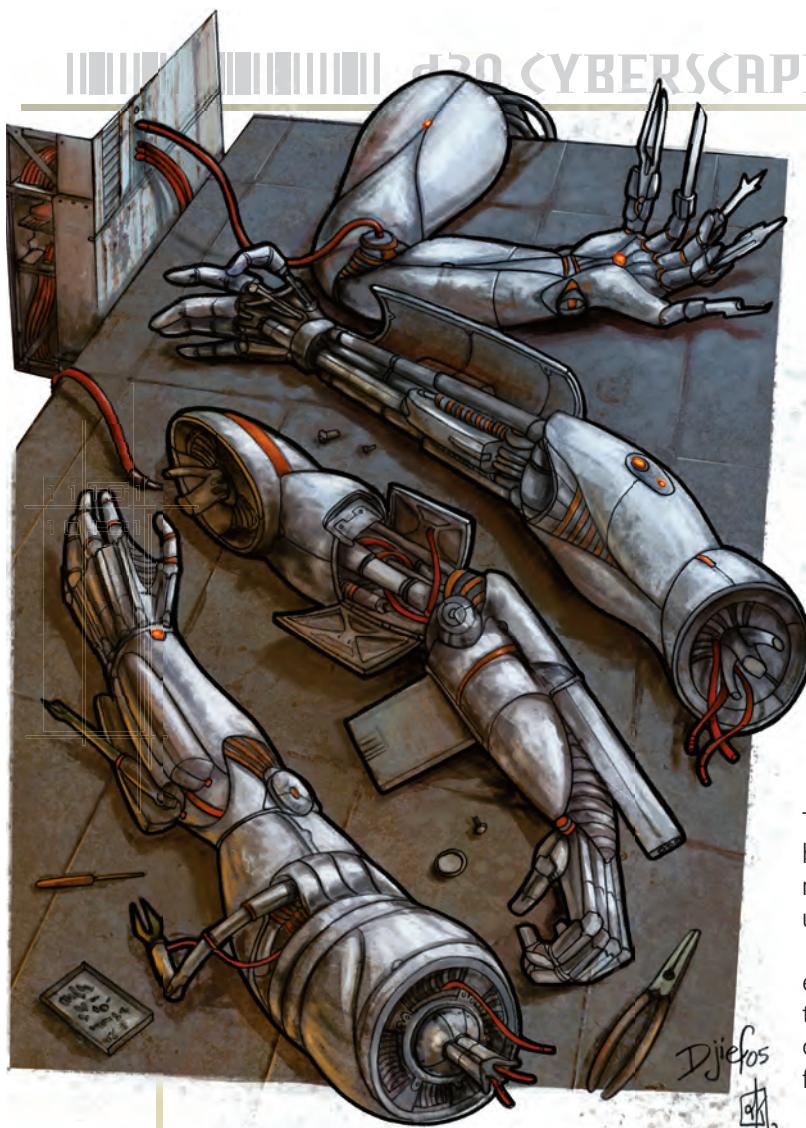
Internal and external tool and weapon mounts

Reflex Wires (PL 7)

Reflex wires are artificial nerves that replace the majority of the recipient's nervous system. Reflex wires can carry more information more quickly, allowing the recipient to act with surprising quickness and efficiency.

Benefit: Class one reflex wires grant the recipient a +4 equipment bonus on his initiative checks. Class two reflex wires grant the bonus of class one and also grant the recipient an additional two attacks of opportunity each round, just as if the recipient had taken the Combat Reflexes feat and had a +2 Dexterity modifier. The attacks gained from the reflex wire stack with attacks of opportunity granted by the feat. Class three reflex wires grant all the benefits of class two and also grant the recipient the benefit of the Fast hero's evasion ability.

Type: Internal.

Location: One head.

Hardness/Hit Points: —/2.

Base Purchase DC: 24 (class one), 28 (class two), 32 (class three).

Restriction: Mil (+3).

Antigrav System (PL 8)

A cybernetic antigrav system includes a primary antigravity generator of great energy efficiency that draws power from the recipient's own body, along with two directional gravity thrusters also powered by the recipient's biomass.

Benefit: An antigrav system allows the recipient to fly at a speed of 40 with perfect maneuverability.

Type: Internal.

Location: One torso, one in each leg.

Hardness/Hit Points: —/5.

Base Purchase DC: 25.

Restriction: Res (+2).

Limb Enhancements

The following enhancements are specific to limbs and are in addition to the enhancements found in Chapter Eleven of *d20 Future*. Enhancements are given in order of PL from lowest to highest.

Climbing Claws (PL 6)

The recipient has small, sharp spikes that can slide from hands, wrists, elbows, knees and feet. This makes climbing much easier and allows melee attacks when otherwise unarmed.

Benefit: A recipient with climbing claws gains a +5 equipment bonus on Climb checks and is always considered to have climbing equipment. If the recipient beats the DC of a Climb check by 5 or more, he is not considered flat-footed.

Additionally, the climbing claws act as spurs, though they deal damage as a creature two size categories smaller than the recipient (see Spurs, below).

Type: Internal (external in use).

Location: One in each arm and leg.

Hardness/Hit Points: 5/5.

Base Purchase DC: 16.

Restriction: None.

External Tool Mount (PL 6)

The recipient's prosthetic arm ends in a tool instead of a hand.

Benefit: The recipient has a tool or tool kit (or other piece of equipment) of his size category or smaller attached to a prosthetic arm. Attempts to disarm the recipient of the attached tool automatically fail, though the tool can still be attacked (like any other weapon) in an attempt to destroy it.

Type: External.

Location: One arm.

Hardness/Hit Points: 10/5 (mount only).

Base Purchase DC: 14 (not including the cost of the equipment).

Restriction: None.

Flexible Joints (PL 6)

The joints of the recipient are replaced with double-jointed hinges that can actually change their rigidity, becoming flexible in any direction.

Benefit: Flexible joints grant a +10 circumstance bonus on Escape Artist checks. Additionally, the recipient can make an Escape Artist check to escape restraints (other than a grapple) as a full-round action (as opposed to 1 minute). The recipient can squeeze through a tight space in half the time normally required.

A character cannot have both flexible joints and locking joints (see below).

Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 18.
Restriction: None.

Jump Pistons (PL 6)

The recipient's legs have powerful pistons built into her calves, allowing her to make sudden and amazing jumps from a stationary position.

Benefit: Jump pistons give the recipient a +10 equipment bonus on Jump checks. The recipient takes no penalty on Jump checks if unable to move at least 20 feet (the DC is not doubled), and can jump a distance greater than her normal speed.

Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 18.
Restriction: None.

Locking Joints (PL 6)

The joints of both arms are designed to lock in place, holding one position as long as the recipient wishes.

Benefit: Locking joints can only be added to existing cyberlimbs, and both arms must be cybernetic devices for any benefit to be gained.

The recipient can lock any joint in his body into a set position. Once locked, the joint stays in the position without effort on her part. This allows her to keep a grip on an object, hang by one arm, or do anything else possible with a locked joint without suffering the effects of fatigue. For example, a character with locking joints that falls off the side of a building and grabs a windowsill can hold it for as long as she wishes.

If the recipient makes a Strength check to grab, hold, or restrain something, she can use the same check result as long as she wishes, until it fails. Additionally, locking joints improve the recipient's chances in a grapple, granting her a +4 equipment bonus on grapple checks. (She cannot reuse her grapple check result from round to round because a grapple is much more active than simply holding something.)

A character cannot have both locking joints and flexible joints (see above).

Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 18.
Restriction: None.

Spurs (PL 6)

The recipient has a retractable set of blades (normally 2 or 3 blades) built into his forearm or foot. The weapon extends from the prosthesis and is visible when in use.

Benefit: A spur is a specific kind of internal weapon mount available at an earlier PL and possessing some advantages over generic weapon mounts. The spur deals an amount of damage based on the recipient's size (see below); this damage can be added to an unarmed attack using that limb made by the recipient. The blades of a spur are the length of the recipient's forearm or calf and are considered to be a weapon of the same size category as the recipient. Attempts to disarm the recipient of a spur automatically fail, and the spur itself cannot be attacked unless it is extended. Extending or retracting the weapon is a free action. Spotting a retracted spur requires a successful Spot check opposed by the recipient's Sleight of Hand check. The recipient gains a +2 bonus on this check, but no further modifier is given for the spur's size.

Recipient Size	Spur Damage
Tiny	1d3
Small	1d4
Medium-size	1d6
Large	1d8
Huge	2d6
Gargantuan	2d8
Colossal	4d6

Type: Internal (external in use).
Location: One per limb installed into.
Hardness/Hit Points: 10/5.
Base Purchase DC: 20.
Restriction: Mil (+3).

Telescoping Limbs (PL 6)

These cyberlimbs are capable of telescoping a considerable distance while continuing to function. The joints of one or more cyberlimbs are designed to lock in place, holding one position as long as the recipient wishes.

Benefit: Telescoping limbs applied to arms give the recipient an additional 5 feet of reach when extended (a total of 10 feet for Small or Medium-size characters), but prevent him from threatening the squares surrounding him (he can't attack creatures or objects less than 10 feet away).

Telescoping legs allow a recipient to extend his legs to gain a +10 circumstance bonus to his base land speed, or a +8 equipment bonus on Jump checks, as well as allowing him to stand an additional 5 feet tall (increasing his reach upward by 5 feet). However, having extremely long legs is awkward, and while they are extended the recipient takes a –2 penalty to Defense.

Extending or retracting a limb is a free action that can be taken once each round.

Type: External.
Location: One per limb.
Hardness/Hit Points: 5/10.
Base Purchase DC: 17.
Restriction: None.

Wheel Housing (PL 6)

Built into the bottom of the recipient's feet are concealed housings into which four in-line wheels are stored. Popping out easily, these nearly friction-free wheels allow the recipient to move as easily as a skater on ice.

Benefit: When the wheels are extended (a free action), the recipient can slide along solid ground as if on smooth ice. Built-in gyroscopes and flywheels allow the recipient to retain equilibrium with ease, and integral brakes allow the recipient to gracefully skate along the ground, turn, or stop suddenly if desired. The recipient's land speed increases by 15. (This adjustment is treated as an equipment bonus.) As with any effect that increases speed, this power affects the subject's maximum jumping distance.

The recipient can skate up or down any incline or decline she could normally walk upon without mishap, though skating up an incline reduces the subject's speed to normal and skating down a decline increases her speed by an additional 15. (This adjustment is treated as a circumstance bonus.)

Type: Internal.
Location: One in each leg.
Hardness/Hit Points: 2/5.
Base Purchase DC: 14.
Restriction: None.

Destrier System (PL 7)

A destrier system is a quadrupedal, horse-shaped lower body that replaces the recipient's legs. In many cases, the recipient uses a cyberport to allow him to switch between normal replacement legs and a destrier system. The hefty system weighs 400 pounds for a Medium-size recipient.

Benefit: When using a destrier system, the recipient is considered one size category larger, though his reach does not increase. The system grants the recipient a speed of 50, and because the recipient is now a quadruped, his weight capacity is doubled (a total of ×3, since he is also a size category larger).

A destrier system has room for one torso and four leg enhancements of its own.

Type: External.
Location: All leg slots.
Hardness/Hit Points: 12/20.
Base Purchase DC: 29.
Restriction: None.

Internal Tool Mount (PL 7)

The recipient has a subcutaneous piece of equipment or equipment kit embedded in her body, usually in a prosthetic forearm or hand. The tool extends from the prosthesis and is visible when in use. Often, a tool kit is designed so that each finger of a hand is a different tool.

Benefit: Attempts to disarm the recipient of the attached equipment automatically fail, and the equipment itself cannot be attacked unless it is extended. Extending or retracting the equipment is a free action.

Spotting a subcutaneous piece of equipment requires a successful Spot check opposed by the recipient's Sleight of Hand check. The tool's size applies a modifier to the Sleight of Hand check (see Table 4–3: Concealing Weapons and Objects, page 95 of the *d20 Modern Roleplaying Game*).

Type: Internal.
Location: Two arm.
Hardness/Hit Points: 10/5 (mount only).
Base Purchase DC: 17 (not including the equipment or tool kit).
Restriction: None.

Mermaid System (PL 7)

A mermaid system is a fishlike, legless tail for the lower body that replaces the recipient's legs. In many cases, the recipient uses a cyberport to allow her to switch between normal replacement legs and a mermaid system.

Benefit: When using the mermaid system, the recipient gains a swim speed of 30. Because she has a natural swim speed, the recipient normally doesn't have to make Swim checks to move up to her speed. When the character is forced to make a Swim check, she gains a +8 bonus, and she can always take 10 on the check even if she is distracted or endangered while swimming.

A mermaid system does not allow the recipient to breathe underwater or survive unusual extremes of cold or pressure, though it is often combined with other cybernetic devices that do.

Type: External.
Location: All leg slots.
Hardness/Hit Points: 12/20.
Base Purchase DC: 26.
Restriction: None.

Pickpocket (PL 7)

A pickpocket is a tiny, prehensile metal tentacle with a fiber-optic camera that snakes forth from the recipient's wrist.

The pickpocket has a small claw at the end, which can move through small spaces and snare or manipulate objects.

Benefit: A pickpocket grants a +10 equipment bonus on Sleight of Hand checks made to take something from another character (see Sleight of Hand, page 72 of the *d20 MODERN Roleplaying Game*). It can also be used to grab objects on the far side of a loose barrier (the pickpocket can fit through a hole as small as 1/2 inch), though it has a maximum of a 2-foot range and only a 1 Strength.

A pickpocket can also be used to make Spot checks without exposing the recipient (allowing him to make a Spot check while maintaining full cover, though the implant itself is consider to only have nine-tenths cover). The fiber-optic camera is not designed for far viewing, however, and takes a –2 penalty on Spot checks per 5 feet of distance between the observer and the target.

Type: Internal (external in use).
Location: One arm.
Hardness/Hit Points: 2/5.
Base Purchase DC: 19.
Restriction: None.

Tactile Touch Wires (PL 7)

These sensitive implants are dozens of long, prehensile wires that can snake forth from the recipient's hands and forearms. Each wire has a tiny touch sensor, allowing the recipient to feel with them and distinguish extremely fine details on any surface.

Benefit: A recipient with tactile touch wires can make a Search check in a 10-foot-by-10-foot area, or on a volume of goods 10 feet on a side, as a single action. Making Search checks becomes an attack action for the recipient (rather than the normal full-round action). Additionally, the recipient gains a +5 bonus on Search checks.

Type: Internal (external in use).
Location: One in each arm.
Hardness/Hit Points: 2/5.
Base Purchase DC: 19.
Restriction: None.

Viper Fang (PL 7)

This implant is attached to a melee weapon placed in an internal or external weapon mount (see pages 195–196 of *d20 Future*) or a natural weapon (including spurs or a natural claw attack), connecting it to an internal reservoir of poisonous material.

Benefit: One of the recipient's built-in melee weapons is connected to a reservoir. The reservoir holds up to four doses of any injury-based poison. The recipient must coat the weapon (as a free action) prior to making an attack roll. The poison remains effective for only 1 round. There is no chance of the recipient poisoning himself with his viper fang.

Type: Internal.
Location: One limb.

Hardness/Hit Points: –/2.
Base Purchase DC: 29.
Restriction: Mil (+3).

Cognitive Probe (PL 8)

The cyberware recipient must have spurs or a piercing melee weapon in a cybernetic weapon mount (see pages 195–196 of *d20 Future*) to buy a cognitive probe. The cognitive probe can be inserted directly into the brain of a target and read the electric impulses within, translating them into readable thoughts, which are transferred to the cyberware recipient.

Benefit: Using a cognitive probe requires a full-round action that provokes attacks of opportunity. The cyberware recipient must succeed on an attack using a piercing melee weapon. The target must be restrained. (If the target dies, the probing fails.) The target is allowed a DC 13 Will save to negate the effects of the probe. Once a target has saved against a probe, it is immune to its effects for 24 hours.

If the probing is successful, the target's memories and knowledge are accessible to the cyberware recipient, from memories deep below the surface to those easily called to mind. The cyberware recipient can learn the answer to one question per round, to the best of the target's knowledge. Each round the target is allowed another Will save, and if successful, the target is not required to answer the question; however, making a save does not end the power.

The cyberware recipient poses the questions mentally and the answers are imparted directly to his mind. He can ask the subject a new question (or the same question) in subsequent rounds for a number of rounds equal to 3 + his Wisdom modifier. After this duration, the target has built sufficient resistance to resist the probe for 24 hours. The cyberware recipient and the target do not need to speak the same language, though less intelligent creatures might yield up only appropriate visual images in answer to the cyberware recipient's questions.

Type: Internal.
Location: One arm.
Hardness/Hit Points: –/2.
Base Purchase DC: 29.
Restriction: Mil (+3).

Prosthetic Booster (PL 8)

This implant attaches to a prosthetic arm or leg, making it stronger.

Benefit: If attached to a prosthetic leg, a prosthetic booster increases the recipient's base speed by 10. In addition, any unarmed attack made with an enhanced prosthetic leg deals an extra 1d4 points of damage.

If attached to a prosthetic arm, a prosthetic booster grants a +4 bonus on Strength- and Dexterity-based ability

checks and skill checks. In addition, any unarmed attack made with the arm deals an extra 1d4 points of damage.

A prosthetic booster does not count toward the total number of cybernetic attachments the recipient can have before gaining negative levels (see Standard Cybernetics Ruless, page 7).

Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 24.
Restriction: None.

Rocket Hands (PL 8)

These cybernetic hands can launch from the recipient's arm and fly around a room at a short range, acting as the cyberware recipient directs.

Benefit: Rocket hands can be fired off to make an unarmed or melee weapon attack at range, or can be used to perform any action at range that can normally be performed with one hand. The hands have a maximum range of 60 feet and a range increment of 20 feet. Each hand has a 10-minute fuel charge, which must be restored by refueling (Wealth check 14 to refuel a hand).

Type: External.
Location: One arm per hand.
Hardness/Hit Points: 5/10.
Base Purchase DC: 23.
Restriction: None.

Head Enhancements

The following enhancements are specific to the head and are in addition to the enhancements found in Chapter Eleven of *d20 Future*. Enhancements are given in order of PL from lowest to highest.

Ground-Penetrating Audio (PL 6)

The cyberware recipient's ears are replaced with audio implants that simulate the effects of a ground-penetrating sonar array, allowing the cyberware recipient to more easily listen to sounds on the far side of barriers. The cyberware recipient's ears must be totally replaced to gain any benefit.

Benefit: Ground-penetrating audio implants allow the recipient to press his ear against a barrier and take a full-round action to gain a +15 bonus on Listen checks made to hear noise on the far side. (A solid door provides a −15 penalty on Listen checks made through it.)

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2 (per ear).
Base Purchase DC: 15.
Restriction: None.

HUD Link (PL 6)

The cyberware recipient's eyes perform as a heads-up display (HUD) and are connected to an internal radio that receives visual and audio input and transmits her audio output.

Benefit: The cyberware recipient can cause information from any device designed to work with her HUD to overlay her field of vision, allowing her to read the information without looking at the equipment. (Any sensor can be attuned to her HUD link, increasing its purchase DC by 2.)

If the cyberware recipient also has a subcutaneous cell phone and microcomputer, all three devices work in concert. This allows her to communicate with other communication devices, including radios held by allies. (See microcomputer, page 198 of *d20 Future,* and subcutaneous cell phone, page 197 of *d20 Future,* for other functions.) This also allows information to be transmitted to the cyberware recipient through broadcast from the VRNet or HINet.

An HUD link can be used to highlight the outline of a creature or object on mental command, granting a +2 bonus on Spot checks when pursuing a specific target.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/3.
Base Purchase DC: 19.
Restriction: None.

Inertial Navigator (PL 6)

A series of motion detectors and inertia-based distance readers are installed into the cyberware recipient's head, wired directly to his inner ear.

Benefit: You know how far you've traveled and in what direction in relation to a fixed starting point. You can have one "starting point" defined at a time, plus one per point of Intelligence bonus. Until you reset your starting point, you are aware of your exact distance and route back to the fixed starting point. You can also retrace your steps along this path automatically, even through a maze, without resorting to a using a map. If you are moved in some way without traveling the space in-between (such as if subject to a *teleport* or other hyperspace effect), you do not know how far you've traveled or in what directions, and your mental "map" has a large hole in it.

Combined with an HUD and a way of downloading a map (such as a microcomputer), a character knows his exact location in relation to a starting point.

Type: External.
Location: One head.
Hardness/Hit Points: 5/10.
Base Purchase DC: 19.
Restriction: None.

Light Amplification Optics (PL 6)

The cyberware recipient's eyes are replaced with ocular implants that amplify the available light to allow for better vision in dim conditions. The recipient's eyes must be totally replaced to gain any benefit.

Benefit: The recipient gains low-light vision.
Type: Internal.
Location: One head.
Hardness/Hit Points: —/2 (per eye).
Base Purchase DC: 20.
Restriction: None.

Microscopic Optics (PL 6)

The recipient's eyes are replaced with ocular implants that simulate the effects of microscopes, enabling her to perceive small objects more easily. The recipient's eyes must be totally replaced to gain any benefit.

Benefit: Microscopic optics grant a +6 circumstance bonus on Search checks as well as a +4 circumstance bonus on Disable Device or Repair checks made in regard to small or finely detailed objects.
Type: Internal.
Location: One head.
Hardness/Hit Points: —/2 (per eye).
Base Purchase DC: 15.
Restriction: None.

Nasal Filter (PL 6)

A nasal filter is a microfilter built into both the nose and throat, filtering out toxins and impurities in the air the recipient breathes.

Benefit: The cyberware recipient gains a +6 equipment bonus on Fortitude saves made for gases or airborne poisons and diseases. A nasal filter does not count against the total number of cybernetic implants a character can have implanted.
Type: Internal.
Location: None.
Hardness/Hit Points: —/14.
Base Purchase DC: 18.
Restriction: None.

Parabolic Audio (PL 6)

The cyberware recipient's ears are replaced with audio implants that simulate the effects of a shotgun or boom microphone, enabling her to perceive distant sounds more easily. The recipient's ears must be totally replaced to gain any benefit.

Benefit: Parabolic audio implants lessen the range penalty for Listen checks to −1 for every 30 feet of distance (instead of −1 for every 10 feet).
Type: Internal.
Location: One head.
Hardness/Hit Points: —/2 (per ear).
Base Purchase DC: 15.
Restriction: None.

Poker Face (PL 6)

A series of cut-offs built into the recipient's facial muscles allow him to adopt and maintain a completely blank expression at will.

Benefit: The recipient gains a +10 circumstance bonus on Bluff checks.
Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 18.
Restriction: None.

Sensory Recorder (PL 6)

A sensory recorder is a small memory chip in the brain that connects directly to the optic nerve, cerebrum, and thalamus, recording everything the cyberware recipient experiences with his five senses.

Benefit: A sensory recorder can be turned on and off as a free action and automatically records everything the cyberware recipient experiences unless specifically deactivated. It has 24 hours of memory. The recipient can choose to save or overwrite memories at will. A small computer port allows the memories to be downloaded into another computerized medium (including a sensory playback computer or the HINet), allowing others to observe or even experience the memories. The cyberware recipient can turn on or off individual senses as he wishes.

It's very difficult to fake the feed from a sensory recorder. It requires successful DC 30 Computer Use and Forgery checks to make a change to an existing sensory recorder memory, or to create one from whole cloth. Even when successfully done, an investigator who makes Computer Use and Investigate checks that beat the forger's results realizes the recording is altered.
Type: Internal.
Location: One head.
Hardness/Hit Points: —/4.
Base Purchase DC: 25.
Restriction: Res (+2).

Vehicle Control Jack (PL 6)

A vehicle control jack is a computer port (with associated connection wires) that jacks into a computer-controlled vehicle for improved control and frees the driver's hands for other activities.

Benefit: A vehicle control jack connects the mind of a character directly to the vehicle, starship, or mecha the character is currently piloting. The mind of the pilot directly links to the vessel, melding her consciousness with it. The pilot maneuvers the vessel with thoughts, cutting out the delay of her body's reflexes. This grants a +4 bonus on Pilot or Drive checks while operating the vehicle she's jacked in to. This system only works with vehicles that have an appropriate port for the control implant, as determined by the GM.

An unfortunate drawback to this link between pilot and machine is that if the vessel's onboard computer system

suffers trauma, such as when it takes damage, the pilot's mind often takes damage as well. Whenever a control-jacked vessel takes damage that affects the computer systems, the jacked-in pilot must make a DC 13 Will save or take 1d4 points of Wisdom damage.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2.
Base Purchase DC: 21.
Restriction: None.

Auditory Baffles (PL 7)

The cyberware recipient's eardrums are replaced with artificial devices equipped with sound baffles that react instantly to loud peals of noise.

Benefit: Deafening effects produced by loud noises have no harmful or debilitating effect on the cyberware recipient. She gains a +4 bonus on her saves against any other kind of effect produced by sounds or sonic energy that allow a saving throw.

Type: Internal.
Location: None.
Hardness/Hit Points: —/1 (per ear).
Base Purchase DC: 14.
Restriction: None.

Avatar Backup (PL 7)

A computer interface is placed between the cyberware recipient's own memories and the program memory of his onboard VRNet or HINet access computer, allowing him to store additional program memory for his avatar.

Benefit: The cyberware recipient has an extra 5 blocks of program memory available for his avatar. (For more information on avatars, see Chapter Three.)

Type: Internal.
Location: One head.
Hardness/Hit Points: —/1.
Base Purchase DC: 20.
Restriction: None.

Biofunction Regulator (PL 7)

This brain implant regulates the autonomous functions of the body, such as breathing, heart rate, gag reflex, fever, and response to foreign materials.

Benefit: The cyberware recipient is immune to the dazed and nauseated conditions. Additionally, since the body responds rationally to all drains on its internal resources, she gains a +2 bonus on Fortitude saves against poison and disease, and the benefit of the Endurance feat.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2.
Base Purchase DC: 29.
Restriction: Res (+2).

Bug Eyes (PL 7)

These implants are large, obvious additional eyes and cameras that allow the cyberware recipient to look in all directions at once. They qualify as two additional eyes and any other visual enhancements must be bought for these additional eyes as well.

Benefit: The cyberware recipient has a 360-degree sphere of vision, allowing him a perfect view of creatures that might otherwise flank him. Thus, flanking opponents gain no bonus on their attack rolls, and characters with sneak attack dice are denied their sneak attack ability because the cyberware recipient does not lose his Dexterity bonus; however, they can still sneak attack him if he is caught flat-footed. The cyberware recipient's Spot and Search checks gain a +4 equipment bonus. Concurrently, he takes a −4 penalty on saves against all gaze attacks.

Type: External.
Location: One head.
Hardness/Hit Points: 5/5.
Base Purchase DC: 22.
Restriction: None.

Chemical Air Analyzer (PL 7)

This implant includes tiny air samplers built into the nasal membranes and an analyzing computer that identifies chemicals and scents found within each breath's sample.

Benefit: The cyberware recipient gains the scent ability. See page 228 of the *d20 MODERN Roleplaying Game* for more information on scent.

Additionally, she can make a DC 15 Wisdom check to identify common chemicals and organic compounds. A DC 20 Wisdom check allows the cyberware recipient to distinguish the exact chemical makeup of anything she smells, though the information might be too technical to be of much use without the appropriate Knowledge skill.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/4.
Base Purchase DC: 23.
Restriction: None.

Daredevil (PL 7)

This brain implant clamps down on the center of the brain that causes fear, preventing the cyberware recipient from experiencing the emotion.

Benefit: The cyberware recipient is immune to the cowering, panicked, and shaken conditions. As a side effect, he feels other emotions less intensely as well and gains only half the benefit of any morale bonus.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2.
Base Purchase DC: 31.
Restriction: Res (+2).

Offensive kata calculator

Extra Memory (PL 7)

Computerized memory chips are grafted into the wetware biological memory of the recipient. This allows memories to be more easily accessed and gives the recipient greater willpower by easing the strain on the remaining brain matter.

Benefit: On a failed Knowledge check, the cyberware recipient can use this implant to gain a new check with a +4 competence bonus. If that check succeeds, he instantly recalls information he had forgotten, but had successfully stored in backup cybernetic memory. Additionally, Autohypnosis becomes a class skill for the recipient.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2.
Base Purchase DC: 29.
Restriction: None.

Kata Calculator, Defensive (PL 7)

A defensive kata calculator is a small chip that store millions of battle sequences and constantly compares them to the situation the cyberware recipient is currently facing, giving advance warning and taking minute actions to help defend him from common and probable attacks.

Benefit: The recipient gains a +1 insight bonus to Defense and on Reflex saving throws. If caught in a situation when his Dexterity bonus isn't applied to his Defense, this bonus to Defense and saving throws does not apply.

Additionally, he gains a +4 bonus on Listen and Spot checks made to act in a surprise round.

Type: Internal.

Location: One head.
Hardness/Hit Points: —/4.
Base Purchase DC: 23.
Restriction: None.

SNAP KICK

KNIFEHAND BLOW

LEG SWEEP

ROUNDHOUSE KICK

29
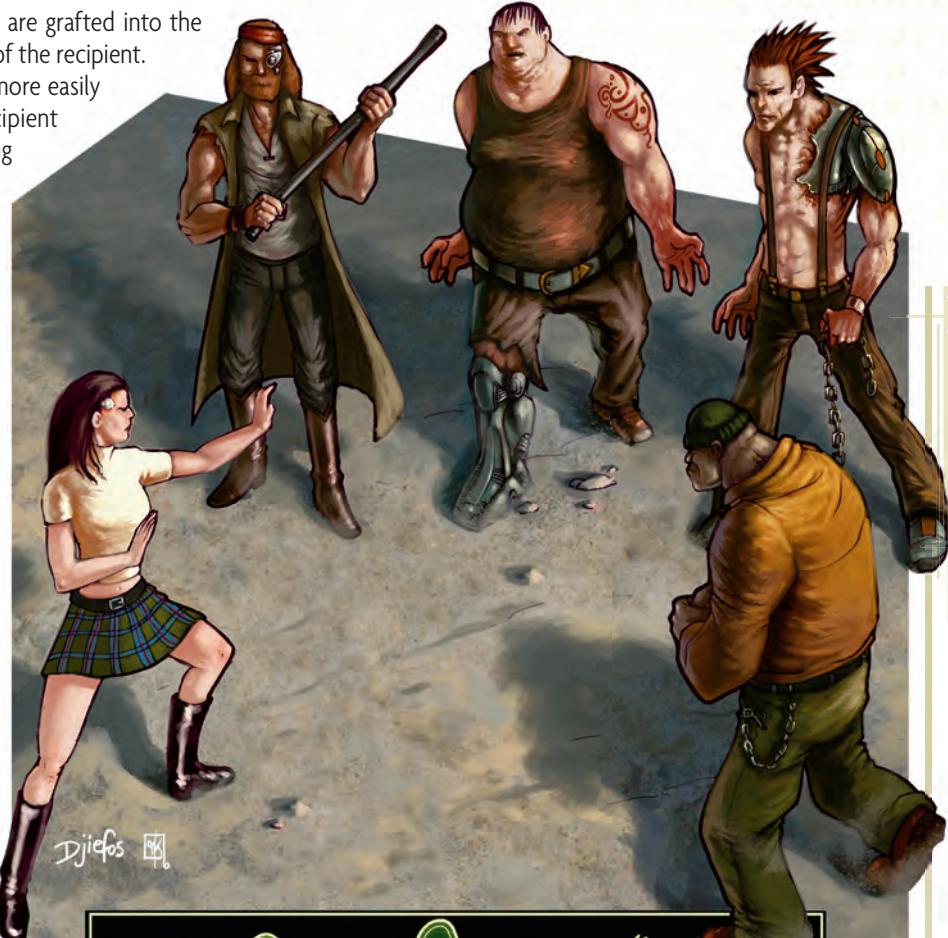
STANDARD CYBERNETICS

KATA CALCULATOR, OFFENSIVE (PL 7)

An offensive kata calculator is a small chip that stores millions of battle sequences and constantly compares them to the situation the cyberware recipient is currently facing, giving advance warning and taking minute actions to help her place accurate and effective blows against foes.

Benefit: The recipient gains a +1 insight bonus on attack rolls, as well as weapon damage rolls made against targets within 30 feet.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/4.
Base Purchase DC: 23.
Restriction: Mil (+3).

POWER SAVER CHIP (PL 7)

A power saver chip is a simple computer device hooked to the involuntary respiratory sections of the brain, allowing manual override and near-shutdown of the recipient's breathing and life functions.

Benefit: As an attack action, the recipient can enter a trance so deep he is almost in suspended animation. Even sensors, abilities, and powers that detect life or thought are incapable of determining that he is alive. While suspended, he is aware of his surroundings. He feels the passage of 1 hour for every day that actually passes. Though on a slower schedule, he needs normal amounts of air, food, and water for every "day" (24 days) and begins to suffer the effects of thirst and starvation as appropriate.

If the cyberware recipient takes any damage, he comes out of the trance 4 rounds later. The cyberware recipient may voluntarily emerge from the trance as a full-round action. Otherwise, the trance can also be ended by a successful DC 20 Treat Injury check.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2.
Base Purchase DC: 16.
Restriction: None.

SCANNING OPTICS (PL 7)

The cyberware recipient's eyes are replaced with ocular implants that simulate the effect of microscopes, enabling him to perceive small objects more easily. The recipient's eyes must be totally replaced to gain any benefit.

Benefit: Scanning optics pore over every detail of an object or structure and analyze it for weaknesses. The results are displayed as a targeting signal to the cyberware recipient. If the recipient takes a full-round action to make a single attack at an object or structure, he can ignore up to 5 points of hardness, though this can never reduce hardness to less than 1.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2 (per eye).

Base Purchase DC: 19.
Restriction: Res +2.

SOUNDBOX (PL 7)

The cyberware recipient's vocal cords are replaced with a speaker and extensive computerized sound library.

Benefit: The cyberware recipient can create a volume of sound that can be as quiet as a whisper or as loud as sixteen humans. She can choose the type of sound the implant creates and can change its basic character as a free action once each round. Talking, singing, shouting, walking, marching, or running sounds can be created. The noise produced can be virtually any type of sound within the volume limit. A horde of rats running and squeaking is about the same volume as eight humans running and shouting, and a roaring lion is equal to the noise from sixteen humans. If the recipient attempts to exactly duplicate the voice of a specific individual or an inherently terrifying sound (such as a gunshot), she must succeed on a Bluff check with a +2 circumstance bonus opposed by the listener's Sense Motive check, to avoid arousing suspicion. Regardless of what noise is made, it issues forth from the cyberware recipient's location.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2.
Base Purchase DC: 22.
Restriction: None.

TAILGUNNER (PL 7)

A tailgunner is a microcomputer wired to the cyberware recipient's nervous system and the motive centers of his brain. It is capable of taking over a section of the recipient's body and acting semiautonomously under the guidance of his subconscious mind, allowing him to do two things at once.

Benefit: The recipient's mind is split into two independent parts. Each part functions in complete autonomy, like two characters in one body. The cyberware recipient's new "second mind" does not control the majority of the character's body, but it can use a single limb assigned to it to perform one purely physical attack or move action in a round if the action requires no more than a single limb action alone to complete. Because a tailgunner does not control such things as where the character looks or moves, any action it takes incurs a −4 penalty. Assigning or unassigning a tailgunner to a limb is a move action that can be taken once a round. The recipient cannot use a limb for normal actions while it is assigned to a tailgunner.

Although a tailgunner can take an action in the same round the recipient takes normal actions, it cannot act in every round. The subconscious section of the recipient's brain used to make decisions for the tailgunner computer needs time to assess the situation after every action it takes. Thus, a tailgunner cannot act more often than once
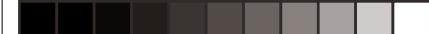
every other round. No effect that increases the recipient's speed or number of actions increases the speed with which a tailgunner acts.

A tailgunner cannot be used to communicate in any way (it can't type or write messages, for example), since it's not capable of complex thoughts. Nor can it act if the recipient's full brain is incapable of action (if he's stunned, unconscious or dead). It can act in concert with the recipient, carefully choosing targets to attack, for example, or readying a piece of equipment for the recipient to use in the next round. If the recipient is subject to a compulsion or charm effect while a tailgunner is assigned to a limb, the tailgunner does its best to follow the compulsion as well.

It is possible to have more than one tailgunner installed, but doing so only increases the number of limbs the tailgunner system can use (one limb per tailgunner). All tailgunners in a single recipient must act in concert, taking the same action, though with two limbs the range of possible actions increases. A tailgunner can be assigned to a robotic arm if the recipient has one.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/4.
Base Purchase DC: 27.
Restriction: Res (+2).

Targeting Optics (PL 7)

The cyberware recipient's eyes are replaced with ocular implants that use a projected targeting crosshair to improve the recipient's aim. The cyberware recipient's eyes must be totally replaced to gain any benefit.

Benefit: Targeting optics grant a +1 bonus on attack rolls made with ranged weapons.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2 (per eye).
Base Purchase DC: 17.
Restriction: Mil (+3).

X-Ray Optics (PL 7)

The cyberware recipient's eyes are replaced with ocular implants that can both emit and receive X-rays and convert them into images. The cyberware recipient's eyes must be totally replaced to gain any benefit.

Benefit: The cyberware recipient gains the ability to see through 1 foot of brick or stone, 1 inch of metal or composite alloy, and up to 3 feet of wood, plaster, or dirt. Thicker substances or a thin sheet of lead block the recipient's vision. X-ray vision has a maximum range of 20 feet and allows the recipient to see as if she were looking at something in normal light, even if there is no illumination.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2 (per eye).
Base Purchase DC: 30.
Restriction: Lic (+1).

Avatar Boost (PL 8)

An avatar boost is a small chip that connects the recipient's hindbrain with his onboard VRNet or HINet access computer, allowing him to use his brain's calculating power to increase his avatar's efficiency.

Benefit: The cyberware recipient's avatar gains a +1 equipment bonus on attack rolls and damage rolls. (For more information on avatars, see Chapter Three).

Type: Internal.
Location: None.
Hardness/Hit Points: —/1.
Base Purchase DC: 20.
Restriction: None.

Kata Computer, Defensive (PL 8)

A defensive kata computer is a small chip that store millions of battle sequences and constantly compares them to the situation the recipient is facing, giving advance warning and taking minute actions to help defend her from common and probable attacks.

Benefit: The cyberware recipient gains a +2 insight bonus to Defense and on Reflex saving throws. If caught in a situation where her Dexterity bonus isn't applied to her Defense, this bonus to Defense and saving throws does not apply.

Additionally, she gains a +6 bonus on Listen and Spot checks made to act in a surprise round.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/4.
Base Purchase DC: 28.
Restriction: Res (+2).

Kata Computer, Offensive (PL 8)

An offensive kata computer is a small chip that store millions of battle sequences and constantly compares them to the situation the recipient is facing, giving advance warning and taking minute actions to help the recipient place accurate and effective blows against foes.

Benefit: The cyberware recipient gains a +2 insight bonus on attack rolls, as well as weapon damage rolls made against targets within 30 feet.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/4.
Base Purchase DC: 28.
Restriction: Mil (+3).

Micro-Aural Communicator (PL 6)

A micro-aural communicator (microcom) consists of three components that allow the recipient to communicate covertly. A tiny earpiece transmits incoming communications directly into the ear, at a volume far too low for others to

hear. A small node placed on the inside of the throat allows the user to broadcast while speaking no louder than a whisper. A wristband functions as the input/output port for hooking other devices into a microcom.

Benefit: Using a microcom does not provoke a normal Listen check and cannot be heard by any normal means.

Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 18.
Restriction: None.

Neural Computer Link (PL 8)

The most advanced form of computer interface in the Energy Age, a neural computer link connects the brain and a computer system. It eliminates the need for a physical interface. Instead, the user simply "thinks" commands to the computer. Output from the computer is sent straight to the user's brain, tapping into the optic centers to project images and displays directly into the user's mind, eliminating the need for any sort of display device. In all other ways a neural computer link allows the user to access the computer as if used conventionally. A neural computer link connects to a computer system through a network jack built into the base of the skull.

Benefit: Using a neural computer link allows information to be downloaded directly into the brain. The character's own mind becomes a hard drive full of basic information, granting the character direct knowledge of a particular subject almost instantaneously. Though this benefit does not allow the character to gain skill ranks, it does reduce the time required for Computer Use and Research checks to free actions. This applies only when the user is connected to a specific computer being used for the Computer Use or Research check.

A neural computer link can be connected, by means of the body's central nervous system, directly into the user's shepherd chip (see page 19). Whenever data is transferred through the shepherd chip, such as a person's identity, that knowledge is immediately loaded into the character's brain. Essentially, this means that any two characters with shepherd chips and neural computer links can instantly know one another simply by shaking hands.

Neural computer links can also be connected to nanites in a character's bloodstream. As in the case of piloting- and driving-assisting nanites, these nanites interface directly with the neural link and allow the character to give commands simply by thinking them, eliminating the need for a nanite translator (see Nanites, page 63).

A neural computer link can also be used to access a VRNet or HINet.

Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 25.
Restriction: None.

Neural Network Jack, Wireless (PL 8)

A natural extension of neural computing technology, a wireless neural network jack plugs into a neural computer link and allows for remote access to computer networks. Additionally, a wireless neural network jack with the satellite datalink gadget (see page 62 of *d20 Future*) can connect to any global or galaxy-spanning computer network instantaneously. If a neural computer link is the basic means of connecting the human mind to a computer, a wireless neural network jack is the means of connecting the human mind to massive computer networks.

Benefit: A wireless neural network jack allows a character to access the VRNet or HINet with no penalties or Computer Use limitations. A wireless neural network jack is useless unless the user also has a neural computer link.

Type: Internal.
Location: None.
Hardness/Hit Points: —/2.
Base Purchase DC: 12.
Restriction: None.

Neuron Boosters (PL 8)

Neuron boosters are tiny electrical generators specifically attuned to the neurons of the recipient's brain, helping the neurons work more quickly and powerfully, and increasing the recipient's ability to take in information, draw conclusions, and store and recall data.

Benefit: Neuron boosters give the cyberware recipient a +2, +4, or +6 equipment bonus to Intelligence.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/1.
Base Purchase DC: 19 (for +2 Int), 25 (for +4 Int), or 33 (for +6 Int).
Restriction: None.

Personality Mapping (PL 8)

Personality mapping is a computerized implant that suppresses personality traits in the recipient that are normally considered unpleasant (dullness, self-centeredness, lack of compassion) and enhances the traits that make people more likable. Implanted chips negate antisocial attitudes within the brain. The result is a more outgoing, personable, likable recipient. Of course, it also tends to create someone who smiles and speaks in an even tone even when very angry or when committing an act of violence.

Benefit: Personality mapping gives the recipient a +2, +4, or +6 equipment bonus to Charisma.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/1.
Base Purchase DC: 30 (for +2 Cha), 34 (for +4 Cha), or 38 (for +6 Cha).
Restriction: Mil (+3).
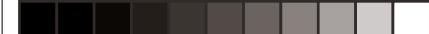
Proverb Chip (PL 8)

A proverb chip is an extremely advanced microcomputer programmed with the common sense of an entire lifetime of experiences. The chip does not contain memories, just intuitive truths of the sort normally gained through life experience. The information is instinctively available to the cyberware recipient, allowing her to make better decisions, analyze her available information more intuitively, and draw upon her faith in her ability to overcome mental doubt, instability, or fear.

Benefit: A proverb chip gives the cyberware recipient a +2, +4, or +6 equipment bonus to Wisdom.

Type: Internal.

Location: One head.

Hardness/Hit Points: —/4.

Base Purchase DC: 20 (for +2 Wis), 28 (for +4 Wis), or 36 (for +6 Wis).

Restriction: None.

Synapse Remapper (PL 8)

A synapse remapper is a set of wires networked into the recipient's brain that replaces existing information with a preloaded set of facts and knowledges. A synapse remapper grows along the nervous system of the recipient, making changes throughout the body and even altering ingrained skills.

Benefit: When this cybernetic device is implanted, the cyberware recipient can choose to spend his most recently gained skill points differently (picking new skills and abandoning old ones) and to choose a different feat from the one he selected when advancing from his previous level to his current level. If he is simply moving skills points around among skills he already possesses, the recipient can make these decisions in the 24 hours after surgery, but any new skill the recipient wishes to take must be programmed into the remapper before it is implanted.

The recipient can undo decisions of these sorts that were made at lower levels if the synapse remapper is set to do so before it is installed. The recipient must abide by the standard rules for selecting skills and feats—he cannot take feats for which he doesn't qualify or take cross-class skills as class skills.

Using this implant causes some loss in mental clarity, and thus costs the recipient 50 XP to reformat choices made when he reached his current level. For each additional previous level into which the revision reaches, using the implant costs an additional 50 XP. All XP costs and skill and feat decisions must be made within 24 hours of the surgery to implant the remapper; once made, the decisions cannot be changed again (without a new synapse remapper, requiring additional surgery and a new XP cost).

Once new choices have been made, destroying the synaptic remapper has no effect.

Type: Internal.

Location: One head.

Hardness/Hit Points: —/1.

Base Purchase DC: 25 (+1 per skill added).

Restriction: None.

Torso Enhancements

The following enhancements are specific to the torso and are in addition to the enhancements found in Chapter Eleven of *d20 Future*. Enhancements are given in order of PL from lowest to highest.

Nutrient Tank (PL 6)

A nutrient tank contains a reserve of protein and vitamins in an internal reservoir.

Benefit: The recipient can go without food and water for three days, subsisting entirely on the contents of the tank, at which point the reservoir is empty. Afterward. it takes three days of eating and drinking at a normal rate to refill the reservoir.

Type: Internal.

Location: One torso.

Hardness/Hit Points: —/5.

Base Purchase DC: 21.

Restriction: None.

Antistun Implant (PL 7)

This implant, embedded near the spine, shields the recipient's nervous system against stunning attacks.

Benefit: The recipient cannot be stunned.

Type: Internal.

Location: One torso.

Hardness/Hit Points: —/4.

Base Purchase DC: 24.

Restriction: Mil (+3).

Bio-Surger (PL 7)

A bio-surger is a timing computer tied to all the functions of the body. It can, for a very brief period, increase the speed of all the body's functions, including muscle speed and reaction time. The strain placed on the surger prevents it from working continuously.

Benefit: The recipient can activate a bio-surger as a free action, gaining an additional move action in the current round. The recipient cannot activate this implant when it isn't his turn. A bio-surger can be used twice every 24 hours.

Type: Internal.

Location: One torso.

Hardness/Hit Points: —/2.

Base Purchase DC: 25.

Restriction: Mil (+3).

Body Repair Weave (PL 7)

A delicate weave of subdermal biowires stimulates and repairs the body's damaged tissue.

Benefit: The recipient heals naturally at twice the normal rate (see the *d20 MODERN Roleplaying Game*, page 142).

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/4.
Base Purchase DC: 21.
Restriction: Lic (+1).

Camouflaged Skin (PL 7)

The cyberware recipient's skin has tiny sensors able to observe nearby surfaces and tiny projectors able to change its texture and appearance to match its observations.

Benefit: As a free action, the recipient's skin takes on the color and texture of nearby objects, including floors and walls. The recipient receives a +10 equipment bonus on Hide checks if wearing nothing to block his skin's appearance and a +5 equipment bonus if wearing scant to normal levels of clothing and equipment. If his body is fully covered, the recipient's skin gives him no bonus. This implant can be combined with luminous skin (see page 198 of *d20 Future*) for a total purchase DC of 20 and taking only one implant slot.

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/2.
Base Purchase DC: 19.
Restriction: Lic (+1).

Enviro-Skin (PL 7)

Each of the five different forms of enviro-skin is designed to be resilient against one damaging energy type. The skin is made of materials that resist the effects of acid, cold, electricity, fire or sonic damage. Each skin type also includes the necessary filters for breathing and eye coverings to keep the recipient protected against the energy type selected.

Benefit: The recipient gains resistance 10 against any one energy type (acid, cold, electricity, fire, or sonic). The resistance provided by this implant does not stack with other forms of energy resistance. If the skin is resistant to fire or cold, the recipient also gains a +4 bonus on Survival checks made to avoid damage from hot or cold environments (as appropriate). A recipient with enviro-skin resistant to sonic attacks cannot also have sonar skin (see page 35) and takes a —4 penalty on Listen checks.

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/5.
Base Purchase DC: 26.
Restriction: None.

Internal Gyro (PL 7)

A series of gyrostabilizers is installed in the torso and linked directly to the inner ear and the recipient's reflex nerves.

Benefit: The recipient recovers instantly from a fall and can absorb some damage from falling. She lands on her feet no matter how far she falls, and she takes damage as if the fall were 10 feet shorter than it actually was. This benefit affects her and anything she carries or holds (up to her maximum load).

If the character has 5 or more ranks of Tumble, she also gains a +2 equipment bonus on Tumble checks.

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/2.
Base Purchase DC: 21.
Restriction: None.

Organ Remapping (PL 7)

Organ remapping is an extensive set of minor cybernetic devices that relocate a recipient's internal organs and add safety valves, cutoffs, back-ups, and alternatives to many of the more critical and fragile organic systems.

Benefit: The recipient's massive damage threshold is increased by 5, and he gains a +4 bonus on Fortitude saves against massive damage.

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/12.
Base Purchase DC: 26.
Restriction: Lic (+1).

Oxygenator (PL 7)

This implant is a reservoir of compressed oxygen that is released directly into the bloodstream when oxygen levels are too low.

Benefit: The recipient can do without air for 10 minutes before having to hold her breath. Once the 10-minute reservoir is exhausted, the implant cannot be used again for 24 hours. It recharges by culling oxygen from the cyberware recipient's lungs and skin pores.

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/7.
Base Purchase DC: 14.
Restriction: None.

Redundant Organs (PL 7)

Redundant organs are backups for the body's cardiovascular, adrenal, and digestive systems. These backups allow the recipient to take considerably more punishment than an unaugmented human.

Benefit: Redundant organs give the cyberware recipient a +2, +4, or +6 equipment bonus to Constitution.

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/14.
Base Purchase DC: 18 (for +2 Con), 24 (for +4 Con), or 32 (for +6 Con).
Restriction: Res (+2).
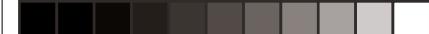
Robotic Arms (PL 7)

Robotic arms are different from replacement limbs, because they are additional arms connected to the shoulders and spine of the recipient. This generally gives the recipient four limbs she can use at once, though often with some reduction in skill.

Benefit: Having two additional limbs gives the recipient the option to carry and hold more items, which is the primary benefit. The recipient gains a +4 bonus on grapple checks. The robotic arms are treated as off hands in all respects. Each limb has room for one cybernetic enhancement of its own.

If the recipient wishes, she can use the robotic limbs to attack. If making a single attack, the recipient takes a –2 penalty on attack rolls. If taking a full attack action, the recipient can make two additional attacks (one with each robotic arm). The attacks with robotic arms are made at the recipient's full attack bonus with a –8 penalty, and all other attacks are at a –4 penalty.

Type: External.
Location: Two torso.
Hardness/Hit Points: 5/16.
Base Purchase DC: 27.
Restriction: None.

Shock Net (PL 7)

A shock net is a web of tiny, conductive wires encasing the recipient's exterior. At will, the recipient can cause the web to carry a strong electric shock to dissuade those attacking him or to aid in damaging a foe.

Benefit: When active, a shock net deals 1d6 points of electricity damage to the first creature or object that contacts the recipient hard enough to damage him (such as a successful melee attack or grapple), or that the recipient attacks with an unarmed attack or grapple attempt. Activating or deactivating a shock net is a free action that can be taken once a round. The net only deals damage once each round to the first legitimate target—it takes a full round for it to build up another charge.

Type: External.
Location: One torso.
Hardness/Hit Points: —/4.
Base Purchase DC: 23.
Restriction: Res (+2).

Skeletal Seismograph (PL 7)

This implant places extremely sensitive seismographs within the recipient's skeleton, allowing her to detect vibration when in contact with a surface on which something is moving.

Benefit: The recipient gains tremorsense with a range of 60 feet.

A cyberware recipient with tremorsense automatically senses the location of anything that is in contact with the ground and within range. If no straight path exists through the ground from her to the target she is sensing, the range defines the maximum distance of the shortest indirect path. She must be in contact with the ground, and the target must be moving. As long as the target is taking physical actions, including casting spells with somatic components, the target is considered to be moving.

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/6.
Base Purchase DC: 25.
Restriction: Res. (+2).

Sonar Skin (PL 7)

Sonar skin generates a subtle field of sound waves well below the normal hearing range of any creature, and receives the echoes of those waves on microscopic sensors covering the recipient's skin. This sonar system allows the recipient to "feel" his surroundings even in total darkness or when his sight would otherwise be obscured by his physical environment.

Benefit: The sonar field emanates from the recipient out to 60 feet, granting the effect of a 360-degree field of vision. The recipient ignores blindness, invisibility, darkness, and concealment, though he must have line of effect to a creature or an object to discern it (a creature on the far side of a pane of glass is beyond the sonar's range). The recipient does not need to make Spot or Listen checks to notice creatures; he can detect and pinpoint all creatures in line of effect within 60 feet automatically.

Type: External.
Location: One torso.
Hardness/Hit Points: 2/6.
Base Purchase DC: 23.
Restriction: Res. (+2).

Total Organ Replacement (PL 7)

This cybernetic implant replaces the recipient's skin and all internal organs other than the brain and nervous system with artificial (and extremely durable) replacements. The recipient's cardiovascular system, musculature, and digestive system are all replaced.

Benefit: The recipient no longer heals damage naturally and must receive a Repair check to be healed (a DC 20 Repair check takes 10 minutes and restores 1d8 points of damage).

The recipient gains damage reduction 5/— and a +5 bonus to natural armor (this does not stack with any natural armor bonus she might already have). She is immune to ability damage, blindness, deafness, disease, drowning, poison, stunning, medicines, chemical boosters, and all powers, spells, or attacks that affect her physiology or respiration, because she has no physiology or respiration to affect. The recipient's weight is doubled.

The recipient takes only half damage from cold and fire. She gains a +4 equipment bonus to Strength, but takes a −2 penalty to Dexterity (to a minimum Dexterity score of 1), and her speed is reduced to half normal. The recipient can speak but cannot drink (and thus can't use potions or drugs). The recipient has an armor check penalty of −4 and an arcane spell failure chance of 25%.

The recipient's unarmed attacks deal damage equal to a club of his size (1d4 for Small characters, 1d6 for Medium-size characters), and she is considered armed when making unarmed attacks. When the recipient makes a full attack against an object or structure using her unarmed strike, she deals double damage.

Type: External.
Location: Two torso, one for each limb.
Hardness/Hit Points: 10/30.
Base Purchase DC: 39.
Restriction: Mil (+3).

Total organ replacement

Trauma Router (PL 7)

The recipient's internal organs and life-giving systems are controlled through a microcomputer that shunts blood away from wounds, toughens muscles to resist blows, and controls chemical flows to prevent shock.

Benefit: Trauma router reduces the impact of injuries, granting the recipient damage reduction 3/—, though any effect that damages him does a minimum of 1 point of damage. If combined with a fortified skeleton (see page 197 of *d20 Future*), the two systems together provide damage reduction of 5/—.

Type: Internal.
Location: One torso.
Hardness/Hit Points: —/10.
Base Purchase DC: 22.
Restriction: None.

LIMITING CYBERNETICS

Not every cybernetic implant is designed to be helpful to the recipient. Everything from trackers to cortex bombs, remote controls, and personality transplants can be placed in a character against his will to hinder or control him. Devices of this kind are always restricted or illegal, and many are banned by international treaties. This does not, however, stop them from being available on black markets and even occasionally used by immoral governments.

Except for function, limiting cybernetic devices are the same as enhancing ones, and follow the same rules regarding implantation, acquisition, and maximum number of implant slots and total implants.

Gimper (PL 7)

A gimper is a cutoff system built into the nervous and adrenal systems of the recipient as well as emotional centers of the brain. It limits his strength, agility, and ability to feel intense emotions.

Effect: The recipient of a gimper takes a permanent −4 penalty to Strength and Dexterity and gains only half the benefit of morale bonuses. Any bonus to Strength or Dexterity gained from cybernetic implants is negated. A recipient with the rage ability (from any source) cannot employ it. As a side effect, the recipient takes only half the normal penalties from being shaken and gains a +6 bonus on saves against fear effects.

Type: Internal.
Location: One head and one torso.
Hardness/Hit Points: —/20.
Base Purchase DC: 25.
Restriction: Res (+2).

Personality Implant (PL 8)

A personality implant is a complex chip directly wired to a recipient's brain that attempts to place a recorded mentality into the body, suppressing the recipient's original personality.

Effect: A personality implant is designed to allow those with far more money than morality to utterly destroy a person without wasting his body. Before it is implanted, the cybernetic chip must be "imprinted" with the memories, thoughts, and personality of a donor. The donor loses 300 XP in the process. (If the donor has not gained at least 300 XP since reaching his current level, the process automatically fails and the donor loses XP sufficient to drop him to the minimum neded to attain his current level.)

Once implanted (almost always against the recipient's will), the implant impresses the totality of the donor's psyche onto the recipient's subconscious. If successfully implanted, the seed of the donor's mind germinates over the period of one week. During this time, the recipient begins to unconsciously take on the donor's mannerisms.

After one week, when integration is complete, the recipient becomes a duplicate of the donor, but the recipient's character level is eight lower than the donor's (minimum 1st level). The recipient does not have any of the donor's physical ability scores or equipment, but does have the Intelligence, Wisdom, and Charisma scores the donor had when he was eight levels lower.

While the recipient is initially the donor's mental duplicate, the two personalities diverge over time. Although the recipient starts off with memories of the donor's experiences, he possesses his original soul and physical body and develops his own personality based on new experiences. Thus, the recipient is not the donor's slave or servant, but instead a person in his own right that shares the donor's earlier memories.

Once implanted, a personality implant can be stopped by removal or destruction any time during the germination period (one week). After that, the original personality is destroyed and removing the chip has no effect.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/3.
Base Purchase DC: 40.
Restriction: Illegal (+4).

CYBERNETIC EQUIPMENT

Though cybernetic devices are integral to their recipients, many also make use of external equipment.

TABLE 2–1: CYBERNETICS EQUIPMENT

Object	Size	Weight	DC	Purchase Restriction
VRNet rig				
Poor	Med	4 lb.	22	None
Fair	Med	5 lb.	23	None
Moderate	Med	5 lb.	25	None
Good	Med	5 lb.	27	None
Amazing	Med	5 lb.	29	Mil (+3)
Sensory playback computer	Large	8 lb.	27	None
Sensory transmitter	Small	1 lb.	30	Lic (+1)

VRNet Rig (PL 6)

A VRNet rig is a set of holographic goggles and manipulator gloves connected to a powerful computer through which a noderunner can travel and manipulate her VRNet avatars (see Avatars, page 47). There is no direct connection between her brain and the VRNet; this both protects her from dangerous feedback and limits her ability to interact with the virtual objects of the VRNet.

When using Computer Use to replace physical skills for her avatar, a character using a VRNet Rig has a cap to the total bonus she can use based on the quality of her rig. There is no cap on how high a Computer Use bonus she can use for its normal purposes, or for avatar combat and using or resisting programs.

Most VRNet rigs have input ports, allowing a user to jack implanted computers (such as an avatar booster) into the VRNet rig to gain their benefits.

VR Rig Quality	Computer Use Cap
Poor	+10
Fair	+15
Moderate	+20
Good	+25
Amazing	+30

Sensory Playback Computer (PL 7)

This data-playing device takes information from a sensory recorder (see page 27) and transmits it for others to experience. It can transmit the sights and sounds to appropriate audio/visual recording devices (CDs, video tapes, DVDs, tri-dee cubes), or transmit the full sensory input to an HINet (see Chapter Three for more information on HINet), or transmit it to anyone with a micromputer implant.

Sensory Transmitter (PL 8)

A sensory transmitter functions as a sensory playback computer, but it can transmit the sensory data directly into the user's brain through the use of a headset without the need for an HINet or micromputer implant.

COMPUTER NETWORKS

Chapter Three:
COMPUTER NETWORKS

KA

"I need something stronger, man. Something that'll keep me from getting spiked when I'm deep in a corporate node and trip security. This isn't a game for me, you know. You goggle-jockeys just have to worry about losing some hardware. I'm wired in through this curse-the-corps implant jack. I get mindscraped or spiked, my brain is on the line. So forgive me if these underground, garage-band, nerd-living-with-his-parents programs don't impress me. Now, read my virtual lips. I need top-notch code—agents, armor, bullseyes, firewalls, megastrikes, and lots of weapon programs. And I have the cred to pay for them. So are we doing business, or do you not have quality goods? I'm in a hurry here."

—Phantasy Phreak, a HINet Cybernaut

When computing systems were connected, integrated, and utilized in growing networks, they became an increasingly vital part of daily life in the civilized world. Starting with the military-sponsored research networks and moving on to the Internet, the Virtual Reality Network (VRNet), and the Hyper Immersion Network (HINet), webs of computers grew into a powerful tool for gathering, disseminating, or controlling information. Corporate networks joined with public forums, personal domains intersected with top-secret government databases, and users explored a digital landscape as varied and complex as the real world.

Moondog's bombshell avatar

MOONDOG

ONLINE

Though some cybernetic devices apply to using the typical Internet and World Wide Web of PL 5 and early PL 6 (see Head Enhancements in Chapter Two), the true usefulness and variety of the Cyberscape in computing doesn't come into play until the VRNet is developed late in PL 6. In simple terms, the VRNet is a graphical representation of computer-generated structures placed in various digital locations and configurations. The difference between the virtual reality network and the Internet of old is that the VRNet immerses its users in a real-seeming world rather than the lifeless scrolling of text and images across a screen. The VRNet functions in three dimensions and is, in essence, another world to explore.

The VRNet is a staple of many science fiction campaigns because it is the equivalent of the fantasy genre's alternate dimension—a place where characters can adventure beyond their humdrum world. Additionally, the VRNet, like the modern-day Internet, is a tool for the storage, exchange, and theft of information.

The VRNet is not solely the domain of hackers and network administrators, and high levels of technical savvy are not required to use it. The VRNet is as much an instrument of the masses as it is a mystifying "otherworld" wrapped in billions of lines of computer code. Schoolchildren use the VRNet to take virtual field trips and research class projects. Researchers perform complicated and dangerous experiments in the safety of a virtual world where simulations can predict all possible outcomes. College students meet up with old friends in computer-generated coffeehouses despite being separated by thousands (or millions) of miles. The VRNet is a public tool, and though devious hackers and competent administrators do patrol the cyberlanes looking for trouble, they are not the only inhabitants of the virtual realm by far.

Research, communication, information warfare, espionage, blackmail, entertainment, and even romance can all be found somewhere on the VRNet, just as on the modern Internet. However, the VRNet presents a far more interactive experience than the Internet. It wraps its users in a complete three-dimensional world with a sense of movement and even tactile sensations if the user has the proper equipment.

The VRNet can also be more dangerous than the Internet. Longterm immersion in a virtual world can fool a character's mind and body into believing the computer-generated world is real, which can lead to psychosis. Avatars—the virtual online representations of individual users—are not merely vessels for movement and interaction. They can be used to attack other avatars and inflict harm upon VRNet users.

By later PL 7, the VRNet is replaced with the Hyper Immersion Network (HINet). This is a true virtual reality; those experiencing it cannot distinguish between the virtual world and the real one.

COMPUTER NETS BY PL

The various PL levels and examples of the kinds of computer networks available are presented below.

PL 4 or Lower

There is no computer network worth mentioning in a normal PL 4 or lower campaign. However, as much as it's possible to allow cybernetic devices to have a PL higher than the base for the campaign, it's possible to run a lower PL game with devices acting the part of computer networks. For example, the GM for a steampunk game set in 1880 might determine that Babbage's difference engines can communicate by harmonic telegraph thanks to the work of Alexander Graham Bell and are as good as functioning computers. This Babbage-Bell Grid would use the standard rules for computers in the *d20 Modern Roleplaying Game*, though the Computer Use skill might be called Babbage Engineering, and the smallest size a computing device could be is a large room or small house.

Similarly, a lower PL game that allows magic might have a network of crystal balls that follow the same rules as the VRNet, though nodes become known as mirrors, and noderunners are called mirror-runners. The same rules and abilities apply to this strange Looking-Glass Net; only the trappings and the fact that it's run by magic set it apart.

PL 5 to 6

From PL 5 through much of PL 6, computer nets are simply computers directly linked to share information. Initially designed to help military compounds communicate and expanded to allow easy communication between scholars and researchers, the computer networks eventually develop into the modern Internet. The rules for using the Internet are already a part of the standard *d20 Modern Roleplaying Game* rules and are not expanded upon here.

PL 6 to 7

Around the end of PL 6 and the beginning of PL 7, researchers seek to expand the usefulness of the global communications network by making it a social, interactive experience, like being at the shopping center or traveling the streets of a major city, and the Internet slowly evolves into the Virtual Reality Network, or VRNet.

Though the concept has been around since PL 5, until now true virtual worlds have been impossibilities due to the limitations on hardware and the exorbitant interface cost. The breakthrough comes on two fronts: affordable interaction hardware and highly efficient VR software. For the first time, the tools for creating virtual worlds are simple and flexible enough that almost anyone can create vivid and realistic settings in mere minutes. Eventually, this software becomes a universally recognized standard that spawns the creation of the first VR nodes. Over time, computer hardware comes with built-in VR node interpreters, allowing

users to access any computer system through virtual reality. Eventually the VRNet replaces the traditional global information network and the domains of text and flat images are converted into three-dimensional nodes that represent the information in new and interesting visual ways.

By the late Information Age, all computer systems come equipped with VR-compatible hardware and software. Though many computer systems are not linked to the VRNet itself (preventing external tampering by malicious hackers), the VRNet is still a massive sprawl of millions upon millions of nodes (virtual reality locations). Each of these nodes is an adventuring locale in its own right—a place where heroes can interact with other characters or clash with enemies on a virtual battleground. As humanity spreads into the stars, the VRNet spreads as well to encompass not only all of Earth, but also other worlds and colonies as well.

The VRNet needs a slew of special rules, which are provided in this chapter. Some additional implants also apply to the VRNet; these can be found in Chapter Two.

PL 7 to 8

A technological descendant of the VRNet, the Hyper Immersion Network, or HINet) comes into existence around the end of PL 7 and the beginning of PL 8. Unlike its predecessor, which only emulates images and occasionally textures through the interface hardware, the HINet is a completely realistic virtual world that is indistinguishable from the real world. Accessing the HINet requires a cybernetic implant, in the form of a neural interface. It completely immerses the senses of its users—they lose all awareness of real world. People on the HINet are unable to tell the difference between the virtual world and their own reality, since every sensation, every smell, and every texture is perfectly rendered in virtual space.

VRNET RULES

The VRNet is more than an advanced Internet. It's a virtual world than can be navigated, fought over, invaded, defended, and altered to fit the whims of its users. Those who spend a great deal of time in the VRNet are called noderunners, and these individuals often spend considerable time and money perfecting the balance of gear, implants, and skills they need to become masters of this world that exists only in the datastream. The rules needed to run noderunner characters and adventures in the VRNet are presented below.

Several variant rules, including those needed to run a campaign with an HINet, are offered as well.

Nodes

Node is a generic term referring to a virtual location on the VRNet. Any computer system equipped with VR hardware and software can have one or more nodes. The linking of these nodes across a network is what creates the VRNet. Nodes are places where VRNet-based adventures can occur. A node can serve a single purpose, have many functions, or have no purpose at all. Some nodes are filled with complex

toolsets, and others are merely data repositories. Other nodes are simply a graphical representation of a computer system's various files, programs, and directories, making navigation and manipulation a much simpler task.

Each node has some graphical representation that illustrates the function of the node. A node can take on any graphical form the owner chooses. Some entrepreneurs make a living by designing professional VRNet nodes. A node's visual style depends solely on its owner's tastes. An owner with a flair for design might have a node resembling a magnificent palace, while a less creative node designer might opt for simplicity and build a node resembling a large white room filled with black file cabinets.

Traveling across the VRNet is like visiting thousands of different worlds and time periods. A VRNet user's avatar might step from a Wild West saloon into an Irish castle and then hop over to a futuristic hovering restaurant in the middle of an asteroid field to meet a friend. Even nodes disconnected from the VRNet—ones existing within freestanding computer systems—have graphical representations. Most VR computer hardware comes with a standard bare-bones graphical style that gives its user enough visual cues to navigate the node.

While most computer users will never use their VRNet hardware to dive into their home security system or poke around the software that runs their car stereo, it can be done. Heroes might find cause to access a door's security lock or activate a defense system from the virtual inside. While each node is different, few people but hackers, criminals, and technicians ever see the VR representation of these mundane systems, and they are typically quite bare and bland in their design.

Secrets of Node Design

Every node is designed with an individual graphic style. Various common style sets make up the bulk of the objects found across the VRNet. As such, many nodes follow a similar visual style, and most of the amateur nodes are similar in design. Only professionally designed nodes deviate from these standard toolsets, but even they share several recognized elements. At the very least, the visual style of a node conforms to certain standards that have been established across the VRNet to make navigating the network easier for most users. Even when they take different forms, these standard elements can be broken down into three categories: barriers and portals, inanimate objects, and interactive objects. These elements of a node's visual design are tied to certain programs that run either actively or passively and anything that can be seen, touched, or manipulated on a VRNet node can be classified in such a way.

Barriers and Portals

Barriers and portals make up the file and directory structure of any VR computer system.

As an avatar moves between rooms in a VRNet node, he is actually moving between different directories on a particular system. The walls of that node (which might appear
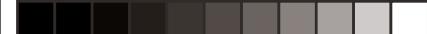
as physical walls, transparent force fields, or any other form the designer chooses) are barriers. Barriers are the limitations of a particular directory; put another way, objects contained within the walls are actually programs or pieces of data contained within that particular directory. So, when an avatar moves into a room and picks up a calculator, what actually happens is that the user has moved into a particular directory containing a calculator program and has begun manipulating it.

Portals not only transfer avatars between rooms on a node (as in the case of a door between one room and the next) but can also transport avatars between two separate nodes. Portals take many forms, from simple doors to swirling magical vortices, but in every case, a portal simply allows avatars to move from one location to another in the VRNet. Most portals to other nodes are one-way links that transport an avatar completely over to the other computer system. Some nodes have return portals, but for the most part, a portal simply gives visiting avatars the virtual address of the target node and sends them on their way.

Inanimate Objects

Most VRNet nodes contain inanimate objects. These include purely decorative items, such as artwork (images) or televisions (movie files), and functional items such as chairs and tables. Inanimate objects are the simplest of programs: They output visual and sometimes tactile data to an avatar, but serve little or no purpose other than decoration. Inanimate objects are easy to create and dispel and they take up very few system resources. Additionally, raw data (such as text information) is considered an inanimate object. Traditional objects, such as books, tablets, and scrolls, represent most data of this type. Avatars can typically conjure up inanimate objects at will from a set data library, which contains most common household items as well as any custom items the avatar might have at hand.

Interactive Objects

Interactive objects are complex programs that serve a purpose or function. Most interactive objects are simple programs by most standards. They are the scientific calculators, typewriters, computers, paintbrushes, and canvases found on nodes. Interactive objects can also represent complex programs, although extremely complex programs are typically represented as nodes of their own. For the most part, interactive objects take some time to program, although they can be stored on an avatar's available memory for quick access. Any object that can be acted upon and that reacts in some way other than simple movement is considered an interactive object.

Moving between Nodes

There are several ways to move between nodes on the VRNet, including various methods of travel based on custom software. The most common methods of traveling between nodes are portals (see Barriers and Portals, above) and the

Everything Is Software

The most important fact to remember when adventuring on the VRNet is that everything is a piece of software of some kind. Buildings and rooms are simply graphical interpretations of a file structure program, avatars are merely collections of processes belonging to a single user, and even aides, viruses, and other autonomous creatures in cyberspace are all just carefully crafted pieces of artificial intelligence serving a preprogrammed purpose.

Additionally, noderunning uses simple actions on behalf of the avatar to execute complex commands. Not only is everything software, but every action is a symbol. When an avatar walks through a door, it is actually following an electronic pathway to another part of the system. Combat is represented in easily understandable terms (punches, kicks, gunshots, and so forth) so the user's mind can grasp the concept of what is happening without needing to know the details.

When using a VRNet, nothing that happens within the net has any direct effect on noderunners. A noderunner whose avatar is killed can simply start over with a new avatar, though he loses any progress he has made toward a specific goal. When playing with the HINet, however, noderunners are far more vulnerable, and can be deafened, confused, or even killed (see HINets, page 57).

"direct hop" method. The direct hop method requires an avatar's user to know the virtual address of a particular node, which is made up of a string of letters and numbers, from memory. A user who visits a particular node several times can learn the virtual address of the node and visit it at will, in much the same way as a person might memorize the location of a particular restaurant and walk directly to it rather than taking a bus route. Some nodes block direct access, however, forcing avatars to enter the node through a designated portal.

Other programs can be used to transport an avatar from one node to another, but portals and direct hops are the only forms of internodal transit built into the VRNet code. Other means of travel might vary greatly from program to program and are considered software upgrades to an individual avatar or node.

Not all nodes are intended for public access. Some are blocked off to all but designated avatars (who are given software "keys"), and others are simply closed to the outside world. Some nodes require password access or a specific route of entry (ensuring that only select members can enter and preventing someone from using another person's VR interface and avatar to break into a particular node). To pass through a restricted portal, an avatar must either provide the proper key or password, or the user must make a Computer Use check against the node's portal DC to pass (see Sample Nodes, page 43, for more information on portal DCs). Node security is a major concern for the VRNet, and each node has a series of roadblocks that must be overcome to gain access.

What Can Be Done on Nodes?

Though much has been said so far about the versatility and usefulness of the VRNet, what can be done on a node might not be readily apparent. If a node is simply a virtual representation of a single computer system, avatars (and their users) have a number of options for what exactly they can do. For the most part, an avatar can run any program stored in its available memory that does not violate the rules of the node. Any software designed to overcome security or read encrypted data is certainly outside the realm of acceptable program usage, but can still be done if the avatar is capable of covering her tracks. Otherwise, unless a node has a particular restriction on what programs can be run within its confines, an avatar is free to execute any programs it has access to. For most users, this simply means doing things such as keeping notes on a word processing application or making use of an agent (see page 53). In the event that an avatar chooses to run a program designated as off-limits by the node, the user must make a Computer Use check to overcome the permissions DC of the node before the program is executed (see Sample Nodes, below, for more information on permissions DCs).

A node can also control a piece of equipment or system in the real world (such as a traffic computer that controls traffic lights or a computerized surveillance system). If a noderunner can take control of a node by becoming its administrator (see Administrator Functions, below), he can operate any of the devices the node controls.

Administrator Functions

Many of the basic functions of a node work automatically for its administrator. An administrator also controls what the types of programs are allowed and restricted.

Normally a node has at least one designated administrator who has a password or code-key that automatically grants him administrator access to the node. If there is no administrator set, a noderunner can attempt to make himself the administrator of a node by making a Computer Use check (DC 10 + the node's permissions DC). A check that fails by 5 or more automatically informs anyone monitoring the node (generally its owner, operators, or users) that a failed administration hack has been attempted.

If an administrator is present, even if it is an automated one (see Agents, page 53), it is not possible for a noderunner to become administrator without defeating the current administrator. The rules for avatar conflict are presented below. If an existing administrator's avatar or acting agent is killed or forced to leave the node, a noderunner can attempt to gain administrator status as described above.

For this reason, secure nodes always have at least an agent acting as administrator and often have a live noderunner filling the role. Other agents and noderunners might be present as well. While these cannot also be administrators (only one administrator can be active in a given node at a time), they can help defend the administrator.

Avatar Interaction

Other than running programs, one chief use of the VRNet is simple avatar interaction. When two users wish to meet in the virtual world, their avatars need only be present in the same area of the same node. Additionally, some pieces of communications software make it possible for two avatars to speak and transfer data across different nodes (provided that one avatar or the other is not inside an area blocked off from the rest of the virtual-reality world). Avatars can interact with one another just as they interact with objects on the nodes, from touching and manipulating them to running programs on them. Additionally, two users can pit their avatars against each other in combat; seeing two avatars locked in battle is surely a sign that two users are hurling complex programs and devious hacks at one another.

Data Storage and Access

The VRNet is first and foremost a tool for data storage and access. How data is presented varies from node to node. On one node, avatars might access data by speaking with a virtual character. In another node, heroes might find the data stored on dusty scrolls in some unknown language. When an avatar comes across data on a VRNet node, she has several available options. If the data is free and open to the public, it can be viewed and copied at will. Some data must be purchased, and other data is off-limits to all but those with a correct password or software key. In the latter case, an avatar can attempt to break the data encryption with a Computer Use check against a DC that varies depending on the level of encryption.

Once the encryption has been broken on restricted information, more options are available to the avatar as described below.

Altering Data: Altering a relatively small piece of data (such as a brief message) requires a DC 15 Computer Use check and takes a full-round action. Altering a larger chunk of data has the same DC but takes 1 minute or longer (GM's discretion).

Copying Data: Once an avatar has access to a piece of data, it takes a move action to copy the data. Copying data does not require a Computer Use check.

Decrypt Data: Data accessed within a node can be encrypted (usually by the node's creator). An avatar that accesses encrypted data gets nothing but a jumble of indecipherable words. A full-round action followed by a DC 25 Computer Use check decrypts the data, putting it into words or terms the avatar (and its user) can comprehend.

Destroying Data: An avatar that gains access to a particular piece of data can destroy it as a full-round action. No Computer Use check is required. The destroyed data is lost and cannot be accessed by normal means on the VRNet node.
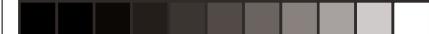
SAMPLE NODES

The following sample nodes represent the kinds of common nodes that characters might find and explore on the VRNet. While these examples are not typical of all VRNet nodes, they do illustrate the various concepts presented in the chapter. Each sample node includes a description of the visual style of the node, a brief history and statement of the node's purpose, and several pieces of relevant information for the GM to run an adventure in the node.

Type: Private, Public, or Private/Public. Private nodes are not accessible to everyone; avatars wishing to gain entrance without the proper authorization or software key must hack their way in (with a successful Computer Use check). Public nodes are open to everyone. Private/Public nodes are accessible to everyone but have some private areas or zones intended solely for administrators or other specified users.

Portal DC: An unauthorized VRNet user must make a Computer Use check against the node's portal DC to grant his avatar access to the node or unlock a restricted area within the node. Not all of a node's portals are necessarily the same; some might be unlocked, while others might have a higher or lower portal DC than normal.

Permissions DC: Whenever an avatar wishes to execute a program normally not allowed in the node, the avatar must first make a Computer Use check against the node's permissions DC. If the check succeeds, the program can be executed.

Detection Range: An avatar that fails a Computer Use check to open a locked node portal or to execute an outlawed program within a node might inadvertently trip the node's security systems. The avatar must fail the check by a number equal to or greater than the node's detection range to activate the node's security countermeasures.

Active Administration: This denotes whether or not the node has an active, sentient administrator (a VRNet user, typically the node's designer). A "No" in this entry means that automated programs monitor security for the node.

Lord Vapor's Lounge

Named after a famous 21st-century hacker, Lord Vapor's Lounge is a virtual hotspot where the VRNet elite gather to socialize in the confines of cyberspace. A natural evolution of the chat rooms of the early Internet, Lord Vapor's Lounge is one part nightclub and one part underworld haven. Members of all strata of society visit the Lounge; the anonymity provided by an avatar makes it easy to hide one's real-world social standing. That said, users with designer avatars (avatars crafted by the most expensive VR designers) enjoy plenty of attention in Lord Vapor's Lounge and are often treated by the rabble like film stars.

The node is modeled after the most cutting-edge nightclubs and has evolved over the years, changing with the fads. The club features a central meeting area where thousands of avatars can interact in public, with private or group rooms available off the main thoroughfare (with portals leading directly to the individual room an avatar wishes to visit).

The social club aspect of Lord Vapor's Lounge is merely the surface, however—the node has become a haven for hackers and other elite VRNet users to meet and discuss the latest VR software. Pirated and illegal software is exchanged every nanosecond in the back rooms of Lord Vapor's Lounge, and anyone wishing to find a particularly talented hacker would do well to make some friends of the talented administrative staff of the node.

Additionally, since the node is a haven for people considered to be troublemakers by most of the legitimate VRNet, Lord Vapor's Lounge has a permanent software block on all weapons: Each time an avatar wishes to use a weapon program, he must first succeed on a Computer Use check against the node's permissions DC.

Type: Private/Public.
Portal DC: 25.
Permissions DC: 30.
Detection Range: 5.
Active Administration: Yes.

1. Entrance

The entrance portal of Lord Vapor's Lounge takes the form of an old 1930's-style taxi, which pulls up in front of a vast building of art deco style and bright neon lights. From here, avatars must jog up a set of stairs and pass through the main doors to gain access to the lounge. At least two administrators are present at the front doors at all time, and those few individuals who have made themselves unwelcome are politely (but firmly) asked to leave before passing through the doors.

Avatars leave the same way they entered, with a taxi pulling up to take them to other portals.

2. Central Meeting Room

An open area with many tables and chairs. The number of tables is flexible, ensuring that a few tables are always open open but never a large empty section. If the area becomes too crowded, the support columns become spiral staircases and a second (or third, or fourth) floor of seating is added.

Lord Vapor's Lounge is taking advantage of the new HINet technology to begin offering food and drinks, though they're impossible for avatars using VRNet rigs to enjoy. Each table has a menu, and anything ordered simply materializes. Since the food and drink is just programming simulation, there's no charge for it (yet).

3. Booths

The booths are slightly more private than the tables in the common seating area. They are muffled, so the music heard throughout the central meeting room is muted here. Anything said in a booth cannot be heard from outside the booth. Avatars still sitting here are visible, however, and friends and casual business partners often use the booths for nonsecret meetings.

COMPUTER NETWORKS

LORD VAPOR'S LOUNGE
ONE SQUARE = 5 FEET

- ● COLUMN
- --- ABOVE THE FLOOR
- 3-D ENTERTAINMENT SYSTEM
- VENDING MACHINE
- CONFERENCE TABLE WITH CHAIRS

1

11

9

9

9

6

2

7

8

3

4

11

DANCE FLOOR
(FLOATING LOUNGE ABOVE)

5

9 9

9

11

9

12

12

10

N
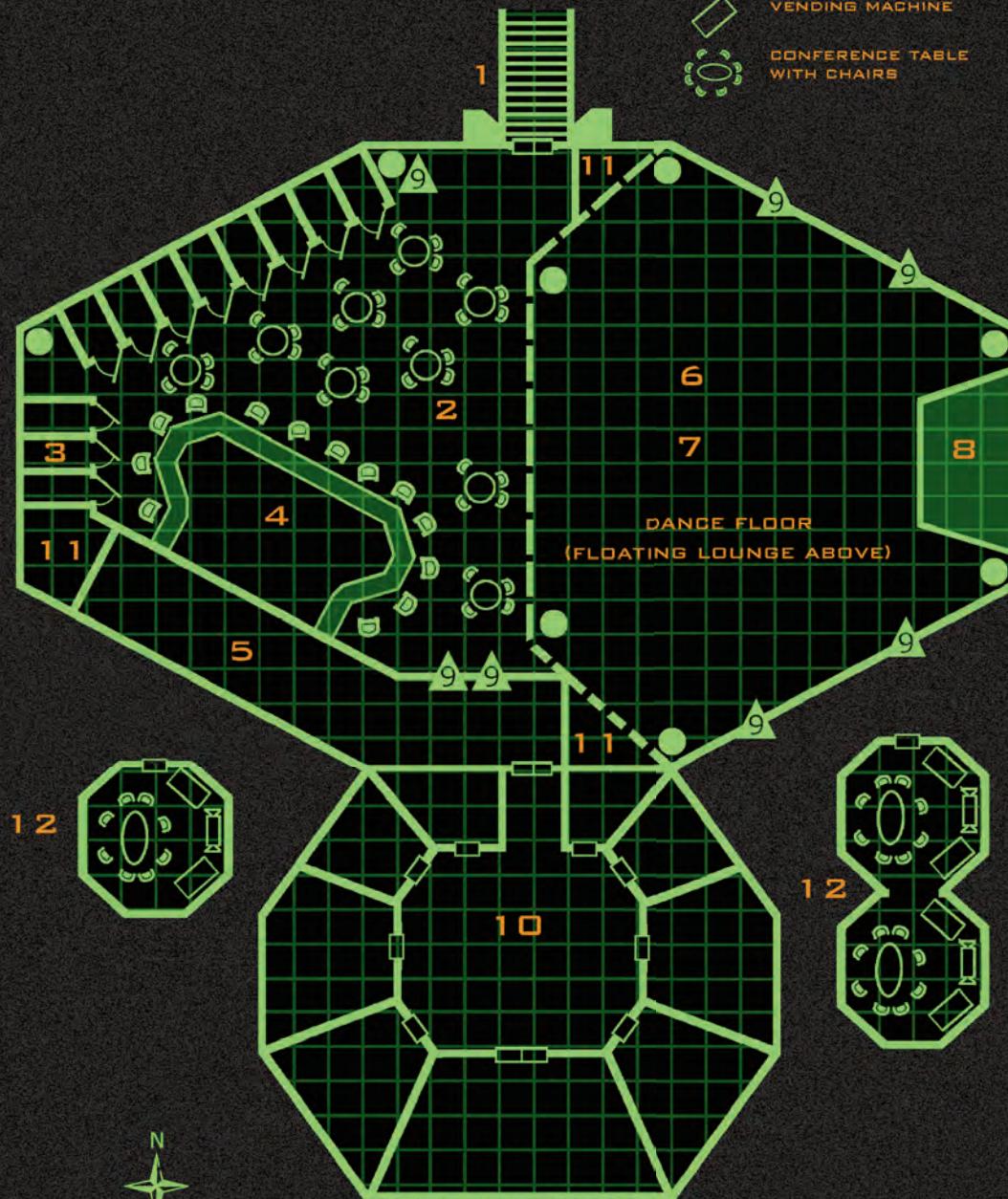
4. Bar

The bar area is more a social gathering place than the central meeting room and those with HINet jacks can enjoy a variety of cocktails. The node administrators generally take the role of bartenders, however, so anyone who has business with the node's owners goes to the bar. The administrators often give advice and directions to patrons or take messages for regular customers. Many hackers share programs and tips at the bar.

5. Administrator's Lounge

Behind the bar is the administrator's lounge, with direct access to the back rooms and washrooms. Only administrators can gain access to this area, which they use to relax and discuss business in private. Anyone attempting to force his way into the administrator's lounge without a pass must first make a Computer Use check against the node's portal DC, but even still the administrators are alerted and an alarm is set off in the area (though no sign of trouble is given to the other areas of the node).

6. Dance Floor

The dance floor is a large, open dance area with a glowing grid floor, multicolored spotlights, flashing strobe effects, and various DJs in floating music platforms. Each time an avatar gets on the floor, it can choose music from one of the DJs to listen to. Thanks to complex programming, the DJs always play songs with similar tempos and lengths, so two avatars can dance together even if they're hearing different music.

7. Elevated Lounge

Located above the dance floor, the elevated lounge is a VIP area restricted to known celebrities and popular customers. An administrator at the entrance tags those allowed into the elevated lounge when they enter the node, and anyone who is well known, or has an avatar that looks particularly good, can gain access. The permission lasts until the avatar leaves the node and must be gained again upon returning. This allows the administrators to keep the elevated lounge current by not granting access to people who fail to keep up with the cutting edge of avatar design, or who have used up their 15 minutes of fame.

8. Stage

When Lord Vapor's Lounge has entertainment, which is fairly often, it's presented on the stage. Many music stars get their start as amateurs performing at the lounge, and it's not uncommon for talent scouts to spend spare nights here looking for the next hot thing. Administrators book the talent (hopefuls are interviewed at the bar) and at least once a week an open mike night is held for performers of all sorts.

9. Private Room Portals

These doorways lead to private rooms that any visitor to the Lounge can use free of charge. Each time an avatar goes through a doorway, it is given the option of creating and naming its own room, or requesting permission to enter an existing room. The avatar is given access to the names of rooms in use, not to who is in them, and only the person who created a room can give a new avatar access.

Lord Vapor's Lounge

COMPUTER NETWORKS

10. Back Rooms

The back rooms of Lord Vapor's Lounge are reserved for trusted patrons and friends of the node. Here they can do business more openly and not concern themselves with law enforcement or corporate spies, who aren't given access. Gaining an invitation to the back rooms is a sign that a hacker or noderunner is coming of age and is generally arranged by a well-trusted regular who already has a backstage pass. Anyone attempting to force his way into the back rooms without a pass must first make a Computer Use check against the node's portal DC, but even still the administrators are alerted and an alarm is set off in the area (though no sign of trouble is given to the other areas of the node).

Unlike in the elevated lounge, once permission has been given to enter the back rooms it is rarely revoked, and then generally only for taking inappropriate actions within the back room or for violating the rules of the node.

11. Washrooms

Though avatars have no need of such things, fully equipped washrooms are located around the lounge. Most patrons assume they exist purely to help maintain the illusion of the lounge as a physical place, but in reality avatars of close friends or lovers often use them for liaisons that aren't quite private.

The washrooms have viewscreens that display the dance floor, common seating area, and entrance of the lounge.

Creating Nodes

Any campaign that prominently features the VRNet might encourage heroes to create their own nodes. To create a node, a character must first purchase a VRNet server (for the cost of a standard computer). He must then spend a minimum of 1 hour designing the basic visual style of the node. A truly elaborate node takes significantly more time to create. Some designers spend several hours each day creating new content for their nodes.

The owner of a node determines who can and can't enter the node. The portal software and permissions software that comes with the server allow the owner to lock any or all of the node's portals, as well as prevent the execution of certain specified programs. The owner must make two Computer Use checks, the results of which determine the node's portal DC and the permissions DC, respectively; the owner can take 20 on both checks.

A node is under active administration only when its creator's avatar (or the avatar of another VRNet user hired by the node's creator as an administrator, or an agent assigned to the role) is active within the node. If no administrator avatars are present, the node's default detection range is 10. When the node is being actively administrated, the detection range is 5. If the node's detection range is violated, the owner (assuming she is online) instantly becomes aware of the violation. Certain programs and class features can reduce a node's detection range.

12. Private Rooms

The lounge's private rooms are a common meeting place accessed through the private room portals scattered throughout Lord Vapor's Lounge. They follow all the same rules as the rest of the node (including the software block on weapons). There is no limit to how many private rooms can exist, nor are they actually connected to the lounge except through the portals (a Cybernaut who wallhacks a section of a private room finds himself lost in the VRNet, rather than inside Lord Vapor's Lounge).

When an avatar creates a room he must name it, and no two rooms can use the same name (though they can be numbered—Private Party 1, Private Party 2, and so on). Anyone else going through a private room portal can request entrance into a specific room. The avatar that created the room can see and hear the avatar asking for entrance and can grant or withhold permission; the avatar requesting entrance to the private room cannot see nor hear inside the private room unless allowed to do so by the room's creator. Lounge administrators can access the list of room names and the names of avatars occupying each room. To guarantee privacy, administrators cannot gain access to the rooms without permission from the avatar that created them, but the administrators can end a room, dumping everyone in it back into the common meeting room of the lounge.

Each private room has a conference table, vending machines, a sound system, and posters that change over time. If more than six avatars enter a private room, it automatically doubles in size, adding a second private room onto one of the walls with a portal and eliminating the wall between the two rooms. Every six additional avatars result in another room being added, though the rooms continue to simply tack on at one end, eventually creating a long hall not suited for a large number of avatars to interact.

VRBank

The global banking service known as VRBank operates entirely within the VRNet. Its node is a hub of commercial and corporate activity. Customers come to the node to conduct bank transactions, examine their funds, make currency exchanges, and even receive financial advice from customer support avatars.

The node graphically resembles a massive office building. Hundreds of rows of avatar bank tellers and several thousand automatic banking machine programs take up the ground floor. The portal to the other portions of the node looks like an elevator sitting to one side. The elevator transports avatars to any number of locations throughout the rest of the node. VRBank features a number of areas for customers to interact with the avatars of bank employees (of all nationalities and all multilingual) as well as private, restricted areas where only bank employees and executives can go.

The VRBank node is heavily monitored, much like a real bank, and the node includes an area known as the Vault. The

Vault is where all bank transaction programs are run and data files containing account information are stored.

Type: Private/Public.
Portal DC: 20.
Permissions DC: 25.
Detection Range: 5.
Active Administration: Yes.

WATCHTOWER

Watchtower is a popular public node used by avatars to navigate the vastness of the VRNet. Privately owned but available to the general public, Watchtower is merely a graphical representation of a massive searchable database of VRNet nodes. The search engine of choice for most VRNet visitors, Watchtower is used to find a particular VRNet node by searching for owners, content, services, and almost any other aspect of a VRNet node that can be described in words. Additionally, visitors to Watchtower can step through portals directly to a chosen node, making travel to any given node a simple matter of entering the search criteria and popping through a portal. Watchtower's design is reminiscent of a lighthouse. Avatars enter into the lower level of the tall, cylindrical tower structure, and they give their search criteria to an automated avatar dressed as a mariner. A short trip up an elevator leads to the central area of the lighthouse, where the windows display a panoramic view of all possible nodes matching the search phrases. Once a node is selected from the list, a portal opens in the center of the room that sends the avatars to the desired location.

Type: Public.
Portal DC: 15.
Permissions DC: 15.
Detection Range: 10.
Active Administration: No.

AVATARS

Avatars are software representations of individual characters or programs. A VRNet user must have an avatar to interact with anything on the VRNet.

An avatar is the user's eyes and ears in the boundless confines of the VRNet. It takes the form of a three-dimensional interactive model that cannot overlap with any other object in the VRNet (that is, it occupies its own virtual space). More than just a reflection of its user's personality, an avatar is a collection of allocated memory that transfers the user's personal programs from node to node. Additionally, avatars represent their individual users in VRNet combat and any attacks made against an avatar actually represent attacks on the VRNet user's computer hardware and software.

All users on the VRNet must have an avatar. There are no floating, formless avatars that drift from node to node, unable to be touched. This restriction is built into all the software and hardware that makes the VRNet work. Avatars can take many forms and have many functions, but

POINT-OF-ORIGIN COMPUTERS

The computer from which a character logs onto the VRNet is called a point-of-origin computer. Every point-of-origin computer has a built-in node (sometimes referred to as the point-of-origin node). Basically, it is the virtual, three-dimensional equivalent of an Internet home page. The point-of-origin node is where the user's avatar first appears when the user logs in. If the user does not have her own avatar, a pregenerated one is created for her so that she can explore the VRNet. She can then alter the avatar's appearance to suit her personal taste.

Many users use VR software to protect their point-of-origin computers and nodes against hackers (see VRNet Software, page 51, for examples). When a user logs off of the VRNet, her avatar, wherever it might be in the virtual universe, simply dissolves. If the user logs back on, the avatar reappears in the computer's point-of-origin node.

even amateur VRNet users can put together a reasonably unique avatar within a matter of moments. All VR computer hardware comes with a selection of default avatars that can be used on the fly, but most VRNet users have their own custom avatars that can be accessed while on any computer system. If an avatar is destroyed, the user must create another one from scratch.

AVATAR APPEARANCE

Avatar appearances vary widely, from simplistic stick figures to more elaborate and bizarre designs. Most hackers and veteran VRNet users design their own custom avatars. Others, particularly wealthy users, pay professional avatar designers hefty sums of money to create avatars that are both unique and not easily duplicated—the VRNet equivalent of having a personal tailor or fashion designer. A massive toolset exists for the creation of avatars, so VRNet users encounter a whole spectrum of avatar designs. There is no "typical" VRNet avatar. They come in all shapes, from Roman gladiators and Valkyries to Ray Harryhausen skeletons and lovable cartoon characters.

Avatars are limited in size to the VRNet equivalent of a Medium-size character, since collision problems could occur with giant avatars in small node spaces. Most VRNet nodes have programs that detect and dispel inappropriately sized avatars, although talented hackers might be able to modify their avatar's size for short periods of time before their handiwork is detected and scrapped. Otherwise, there are few limitations on avatar appearances and the VRNet community generally encourages creativity.

AVATAR UPGRADES

Another important aspect of an avatar is its ability to store software (including any virtual items it appears to be holding). All avatars can hold up to 10 blocks of available memory; this is a standard number across the VRNet that

is universally built into all VR software and hardware. Whenever a user writes a particular program, he must store that program in his avatar's available memory, or it cannot be used. If an avatar doesn't have enough available memory blocks to store a program, the user must choose to delete other programs carried by the avatar before the new one can be stored. Each program comes with a standard memory cost, indicating the number of blocks of available memory the program requires for storage. Each piece of software has a physical representation in the VRNet, as determined by the author of the software, which the avatar carries as though it were an item.

Avatar Statistics

An avatar has its own statistics block that is used in place of the user's statistics block within the VRNet. The avatar's statistics block is pared down to include only statistics relevant to adventuring in VRNet nodes.

Challenge Rating (CR): An avatar's CR is equal to its user's level or Hit Dice.

HD/hp: An avatar's Hit Dice is equal to its user's level or Hit Dice. An avatar uses a d6 for hit points and gains a number of additional hit points equal to its user's Computer Use skill ranks. Furthermore, avatars always have maximum hit points. For example, the avatar of a 4th-level Smart hero with 7 ranks in Computer Use has 4d6+7 HD and 31 hit points. An avatar that is reduced to 0 hit points is destroyed and cannot be reused.

VRNet users who take levels of the Cybernaut advanced class (see page 58) can increase their avatars' base Hit Die from d6 to d8, d10, or d12.

Massive Damage Threshold (Mas): An avatar has a massive damage threshold equal to its user's Intelligence score. If an avatar takes damage from a single attack greater than its massive damage threshold, it must succeed on a DC 20 Fortitude save. If the save fails, the avatar dissolves and its user is instantly disconnected (see page 50). The avatar isn't necessarily destroyed, however—if its hit points weren't reduced to 0, it can reenter the VRNet's virtual world once its user is back online.

Initiative (Init): An avatar's initiative score is equal to its user's Intelligence modifier as well as any other bonuses from class features or feats that specifically target the avatar's initiative bonus.

Speed (Spd): An avatar has a base speed of 30 within any VRNet node. Special class features or software can modify this speed.

Defense: An avatar's Defense is equal to 10 + its user's class bonus to Defense + its user's Intelligence modifier + any software modifiers. Touch attacks ignore armor software modifiers (but not deflection software modifiers). A flat-footed avatar loses its user's Intelligence bonus to Defense.

Base Attack Bonus (BAB): An avatar's base attack bonus is equal to its user's Computer Use skill ranks.

Attacks (Atk): The user's Intelligence modifier applies to all attack rolls. (The user's Strength and Dexterity modifiers do not apply to the avatar's attack or damage rolls.) The avatar gains multiple attacks at the same rate as characters in the real world (an extra attack when the highest base attack bonus reaches 6, 11, and 16).

Fighting Space (FS): An avatar has a fighting space of 5 feet by 5 feet.

Reach: An avatar has a reach of 5 feet.

Special Qualities (SQ): An avatar can have special qualities imparted by special software or by its user.

Allegiances (AL): Avatars have allegiances the same as normal characters do; even autonomous pieces of software (such as agents, aides, and combat drones) owe allegiance either to an individual, a group, or a particular node.

Saves (SV): An avatar has the same base save bonuses as its user. Apply the user's Intelligence modifier instead of his Constitution, Dexterity, or Wisdom modifier to his avatar's base Fortitude, Reflex, and Will saving throws.

Abilities: An avatar does not have ability scores. Any actions that aren't normally resolved using skill checks are resolved with Computer Use checks.

Skills: Avatars do not have skills of their own. Whenever an avatar is called upon to make a skill check, its user makes the skill check on the avatar's behalf. Since an avatar's effectiveness in the virtual world is determined mostly by its user's computer skills, the user makes a Computer Use check to resolve most of his avatar's skill checks. The only skill uses that aren't resolved with Computer Use checks are as follows: Bluff, Concentration, Decipher Script, Diplomacy, Gamble, Gather Information, Intimidate, Investigate, Knowledge (all skills), Research, and Sense Motive.

For example, Brandon's avatar needs to make a Hide check to avoid detection in a node. Instead of making a Hide check, however, Brandon makes a Computer Use check (since hiding his avatar requires some digital legerdemain on his part) opposed by the would-be detector's Spot check. Later, Brandon's avatar attempts to bluff its way past a node guardian; since bluffing requires Brandon to use his own wits instead of his computer skills, he makes a Bluff check as normal on behalf of his avatar.

Languages: An avatar reads, writes, and speaks the same languages as its user.

Software: VR software installed to the avatar is listed here, in alphabetical order (with the memory cost of the software given in parentheses).

Available Memory Blocks: All avatars begin with 10 memory blocks, but each piece of installed VR software uses up one or more of these blocks. The number of unused memory blocks is noted here.

Sample Avatar

The following avatar—a sword-wielding knight in shining armor named Sir Pixilot—belongs to a 2nd-level Smart hero with Intelligence 15 and 7 ranks in the Computer Use skill.
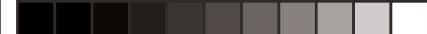
Sir Pixilot: CR 2; HD 2d6+7; hp 19; Mas 15; Init +2; Speed 30 ft.; Defense 23, touch 13, flat-footed 21 (+1 class, +2 Int, +8 heavy armor, +2 heavy shield); BAB +7; Atk +9 (1d8+2); FS 5 ft. by 5 ft.; Reach 5 ft.; SQ software; AL creator; SV Fort +3, Ref +3, Will +4.

Software: Data storage (1), heavy armor (3), heavy shield (2), melee weapon 1d8 (2), supergrip (1), voicebox (1).

Available Memory Blocks: 0.

Avatar Combat

On the VRNet, combat occurs whenever one user (or program) attacks another. Avatars representing users face off on a virtual battlefield, fighting with weapons made of software until one side or the other is destroyed or driven away.

Combat on the VRNet functions exactly the same as it does in the real world, with a few exceptions:

- An avatar reduced to 0 hit points is destroyed. All of a destroyed avatar's programs are lost, and its user is abruptly disconnected from the VRNet (see page 50).
- Avatars cannot attack objects or weapons. Objects are pieces of software and must be dissipated (see Dissipating Objects in a Node, page 52); weapons are programs that must be hacked to deal damage to them.

- Avatars cannot deal nonlethal damage and are immune to nonlethal damage as well.
- Avatars cannot grapple.

Avatar Combat Options

In the VR universe, avatars move like normal characters and use weapons like normal characters. However, their speed and combat ability is entirely a measure of their programming and their user's prowess with a computer. An avatar can enhance its speed with special software. Similarly, weapon software exists for almost any portable weapon imaginable, from virtual assault rifles to oversized boxing gloves.

Some special combat options available to avatars work differently from their real-world counterparts and are described below.

Bull Rush: An avatar can attempt a bull rush as normal. However, instead of making opposed Strength checks, the colliding avatars make opposed Computer Use checks. Avatars of greater size do not get a special size bonus on their check, and avatars with multiple legs do not get a special stability bonus on their check.

Disarm: An avatar with a melee weapon can attempt to disarm another avatar's melee or ranged weapon. If the

Avatar combat

defending avatar has multiple weapon programs installed, the attacker can choose which one to target.

Attempting to disarm a weapon provokes an attack of opportunity from the defender. The attacker and defender make opposed Computer Use checks, with the defender's check result setting the DC for the attacker's check. If the attacker's check succeeds, the weapon falls into a square adjacent to the defender. Any avatar can pick up a disarmed weapon program (as a move action).

Feint: Just like in regular combat, a feint is merely an attempt to draw an opponent's attention away from the real attack. Dummy programs might mimic other attack modes while the real weapon program comes in unseen.

Attempting a feint requires a successful Bluff check, opposed by the defender's Sense Motive check. If the feinting attacker succeeds, the next attack he makes ignores the defender's Intelligence bonus to Defense (if he has one).

Trip: An avatar can attempt a trip as normal. However, instead of making opposed ability checks, the avatars make opposed Computer Use checks. Avatars of greater size do not get a special size bonus on their check, and avatars with multiple legs do not get a special stability bonus on their check. Attempting a trip always provokes an attack of opportunity, regardless of the weapon the attacker is wielding.

VRNET HAZARDS

Many hazards await VRNet explorers. Some hazards can severely damage the computer systems of inexperienced users, and some illegal VR programs can even physically harm reckless users. Despite these perils, the VRNet is considered safe enough for the general public—at least, as safe as driving on any crowded superhighway.

Disconnected

Whenever an avatar is reduced to 0 hit points, it is destroyed and its user is automatically disconnected from the VRNet. Additionally, some other programs and VRNet hazards can cause similar disconnection. The shock of being completely disconnected from a virtual world can be harsh on the senses and can disorient a character for a brief moment. Whenever a VRNet user is forcibly disconnected, that character must make a successful DC 15 Will save or be stunned for 1d6 rounds. For HINet users, the save DC increases to 20, and the stunned effect lasts for 2d6 rounds (see HINet, page 57).

Hacked

A major disadvantage to having a VRNet presence is that it opens up the user's system for hacking. Any avatar on the VRNet can be traced back to its point-of-origin computer using complicated programs known as tracers (though some programs are designed to mask the point of origin). If an avatar's point-of-origin computer is discovered, that user's computer becomes a target for hacking. Malicious users can

target the computer system from which an avatar originates rather than targeting the avatar itself, a complicated process with potentially devastating effects. A point-of-origin computer can be hacked and altered the same as any other node on the VRNet, using the same rules for program control and data manipulation as those used elsewhere on the VRNet.

Mindscraped

Mindscraping goes a long way toward explaining why some people are afraid to use the VRNet. A mindscraper uses computer programs to invade and cripple the minds of other online VRNet users. Certain images and sounds, combined with false sensory perceptions generated by VRNet software, can trigger seizures and strokes. Mindscraping is a serious crime on most worlds equipped with VRNet technology. Mindscraping software works a lot like hacking software used to trace and attack an avatar's point-of-origin computer (see Hacked, above).

Any VRNet user subjected to mindscraping must succeed on a Will save or take ability damage, as shown in Table 3–1: Mindscraping Programs. Each mindscraping program has its own unique flavor and statistics; HINet users take a –3 penalty on saves against mindscraping programs.

Program Name and Challenge Rating: Most mindscraping programs have colorfully sinister names. Like traps, they also have a Challenge Rating (CR).

Will Save DC: The DC to negate the effects.

Damage: The amount and type of ability damage.

Purchase DC: The purchase DC of the program.

Restriction: All mindscraping programs are illegal but can be purchased on the black market (see Restricted Objects in the *d20 MODERN Roleplaying Game*, page 93).

TABLE 3–1: MINDSCRAPING PROGRAMS

Program (CR)	Will DC	Damage	Purchase DC	Restriction
Dimwit (CR 2)	12	1d6 Int	27	Illegal (+4)
IQ screw (CR 4)	15	2d6 Int	29	Illegal (+4)
Skullcracker (CR 6)	18	1d6 Int, 1d6 Con	32	Illegal (+4)
Brainvade (CR 6)	18	3d6 Int	33	Illegal (+4)
Eggburner (CR 8)	21	1d6 Int*, 2d6 Con	35	Illegal (+4)

*Half of this damage (rounded down) is ability drain.

Snared

Snares are particularly devious hazards often used by administrators to catch hackers in the act. A snare is just what it sounds like: a program designed to capture and hold in place a single avatar. Snares function by overloading the movement software of a particular avatar with junk data and resource-consuming processes, effectively immobilizing the avatar until released or until the avatar manages to escape. Snares are similar to traps in the real world and can take on many visual forms. An avatar that triggers a snare

(set to go off in a certain location on a node under certain conditions) is immediately immobilized.

Detecting a snare requires a Computer Use check; the complexity and design of the software determines the DC (most snares have a minimum DC of 21). Any avatar caught in a snare must make a successful Computer Use check (same DC as above) to escape.

Spiked

A spike is an automated tracer program that searches out an avatar's point-of-origin computer and returns that data to whichever node sent the spike. Spikes, like snares, are location-based hazards similar to traps. Once an avatar's point-of-origin computer is found, any active administrator on the node can either launch an attack on that computer or alert the proper authorities to the violation. Spikes can be detected with a Computer Use check, with the DC determined by the spike's design (usually 21 or higher).

VRNET HARDWARE

Certain fundamental hardware is required to access and use the VRNet. The following pieces of hardware come standard with any computer system capable of VRNet access.

VRNet Connection

The most important part of the whole package is the VRNet connection. This connection can take many forms, from land lines to wireless access. The computer requires access to the VRNet, either in the form of a satellite uplink or a direct connection to another computer with VRNet access. In the latter case, several users can link their computers together and dive into the VRNet as a group.

Display

A VRNet connection requires a display capable of panoramic and three-dimensional imaging. This means that flat screens and monitors cannot be used to browse the VRNet. Typically, the VRNet makes use of display goggles, display contacts, and neural interfaces that not only display images but also detect head movement so avatars can look around without having to issue commands.

Manipulator Gloves

A standard interface device included with most computers, manipulator gloves are thin, lightweight, form-fitting gloves covered with sensors. These gloves are used to direct the hands of an avatar, allowing it to pick up and manipulate items in the VR universe. Additionally, a VRNet user uses the gloves to access programs and call up hovering menus with only a few flicks of his fingertips.

VRNet hardware

G
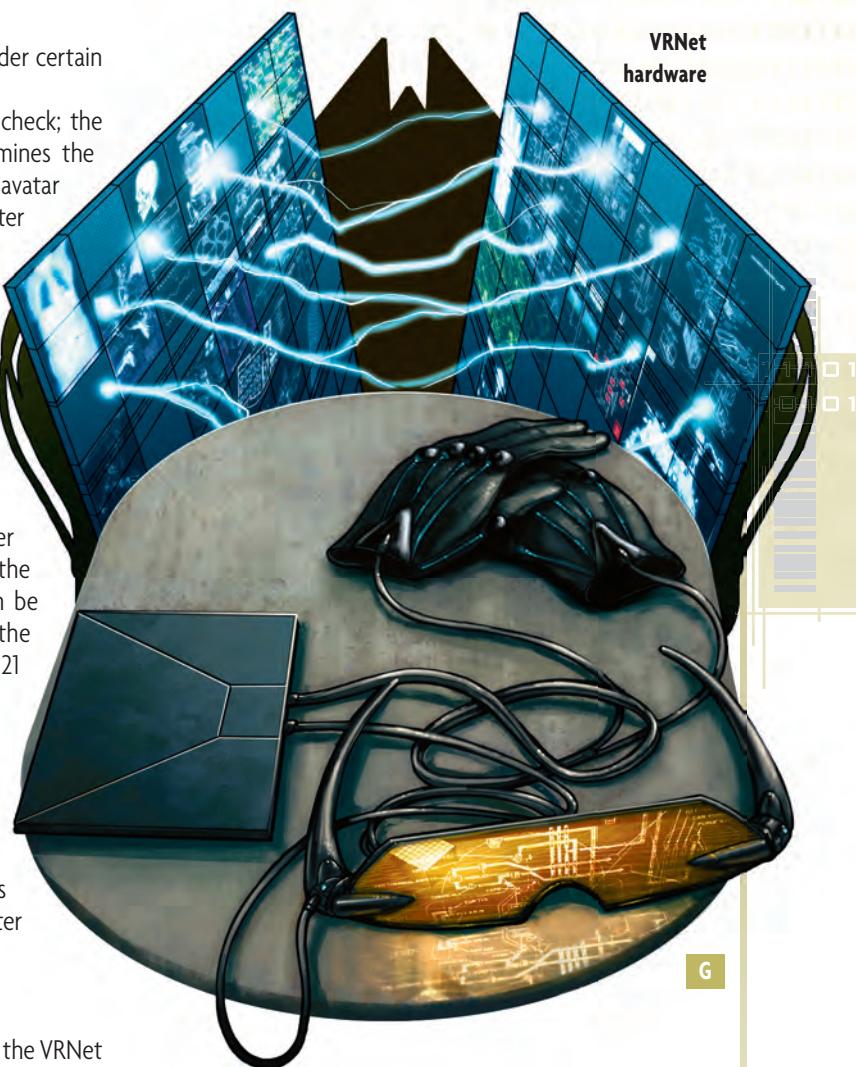
VRNET SOFTWARE

The bulk of the VRNet is composed of software running across the cyberlanes at all times. Since everything that can be seen or manipulated in the VRNet is a program, avatars must be able to use and interact with software of all types to make effective use of the VRNet. Programs on nodes are typically used to create the visual style of the node, to create objects both inanimate and interactive, and to protect the node against incursion by hackers. On a day-to-day basis, avatars interact with these pieces of software on a given node only when needed and they are rarely called upon to modify or dissipate that software. Most of the time, the only programs an avatar must deal with are those carried in its own available memory and those carried and used by other avatars.

When a VRNet user writes a new program, she has the option of making that program available as source code (basic text data that defines the program). Source code is like a set of program plans or blueprints that can be copied and used by other VRNet users. Source code should be treated like all other forms of data for the purposes of copying, altering, or deleting the code, though altering one program's code in no way alters other copies of the same program.
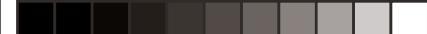
Installing Programs

Whenever a user writes a new program, that program must be installed to the avatar's available memory. This is a free action that can be performed immediately after the program is written. However, a program cannot be used until it is installed in available memory and vanishes if it is not installed before the avatar moves to another node. If an avatar doesn't have enough free memory blocks to install the program, the avatar can delete other programs to make space.

Writing and Deleting Programs

Each program described below requires a specific amount of time to write. To write a software program, a VRNet user must make one or more Computer Use checks. Each Computer Use check represents 1 round of writing, and programs that require multiple Computer Use checks require multiple rounds to write. The result of each Computer Use check must exceed the program's write DC; on a failed check, the user hits a roadblock and essentially wastes the round. He cannot complete the program until he succeeds on the requisite number of Computer Use checks. While a VRNet user is writing a program, his avatar is paralyzed and unable to act.

Deleting a program is a much simpler process than writing one. A character need only spend a move action to delete a program in available memory; no skill check is required.

Dissipating Objects in a Node

Upon encountering an inanimate or interactive object in a node, an avatar can attempt to dissipate the object, effectively destroying it. First, the avatar must gain control over the object by spending an attack action and making a Computer Use check against the permissions DC of the node. If the check succeeds, the object is deleted. Some objects, particularly those integral to the node's functionality, might have a higher than normal permissions DC (at the GM's discretion).

Barriers (including walls within a node) and portals are different from inanimate and interactive objects; they cannot be dissipated.

VRNet Software Descriptions

See Table 3–2: VRNet Software for a summary of the items described below.

Program Name: The type of software.

Memory Cost: The number of memory blocks the software consumes when installed to an avatar.

Write DC: The DC for Computer Use checks made to write the software program.

Number of Successes: The number of successful Computer Use checks required to write the program.

TABLE 3–2: VRNET SOFTWARE

Program Name	Memory Cost	Write DC	Number of Successes
Agent	1	15	2
Antivirus software	1	15	1
Armor			
Light armor (+2)	1	10	1
Medium armor (+5)	2	15	1
Heavy armor (+8)	3	20	1
Automation software			
QuickCopy	1	10	1
Teleport	1	15	2
Bullseye			
Bullseye +1	2	20	2
Bullseye +2	4	25	2
Bullseye +3	6	30	2
Communications software			
Telepath	1	10	1
Voicebox	1	10	1
Data storage	1	10	1
Deflection screen			
Deflection +1	2	20	2
Deflection +2	3	25	2
Deflection +3	4	30	2
Firewall[1]	5	25	3
Illusion software			
Invisibility cloak	5	25	3
Mist	2	20	1
Phantom avatar	2	15	1
Maxrunner			
Maxrunner +5 ft.	1	20	2
Maxrunner +10 ft.	2	20	3
Megastrike			
Megastrike +1	1	15	1
Megastrike +2	2	20	1
Megastrike +3	3	25	1
Megastrike +4	4	30	1
Shield			
Light (+1)	1	10	1
Heavy (+2)	2	15	1
Supergrip	1	15	2
Tracer	3	20	3
Virus[1]			
Brouhaha virus	1	20	3
Farewell virus	3	25	3
Guillotine virus	3	25	3
Weapon			
Area-effect[1] (3d6)	3	15	3
Area-effect[1] (4d6)	4	20	3
Area-effect[1] (5d6)	5	25	3
Melee (1d6)	1	10	1
Melee (1d8)	2	15	1
Melee (2d6)	3	20	1
Ranged (2d6)	4	20	2
Ranged (2d8)	5	25	2
Ranged (2d10)	6	30	2

1 Single-use program.
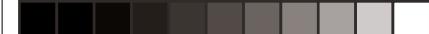
Agents

Agents are useful programs that assist in VRNet navigation. Most beginning VRNet users employ agents to speed up routine tasks. For the most part, agents are simply data search and retrieval programs that move independently throughout a node, or even throughout the VRNet itself, to obtain data requested by an avatar. Typically, an agent is incapable of performing actions that require it to overcome the permissions DC of a particular node, and it acts within the bounds of legal VRNet usage. Most agents are simple programs with no artificial intelligence, but some users give their agents personalities.

An agent does not have memory blocks in which to store software programs.

Statistics for a typical agent are presented below (using the generic low-level Smart/Dedicated Ordinary, page 281 of the *d20 MODERN Roleplaying Game* as the agent's creator). To generate an agent's statistics, use the rules for generating avatar statistics (page 48) except as follows:

Challenge Rating (CR): An agent cannot make attacks or deal damage; hence, it has no CR.

HD/hp: An agent's Hit Dice equals one-half its creator's level or Hit Dice (minimum 1). An agent uses a d4 for hit points and gains a number of additional hit points equal to its user's Computer Use skill ranks. Furthermore, agents always have maximum hit points. For example, the agent of a 1st-level Smart hero with 4 ranks in Computer Use has 1d4+4 HD and 8 hit points. An agent reduced to 0 hit points is destroyed and erased from memory.

Massive Damage Threshold (Mas): An agent has a massive damage threshold equal to its user's Intelligence score. If an agent takes damage from a single attack greater than its massive damage threshold, it must make a successful DC 20 Fortitude save or be destroyed. A destroyed agent is erased and must be rewritten from scratch.

Defense: An agent's Defense is equal to 10 + its creator's Int modifier. A flat-footed agent loses its user's Intelligence bonus to Defense.

Base Attack Bonus/Attacks: An agent has no attacks and cannot deal damage.

Saves (SV): An agent has no good saving throws. Use its creator's Intelligence modifier instead of the creator's Constitution, Dexterity, and Wisdom modifiers to determine its saving throw modifiers.

Skills: An agent has 10 skill points. Its creator determines how the skill points are spent at the time the agent's program is written, after which they cannot be changed (although the agent can be erased and replaced). An agent can have as many ranks in a particular skill as its creator. For instance, if Roberta has 5 ranks of Research, she can program an agent with up to 5 ranks in the Research skill. An agent applies no ability modifiers to its skill checks.

Unlike avatars, agents make skill checks normally. The creator does not make skill checks on the agent's behalf, and the agent does not make Computer Use checks in place of other skills.

An agent's skill points must be spent as the agent program is being written. Once the agent is completed, the skills cannot be adjusted.

Typical Agent: CR —; HD 1d4+4; hp 8; Mas 15; Init +0; Speed 30 ft.; Defense 12, touch 12, flat-footed 10 (+2 Int); BAB —; Atk none; FS 5 ft. by 5 ft.; Reach 5 ft.; SQ none; AL creator or node; SV Fort +2, Ref +2, Will +2.

Skills: Computer Use +2, Investigate +2, Research +2, Search +4.

Antivirus Software

An antivirus program grants an avatar a +4 resistance bonus on Fortitude saves against viruses (see page 55).

Armor

An armor program protects an avatar against weapon damage by improving its Defense. Unlike real-world armor, armor programs impose no maximum Dexterity bonus and apply no armor penalty or speed penalty.

Light armor provides a +2 armor bonus to Defense, medium armor provides a +5 armor bonus to Defense, and heavy armor provides a +8 armor bonus to Defense.

Most armor programs take the visual form of an actual type of armor, from plate mail and riot gear to an envelope of energy surrounding the wearer.

Agents come in many forms

AUTOMATION SOFTWARE

Automation software makes complex tasks easier. All forms of automation software allow the user to ready actions to be performed without having to actively issue a command.

QuickCopy: This program enables an avatar to copy data as a free action instead of a move action.

Teleport: This software enables the user to set up a particular condition that, when triggered, teleports the user's avatar to another node of the user's choosing. For example, a user might input the node address for Lord Vapor's Lounge, with the condition that his avatar teleports there the instant its hit points drop below 10. The avatar cannot teleport into a restricted node; the destination must be a public node or have a public area within it. Altering the condition or the destination requires a full-round action (altering both takes two full-round actions).

BULLSEYE

A bullseye program allows an avatar to hit more effectively with its ranged weapons. The bonus the avatar gains on all ranged attack rolls determines the program's memory cost and write DC, as shown in Table 3–2: VRNet Software.

COMMUNICATIONS SOFTWARE

Communications software sends information from one location to another. Most communications software is simple and easy to program and can be used by almost anyone. Many VRNet users consider these programs essential and keep them installed at all times.

Telepath: A telepath program is a piece of software designed to send simple messages instantly from one avatar to another across nodes, or within a single node. Only the intended recipient can see or hear the message, which comes in the form of either text or voice data and can span the entire VRNet. The telepath program is interrupted if either the sender or the receiver occupies a private (restricted) area that requires a Computer Use check against a portal DC to gain access. Both avatars must have the telepath program installed to make use of the program.

Voicebox: A voicebox program is essential for VRNet users who wish to communicate and interact with other user's avatars. Voicebox gives the user's avatar its voice, enabling it to speak to other avatars in its presence. (In actual fact, the program allows the avatar to send other avatars streams of data. Within the virtual universe, this data is represented as the avatar speaking out loud.) A voicebox program does not enable internodal communication (communication across nodes); for that, a VRNet user needs a telepath program (see above).

DATA STORAGE

Data storage programs are not really programs at all, but simple scripts that convert available memory into data storage space. They allow an avatar to carry around significant amounts of data from node to node without the need to store the data at any central location (such as on the point-of-origin computer). Additionally, data storage programs are required by some other pieces of software to function.

DEFLECTION SCREEN

Deflection software creates an invisible force field around the avatar, protecting it against attack. The deflection bonus the avatar gains determines the program's memory cost and write DC, as shown in Table 3–2: VRNet Software.

FIREWALL

A firewall program is a unique piece of coding that allows an avatar to erect a barrier to block certain other kinds of software. When activated, a firewall springs into place as a semitransparent wall that can be placed over a door or from one wall to another in a room on a node. Once in place, a firewall remains active and immobile until the avatar dissipates it as a free action (or until a node administrator gains control over it and dissipates it).

At the time a firewall is erected, its creator selects a specific type of software to block from the following list: agents, anti-intrusion drones, armor programs, automation software, combat drones, communications software, data storage, firewalls, illusion software, program shields, tracers, viruses, or weapons. (GMs can create other new types of programs for their campaigns and add them to the list.) The firewall blocks the specified kind of program from passing through it. Any avatar can pass through a firewall, but any programs installed in its available memory that cannot pass through either must remain on the other side of the firewall or be deleted.

An avatar can attempt to sneak programs past a firewall undetected; doing so requires a successful Computer Use check opposed by the Computer Use check of the firewall's creator, and the firewall's creator gets a +5 bonus on the check. If the avatar fails to sneak the forbidden programs past the firewall, the programs are automatically deleted.

All firewalls are one-use programs that are deleted from available memory when spent. Multiple firewalls can be erected in the same virtual space. Erecting a firewall is an attack action.

ILLUSION SOFTWARE

Illusion software modifies an avatar's image in some fashion, often for defensive reasons.

Most node administrators prohibit the use of illusion software. An avatar using illusion software within an actively administered node must make a Computer Use check against the node's permissions DC. If the check fails, the software does not function as long as the avatar remains in the node (although the avatar can leave the node and reenter to try again); if the degree of failure meets or exceeds the node's detection range, the node's administrator is alerted to the avatar's failed attempt.

Illusion software comes in many forms; described below are three of the most common.
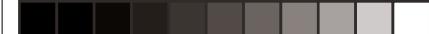
Invisicloak: An invisicloak program makes an avatar invisible. The effect of this program is identical to the *invisibility* spell (see page 349 of the *d20 MODERN Roleplaying Game*), except the duration is unlimited. Activating or deactivating an invisicloak program is an attack action.

Mist: A mist program blurs the edges of an avatar, making it more difficult to hit in VR combat. The avatar gains one-half concealment (20% miss chance). Activating or deactivating a mist program is an attack action.

Phantom Avatar: A phantom avatar program creates a perfect facsimile of the avatar. The facsimile looks and acts exactly like the true avatar and must occupy a virtual 5-foot square adjacent to the avatar; if there are no unoccupied squares adjacent to the avatar, the program cannot run.

Attacks made against the avatar have a 50% chance of targeting the facsimile instead. Any successful attack made against the facsimile dissipates it (its Defense is the same as the avatar's Defense). Activating or deactivating a phantom avatar is an attack action.

Maxrunner

An avatar equipped with maxrunner software moves more quickly than normal. Increase its speed by 5 feet or 10 feet, depending on the quality of the software (see Table 3–2: VRNet Software).

Megastrike

A megastrike program increases the damage an avatar deals with melee weapons (but not ranged weapons). The bonus on damage rolls determines the program's memory cost and write DC, as shown in Table 3–2: VRNet Software.

Shield

A shield program protects an avatar against weapon damage by improving its Defense. Shield programs impose no maximum Dexterity bonus and apply no armor penalty or speed penalty.

A light shield provides a +1 shield bonus to Defense. A heavy shield provides a +2 shield bonus to Defense.

Most shield programs take the visual form of actual shields, from medieval shields and riot shields to translucent, floating disks of energy.

Supergrip

An avatar with a supergrip program gets a +4 resistance bonus on Computer Use checks to resist disarm attempts (see Avatar Combat Options, page 49, for disarm rules).

Tracer

Tracers are programs that locate the point-of-origin computer of a given avatar. Attaching a tracer to an avatar provokes attacks of opportunity and requires a successful melee touch attack. If the attack hits, the tracer program attaches to the avatar and instantly scours its datafiles for the address of its point-of-origin computer. An avatar infected with a tracer program gets a DC 15 Will save to block and neutralize the tracer. If the save fails, the tracer pinpoints the location of the avatar's point-of-origin computer and transmits this information to its user.

Virus

A virus is designed to target and corrupt another avatar's programming. Attaching a virus to an avatar provokes attacks of opportunity and requires a successful melee touch attack. If the attack succeeds, the infected avatar must make a Fortitude saving throw. If the save succeeds, the virus is neutralized. If the save fails, one or more of the avatar's programs (determined randomly by the GM unless otherwise noted) are corrupted. Corrupted programs cease to function and must be deleted and replaced.

Viruses are one-shot programs that are deleted from an avatar's available memory once successfully attached to another avatar.

Megastrike and shield
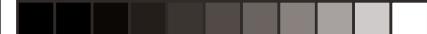
TABLE 3–3: VIRUSES

Virus Name	Save DC	Corrupted Programs
Brouhaha	12	1d2
Farewell	15	1d4
Guillotine[1]	18	1

1 Corrupted program selected by attacker rather than GM.

WEAPONS

Avatars use weapon programs to harm one another in combat. Weapon programs take many forms but are grouped in three categories: melee, ranged, and area. In the virtual world, a weapon program takes a specific form, such as a machine gun, a katana, or a stop sign. A weapon's size and configuration have no bearing in VR combat. An avatar can wield a chainsaw that deals 1d6, 1d8, or 2d6 points of damage, depending on the complexity of the melee weapon software. Furthermore, the type of damage a weapon deals is irrelevant. It doesn't matter whether a weapon deals piercing damage or slashing damage, for example. All weapons, regardless of how they look, are merely programs designed to attack and destroy the programming of other avatars.

Although effective against avatars, VR weapons cannot damage objects (see Dissipating Objects in a Node, page 52). Exceptions to this rule exist. For example, a node architect can construct objects that are susceptible to weapon damage, either to make the node environment seem more authentic or to create destructible obstacles intended to be smashed and overcome.

Area-Effect Weapons: Area-effect weapons include grenades, explosives, and devastating spell-like effects that target an area instead of a specific avatar. Area-effect weapons follow the rules for thrown explosives and have a burst radius of 10 feet (see the *d20 MODERN Roleplaying Game*, pages 148–149). These programs are fairly easy to write but consume a significant amount of available memory. In addition, all area weapons are one-use programs that are deleted from available memory when spent.

Creating an area-effect weapon with an extra use increases the write DC by 5. Increasing the weapon's damage by 1d6 or its burst radius by 5 feet increases the write DC by 5 and also costs an additional memory slot.

Area-effect weapons do not deal critical hits.

Melee Weapons: Melee weapons include swords, axes, spiked gauntlets, and other traditional weapons. Since melee weapon programs are simple, they take relatively little time to create and take up less available memory than area-effect weapons or ranged weapons. All VR melee weapons have a reach of 5 feet and do not provoke attacks of opportunity when wielded in combat.

Extending a melee weapon's reach to 10 feet increases the program's write DC by 10 and also costs an additional memory slot.

Melee weapons have a threat range of 20 and a critical multiplier of ×2. Increasing a weapon's threat range by 1 or

increasing its damage multiplier by 1 increases the program's write DC by 5 and the number of successes by 1, and the program costs an additional memory slot.

Ranged Weapons: Ranged weapons include handguns, laser weapons, whips, eye beams, magic spells, bows, crossbows, shuriken, and other devices that target a specific avatar. They deliver attacks out to a distance and are more difficult to create and store than melee weapons.

All ranged weapons, regardless of form, have a maximum range of 300 feet and a range increment of 30 feet. Extending a weapon's range increment by 10 feet increases the write DC by 5.

Ranged weapons have a threat range of 20 and a critical multiplier of ×2. Increasing a weapon's threat range by 1 or increasing its damage multiplier by 1 increases the program's write DC by 5 and the number of successes by 1, and the program costs an additional memory slot.

COMPUTER NETWORK RULES MODULES

Below are a number of variant rules a GM might decide to use when establishing how computer networks work in his campaign. Each of the rules modules below presents one set of alternate rules that work with the basic rules for computer networks and noderunning.

BROADCAST NETWORK

Any of the computer network systems can be run as a broadcast network if the GM wishes to add the necessary technology, but broadcast network rules work best in PL 8 or with the HINet. In essence, the broadcast network rules module assumes that some technology exists that can broadcast and receive computer information through a previously unknown medium that cannot be warded against. In fact, the system can modify electronic pulses in a hardware device through pure broadcast, requiring no direct, wired link.

The result of this is to make everything electronic part of the HINet, from the lowliest digital watch to the supercomputers of national defense systems. It's not possible to have a node that isn't accessible—the broadcast system connects all computers whether their owners want them to be connected or not. Even a computer that's turned off is vulnerable, because its data can be accessed and modified directly by the power of the broadcast. The broadcast itself can come from anywhere the GM desires—a strange side effect of hyperspace, an undiscovered alien generator, or the next generation of personal phones all working in concert. (In a magic campaign, it might even be the Astral Plane or some artifact, and as a result it can even access print works with no electronic component—even novels can be hacked). The point is that the broadcast is all-encompassing and cannot be turned off.

This has three primary effects. First, access to any computer system anywhere is possible. The only way
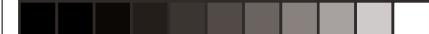
to make a node secure is for avatars to actively guard it and watch for intruders. Second, any electronic device is accessible to alteration. Everything is a node, and a skilled noderunner can jump into the node of a wristwatch to change the time, a traffic light to change the light from red to green, a security camera to point it away from a robbery, or even a cybernetic device to take over its function.

Navigating the vast array of a broadcast net is complex and time consuming. Since everything is linked, finding your way around can be very tricky. A noderunner must make a Computer Use check based on the DCs below to find a specific node. Because the DCs are so high, most noderunners have to take 20 to actually find a specific location's node. Of course, once a noderunner is familiar with a particular node, he can go to it directly rather than search for it through the broadcast net.

TABLE 3–4: BROADCAST NETWORK LOCATION CHECKS

Node Type	Computer Use DC to locate
Major computer system entrance (Government or large corporation public nodes)	25
Major computer system interior nodes (Personal computers within a government computer net)	30
Moderate computer system entrance (Medium business system entrance, commercial site)	35
Concealed node, multifunctional computer device (Government agency file server, private company personnel files, PDA)	40
Minor electronic device with single function (Watch, remote control, Geiger counter, laser-sight)	40
Cybernetic Implant	45
Noderunner is in a node that shares a direct wired link to desired node	+5
Noderunner can see physical location of node in real world	+5
Noderunner has been to node before	+5

Once within a node, a noderunner must overcome any security present and attempt to make desired modifications using the normal rules for nodes.

Even if a noderunner accesses a cybernetic device, his ability to control it is limited. The recipient of the cybernetic device has a direct neural link to all the implants within his body and is often able to override even the most skilled noderunner's efforts. Cybernetic devices are always considered high security nodes; even if a noderunner successfully hacks them, the device's recipient can maintain normal control by making a DC 15 Will save.

Better Than Real Time

Characters who focus on computer network implants and skills often forego more combat-effective options to be good at what they do, but in a game with limited computer networks this might seriously limit their ability to help their group or even prevent them from being able to take useful actions a majority of the time. This rules module is designed to make such characters more attractive in campaigns with limited access to VRNets and HINets. It should never be used with the broadcast net rules module unless the GM wishes to create a campaign in which everyone is a noderunner.

Since everything in a virtual world is simply electronic pulses, the speed at which events occur need not be the same as for the physical world. In a better than real time campaign, a character is allowed to take two full rounds of action when noderunning. Essentially, the activities of the virtual reality run at double speed compared to the physical world. Of course, everything else in the virtual world runs at double speed as well, making it especially important that a noderunner win any initiative check.

This rule has no effect on movement or actions in the physical world. The two rounds of actions must be taken separately—a noderunner cannot take a move action, then a full-round action, and then another move action. Each round is finished before the next begins. If a noderunner delays or readies in his first round of action, he loses the second round of action.

HINet

The HINet is a full virtual reality available in late PL 7. Avatar interaction feels exactly like personal interaction. Deaths can result from people staying on the HINet too long and forgetting to nourish their physical bodies. The HINet functions in exactly the same ways as the standard VRNet, except every sense is accurately attuned to a perfectly simulated world. Avatar combat feels realistic and the user actually feels the pain of an injury. Unimaginable worlds can be explored in their full splendor without ever leaving home.

Access to the HINet is only possible through a network jack (see Head Enhancements, page 26). While the lack of any cap to Computer Use bonuses is an advantage, there is a serious drawback to accessing the HINet. Any condition the noderunner's avatar suffers (dazed, stunned, blinded, even dead) the noderunner also suffers. In the case of effects with specific durations, the noderunner is affected as long as his avatar would have been. For permanent effects other than death, a DC 30 Treat Injury check can reverse the condition. Noderunners whose avatars are killed die themselves.

It is possible for the VRNet and the HINet to coexist. In this case, anyone using access goggles and manipulator gloves is just using the VRNet, while characters with a network jack are in the HINet. Noderunners using the two interfaces can interact, but the VRNet users are limited in the total bonus their avatars can access for skill checks, while HINet users are not, but might suffer more serious consequences.
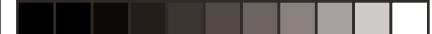
CYBERNAUT
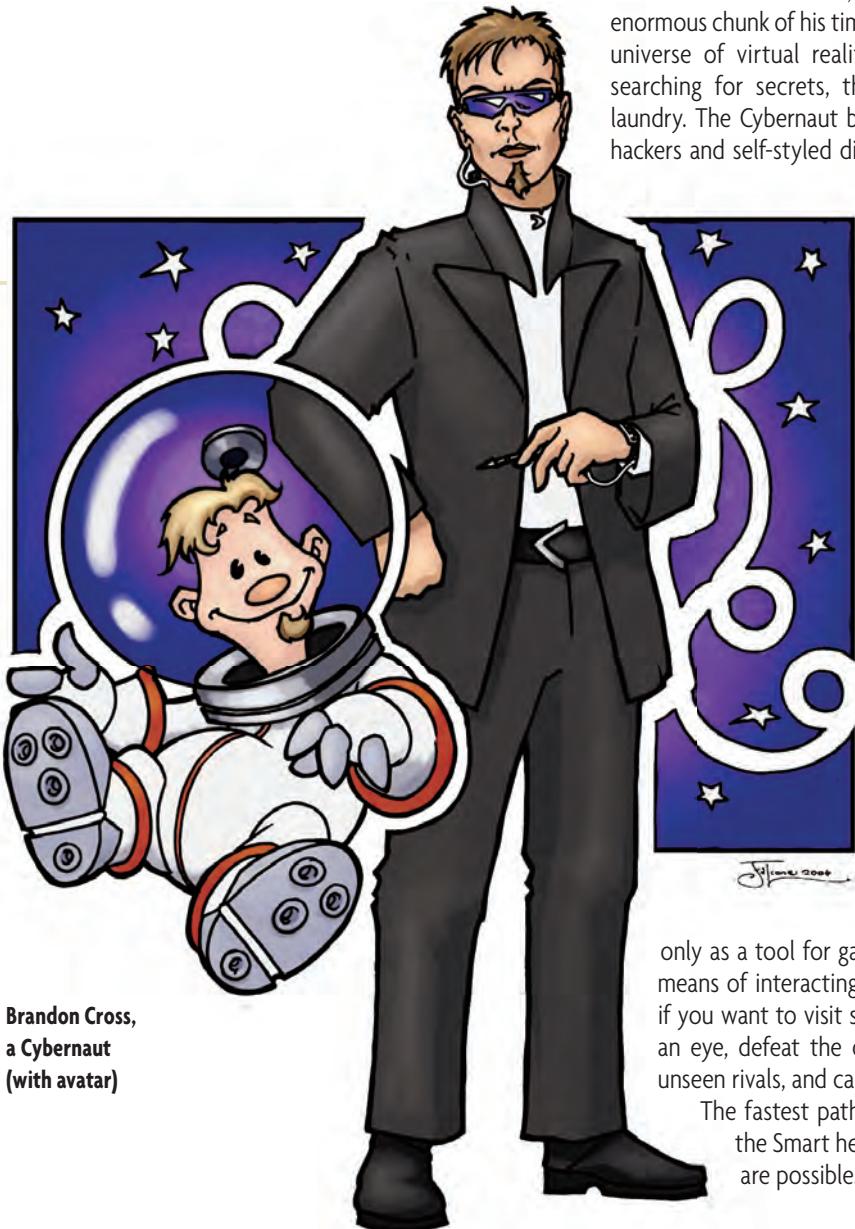
Brandon Cross,
a Cybernaut
(with avatar)

A Cybernaut might not amount to much in the real world, but in the virtual world, he rules supreme. He spends an enormous chunk of his time meandering the ever-expanding universe of virtual reality nodes known as the VRNet, searching for secrets, thrills, bragging rights, and dirty laundry. The Cybernaut belongs to an elite community of hackers and self-styled digital emperors—rulers in invisible fortresses who bend the rules of the VRNet to suit their whims. A Cybernaut might spend more time in the virtual world than in the real world, emerging mainly to eat or sleep. He devotes more attention to his daring, intrepid avatar than real friends or family—and why not? His avatar is everything he wants to be, anything he wants to be—a criminal, a movie star, a commando, a goth dominatrix, a teddy bear, a ninja, a cartoon character, or all of the above. Through this avatar, the Cybernaut can reach the unreachable, attain the unattainable, dominate the indomitable, and leave his digital mark the world over.

The Cybernaut advanced class is useful in campaigns where the VRNet is used not only as a tool for gathering information but also as a means of interacting with the world. Select this class if you want to visit strange new realms in the blink of an eye, defeat the digital machinations of countless unseen rivals, and carry a really big gun.

The fastest path into this advanced class is from the Smart hero basic class, though other paths are possible.

TABLE 3–5: THE CYBERNAUT

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+0	+1	+0	Master noderunner, node star	+1	+0
2nd	+1	+0	+2	+0	Mighty avatar +1d6	+1	+0
3rd	+1	+1	+2	+1	8th-grade avatar	+2	+1
4th	+2	+1	+2	+1	Master noderunner	+2	+1
5th	+2	+1	+3	+1	Mighty avatar +2d6	+3	+1
6th	+3	+2	+3	+2	10th-grade avatar	+3	+2
7th	+3	+2	+4	+2	Master noderunner	+4	+2
8th	+4	+2	+4	+2	Mighty avatar +3d6	+4	+2
9th	+4	+3	+4	+3	12th-grade avatar	+5	+3
10th	+5	+3	+5	+3	Master noderunner	+5	+3

REQUIREMENTS

To qualify to become a Cybernaut, a character must fulfill all the following criteria.

Skills: Computer Use 6 ranks, Knowledge (technology) 6 ranks.

Reputation Bonus: +2.

Special: A character must spend one month using the VRNet prior to taking levels in this class.

CLASS INFORMATION

The following information pertains to the Cybernaut advanced class.

HIT DIE

A Cybernaut gains 1d6 hit points per level. The character's Constitution modifier applies.

ACTION POINTS

A Cybernaut gains a number of action points equal to 6 + one-half his character level, rounded down, every time he attains a new level in this class.

CLASS SKILLS

The Cybernaut's class skills are as follows.

Computer Use (Int), Concentration (Con), Craft (electronic) (Int), Disable Device (Int), Forgery (Int), Gather Information (Cha), Knowledge (popular culture, streetwise, technology) (Int), Profession (Wis), Read/Write Language (n/a), Repair (Int), Research (Int), Search (Int), Speak Language (n/a), Spot (Wis).

Skill Points at Each Level: 5 + Int modifier.

CLASS FEATURES

The following features pertain to the Cybernaut advanced class.

MASTER NODERUNNER

A Cybernaut can perform amazing feats of programming legerdemain or accomplish tasks in the virtual world that other VRNet users cannot.

At 1st level, and again at 4th, 7th, and 10th level, a Cybernaut gains a special ability, chosen from the list below.

Backdoor: A Cybernaut with this ability knows how to slip into restricted areas that his avatars have visited before. He gains a +10 competence bonus on Computer Use checks made to enter a private node (or a private room within a node) he has previously entered or unlock a portal he has previously opened.

Codecrack: A Cybernaut with this ability gains a +5 competence bonus on Computer Use checks made to decrypt and read encrypted data.

Compression: A Cybernaut with this ability knows how to program more efficiently, allowing his avatars to carry more programs in their available memory. By increasing the write DC of a program by 5, the Cybernaut can reduce the memory cost of that program by 1 (to a minimum of 1).

Memory Management: This special ability allows a Cybernaut to delete any number of programs from his avatars' available memory as a free action (instead of a move action).

Node Management: A Cybernaut knows how to monitor his own nodes (including his point-of-origin node) more closely than most users. Any node that the Cybernaut creates has its detection range reduced by 2.

Wallhack: A Cybernaut can break the rules to move more easily through a node. With a successful DC 30 Computer Use check, he can dissipate a section of wall (or similarly impassable barrier) within a node. The wall section or barrier can be up to 10 feet high, 10 feet wide, and 5 feet thick.

NODE STAR

A Cybernaut's reputation quickly begins to spread throughout the VRNet. Once per day, he can add his Reputation bonus on any single Computer Use check, even after the roll is made.

MIGHTY AVATAR

At 2nd level, a Cybernaut learns to maximize the damage potential of his avatars, ensuring that their melee and ranged attacks are more forceful and destructive than those of lesser VRNet avatars.

Any melee or ranged weapon program installed into a Cybernaut's avatar deals an extra 1d6 points of damage. This extra damage increases to 2d6 at 5th level and 3d6 at 8th level.

8TH-GRADE AVATAR

At 3rd level, a Cybernaut learns how to make his avatars tougher than normal VRNet avatars. The Cybernaut's avatars use a d8 instead of a d6 for Hit Dice. In addition, the massive damage threshold of his avatars increases by 3.

10TH-GRADE AVATAR

At 6th level, a Cybernaut's avatars become even tougher. The Cybernaut's avatars use a d10 instead of a d8 for Hit Dice. In addition, the massive damage threshold of his avatars increases by 3.

12TH-GRADE AVATAR

At 9th level, a Cybernaut's avatars become as tough as possible. His avatars use a d12 instead of a d10 for Hit Dice. In addition, the massive damage threshold of his avatars increases by 3.

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COMPUTER NETWORKS
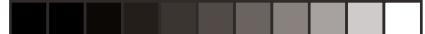
Chapter Four:
ALTERNATE CYBERNETICS
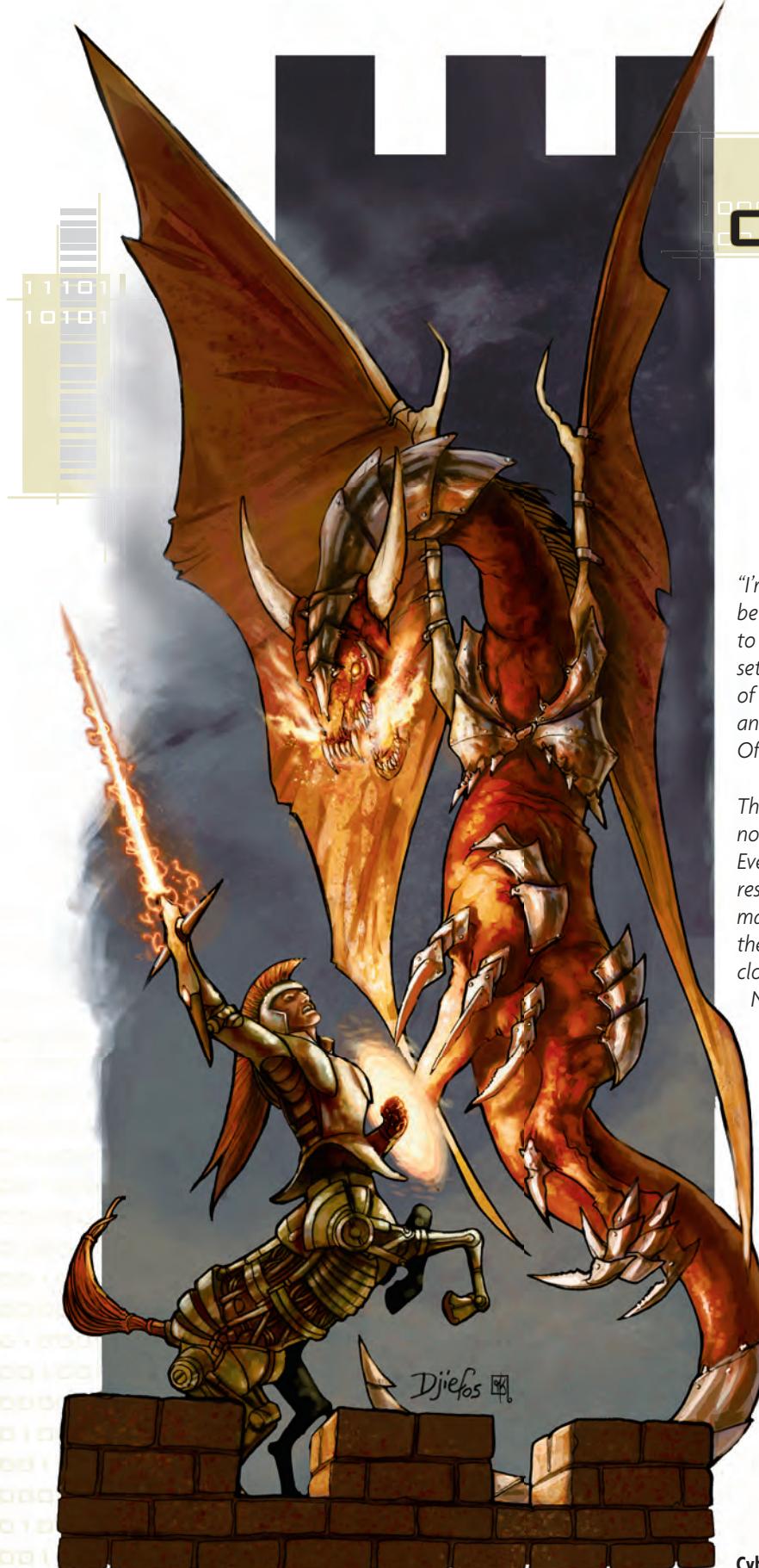
"I'm sorry, Monsieur Cheval, but the arm cannot be saved through our healing skills. We'll have to have our chirgeon remove it before the rot sets into your blood. Unless you'd like to call one of Prelate Phelan's pet Sancta Bokor priests to animate the dead flesh? Ah, no local churchmen? Of course, grenadier, we understand.

". . . Well, then, there's nothing for it, Monsieur. The flesh must be cut free. Fear not, you need not give up your work as a chasseur d'ombre. Even without a Sancta Bokor, there are ways to restore your arm's use. The Ordo Mechanicus have made great advances in clockworks. You've seen the new bronze gargoyles in flight, no? The same clockworks can be used to build you a new arm. No, you'll feel nothing with it—the arm shall be cold, lifeless metal. However we could, perhaps, install a concealed flintlock within in it?

". . . Yes, I thought that might spark your interest. Now, as to the cost . . ."

—–Mijnheer Radertje, PL 4 Implant Hack

Alternate forms of cybernetic devices, such as FX cybernetics and nanites—both of which are explained in this chapter—have a strong impact on the feel of a campaign. Even in campaigns with magic, the GM should carefully consider the ramifications of bone runes and necrotic implants. Not only do they add a peculiar flavor to the game, but also they have the potential to increase the overall power of characters.

Cybernetics meets fantasy
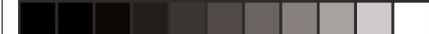
The following rules are designed to be balanced and adhere to the standard cybernetics rules. Except where specifically noted, these rules modules use the same basic rules as normal cybernetics, as described in Chapter One. A campaign can employ one or more of these additions without having to change the basic surgery and implant maximum rules. Even the advanced classes presented elsewhere in this book work with these systems.

Of course, a GM can mix the various options from Chapter One with different cybernetic implant types. For example, in a campaign where science is predominant and magic is present but fading, a GM could use the standard implant rules for golemtech, but the unlimited cybernetics rules for standard tech-based implants. Similarly, a GM could rule that advanced classes are restricted to certain implant types—for example, allowing Bionic Agents to use only standard implants, but giving Implant Hacks access to necrotics.

FX CYBERNETICS

Standard cybernetic devices are based on technology of one kind or another, but in a campaign allowing magic (perhaps a SHADOW CHASERS or URBAN ARCANA style game) there's no reason for technology to be the only source of cybernetics. Magic, properly channeled, can produce implants with all the benefits of mechanical and electronic devices. Magic cybernetic devices fall into two broad categories: golemtech and bone runes.

GOLEMTECH

Any cybernetic implant from Chapter Two can be made as golemtech—magically animated material similar to that used in the creation of golems. (Golems are animated but not living creatures, such as the flesh golem on page 236 of the *d20 MODERN Roleplaying Game* and the gear golem on page 217 of *Urban Arcana*.) Golemtech can be made of nearly any sturdy material—iron, bronze, stone, plastic, or even flesh (which often causes it to be mistaken for necrotics). The material golemtech is made from is irrelevant—it's the magic that gives golemtech its power and durability.

Simply allowing magic items to be a part of cybernetic devices such as external and internal weapon and tool mounts can create a second type of golemtech implants. For example, a magic-clad cyborg might have a wand placed within an external weapon mount (see page 195 of *d20 Future*) and a *six-demon bag* within an internal tool mount (see page 24). These magic implants follow the same rules as standard implants, but require a cybersurgeon to also have some spellcasting ability to mount magical equipment within mundane implants.

Similarly, magical properties normally applied to weapons and armor can be applied to magically based offensive and defensive implants. Subcutaneous body armor can have an enhancement bonus just as normal armor can, with the same increase in purchase DC, and a set of spurs can be given the special properties of *charged nunchaku*. (See pages 374 and 375 of the *d20 MODERN Roleplaying Game*,

ANY SUFFICIENTLY ADVANCED TECHNOLOGY . . .

Everything presented as FX cybernetics, and for that matter, necrotics (discussed later in this chapter), can be presented as extremely advanced technology rather than magic. Once a game hits PL 9, there's very little limit to what can be created with technology. For a very high-tech game, the GM can present everything in this chapter as standard PL 9 cybernetics. If introducing time travelers from the far-flung future, advanced alien cultures, or extremely effective experimental high technology to a campaign, the GM can introduce one or two "magic" items as examples of technology normally beyond the heroes' reach.

As with any very high-PL item that is examined by a less technologically advanced society, such "magic" items are simply beyond the ability of the less technologically advanced society to understand. A hero might be able to have a captured piece of PL 9 cybernetics installed—it's designed to make that as easy as possible, after all—but there's no chance of fixing it if it breaks or using it as a blueprint to build similar devices. Even the difference between PL 8 and PL 9 is vast enough so that no lower-technology scientist can breach the gulf.

Similarly, a PL 8 campaign might allow some psychic FX to be used in implants using the golemtech or bone rune rules without being defined as magic. These are examples of psychic circuitry, such as extremely high-tech devices similar to a *crystal pistol* or a *screaming amulet*. Any psionic item can be turned into an implant using the FX cybernetics rules at PL 8 or higher.

as well as pages 121–125 of *Urban Arcana,* for more information on magic armor and weapons.)

Golemtech is not a modern invention. It dates back to the days when the world was young and magic more common (or, if magic is not native to the campaign world, it dates back to the time when it was brought to the campaign world from another realm). Because golemtech implants often survive their original recipients, they exist long after the artificers who built them are gone. They are relics from the past, rare treasures that are unlikely to be available for sale despite having a purchase DC. (See the discussion of magic items on page 120 of *Urban Arcana;* that information applies to golemtech as well.)

BENEFITS AND DRAWBACKS

Golemtech is magical in nature. It does not require a power source, doesn't reveal itself to technology-based sensors (even when obvious to the naked eye), and is much more resilient than technological implants. Golemtech cannot be damaged by nonmagic attacks and always has a hardness of at least 10. (In campaigns in which magic attacks are extremely rare, the GM might allow golemtech to be damaged by a specific material, such as iron.)

Golemtech implants automatically size themselves to fit any recipient, regardless of size, and move to meld

class from *Urban Arcana,* she can allow an artificer with both the Craft Cybernetics feat and magic mastercraft to create golemtech using the rules of magic mastercraft.

BONE RUNES

Bone runes are a different kind of magic cybernetic device. The energy of a magic item is transferred from the magic item to the bone rune, which is graven on the recipient's bone. The recipient uses the magic ability by activating the bone runes, which can hold nearly any power, magic, or psionic ability that an FX item contains. Once the power, magic, or psionic ability is transferred to the bone rune, the FX item it came from is destroyed.

BENEFITS AND DRAWBACKS

A character can have only one set of bone runes at an implant location and that location cannot have other cybernetic devices as well (the bone runes won't work if mixed with technology or other magic in the same implant location). Generally, items with a limited number of charges (such as a *staff of fire*) are placed in bone runes on an arm, while permanent items (such as a *ring of jumping* or *leather jacket of damage reduction*) are embedded in bone runes found on the head, torso, or legs. In addition to taking up an implant slot, a bone rune counts as a magic item in a related location, chosen at the time the runes are scribed. For example, a *leather jacket of damage reduction* can be placed in a torso implant slot and counts as wearing a magic shirt or vest.

A bone rune item that was a command word or FX completion item becomes a special kind of command word item. The recipient must take an attack action to activate the power of the bone rune, but does not provoke attacks of opportunity nor actually use a spoken command. Because the power of the bone rune is directly linked to the recipient, nonspellcasters can gain the use of FX completion items in this way.

A use-activated item becomes a use-activated bone rune. However, all effects apply only to the recipient, not his equipment. For example, a +1 enhancement from a magic sword can be stored in a bone rune in the recipient's arm. Unarmed attacks made with the arm gain the +1 enhancement bonus on attack rolls and damage rolls, but weapons held in the hand do not.

A character with bone runes who fails a save against massive damage must make a roll on Table 1–2: Side Effects (page 8). Bone runes are considered FX items and are vulnerable to the effects of a *dispel magic* spell or similar ability.

Golemtech G

easily with the recipient's flesh (a Treat Injury check to add golemtech through surgery gains a +4 circumstance bonus).

Any FX completion item or command word item installed as golemtech becomes a special item. The recipient can automatically activate the item as an attack action that does not provoke attacks of opportunity, even if he does not know the command word, or normally wouldn't qualify to use the FX completion item.

Because it is magical, golemtech is vulnerable to any effect that neutralizes or suppresses magic items (such as a *dispel magic*). To find the caster level of golemtech for which that balue is not already defined, add 1/3 its purchase DC to 5. (Thus, a golemtech advanced prosthetic arm has a caster level of 12th.)

Golemtech uses the normal rules for other drawbacks, including additional effects from electricity attacks, maximum number of implants, and the effects of a failed Fortitude save against massive damage, depending on the rule set used in the campaign.

CREATING GOLEMTECH

Under the standard rules, golemtech is beyond the capacity of modern spellcasters to create. Like other magic items, they are holdovers from a previous era or lost relics from a different reality. If the GM is using the Artificer prestige

CREATING BONE RUNES

A bone rune is graven into the bones of the recipient to act as a receptacle for magic. Once the rune is complete, it is empowered with magical or psionic energy taken from a magic item. While it's generally beyond the power of modern spellcasters to make such items from scratch, with bone runes they can transfer such power to a new (living) location.

A bone rune can have any purchase DC desired; however, the purchase DC of any magic item used to empower a rune cannot exceed the bone rune's purchase DC.

Etching a bone rune in a given location takes the same amount of time as implanting a cybernetic device, although the surgeon needs 10 ranks of Knowledge (arcane lore) and Treat Injury as well as the Surgery feat. Empowering a bone rune requires the Empower Bone Rune feat, described below.

EMPOWER BONE RUNE

You can transfer magic or psionic energy from an item into a bone rune.

Prerequisites: Knowledge (arcane lore) 10 ranks, Knowledge (life sciences) 5 ranks.

Benefit: You can transfer the energy of any magic item into a bone rune with the same or higher purchase DC. You must make a Knowledge (arcane lore) check to perform a ritual that takes 24 hours; the check DC is equal to the purchase DC of the magic item providing the power. On a successful check, the bone rune gains the power of the magic item, turning the magic item to dust. On a failed check, nothing happens.

A bone rune can contain the power of only one magic item at a time. Imbuing a new item's power in a bone rune causes any previously imbued power to be lost. The bone rune itself remains as long as its recipient survives. Even if the power imbued in it is lost (for example, if all the charges of a charged power are used), a bone rune can be imbued with the power from another magic item.

NANITES

The basic working unit of nanotechnology is a nanite—a single robot that can be as small as a dozen atoms in length. "Nanite" is a generic term: Any robot built using this technology, no matter what its purpose, is a nanite. Each nanite must be constructed and programmed for a specific purpose. A nanite's true power lies not in what it can do individually, but what it can be programmed to do in complete synchronization with millions of other nanites that make up a nanocolony.

Though there are many possible kinds of nanites, from civil-road building clouds to deadly assassins tools, the only kind that falls into the realm of the cyberscape is nanoaugmenters. These are nanites designed to reside permanently within a living host and augment his physical or mental abilities. For more information on other kinds of nanite technology, see page 93 of *d20 Future*.

The GM need not allow nanoaugmenters to be purchased as regular technology. Appropriate PL and purchase DC figures are provided if the GM decides to make nanoaugmenters commonly available, but in most campaign settings they are rare and seldom used as biological augmentations. A GM might require heroes to go through considerable trouble—and adventure—before acquiring nanoaugmenters, or might make them available as rewards only after particularly difficult missions.

NANOAUGMENTERS

Nanoaugmenters latch onto a specific biological system and provide consistent bonuses for as long as the nanites remain active. Most nanoaugmenters are injected into a character or creature to permanently enhance performance and continue to function indefinitely. Nanoaugmenters are only removed by other nanites or by commanding the nanocolony to cease all activity. When this occurs, nanoaugmenters are absorbed and recycled by the host body in the same manner as inert nanoviruses (taking one month).

Most nanoaugmenters simply provide energy or transmit signals between the nanocolony and the host body, but some actually alter the host's genetic structure or change the host's chemical balances.

BENEFITS AND DRAWBACKS

Nanoaugmenters do not require surgery to install. A simple injection places them within the recipient's body. It takes eight hours for a nanoaugmenter colony to become active once it is injected into a recipient, during which time the nanocolony spreads throughout the body and connects with biological systems.

Nanoaugmenters are not vulnerable to viruses and poisons, although nanohunters exist that can be programmed to seek out and destroy a specified kind of nanoaugmenter in a recipient's system. The recipient of nanoaugmenters does not take special results from damage of any kind—no stunning from electricity attacks and no unfortunate side effects from failing a Fortitude save against massive damage. Nanoaugmenters cannot be sundered or damaged through any normal attack, do not take up implant slots, and have no hardness or hit points.

A single living system can benefit from only two nanoaugmenters. If a third nanoaugmenter is introduced into a system, roll randomly to see which nanoaugmenter colony is rejected by the system, automatically shutting down and being flushed out of the body. This process takes 1d8 hours.

CREATING NANOAUGMENTERS

Nanoaugmenters are extremely complex to design. They must be able to replicate quickly and spread through a host body to modify it on a massive scale. If there is a single flaw in their design, the modifications can get out of hand, turning the nanites into a terrible technological cancer that doesn't respond to normal treatments. Although anti-nanite technologies are fairly advanced (especially nanohunters), a massive enough nanoaugmenter failure can kill its host long before any treatment can be administered.
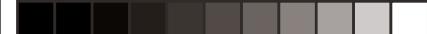
ALTERNATE CYBERNETICS

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To design a nanoaugmenter requires the Craft Cybernetics feat, as well as the Craft Nanites feat (see page 10). A new nanite is always an advanced device and requires both a Craft (electronic) and a Craft (mechanical) check. If either check fails, the design is entirely ruined and the crafter must begin from scratch. Nanites can only be created in a lab designed for that purpose (purchase DC 30 for all the equipment needed in a nanite lab). Without a nanite lab, creating nanites is simply impossible.

Sample Nanoaugmenters

The following are sample nanoaugmenters for use in your campaign. For additional nanoaugmenters, see pages 95 and 96 of *d20 Future*.

Gatekeeper (PL 7)

A gatekeeper colony performs as a set of artificial white blood cells, seeking out foreign bodies—viruses, bacteria, and toxins—that don't belong in the recipient's bloodstream and eliminating them. The recipient gains a +4 bonus on Fortitude saves against poison or disease.

Researchers in biological weapon research labs and doctors who spend time treating the sick in plague zones most often use this nanoaugmenter.

Base Purchase DC: 35.
Restriction: None.

Gatekeeper
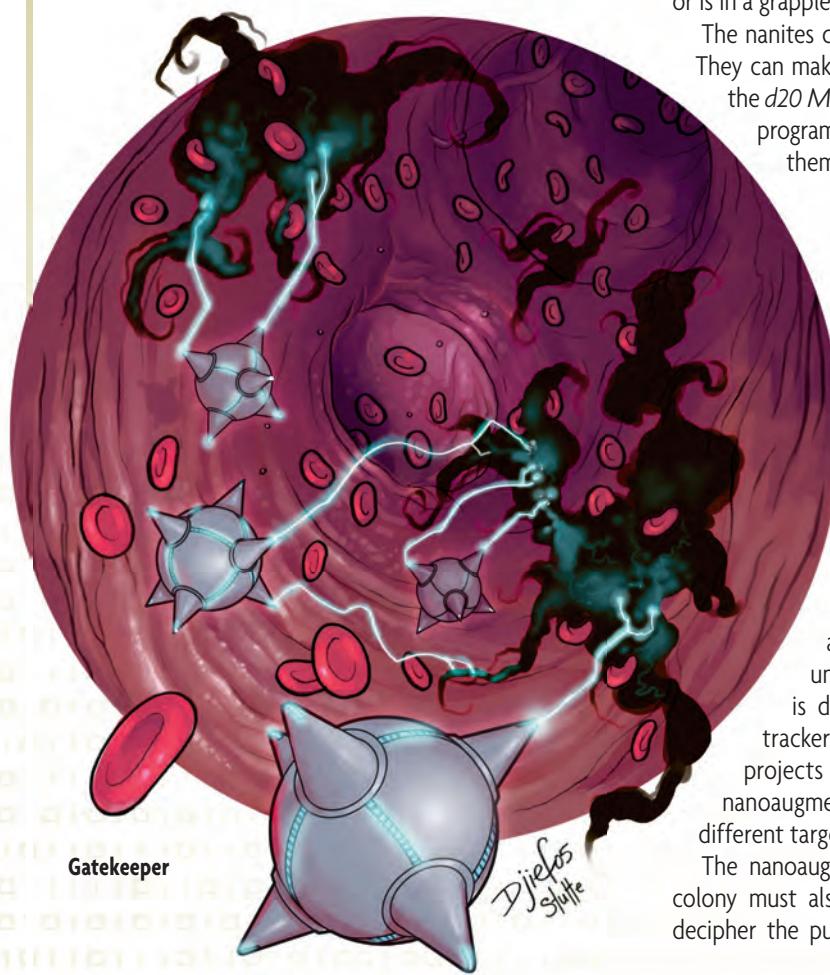
Identity Mask (PL 7)

Espionage agents, smugglers, and high-end thieves are those who most commonly acquire a colony of identity maskers. An identity mask colony can change the recipient's eye, hair, and skin color, as well as altering fingerprints, retina patterns, and even DNA markers. These nanites are even able to reprogram a shepherd chip or identity chip to match the new traits, though communicating with a shepherd chip or an identity chip requires a nanite translator (see below).

An identity mask colony gives the recipient a +20 equipment bonus on Disguise checks and eliminates the penalty for not having a disguise kit.

Base Purchase DC: 36.
Restriction: Mil (+3).

Poison Pill (PL 8)

Although poison pill colonies are sometimes used by the very rich as self-defense mechanisms, they are most commonly employed by spies and assassins. The nanoaugmenters link to the sweat glands of the recipient, altering the glands to become tiny chemistry labs. At a mental command from the recipient, the nanites cause the sweat glands to produce a poison that coats the recipient's skin, while at the same time introducing antitoxins into the recipient's bloodstream to neutralize his own exposure to the poison. The poison lasts only 1 round, but is delivered to anyone with a touch attack, as well exposing anyone who touches the recipient or is in a grapple with the recipient.

The nanites can only make one dose of toxin per hour. They can make any of the contact poisons described in the *d20 MODERN Roleplaying Game*, but can only be programmed to make one at a time. Reprogramming them requires a nanite translator (see below).

Base Purchase DC: 37.
Restriction: Mil (+3).

Trackers (PL 8)

Spies, governments, military organizations, and law enforcement agencies often use tracker colonies, which allow the nanoaugmented recipient to track the movements of designated targets for 30 days.

The nanoaugmented recipient deploys the tracker colony on a target by touching the target, which requires a successful touch attack. Once trackers are engaged on a target, they emit a unique identification code every second that is detectable by any sensor attuned to the tracker colony's frequency. The tracker colony projects its pulse out to a 500-mile radius. The nanoaugmented recipient can keep track of up to five different targets at once.

The nanoaugmented recipient who deploys a tracker colony must also have a chatter colony to receive and decipher the pulse emitted by the tracker colony. Once

deciphered, the pulse gives the direction and distance (up to 500 miles) of the target from the nanoaugmented recipient.

Base Purchase DC: 30.

Restriction: Lic (+1).

WOUNDWEAVERS (PL 8)

Woundweavers are colonies of nanoaugmenters designed to close bleeding wounds and rebuild damaged tissue. Woundweavers function only in recipients that also have watchdogs (see page 96 of the *d20 MODERN Roleplaying Game*), or a biofunction regulator (see Chapter Two).

A colony of woundweavers heals 1 hit point per minute whenever the recipient is injured. However, woundweaver nanites can repair only so much damage before they run out of material. A colony of woundweavers can restore a total of 16 hit points each day. Once those hit points are exhausted, the colony cannot heal any other injuries until the recipient has had 8 hours of sleep and a solid meal. After that, the woundweaver colony gains another 16 hit points worth of material.

In no case can a woundweaver colony restore more than 16 hit points in a single 24-hour period.

Base Purchase DC: 36.

Restriction: Res (+2).

NANOAUGMENTER EQUIPMENT

The advance of nanite technology leads to the development of yet another new technology—technology that is designed specifically to locate and use nanoaugmenters.

TABLE 4–1: NANOAUGMENTER EQUIPMENT

Object	Size	Weight	Purchase DC	Restriction
Nanite scanner	Small	2 lb.	28	—
Nanite translator	Med	5 lb.	31	Lic (+1)

NANITE SCANNER (PL 8)

A nanite scanner is a hand-held sensor that combines powerful microscopic cameras and radio sweepers to detect nanoaugmenters within a subject. Scanning a target takes a full round and requires a DC 15 Search check by the scanner's operator. Since the scanner must be passed in close proximity to the target, the action can be performed only on an adjacent character and is not a subtle procedure.

Larger versions of the scanner exist and can be set up to scan everyone who walks through a doorway. These weigh 100 pounds and have a purchase DC of 32.

NANITE TRANSLATOR (PL 8)

A nanite translator is a specialized computer designed to allow a character to communicate with nanites within his system.

A nanite translator cannot change the basic nature of nanites. It only allows them to switch from one designed function to another. The details of how each function works are described in the individual nanoaugmenter descriptions.

Nanites are designed to monitor the recipient's brain chemicals at all times, looking for a sign the recipient wishes to make a change in their orders. Only when such chemicals are present do nanoaugmenters acknowledge signals from a nanite translator; this prevents a recipient's nanites from being hijacked by a hostile foe.

NECROTIC IMPLANTS

Necrotics are, quite literally, undead implants. Necromancy is used to bring life back to the flesh of the dead or undead and bind the unliving tissue to the live tissue of the recipient. Most necrotic implants are simply the limbs, organs, or skins of corpses animated to replace or augment a living creature, but some are actually culled from undead creatures (a process often called ghoul harvesting), allowing their recipients to gain the powers of the undead.

Necrotics are never common even in the most magic-heavy campaigns. The process that creates them is inherently selfish and painful, stealing from the bodies and spirits of the departed. The most advanced processes are universally illegal and even the most permissive of societies restricts all necrotic implants. Necrotics are most common in settings with a high level of magic, but little or no other cybernetic options (and thus most common in games at PL 5 and lower). If dark magic can replace technology, someone is always willing to pay the moral price for using it.

BENEFITS AND DRAWBACKS

Although necrotic implants cannot be repaired with a skill check and don't heal naturally, they can be healed with negative energy (such as from an *inflict light wounds* spell). Conversely, any magical or psionic healing received by a character with necrotics has the potential to damage the undead implants. Apply the amount of healing as damage to one randomly determined necrotic system, allowing it to subtract its hardness (this is an exception to how hardness normally works, representing the general resilience of each necrotic implant).

Normally, a necrotic implant does not appear any different from the recipient's original flesh-and-blood parts, except as noted in individual descriptions. A DC 30 Spot check is required to notice a necrotic implant, and scanners and sensors do not normally aid in this check. A thorough medical examination certainly reveals any implant as dead flesh that has not yet begun to rot. On the other hand, any FX that reveals the presence of the undead also reveals necrotic implants.

Simple necrotics use the same basic rules as standard implants. The following implants, described either in *d20 Future* or Chapter Two of this book, can be bought as

necrotics: artificial organ (and upgrade), prosthetic arm (and upgrade), prosthetic leg, (and upgrade), artificial muscle fiber, artificial twitch fiber, prosthetic enhancer, prosthetic booster, light amplification optics, nightvision optics, poker face, oxygenator, rage implant, tailgunner, neuron boosters, personality mapping, proverb chip, stabilizer, body repair weave, enviro-skin, fortified skeleton, redundant organs, and personality implant. Those implants that have no hardness rating gain a hardness of 10 when built of necrotic materials.

Additional necrotics that draw power from the undead from which they were harvested are described below.

Creating Necrotics

Necrotics are crafted using the Craft (mechanical) skill, but this is only possibly for skilled spellcasters. Each necrotic implant has a caster level (CL) given after its name. This is the minimum caster level required for a spellcaster to craft the necrotic implant. Additionally, the spellcaster must have access to at least one necromancy spell, though it need not be cast as part of the crafting process.

Necrotic devices also have specific PLs, to allow the GM to balance their relative complexity with standard cybernetic devices. Realistically, these PL numbers are only relevant in a game with both high technology and high levels of magic, but they're still a useful measure of how advanced the "science" of necrotics should be before certain undead implants become common. If these implants were to be available at any progress level without the benefit of magic, it would be only at PL 9.

Necrotics

The following are descriptions of necrotics and necrotic systems.

Antilight Implant [CL 6] (PL 6)

This tiny implant or implants, embedded between any necrotic implant and the recipient's remaining living tissue, protects the necrotic implants from damage caused by healing magic or psionic powers. An antilight implant is not itself necrotic.

Benefit: The implant negates the recipient's necrotic implant's special vulnerability to healing from magic or psionic powers (see Benefits and Drawbacks, above).

Location: None.
Type: Internal.
Hardness/Hit Points: —/1.
Base Purchase DC: 15.
Restriction: Lic (+1).

Black Heart [CL 4] (PL 6)

A black heart is an undead organ that replaces the recipient's natural heart. This shriveled, black organ pumps unnatural vitality throughout the recipient's body, allowing him to resist many of the frailties of normal flesh.

Benefit: The recipient of a black heart is immune to all diseases and poisons.

Type: Internal.
Location: One torso.
Hardness/Hit Points: 10/3.
Base Purchase DC: 26.
Restriction: Res (+2).

Bloodsuckers [CL 5] (PL 7)

This necrotic system is composed of a set of vampire teeth and the internal organs needed to take advantage of them. The recipient's canines are notably larger than normal after receiving bloodsuckers.

Benefit: A recipient can suck blood from a living victim with its fangs by making a successful grapple check. If it pins the foe, it drains blood, dealing 1d4 points of Constitution damage each round the pin is maintained.

Type: Internal.
Location: One head.
Hardness/Hit Points: 10/6.
Base Purchase DC: 27.
Restriction: Illegal (+4).

Dread Implant [CL 5] (PL 8)

A dread implant can take nearly any form—a set of eyes, horrid undead arms, or grayish-black, disquieting skin. Whatever the form, it allows the recipient to strike hopelessness into the heart of anyone who sees her.

Benefit: At the mere sight of the recipient, a viewer must succeed on a DC 15 Will save or be paralyzed with fear for 1d4 rounds. Whether or not the save is successful, that creature cannot be affected again by that dread implant's despair ability for 24 hours.

Type: External.
Location: Any one.
Hardness/Hit Points: 10/30.
Base Purchase DC: 33.
Restriction: Mil (+3)

Dust Lobe [CL 3] (PL 8)

Taken from the brain of a powerful undead creature (usually a vampire), a dust lobe allows the recipient to become insubstantial and ghostlike for a limited time each day.

Benefit: The recipient gains the supernatural ability to assume a gaseous form. As a move action, the recipient (and all his gear) becomes insubstantial, misty, and translucent. The recipient gains damage reduction 20/+1 in this form. His armor (including natural armor) ceases to modify his Defense, though other modifiers (such as from Dexterity and size) still apply. The recipient cannot attack or use supernatural abilities while in gaseous form.

A character in this form can remain gaseous for 10 minutes each day and has a fly speed of 20 with perfect maneuverability. The 10 minutes need not be continuous. He can pass through small holes or narrow openings, even mere cracks. His gaseous form is subject to wind and cannot enter water or other liquid.

Type: Internal.
Location: One head.
Hardness/Hit Points: 10/5.
Base Purchase DC: 23.
Restriction: Res (+2).

Lovegiver [CL 9] (PL 7)

The lovegiver is a complex implant of eyes, internal organs, and some parts of the hands, all connected through undead veins and nerves to the recipient's brain. This series of implants allows the recipient to create minions that, at least temporarily, are subservient to him.

Benefit: The recipient gains a supernatural energy drain attack. A living creature hit by an unarmed attack made by the recipient (or any melee attack with a necrotic implant) must make a Fortitude save (DC 10 + 1/2 recipient's HD + recipient's Cha modifier) or gain two negative levels. (See page 226 of the *d20 MODERN Roleplaying Game* for more information on energy drain and negative levels.)

A humanoid or monstrous humanoid slain by the recipient's energy drain attack rises as a zombie loyal to its creator (called the master). The new zombie gains three allegiances (in any order): chaos, evil, and master. All previous allegiances are lost permanently. Each day, the zombie is allowed to make a DC 15 Will save. On a successful save, it loses all its allegiances. Additionally, if the recipient is killed, all undead under its control lose all allegiances.

Type: Internal.
Location: One head, one torso, one in each arm.
Hardness/Hit Points: 10/16.
Base Purchase DC: 39.
Restriction: Illegal (+4).

Piercing Gaze [CL 8] (PL 6)

This necrotic system is a pair of dead-white vampire eyes and a small part of the vampire's brain. The eyes are unblinking and foul-seeming; more to the point, they retain some of their previous owner's power.

Benefit: As an attack action, the recipient can crush an opponent's will just by gazing into his or her eyes. The recipient can attempt to dominate only one target at a time, and the target must be within 30 feet and able to see the recipient. A target that fails a Will save (DC 10 + 1/2 recipient's HD + recipient's Cha modifier) becomes the recipient's thrall for 1 day. The thrall temporarily loses all previous allegiances and adopts a singular, unswerving allegiance to the recipient. If the recipient commands its thrall to do something blatantly self-destructive, the target can attempt a Will save to break the recipient's control. If the save succeeds, the target becomes free-willed and regains its previous allegiances.

Type: Internal.
Location: One head.
Hardness/Hit Points: 10/6.

Tomb fist

Base Purchase DC: 37.
Restriction: Illegal (+4).

Skin Shroud [CL 6] (PL 7)

A skin shroud is the entire outer skin of an undead creature, stripped from its original owner and stretched over the recipient's flesh. The material is supernaturally resistant to damage, making the recipient extremely tough.

Benefit: The recipient gains damage reduction 10/+1. In campaigns without magic weapons, the GM can change the recipient's DR to 15/silver or 15/wood, or apply the damage reduction only to certain types of weapons (ballistic, bludgeoning, piercing, slashing, or sonic/concussion).

Type: External.
Location: One torso.
Hardness/Hit Points: 10/12.
Base Purchase DC: 36.
Restriction: Res (+2).

Tomb Fist [CL 6] (PL 6)

Using the bones and muscles of a strong undead creature, a tomb fist implant allows the recipient to make powerful unarmed attacks. Because the implant is under the skin, the only visual sign of the modification is a slightly gnarled, rough appearance to the recipient's hands.

ALTERNATE CYBERNETICS

ALTERNATE CYBERNETICS

Benefit: The recipient gains a slam attack. The slam attack deals damage according to the recipient's size: Fine 1, Diminutive 1d2, Tiny 1d3, Small 1d4, Medium-size 1d6, Large 1d8, Huge 2d6, Gargantuan 2d8, Colossal 4d6. When making a full attack, the recipient can make two slam attacks at its full attack bonus (forgoing any other attacks).

Type: Internal.
Location: Two arm.
Hardness/Hit Points: 8/9.
Base Purchase DC: 24.
Restriction: Mil. (+3).

Total Flesh Replacement [CL 7] (PL 8)

This necrotic implant replaces the recipient's skin and all internal organs other than the brain and nervous system with undead flesh and bone replacements. The recipient's cardiovascular system, musculature, and digestive system are all replaced.

Benefit: The recipient no longer heals damage naturally and must receive an *inflict wounds* spell to be healed.

The recipient gains a +5 bonus to natural armor that overlaps (does not stack with) any natural armor bonus he might already have. He is immune to poison, sleep, paralysis, stunning, disease, and necromantic effects. He is not subject to critical hits, nonlethal damage, ability damage, ability drain, energy drain, or effects of massive damage or any effect requiring a Fortitude save unless the effect also works on objects or is harmless. Unlike a true undead, the recipient is still vulnerable to mind-affecting spells and abilities.

The recipient gains cold resistance 20 and electricity resistance 20. He loses his Constitution score entirely and uses his Charisma modifier for Concentration checks. Additionally, he gains a +4 equipment bonus to Strength.

Type: External.
Location: Two torso, one for each limb..
Hardness/Hit Points: 10/30.
Base Purchase DC: 43.
Restriction: Mil (+3)

Necrotics Equipment

A few pieces of equipment have developed to help the recipients of necrotic implants manage with their unusual condition.

TABLE 4–2: NECROTICS EQUIPMENT

Object	Size	Weight	Purchase DC	Restriction
Black blood	Small	—	18	Illegal (+4)
Blue blood	Small	—	16	Res (+1)
Coffin nails (8)	Small	—	13	Res (+1)
Pulsemaker	Small	—	16	Lic (+2)

Black Blood

Black blood is a necromantic concoction designed to heal the recipient of necrotic implants without damaging his implants. The material is partially chemical and partially magical. It requires the recipient to make a DC 10 Fortitude save. On a successful save, black blood heals 1d8 hit points per dose without damaging any necrotic implants. On a failed save, black blood heals any damaged necrotic implant of 1 point of damage, but deals 1d8 points of damage to the recipient.

Blue Blood

Blue blood is a combination of traditional medical treatments designed to prevent infection and the rarified blood of living creatures associated with life (for example, unicorns or virgins). The material is partially chemical and partially magical. A single dose suppresses the negative energy that powers necrotic implants just enough to make them impossible to detect magically. Spells and effects that reveal undead don't detect necrotics for 4 hours after the subject takes a dose of blue blood. However, too much blue blood in the system damages one's necrotic implants. Each dose after the first taken in a 24-hour period requires a DC 25 Fortitude save. On a failed save, the blue blood deals 2d6 points of damage to all necrotic systems of the imbiber.

Coffin Nails

Coffin nails are specially treated cigarettes that have been imbued with negative energy. A coffin nail is completely black. When lit, it creates thin trails of smoke that reek of rotting flesh. Smoking a coffin nail deals 1d8 points of damage to the smoker, but also heals all necrotic implants he has of 1d8 points of damage each. Long-term use of coffin nails carries the same health hazards as normal smoking.

Pulsemaker

A pulsemaker is a small electronic device worn on or near a necrotic implant. Such devices are often disguised as watches, PDAs, and even actual medical implants. A pulsemaker artificially stimulates a necrotic implant to behave like living tissue, causing it to pump blood, pass sweat, bleed when cut, and so on. As long as a pulsemaker is active, not even a medical examination reveals necrotic implants as anything other than normal living tissue, though abilities able to detect undead still reveal them.

WETWARE

Although normal cybernetic technology is based on electronics and mechanics, some campaigns might have developed cybernetic devices based on living organisms genetically designed and grown for an intended purpose. Additionally, advanced civilizations might make use of certain biological forms of technology integrated with their own mechanical devices to form a techno-organic

hybrid capable of performing specific tasks with increased efficiency. Any type of cybernetic technology composed of genetically designed living tissue or a biological–mechanical hybrid material is called wetware.

However, not all wetware is purely biological. Some of it is technological material that meshes with natural biofunctions. One example is a titanium bone replacement, which, when used to patch a fractured bone, over time naturally meshes with new bone growth. Though originally inorganic, wetware of this kind works closely enough with the body's natural functions to use the same rules as purely organic wetware.

Benefits and Drawbacks

Unlike normal cybernetic devices, wetware devices heal themselves at a rate of 1 hit point per hour when damaged. Cybernetic devices of this kind do not cause the recipient to take additional damage from electricity attacks or cause the target to take any unusual effects after failing a Fortitude save against massive damage. They are, however, susceptible to diseases and poisons specifically designed to target wetware material. Wetware does not have separate hardness and hit points from the recipient. A sunder attempt can still be made by foes. On a successful hit, the recipient takes any damage dealt and must attempt a DC 15 Fortitude save. On a failed save, the cybernetic device is considered broken (though not the limb it which it is implanted). A replacement part cannot be sundered in this way, only augmentations.

The following implants, described either in *d20 Future* or in Chapter Two of this book, can be bought as wetware: artificial organs (and advanced and upgrade versions), prosthetic arm (and advanced and upgrade versions), prosthetic leg (and advanced and upgrade versions), cosmetic implants, artificial muscle fiber, artificial twitch fiber, reflex wires, locking joints, spurs, destrier system, prosthetic enhancer, prosthetic booster, viper fangs, chemical air analyzer, light amplification optics, microscopic optics, nasal filters, nightvision optics, skill implant, biofunction regulator, bug eyes, daredevil, feat implant, rage implant, tailgunner, neuron boosters, proverb chip, stabilizer, psi implant, stabilizer, subcutaneous body armor, biosurger, fortified skeleton, initiative implant, organ remapping, redundant organs, robotic arms, and trauma router.

Wetware is 1 PL higher than a cybernetic version of the same device and has a +3 modifier to its purchase DC.

In addition to the implants from Chapter Two, specific wetware cybernetic devices are described below.

Creating Wetware

A wetware implant is created in the same way as a normal cybernetic implant, but in addition to the Craft Cybernetics feat, the designer must have 10 ranks in Knowledge (life sciences).

Adrenal Gland (PL 7)

An extra adrenal gland allows the recipient to gain a much higher boost when threatened, though the extreme physical activity has a downside as well.

Benefit: Once per day, as a free action, the recipient can increase his Strength and Dexterity scores by 1d4+1 points for a number of rounds equal to 3 + the recipient's Con modifier. Once the duration ends, the recipient takes a −4 penalty to Strength and Dexterity for 1d4 hours.

Type: Internal.
Location: One head.
Base Purchase DC: 20.
Restriction: None.

Cosmetic Biosculpt (PL 7)

A cosmetic biosculpt makes numerous tiny additions and changes to the recipient's body, increasing its aesthetic value in appearance, movement, voice tone, and feel.

Benefit: The recipient is extremely attractive after a cosmetic biosculpt, not just in looks, but also in motion and mannerisms. The recipient gains a +5 bonus on Diplomacy checks and a +4 bonus on Gather Information checks.

Type: External.
Location: None.
Base Purchase DC: 29.
Restriction: Lic (+1).

Gator Hide (PL 7)

A vat-grown artificial skin, gator hide is, despite the name, indistinguishable from the recipient's original skin in appearance and texture. The material is considerably tougher, however, making the recipient much more resistant to damage.

Benefit: Gator hide gives a +1, +3, or +5 natural armor bonus to Defense.

Type: External.
Location: One torso.
Base Purchase DC: 22 (+1), 25 (+3), or 28 (+5).
Restriction: None.

Fins (PL 7)

Fins are a combination of a dorsal fin and webbing for fingers and toes, making the recipient a skilled swimmer.

Benefit: The recipient gains a natural swim speed of 20. He gains a +8 bonus on Swim checks and can take 10 on a Swim check even while distracted or in combat.

It's possible to have even larger fins installed for the same cost and space, along with larger toes for more footwebbing. Recipients of this wetware implant have a natural swim speed of 30; however, walking becomes awkward, causing the recipient's land speed to drop by 50%. Only recipients who plan to spend the majority of their time underwater tend to take this option.

Type: External.
Location: None.
Base Purchase DC: 20.
Restriction: None.

ALTERNATE CYBERNETICS

Gills (PL 7)

Gills are usually specially grown for transplantation into a recipient, but rarely the gills of a large marine animal (such as a shark) are taken for transplantation. The gills are implanted on the neck, flank, or back of the recipient. They can be easily concealed under clothing, but are unmistakable when spotted.

Benefit: The recipient can breathe normally underwater. for any length of time with no risk of drowning. Gills work in both fresh and sea water, though water with toxins is just as hazardous as air with toxins.

Normally, gills are added to the recipient without replacing the recipient's lungs. However, it is possible to completely replace the lungs with gills, allowing the recipient to only breathe water, but not air. This conversion is normally done only in conjunction with the addition of pressurized organs (see page 71) and fins (see above) to create fish-folk for a commercial company's underwater operations.

Type: External.
Location: One torso (none for lung replacement).
Base Purchase DC: 23 (21 for lung replacement).
Restriction: None.

Pheromone Glands (PL 7)

A vat-grown pheromone gland is installed near the major sweat glands of the recipient. This produces strong pheromones specifically designed to entice and befuddle both humans and animals.

Benefit: The recipient gains a +2 equipment bonus on Bluff, Diplomacy, Handle Animal, or Intimidate checks made against creatures within 30 feet. A check made against a creature that need not breathe, or who is immune to poisons, or who has a separate sealed supply of air, does not receive this bonus.

Type: Internal.
Location: None.
Base Purchase DC: 29.
Restriction: Lic (+1).

Agility Augmentation Genetic Retrovirus (PL 8)

This retrovirus makes changes to the recipient's DNA, making his body more limber and flexible as well as augmenting hand and eye coordination and reflex time.

Benefit: The agility augmentation genetic retrovirus gives the recipient a +1 to +5 inherent bonus to his Dexterity score. He takes a –2 penalty to his Strength score because his slimmer, more flexible body has less mass and is less powerful.

A character cannot have more than one genetic retrovirus in effect at a time. A genetic retrovirus cannot be removed through surgery; it must be removed with targeted toxins or diseases (see Wetware Equipment, page 73). Further, genetic retroviruses cannot have any gadget components or be added to other cybernetic devices that have gadgets.

Type: Internal.

Location: None
Base Purchase DC: 23 (+1), 25 (+2), 27 (+3), 29 (+4), or 31 (+5).
Restriction: Res (+2).

Focused Biosculpt (PL 8)

A focused biosculpt makes numerous tiny additions and changes to the recipient's body, making her better at performing certain kinds of physical tasks.

Benefit: Choose one Strength-, Dexterity-, or Constitution-based skill. The recipient gains a +2 bonus on checks using that skill.

Type: External.
Location: None.
Base Purchase DC: 23.
Restriction: None.

Gilding Genetic Retrovirus (PL 8)

This retrovirus makes changes to the recipient's DNA, increasing his body's adherence to certain laws of symmetry (thus increasing physical beauty), as well as affecting the brain centers to boost self confidence and creativity, reduce inhibitions, increase empathy, and boost extroverted tendencies. The result of these changes makes the recipient more likable and interesting to most people, though not without a price.

Benefit: The gilding augmentation retrovirus gives the recipient a +1 to +5 inherent bonus to his Charisma score. He takes a –2 penalty to his Wisdom score, as his increased creativity combined with reduced inhibitions leads to shortsightedness, rash behavior, and a blithe inability to process information.

A character cannot have more than one genetic retrovirus in effect at a time. A genetic retrovirus cannot be removed through surgery; it must be removed with targeted toxins or diseases (see Wetware Equipment, page 73). Further, genetic retroviruses cannot have any gadget components or be added to other cybernetic devices that have gadgets.

Type: Internal.
Location: None
Base Purchase DC: 23 (+1), 25 (+2), 27 (+3), 29 (+4), or 31 (+5).
Restriction: Res (+2).

Instinct (PL 8)

This wetware implant is taken from the brain of a natural predator, grafting some of the predator's instincts for danger and risk into the recipient.

Benefit: When surprised, the recipient can make a DC 15 Wisdom check. On a successful check, the recipient can act in the surprise round.

Type: Internal.
Location: One head.
Base Purchase DC: 25.
Restriction: None.

INTELLECT AUGMENTATION GENETIC RETROVIRUS (PL 8)

This retrovirus changes the recipient's DNA, remapping the functions and layout of the brain for efficiency. The efficiency of brain matter, as well as how certain cognitive functions operate, gives the recipient a higher IQ.

Benefit: An intellect augmentation retrovirus gives the recipient a +1 to +5 inherent bonus to his Intelligence score. He takes a –2 penalty to his Charisma score, because his increased intellect causes him to act more coldly and analytically.

A character cannot have more than one genetic retrovirus in effect at a time. A genetic retrovirus cannot be removed through surgery; it must be removed with targeted toxins or diseases (see Wetware Equipment, page 73). Further, genetic retroviruses cannot have any gadget components or be added to other cybernetic devices that have gadgets.

Type: Internal.
Location: None
Base Purchase DC: 23 (+1), 25 (+2), 27 (+3), 29 (+4), or 31 (+5).
Restriction: Res (+2).

MIGRATION SENSE (PL 8)

This wetware implant is taken from a migratory animal and gives the recipient an innate sense of direction.

Benefit: The recipient can always find magnetic north. Additionally, with a DC 20 Spot check, the recipient can sense extremely powerful electromagnetic fields.

Type: Internal.
Location: One head.
Base Purchase DC: 18.
Restriction: None.

MUSCLE MASS GENETIC RETROVIRUS (PL 8)

This retrovirus changes the recipient's DNA, building much more muscle mass than normal for her frame.

Benefit: A muscle mass retrovirus gives the recipient a +1 to +5 inherent bonus to her Strength score. She takes a –2 penalty to her Constitution score because the strain of constantly maintaining such a high level of muscle mass tires the body, leaving it frailer and more vulnerable to disease.

A character cannot have more than one genetic retrovirus in effect at a time. A genetic retrovirus cannot be removed through surgery; it must be removed with targeted toxins or diseases (see Wetware Equipment, page 73). Further, genetic retroviruses cannot have any gadget components or be added to other cybernetic devices that have gadgets.

Type: Internal.
Location: None.
Base Purchase DC: 23 (+1), 25 (+2), 27 (+3), 29 (+4), or 31 (+5).
Restriction: Res (+2).

MUTATION (PL 8)

Through the use of genetic retroviruses, specially grown vat organs, and artificial organic tissues, it is possible for almost any mutation to be built into a recipient.

Benefit: The recipient can have up to 6 mutation points worth of mutations added. (See page 200 of *d20 Future* for more information on mutations).

This implant qualifies as a genetic retrovirus. A character cannot have more than one genetic retrovirus in effect at a time. A genetic retrovirus cannot be removed through surgery; it must be removed with targeted toxins or diseases (see Wetware Equipment, page 73). Further, genetic retroviruses cannot have any gadget components or be added to other cybernetic devices that have gadgets.

Type: Internal.
Location: None.
Base Purchase DC: 31
Restriction: Mil (+3).

PRESSURIZED ORGANS (PL 8)

The recipient's own organs are reinforced with internal webbing, and in many cases entirely replaced with vat-grown organs. Most important, the recipient's lungs and blood are replaced with organic compound that prevents excessive gases from dissolving into the blood (thus preventing it from forming bubbles in the bloodstream when the pressure is reduced too quickly—the state that causes the bends). This procedure allows the recipient to deal with extremely high pressure and sudden changes in pressure much more easily.

Benefit: The recipient can safely dive to depths of up to 10,000 feet (though obviously holding his breath long enough to do so is difficult without other implants or the proper tools). This is approximately the same depth to which a sperm whale can safely dive. (Normal divers in SCUBA gear can only dive to about 100 feet, at which time the pressure is equal to five atmospheres.)

Type: Internal.
Location: None.
Base Purchase DC: 22.
Restriction: None.

NATURAL TALENT COIL (PL 8)

This wetware implant is a tiny fraction of brain matter grafted directly onto the recipient's brain. The brain matter gives the recipient a natural talent with a specific skill.

Benefit: Choose one skill. This skill is always a class skill for the recipient. If the skill is already a class skill, the recipient instead gains a +2 bonus on checks involving that skill.

Type: Internal.
Location: One head.
Hardness/Hit Points: —/2.
Base Purchase DC: 22.
Restriction: None.

Tissue density
genetic retrovirus

Nerve Augmentation Genetic Retrovirus (PL 8)

This retrovirus makes changes to the recipient's DNA, building a far more sensitive nervous system, including various sections of the brain dealing with input and output of sensory signals and interpretations of those signals. This leads to increased perception, both of information gained by the five senses and of internal information stored and sorted by the brain.

Benefit: A nerve augmentation retrovirus gives the recipient a +1 to +5 inherent bonus to his Wisdom score. He takes a −2 penalty to his Intelligence score because the increase in ability to sort and consider one piece of data reduces his ability to gather and file new information

A character cannot have more than one genetic retrovirus in effect at a time. A genetic retrovirus cannot be removed through surgery; it must be removed with targeted toxins or diseases (see Wetware Equipment, page 73). Further, genetic retroviruses cannot have any gadget components or be added to other cybernetic devices that have gadgets.

Type: Internal.

Location: None

Base Purchase DC: 23 (+1), 25 (+2), 27 (+3), 29 (+4), or 31 (+5).

Restriction: Res (+2).

Tissue Density Genetic Retrovirus (PL 8)

This retrovirus changes the recipient's DNA, increasing bone mass, thickening tissue and skin density, and boosting the capacity of the cardiovascular system.

Benefit: A tissue density retrovirus gives the recipient a +1 to +5 inherent bonus to his Constitution score. He takes a −2 penalty to his Dexterity score because his heavier, denser, thicker frame loses a level of agility and flexibility.

A character cannot have more than one genetic retrovirus in effect at a time. A genetic retrovirus cannot be removed through surgery; it must be removed with targeted toxins or diseases (see Wetware Equipment, below). Further, genetic retroviruses cannot have any gadget components or be added to other cybernetic devices that have gadgets.

Type: Internal.

Location: None

Base Purchase DC: 23 (+1), 25 (+2), 27 (+3), 29 (+4), or 31 (+5).

Restriction: Res (+2).

Total Body Morph (PL 8)

A total body morph allows the recipient to become a larger or smaller version of himself. An entirely new body is cloned at a new size and the brain transplanted (with surgery to make it smaller, if needed, replacing autonomous function with more efficient artificial brain matter to make room). The new body is just like the old one, but scaled differently.

Benefit: The recipient becomes one size category larger or smaller. A recipient who gets larger gains a +4 inherent bonus to Strength, and takes a −2 penalty to Dexterity. A recipient who gets smaller takes a −4 penalty to Strength and gains a +2 inherent bonus to Dexterity. Additionally, all the normal changes for the new size (reach, facing, attack, and defense modifiers) apply.
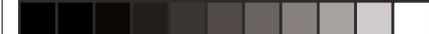
TABLE 4–3: WETWARE POISONS

Poison	Type	DC	Save Damage	Initial Damage	Secondary DC	Purchase Restriction	Craft DC	Time
Bio-toxin	Injury	17	1d4 Int	Side effect*	15	Mil (+3)	24	4 hr.
Gehennabore	Injury	18	1d6 Dex	1–2 implants disabled	15	Mil (+3)	24	4 hr.
XDT	Inhaled	13	1d4 Str	1 implant disabled	17	Mil (+3)	24	4 hr.
Rejection booster	Ingested	19	1d6 Con	1–4 implants disabled	13	Mil (+3)	24	4 hr.

*Roll randomly for a side effect on Table 1–2: Side Effects in Chapter One.

Type: Internal.
Location: None.
Base Purchase DC: 36.
Restriction: Lic (+1).

WETWARE EQUIPMENT

The advent of wetware as a common form of organ replacement and body augmentation leads to the creation of poisons and bioengineered diseases specifically designed to weaken or destroy it.

These poisons and diseases can also be used against equipment with techno-organic makeup (see pages 61 and 62 of *d20 Future* for more information on techno-organic equipment). In most cases, an envenomed or infected weapon or tool must make a sunder check against the equipment to deliver the material, after which the item with techno-organic makeup must make a Fortitude save or suffer the given effect.

POISONS

Wetware specific poisons are rare. In addition to damaging the wetware cybernetic devices, they inflict some damage to the implant recipient as well (unlike wetware specific diseases, which normally only target the victim's implants). Although the damage dealt by wetware specific poisons is different, they otherwise follow all the normal rules for poisons (see pages 54 and 214 of the *d20 MODERN Roleplaying Game*).

The implants with the lowest purchase DCs are always disabled first. A disabled implant ceases to function, but 24 hours later, the recipient can attempt another Fortitude save with the same DC. On a successful save, the implant begins functioning again. On a failed check, the implant is permanently destroyed.

DISEASES

When a character with wetware cybernetic devices is exposed to a wetware-specific disease, the character must attempt a Fortitude saving throw. If the character succeeds, the disease has no effect on any implants—the character's immune system fights off the infection. If the character fails the save, all wetware cybernetic implants in the cyberware recipient take the indicated damage after an incubation period. After a set period (24 hours, unless a specific disease says otherwise), the cyberware recipient must succeed on a Fortitude saving throw to avoid secondary damage. Two successful saving throws in a row indicate the recipient has fought off the disease and recovers, taking no more damage.

The characteristics of some wetware diseases are summarized on Table 4–4: Wetware Diseases. The format is the same as that used for normal diseases. (For more information on diseases, see page 215 of the *d20 MODERN Roleplaying Game*.)

Failure: Failure indicates that the recipient's wetware cybernetic devices don't reliably work under stress any time the character isn't allowed to take 10 on a check related to the wetware cybernetic device, roll d%. If the result is equal to or less than the given percentage, the cybernetic device fails to function. Any implant that reaches 100% failure is destroyed.

Destruction: Destruction means the implant has been killed and cannot be healed. In most cases, the damage entry is given as "Fortitude DC x or destruction." This means the recipient must succeed on a new Fortitude save or have one implant be destroyed. This is separate from the Fortitude save made against the disease itself. The wetware cybernetic device with the lowest purchase DC is always destroyed first.

TABLE 4–4: WETWARE DISEASES

Disease	Type	Period	Incubation Damage	Initial Damage	Secondary DC	Purchase Restriction
Lovekill*	Inhaled/Injury DC 16	1d2 hours	Failure 10%	Failure +10%	23	Illegal (+4)
Implant pox	Contact DC 15	2d4 hours	Failure 25%	Fort DC 15 or destruction	27	Illegal (+4)
Bios Fever	Injury DC 14	1 hour	Failure 50%	None	21	Illegal (+4)
Neo-necro faciitis	Contact DC 13	1d6 days	Fort DC 10 or destruction	Fort DC 10 or destruction	26	Illegal (+4)
Amazon virus	Injury DC 12	1d4 days	Failure 20%	Failure +10%	24	Illegal (+4)

*The secondary damage time span for lovekill is 1d2 hours, rather than a day as with most diseases.

Chapter Five:
CYBERRAVE CAMPAIGN

Cyber Raver rampage

"Okay, the plan is pretty simple. The ThinkBest corporate goons have to take Dr. Brooke from her home to her lab and back every day. Since she insists on living off the compound, that means they have to drive through the slums to get her there. That's when they're vulnerable. Input Jack will hack the traffic node to redirect the van convoy into a dead end. Crash, Moondog, and Cross hit the vans so they can't move, and Parrish jacks into them to force them open. While they're grabbing the doctor, Bellarosa and I talk our way into the son's school and pick the kid up, hopefully with no violence. The doctor won't leave without him, and her new employers won't pay us if she's not happy.

"Once we have the targets we hide them at Seventh Heaven for a couple of days while ThinkBest goes nuts. Once the heat is off, we deliver her, safe and sound, to Headware Dynamics. Once we're paid, we'll have enough money to pay off Seventh Heaven's investors, and maybe even throw a party.

"And let's be careful this time, people. I know you all love a good scrap with the corporates, but Brooke's done us a favor or two. There's no point getting her out of her contract if we get her or her son hurt in the process."

—Riot, a freelance Cyber Raver

The CYBERRAVE campaign setting is a cybernetics-heavy, near-future campaign set a little more than two generations in the future. Megacorporations and smaller business ventures are as powerful as governments. Personal freedoms take a back seat to national and economic security. Consumerism runs rampant, and many people spend their

entire lives in pursuit of a better lifestyle—one filled with more and higher-quality material possessions. To achieve this, most people depend heavily on credit, and thus never truly own the things with which they define themselves. The rich get richer and the poor get poorer.

Information is the ultimate commodity. Governments and businesses vie to have the best thinkers develop new technologies. Market research and advertising techniques are only slightly less valuable than new scientific advances. The value of any material good or service can rocket or plummet based on new advances. The VRNet, successor to the Internet, provides new methods for gaining information, but it makes securing valuable knowledge more difficult.

As the corporate and consumer cultures become more and more pervasive, an increasingly large economic bloc has become disenfranchised. Lacking the backgrounds to obtain good jobs (jobs that are often given to family and friends of existing employees), and resisting the new totalitarian culture that places the good of the many above the needs of the few, these fringe populations turn to different philosophies and social mores. Nihilism, stoicism, and devil-may-care hedonism grow among those left out of the new society, creating a new street culture that favors dedication to a personal style and philosophy (any philosophy) over acceptance of the commonly accepted behaviors.

With governments unsure of how to handle giant corporations with unprecedented wealth and power, and laws lagging behind the new political realities and advancing technologies, many groups and individuals take justice into their own hands. The law is only as powerful as it can be enforced with a gun (or a noderunner). Street folk and corporate directors alike are willing to break the law to accomplish their goals. Indeed, many urban areas are officially declared no-patrol zones, and though the legal system still officially applies to them, no enforcement agency attempts to control these regions.

No-patrol zones are popular among street ravers, gangs, and corporate officers alike, creating Old West-style townships where a gang lord, corporate militia, or sheriff keeps the peace, but only by staring down every criminal and thug looking to set up his own stronghold. Wandering mercenaries and hack-for-hire noderunners have become the new gunslingers, working for whoever can pay their bills. Many rise from the street rave cultures, while others are professional corporate security troops. Of course, some lancers struggle to make the world a better place, but most are just looking to make ends meet and earn enough to retire someplace safe.

A CYBERRAVE campaign is about more than independent heroes fighting against a world of tyranny and corporate greed, though those are important elements. It's about exploring human nature and the construction of new societies.

Ravers, deprived of any other community, find a way to mark themselves as part of a new clan. In much the way body art, tribal jewelry, or even motorcycle ownership marked individuals as being "different in the same way" compared to average citizens in the 20th century, excessive cybernetics and a fatalistic attitude are the new badges of inclusive individuality. The ravers' desire to avoid the mainstream drives them to form a new group of outsiders. Individuals willing to mark themselves as outside the norms of society are accepted as part of the street community.

Not everyone in a CYBERRAVE campaign goes to the same extreme. Those considered hardcore ravers make every possible change to themselves, including purely cosmetic cybernetics, tattoos, piercings, and outrageous clothing, and harbor a constant, nearly self-destructive desire to get into trouble and celebrate the end of the world. Less determined ravers live fairly normal lives on weekdays, but slip into their faux-leather jackets and barbed-wire earings on the weekends to blow off stress from living in the corporate world.

RULES

The CYBERRAVE campaign uses the "piece of your soul" rules for cybernetics (see page 9) and has access to standard and wetware cybernetics. Psionics exists, but magic does not. The *d20 Future* rules for genetic manipulation, cloning, realistic space travel, mecha, and robotics are appropriate for this setting, but most other different technologies aren't suitable.

Some nanites, including the nanoaugmenters from Chapter Four and some of the other nanites from *d20 Future* might exist, but in very limited numbers. They should never be available for purchase, instead existing only as plot devices and special rewards as determined by the GM.

The VRNet is commonplace, and the broadcast net and HINet rules are used. The HINet is fairly new and coexists with the lower-tech VRNet.

Progress Level

CYBERRAVE is a PL 6 (cybernetics 7) campaign setting, set late in both Progress Levels. Thus, some PL 7 technology and PL 8 cybernetics have begun to appear as prototypes and special equipment built by geniuses.

Wealth

Wealth is an important part of everyday life in the CYBERRAVE setting. Purchasing power and the economy are even more complex than in a normal *d20 MODERN* campaign, with corporations issuing their own credit vouchers good only in their stores, world governments waging economic warfare in the VRNet with automated banking programs, and work-saving machines creating an increasing level of poverty.

Anything that would be considered a minimum-wage job in the modern world—from automatic bank tellers to

RoboBurger drive-through fast food—is done with machines and automatons in the CYBERRAVE setting. Welfare programs are automated and automatically rate a citizen based on what the citizen has bought and earned in past weeks. Many people work purely for credit and never see any cash of note over their entire careers. Their lives are rented, and upon their deaths all they own is repossessed, leaving no wealth to pass on to the next generation.

Many people avoid the official welfare programs and corporate stores by living off cash and barter. While it's not quite illegal, most authorities frown on this kind of "gray wealth" (detailed below) because it's hard to control, tax, and monitor. Because of this, a new type of Wealth bonus, gray wealth, is used in this setting.

Gray Wealth

In addition to a normal Wealth bonus, characters in the CYBERRAVE setting have a second means of purchasing goods called a gray wealth bonus. Gray wealth can only be used to buy things from nonstandard sources, such as the black market, fences and gun smugglers, criminal-run shops, or from unlicensed street vendors. Gray wealth replaces the normal black market rules on page 93 of the *d20 MODERN Roleplaying Game.* Black markets and shops that avoid the normal licenses and business requirements of a legal business are far more common in a CYBERRAVE campaign than in a normal *d20 MODERN* game.

Gray wealth does not necessarily include illegal goods, though it certainly can, depending on how the character operates. What it does cover is street credibility, access to gray market goods, and a reputation for not bringing down law enforcement. A character might have very little real money, but be able to arrange for fairly extensive gray market goods through a combination of trading, bartering, making promises, and knowing what's valuable on the gray market at any given moment. Like a normal Wealth bonus, gray wealth represents a lot more than just goods for sale. But the factors that go into a gray wealth bonus have no effect on the character's normal Wealth, and vice versa.

A character's starting gray wealth is equal to 2d4 + any bonus from starting occupation and the Street Broker feat (if taken). The character gains a +1 bonus for having 4 ranks in the Knowledge (streetwise) skill. Even characters with no experience buying and selling goods on the gray market have a starting gray wealth score, because they have access to things they can pawn and trade.

As a general rule, buying something with gray wealth requires a Knowledge (streetwise) check with a DC equal to the purchase DC of the item in question to find the item. Thus, buying a medical kit (purchase DC 15) with gray wealth first requires a character to make a DC 15 Knowledge (streetwise) check to find one for sale on the gray market. The time required to find the item is the same as it is to find it in a legitimate shop. A licensed, restricted, military,

or illegal item has both its purchase DC and the Knowledge check DC to find it increased by the normal amount (+1 for licensed, for example). A character cannot take 10 or take 20 on a gray wealth check. Gray wealth increases and decreases based on items bought or sold just as normal Wealth bonuses do. Any given Profession check adds to either Wealth or gray wealth bonuses when a character gains levels, as determined by the GM.

Gray wealth cannot be used to buy things from legitimate sources. Normal Wealth can be used on the gray market (including the ability to take 10 or take 20), but everything on the gray market has its purchase DC increased by 2 when bought with normal wealth. Most normal sources of purchasing power in the CYBERRAVE campaign are marked and traced, and gray market merchants charge a premium for dealing with it.

Knock-Offs

Almost everything characters buy in this setting is a fake, faux, or knock-off version. Leather clothes are synthileather. Designer clothes are foreign imports with forged tags. Beef is soy protein with artificial flavors, fruits are genetically modified kelp, and even weapons are knock-off designs made of ceramics, plastics, and fake metal finishes. These products might not wear quite as well as the real thing, but they are mechanically identical to genuine versions of the same items.

A character can, of course, buy a real, genuine, no-fooling version of something. The purchase DC to do so is increased by 3, and there's no game benefit for doing having such an item. Worse, having lots of designer and real items damages a character's street credibility. (If someone can afford to burn money like that, he isn't really street folk.) This translates to a −2 penalty on any Charisma-based check when dealing with real street folk, including ravers, mercenaries, and most independent operators.

Gray wealth can't normally be used to buy genuine items.

Cybernetics Costs

Standard cybernetic devices are extremely common in the CYBERRAVE setting. Their high frequency and the vast automation used in their construction results in major price savings, at least for the highend implants. Any implant with a purchase DC of 20 or more has its purchase DC decreased by 2. Those with DCs of 10–19 have their purchase DCs decreased by 1. Cybernetic devices with a purchase DC of 9 or less remain at the same cost—there isn't a large enough profit margin to allow for reduced prices.

The purchase DCs for wetware cybernetic devices and any other nonstandard cybernetic devices the GM decides to allow should be unchanged. These systems are too new to enjoy the same levels of streamlined, automated production, and their sales numbers too low for the economy of scale to have kicked in yet.

FACTIONS

A CYBERRAVE campaign is at least in part about new societies emerging as the world struggles to deal with vast and rapid changes in technology and civilization. Many of those societies can be expressed as factions. Most factions fall into one of four categories—governments (and their agencies), gangs, corporations, and other business venture groups.

Governments and gangs are very similar to those found in our world today, with some spin. Governments have been forced to fight for survival as natural resources dwindle and companies become more influential and greedy. Most governments have taken a totalitarian turn and are willing to take any action (legal or not) to ensure their survival; the security of the nation is more important than personal freedoms.

Gangs, conversely, have become the last bastions of freedom of expression and personal liberty. Not all are good and benevolent by any means—many are still little more than groups of thugs banding together for mutual profit—but many are more interested in supporting the freedom of the individual than causing trouble. Gangs lack the power to ever truly defeat the authoritarian forces of governments and corporations, but this doesn't stop them from fighting for their beliefs.

Corporations and business ventures are two versions of the same thing—businesses with a legal identity beyond that of their owners or members. Corporations have become lumbering networks of departments and divisions with the power, budget, and scope of most nations, but with less experience to manage their resources. Business ventures are smaller, generally no more than one or two buildings of people. These ventures enjoy the same legal protections as corporations, but manage to be more nimble and quick to respond to changing market conditions due to their small size.

Factions from Other Books

Department-7, described in the *d20 MODERN Roleplaying Game,* and a number of other factions and organizations introduced in the *d20 Menace Manual* work well in the CYBERRAVE campaign. Brief discussions of the most appropriate organizations and how they are different in a CYBERRAVE campaign appear below. Even if a GM doesn't have access to the *d20 Menace Manual,* she can use these notes as guidelines when designing factions of her own.

Department-7

Department-7 works best as a branch of a megacorporation or a government agency that deals with the street culture common in the CYBERRAVE campaign. Agents are often culled from the ranks of independent operators, allowing them to continue to live their lives while only occasionally taking important missions from the department.

If Department-7 is a government agency, it acts primarily to watch for potential threats (especially domestic terrorism) that might arise from street culture; it neutralizes such threats when conventional government agencies are unlikely to do so. Department-7 is one part information gathering service and one part special forces. Agents are called upon when department operations in their area require their special talents. In many cases, agents are organized into cells that operate as a group but have little or no contact with other Department-7 agents. They receive orders and file reports through a single contact (often through a speakerphone or in the VRNet).

If the GM decides to make Department-7 a branch of a megacorporation, it becomes a professional troubleshooting organization the corporation calls on when traditional methods have failed. Run by a respected vice president of the corporation, the department provides security for installations that have proven themselves a risk, guard corporation employees who have received threats or who are valuable targets for competitors, and hunt down industrial spies who have stolen company secrets.

The Central Intelligence Agency

Woefully underfunded to face the threats of the CYBERRAVE Campaign world, the CIA turns to the VRNet for much of its

information gathering. Highly trained noderunners, among the best in the world, search through nodes of enemies and allies alike for secure information, which is analyzed by a central think tank. Since the VRNet is global, the CIA can search any corner of it without officially operating on U.S. soil, which is forbidden by its mandate. The CIA no longer has many agents, though it can hire mercenaries if the need arrives.

CRIMSON SCORPION

The Crimson Scorpion is now the motivating force behind numerous business ventures and has its hands in a few megacorporations as well. It is often the motivating force behind the less than legal activities of sub-branches of larger businesses.

CRYPTONAUTS

In a world where the VRNet is ubiquitous and hackers are the most common kind of criminal, the Cryptonauts have modified their focus as a group. Hackers and noderunners don't need greater awareness and protection anymore—they're the ruling class in many ways. The Cryptonauts are now primarily concerned that the VRNet might become a tool for misinformation for businesses and governments and end up beyond the reach of common citizens. They campaign against any group that tries to use the VRNet to spread lies, and they work toward granting everyone access to the vast network of information it represents.

THE DEPARTMENT OF DEFENSE

The Department of Defense (DOD) is largely unchanged, though it now watches large businesses as closely as it watches other countries. The department works closely with many megacorporations to develop new and more effective combat implants. It is also often politically restrained from taking action against enemy targets because of possible repercussions from businesses with financial interests near those targets. When an unquestioned threat arises, however, the DOD can respond with overwhelming physical force.

THE FEDERAL BUREAU OF INVESTIGATION

The Federal Bureau of Investigation (FBI) is totally overwhelmed by the constant barrage of threats that now exist within the U.S. borders. It remains the premiere police force available, but simply lacks the numbers needed to deal with every interstate crime that occurs. Like the CIA, it turns to the VRNet for much of its information gathering and has several branches specifically dedicated to VRNet crime, but unlike the CIA, it tries to maintain a large cadre of field agents. Its resources are so overtaxed that agents are often forced to work cases alone and call on local resources rather than turning to the Bureau for support. Many agents

develop a list of trusted contacts to call on for help, thus creating an avenue for the heroes' involvement.

THE FEDERAL EMERGENCY MANAGEMENT AGENCY

The focus and scope of the Federal Emergency Management Agency (FEMA) does not change significantly in a CYBERRAVE campaign. FEMA agents often have one or two implants (especially sensors and communication gear).

GLOBAL NETWORK NEWS

The Global Network News (GNN) remains the most trusted and visible reporting agency in the world. Its reporters often use VRNet broadcast implants and hidden camera eyes to file undercover reports from the inner sanctum of gangs, business ventures, and megacorporations alike. A few of these broadcasts are made in real time over the VRNet, though most are sent directly to GNN headquarters for confirmation and editing before broadcast. Many freelance reporters work for GNN selling their new footage for top dollar to the network.

GNN is also still secretly working to promote a single world government and quietly slants its reporting to match this goal. Megacorporations are seen as a danger to the establishment of a world government and often targeted by GNN with negative publicity and reporting. The Cryptonauts and their open and free information attitude often come into conflict with GNN editors and producers.

THE GREEN BRIGADE

The Green Brigade has lost its battle. Only a few diehard members remain, plotting to destroy all advanced technology and society in general, believing this to be the only means left to safe mother earth.

THE HOFFMANN INSTITUTE

In a typical CYBERRAVE campaign, the Hoffman Institute is simply a research center for understanding psionics and psionic potential. Members rarely have implants, though quite a few are psionic. If the GM wishes to add aliens, magic, or other unusual elements to a CYBERRAVE campaign, the Hoffman Institute is an excellent way of doing so.

LA GENTE

Although its structure and purpose remains unchanged, La Gente is no longer a crime cartel—at least on paper. It is one of the most powerful corporations in South America, having successfully lobbied numerous countries to legalizing the growing and distribution of narcotics. It has a thin veneer of legitimacy, including annual reports, stock options, corporate headquarters, and a board of directors. However, many of its drugs go to markets where they are not legal (including the United States). Thugs and gangs handle the day-to-day operations, just as they did in the old days. Though more powerful and more open than

it used to be, at its core La Gente is still a drug-based mafia of killers and smugglers.

Other Factions

The Nautilus Club, Nova Records, and Solomon Solutions can be used in a CyberRave campaign with no more effort than updating the technology they use. The United Nations Elite Security force can be used after makingh much the same changes as for the Department of Defense.

NEW FACTIONS

Two new factions for the CyberRave campaign are presented below. These are far from the only groups operating within the campaign or even necessarily the most important ones. They are, however, representative of the kinds of factions common within the campaign world. ThinkBest is a powerful megacorporation with branches in every major city around the world, and Steel Cross is a small business venture just beginning to have an impact on its local community.

THINKBEST

The leader in mental augmentation and computer implantation cybernetics, ThinkBest is one of the most powerful megacorporations in the world. With offices on every continent (including Antarctica), sovereign space platforms, and a lunar colony, ThinkBest is more powerful than many nations and just shy of the power level enjoyed by superpowers.

Agenda: Maintain corporate profits, develop increasingly useful and expensive products, keep competitors in second place through pricing, marketing, research, and espionage, and prevent world government from taking a direct interest in ThinkBest's business practices.

Structure: Multinational megacorporation with corporate direction controlled by a board of directors and individual branches controlled by semiautonomous vice presidents.

Symbol: Silhouette of a head with a circuitry pattern replacing the brain.

Most Common Allegiance: ThinkBest.

Requisition Limit: 30 (licensed), 40 cybernetics (military).

Overview

ThinkBest grew out of the merger of a major computer software corporation and a medical research company many decades ago. The new conglomerate pioneered many PL 7 head augmentation cybernetics. The company's name became synonymous with computer implants and their lobbyists helped draft the current liberal legal policies regarding civilian implants. As sales rose, the company spread out over the globe and eventually into space.

The source of ThinkBest's great power comes from its vast fortune and control over an important segment of the cybernetics market. The company maintains its position with a combination of product quality (which is high) and marketing practices. ThinkBest computers are compatible only with other ThinkBest products. Once you have one ThinkBest implant, chances are you'll return to purchase similar implants. (ThinkBest implants can only be combined with other ThinkBest products or those compatible with ThinkBest, meaning products made under license from ThinkBest.) ThinkBest implants can interface with other company's products (if using them to jack into the VRNet, for example), but can't mesh directly with other brands of hardware.

To ensure market dominance, ThinkBest sells contracts to other companies cheaply and works closely with governments on tight budgets to augment their agents affordably. As a result, to tap into the lucrative government-sponsored cybernetic augmentation programs, many clinics carry only ThinkBest products. Anyone who goes to one of these clinics ends up with ThinkBest brand products, forcing them to get other ThinkBest products in the future.

Despite this vast near-monopoly, ThinkBest is not without competition. Minor business ventures often produce cybernetic devices designed specifically to compete with ThinkBest products, and many street folk avoid ThinkBest as a matter of principle. A more serious risk to the company is the possibility that a superpower nation might begin an investigation of the corporation's business deals—which are often shady—or refuse to take part in its near-monopoly on government headware contracts.

Structure

The ultimate authority at ThinkBest is the board of directors, which holds quarterly meetings at ThinkBest headquarters in Copernicus Base on the moon. At these meetings, the directors chart the progress of the company and determine its general focus for future ventures. Each member of the board is a major investor in the corporation, and as a group they hold a controlling majority of the company's shares.

Each branch of ThinkBest operates autonomously, taking only the broadest of directions from its corporate headquarters, which is located in Copernicus Base on the moon. ThinkBest fosters internal competition, and though in general this pushes each branch of ThinkBest to excel, the cutthroat competition has a downside. ThinkBest Boston might bid against ThinkBest Seattle for a contract, a noderunner who gets blacklisted by one branch can still work for another, and ThinkBest New York might steal away a lead cyberware designer from ThinkBest Chicago. Indeed, ThinkBest branches often poach designers and marketing executives from one another in an effort to improve their bottom line. As long as money continues to flow into the corporate coffers, the board of directors overlooks such antics.
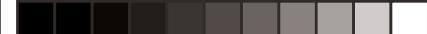
Each branch is headed by a vice president who presides over a collection of executives. The executives are in charge of research and development, physical security, computer security, personnel management, sales, marketing, and finance. Each of these executives supervises middle management officers who look after the day-to-day issues of running the company. The vice president is the ultimate authority within a branch, but executives are often looking to usurp the vice presidency by proving themselves more efficient or ruthless. This struggle keeps everyone on their toes, though the results for the branch aren't always positive.

Bases of Operation

Aside from the exclusive, well-defended headquarters at the lunar base, ThinkBest has four types of compounds: branch offices, research labs, corporate housing, and retail outlets.

Branch offices are small-scale headquarters for a specific region's operations. There is a branch office in nearly every major metropolis in the world. Each branch office is run by a vice president responsible for all ThinkBest operations in his area (see the ThinkBest Branch Office, page 82). Research labs are secure buildings where the most important and expensive development takes place, including human research considered illegal by many governments. Although some research occurs in the branch offices, the most promising work is always done in a research lab (see the ThinkBest Research Compound, page 86).

Corporate housing buildings are combination living complexes and private malls. ThinkBest employees work here, live here, and take care of most of their day-to-day needs without ever leaving the corporate compound.

Retail stores are generally located in major metropolitan areas and sell ThinkBest goods and services. Retail stores are small and normally unguarded—nothing of great importance is kept in a ThinkBest retail outlet.

Branch offices, research labs, and corporate housing buildings are always located in a no-patrol zone—regular law enforcement no longer attempts to maintain law and order. ThinkBest has its own security force, which watches over its buildings without having to worry about local authorities. Most ThinkBest compounds hire local off-duty law officers to patrol their areas, allowing them to tap into the local security resources without actually giving them any legal authority over ThinkBest.

ThinkBest compounds are often safer than the nearby city, but that safety comes at price of privacy and freedom. Since the corporation pays the officers that patrol it, only the needs of the corporation are considered. Employees in good standing are treated well (happy employees are productive, after all), but nonemployees are often driven away or ignored. However, this can be a two-edged sword for ThinkBest. Anyone who takes an illegal action against the corporation on the ThinkBest compound but manages to escape into an area controlled by the local government or

another company is largely safe from ThinkBest retribution. But still, the company has a long memory and is willing to employ assassins and spies to eliminate targets who prove to be nuisances.

The most aggressive ThinkBest branch is ThinkBest Chicago (TBC), which is run by Alec DuFrei (see Members, below).

Resources

As a whole, ThinkBest has vast resources in money, equipment, political pull, and personnel. Any serious threat to the corporation draws the wrath of its full multinational might, which is no less than a major nation's.

Individual branches alone are much more limited, however. A given branch has a few hundred security officers and dozens of scientists, but most are busy with permanent duties, such as overseeing sensitive projects or guarding ThinkBest facilities. A branch can easily put together a squad of twenty to thirty personnel on short notice, but any more than that takes time and planning. Branches typically equip their personnel well, but can't afford to make up a high level of loss if that equipment is destroyed.

It's often more cost-effective for a branch to outsource unusual missions to smaller business ventures. This allows the branch to hide its participation more easily and limit its potential for financial losses to a predefined limit outlined in a contract.

Involving the Heroes

ThinkBest recruits outsiders from time to time, but normally only for entry-level minimal wage positions, or from competing companies. If the heroes are members of another corporation or business venture, they could become employees of ThinkBest when it completely buys out their old business.

Using ThinkBest

Characters are most likely to become involved with ThinkBest if they are hired by another corporation or agency to run an operation against one of the ThinkBest offices or to run an operation against a ThinkBest competitor. Of course, because of the independent structure of ThinkBest branches, the heroes could be hired by one branch to run an operation against another branch. What ThinkBest won't do is hire outside security personnel—ThinkBest trusts only its own people to protect its interests.

Alternatively, heroes might run into another freelance team working for ThinkBest while raiding some ally or business friendly to the heroes. Most ThinkBest raids are designed to acquire a specific employee (a particularly skilled market researcher of computer designer) or a new technology (such as an improved computer chip or software program), or to sabotage a competitor's plans (burning down a lab or introducing a flaw into the manufacturing process of a new product). Of course, ThinkBest's Board of

Directors does not approve of this kind of operation, but individual vice presidents have proven willing to break the law if they can get away with the crime and advance their careers. The heroes are never going to bring down ThinkBest entirely, but they might be able to destroy a branch office or the career of a vice president.

Learning about ThinkBest

ThinkBest is a publicly traded company, so some information about it is easily gathered, such as the names of corporate officers, the specifications of its current products for sale to the general public, and the addresses of its branch offices. As a research and development company, ThinkBest fiercely guards information about its prototypes, design staff, and market research. Each branch of ThinkBest handles its own security. Individual branches are often instructed to work on one element of a new system without being told what it's for, or who is working on other components.

ThinkBest headquarters

ThinkBest is a leader in headware and computer technology. Publicly, it is known for helping to develop the early stages of the HINet. Privately and secretly, it has begun developing nanoaugmenters and gimpers (see Chapter Two). Characters attempting Research or Knowledge (technology) checks can learn the following information at the given DCs.

DC 1: The price and specifications of unrestricted and licensed ThinkBest products sold to the general public.

DC 5: The name and location of a low-level research scientist working for ThinkBest.

DC 10: The name and objective of a low-level research project ThinkBest is developing.

DC 15: The price and specifications of restricted and military ThinkBest products sold to military and government groups.

DC 20: The name and location of a mid-level research scientist working for ThinkBest.

DC 25: The name and objective of a mid-level research project ThinkBest is developing.

DC 30: The price and specifications of illegal ThinkBest products retained for the use of its corporate officers.

DC 35: The name and location of a high-level research scientist working for ThinkBest.
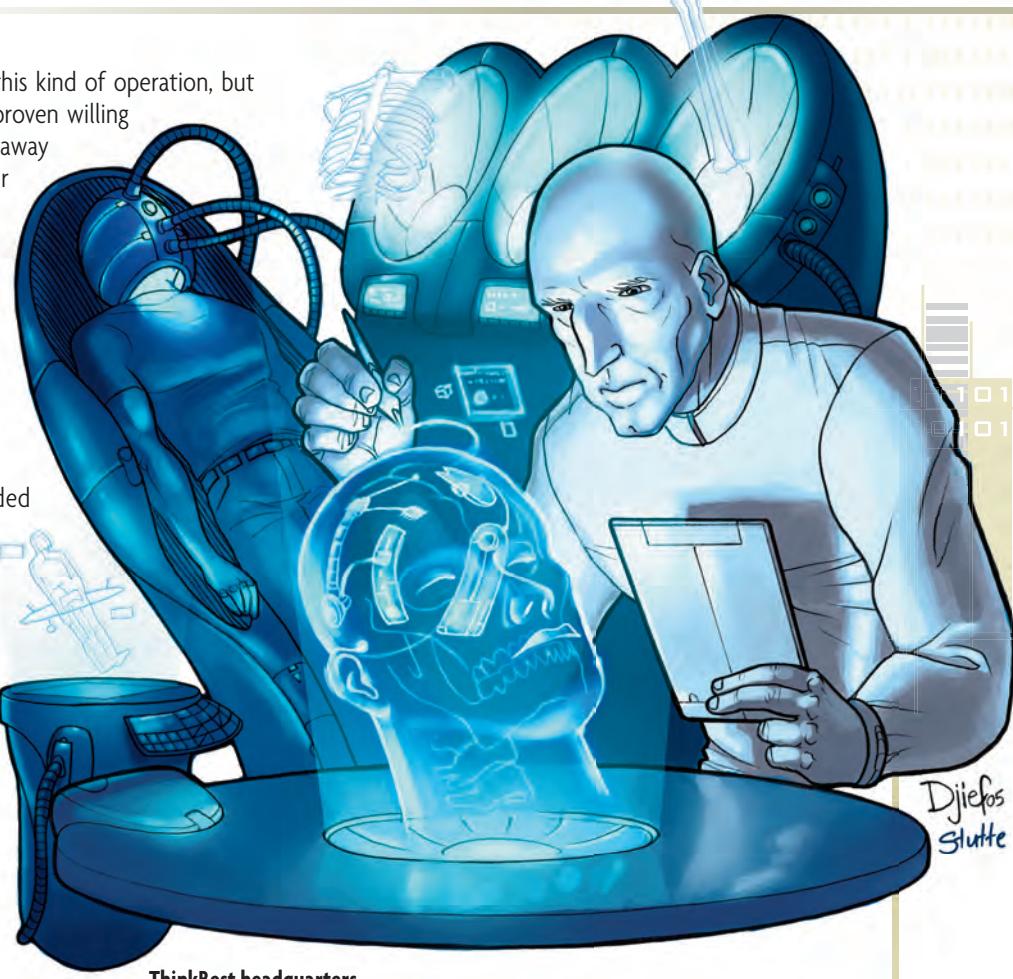
DC 40: The name and objective of a high-level research project ThinkBest is developing.

Members

The most rapidly expanding segment of ThinkBest is the Central Plains Division, which operates out of a Chicago branch office. Vice president Alec DuFrei, who directly oversees local operations and broadly directs all offices within the region, runs the Chicago office. Though in theory he only advises the vice presidents of other branch offices, including every major city between the Mississippi River and the Rocky Mountains, his influence is much greater—very few of the vice presidents in his region will consider taking any major action without consulting him.

DuFrei is an ex-noderunner and street hacker who gave up the free life and went corporate a decade ago. DuFrei still has some street contacts and isn't above calling on them to solve problems if standard business methods fail. This has earned him a reputation as a go-getter within ThinkBest and a reputation as a sellout faker among street types. As far as real street hackers are concerned, DuFrei can talk the talk, but he no longer walks the walk. This doesn't mean his money isn't good, however. He's not one of them, but he has more credibility among the denizens of the street than most corporates.

CYBERRAVE CAMPAIGN

DuFrei is tall and slender, with a slight build. He wears his simple, unimpressive cybernetic devices openly, eschewing the concealed or designer implants that are more common in boardrooms. He has a street appearance and cultivates his look carefully. (If he needs a replacement implant, DuFrei finds a used implant and has it reconditioned, rather than buying one new.) His eyes are chrome silver, he has a data-jack in his left temple, and his right arm has an obvious housing for a built-in electronics kit.

Du Frei is a skilled noderunner who keeps his hand in the VRNet and sometimes makes data-raids against competitors himself. He's ruthless but cautious, willing to take any measure needed for success, but always keeping both a backup plan and plausible deniability. He rarely leaves his protected corporate compound in person, instead arranging for meetings in the VRNet at public nodes. On the rare occasion when he leaves the ThinkBest compound, he has at least two bodyguards with him at all times.

Alec DuFrei (Charismatic hero 5/Cybernaut 7): CR 12; Medium-size humanoid (human); HD 12d6; hp 42; Mas 23; Init +4 (+4 Dex); Spd 30 ft.; Defense 20, touch 20, flatfooted 16 (+4 Dex, +6 class); BAB +7; Grap +6; Atk +6 melee (1d3–1, unarmed) or +11 ranged (2d8, laser pistol); Full Atk +6/+1 melee (1d3–1, unarmed) or +11/+6 ranged (2d8, laser pistol); FS 5 ft. by 5 ft.; Reach 5 ft.; SQ Low-light vision, DR 4/–; AL ThinkBest; SV Fort +5, Ref +11, Will +6; AP 6; Rep +8; Str 8, Dex 18, Con 10, Int 16, Wis 13, Cha 16.

Skills: Bluff +11, Computer Use +20, Diplomacy +11, Gather Information +11, Intimidate +16, Knowledge (business) +10, Knowledge (current events) +10, Knowledge (streetwise) +17, Knowledge (technology) +17, Profession (administrator) +13, Read/Write English (free), Read/Write Japanese, Research +12, Repair +12, Speak English (free), Speak Japanese.

Feats: Combat Expertise, Gearhead, Heroic Surge, Improved Damage Threshold, Iron Will, Personal Firearms Proficiency, Point Blank Shot, Renown.

Background: Noderunner (Computer Use, Knowledge (technology), Repair).

Class features (Fast hero): Coordinate, inspiration, fast-talk.

Class features (Cybernaut): Master noderunner (backdoor, compression, nodehack), nodestar, mighty avatar +2d6, 10th grade avatar.

Possessions: Laser pistol, various personal effects.

Implants: Identity chip, artificial twitch fiber (+6), internal tool mount (deluxe electrical tool kit), HUD link/light amplification optics/microscopic optics/telescopic optics (integrated cybernetics), microcomputer (with integrated cellular modem and amazing VRNet rig), fortified skeleton, organ remapping.

ThinkBest Branch Office

The ThinkBest branch office map represents a typical headquarters for a ThinkBest regional branch. The office serves as a branch headquarters, office, and workstation for researchers and programmers. It's also a testing laboratory and meeting place for high profile clients. No actual production or sales occur here; those tasks are handled at separate production facilities and retail outlets. ThinkBest operates 24 hours a day, with most rooms being shared by workers over three different 8-hour shifts.

The ThinkBest branch office is typical of a regional building for a huge corporation or the headquarters of a smaller business venture. With a little work, it can be used at the base of operations of any business entity.

1. Lobby

The lobby is the main entrance to the building, and is heavily monitored from the security command post by remote cameras. The room is filled with comfortable chairs and sofas, display cases with ThinkBest products (including popular prototypes from the company's early history), a viewscreen constantly running ThinkBest advertising, and a holographic display of the company's lunar corporate headquarters.

Three receptionists work the main desk, fielding incoming calls, receiving packages and couriers, and dealing with visitors. No one unexpected is allowed past the lobby, although employees can arrange to meet friends and family here and escort them into public sections of the building. The receptionists entertain important guests here until a courtesy officer arrives.

The attached security post is always manned by at least two experienced guards.

2. Security Post

Each security post has reinforced walls and armored windows, seating for four guards (though generally only one is kept at each post unless trouble is expected), a camera (connected to security command), a few viewscreens showing nearby parts of the building, and a communication center. It can be both locked and barred from the inside and every door and window has a sliding gun port, allowing guards inside the post to fire into adjoining areas while maintaining nine-tenths cover.

3. Security Command Center

The security command center is the office for the chief of security. In addition to the chief of security, the center is staffed by two guards. The center has a master camera control in this room that can show the view of any camera in the building on any one of four monitors. The center has a holding cell large enough for three people.
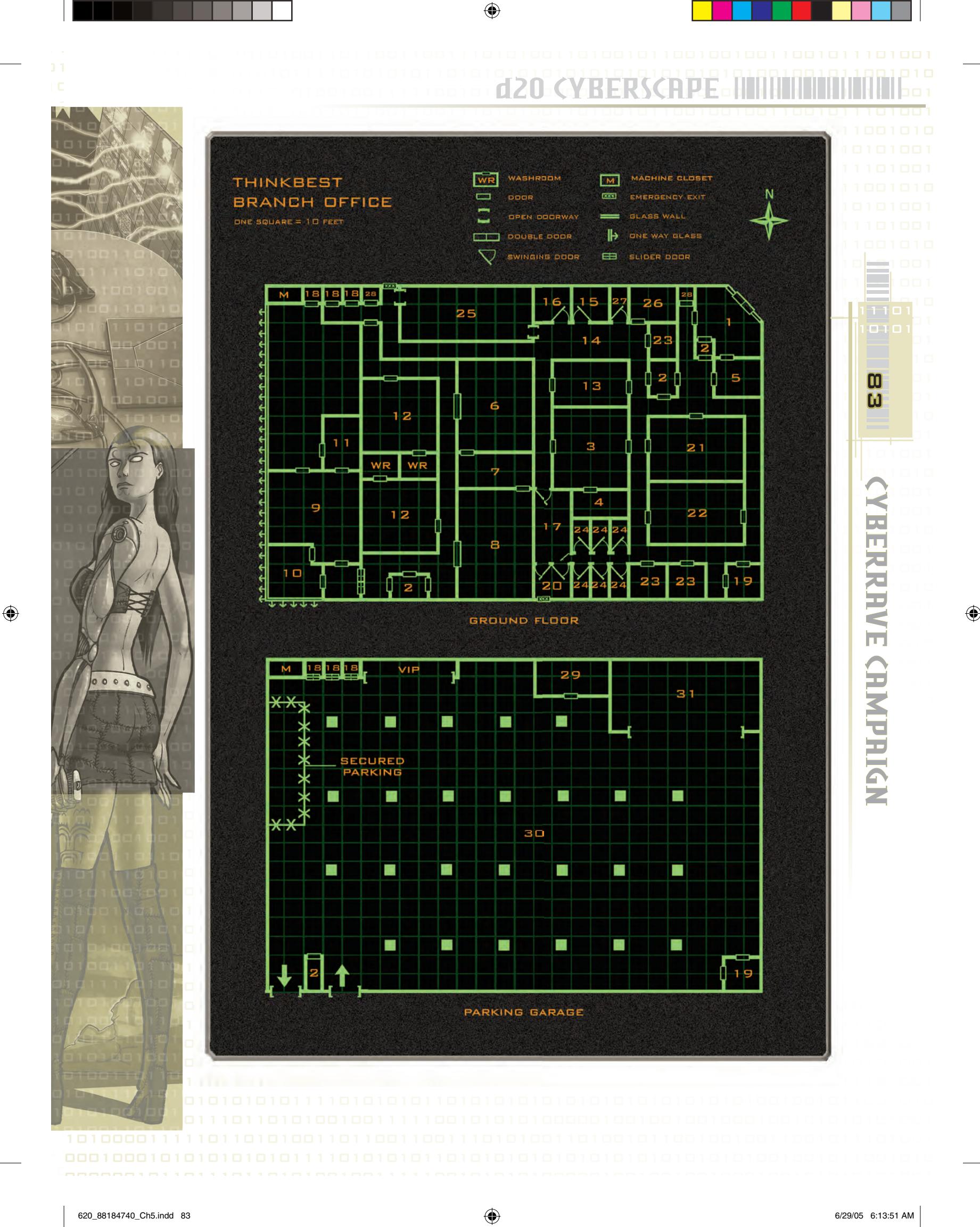
THINKBEST
BRANCH OFFICE
ONE SQUARE = 10 FEET

WR — WASHROOM
⬚ — DOOR
⬚ — OPEN DOORWAY
⬚ — DOUBLE DOOR
▽ — SWINGING DOOR

M — MACHINE CLOSET
⎯ — EMERGENCY EXIT
⎯ — GLASS WALL
⎯ — ONE WAY GLASS
⊞ — SLIDER DOOR

N

GROUND FLOOR

M 18 18 18 28
25
16 15 27 26 28
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20 24 24 24 23 23 19

PARKING GARAGE

M 18 18 18 VIP
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31
SECURED
PARKING
30
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19
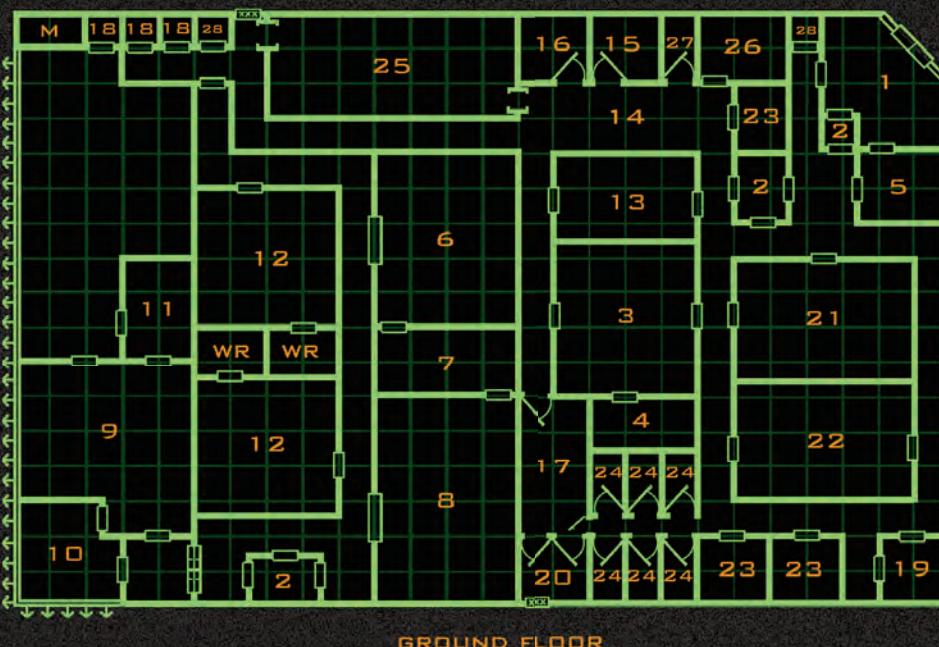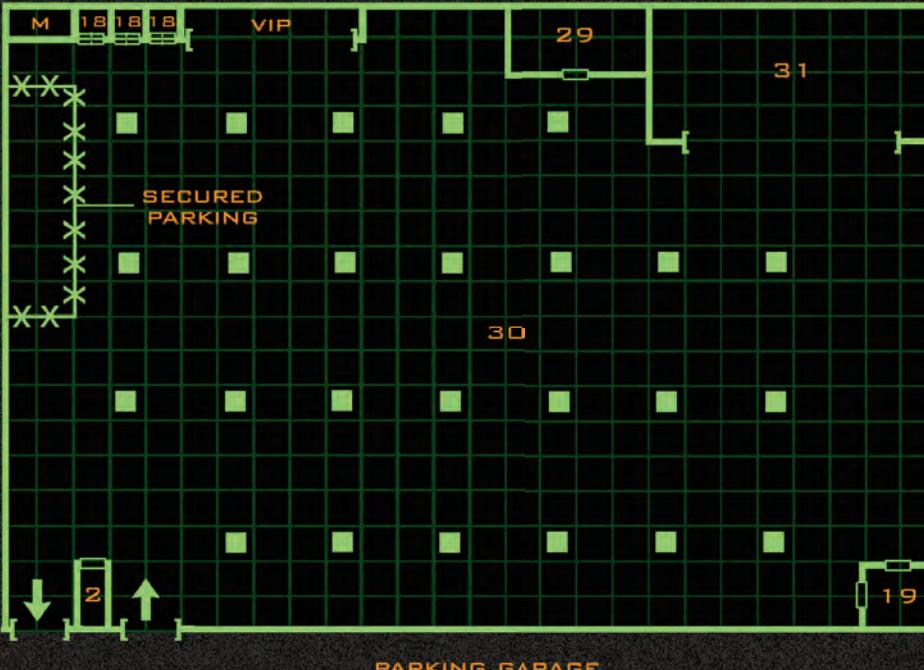
CYBERRAVE CAMPAIGN

4. ARMORY

The armory is locked at all times, and only the vice president or the chief of security can open it. (It's keyed to their identity chips and opens for them with a touch.) Inside are 24 laser rifles, 2 laser sniper rifles, a minigrenade launcher (with both concussion and EMP grenades designed to ruin anything intruders are trying to steal), 4 tangler guns, 12 stun batons, and 24 suits of light combat armor (for information on this equipment, see page 67 of *d20 Future*). These weapons are broken out only in the event of a major assault on the building.

5. GUEST LOUNGE

This is a comfortable room with a small conference table, leather chairs, minibar, tri-dee screens, a gas-powered fireplace, and expensive artwork on the walls. It is the waiting and meeting room for important guests.

When the room is not in use by a guest, it doubles as the office for the on-duty courtesy officer, who is responsible for seeing to the needs of important guests. The courtesy officer makes travel arrangements, orders security details, and arranges for accommodations for important guests.

6. EXECUTIVE LOUNGE

Restricted to the highest-ranking corporate officers, the executive lounge is equipped with computer terminals, VRNet rigs, humidor, full bar, kitchenette, two leather couches, a small conference table, leather chairs, and viewscreens with access to the security cameras throughout the building. The on-duty courtesy officer is often found here acting as a butler for the executives when not busy with other guests.

7. EXECUTIVE WASHROOM

A private restroom restricted to important executives. Each stall has viewscreens with access to tri-dee programming and security cameras throughout the building.

8. EXECUTIVE MEETING ROOM

The largest and most well-appointed meeting room, this is also the boardroom. In addition to tri-dee screens, security viewscreens, and a large conference table with built-in VRNet rigs and computer terminals, the room contains a large viewscreen used for presentations, a minibar, and comfortable stuffed leather chairs. The room has reinforced walls and gun ports in the doors.

9. VICE PRESIDENT'S OFFICE

This is the largest office in the building and the command post of the vice president. This room is accessed by private elevator only.

The office, which is filled with expensive art, has a large armored desk, a comfortable leather desk chair, several lounge chairs, a leather sofa, a minibar, and tri-dee entertainment system. Along the walls are several armored filing cabinets containing secret documents the vice president doesn't trust to any electronic file. A hidden armored safe contains his personal files, a firearm, and some emergency cash.

The vice president's computer has direct access to the VRNet computers and a security override, which can shut off the camera in any room, preventing security from accessing visual or audio from that room.

With a private elevator, private secretary, and small apartment, it's designed to be comfortable and secure. It's difficult for other employees to know for sure if the vice president is in the building or not, and this effect is intentional—it's the ultimate closed-door policy.

10. PRIVATE LOUNGE

The lounge is a comfortable room with a few stuffed leather chairs, an entertainment system, a VRNet rig, a full bar, and a viewscreen with access to the security cameras throughout the building. Only the vice president has access to this lounge, where he relaxes and entertains important guests.

11. PRIVATE RESTROOM

This is the only room in the building with no security camera. It can only be accessed by the vice president.

12. EXECUTIVE OFFICES

These are smaller and less impressive versions of the vice president's office. These are occupied by his direct subordinates.

13. GENERAL MEETING ROOM

Used by employees and less important visitors, each general meeting room is equipped with a large table and equipment for teleconferencing and graphic presentations.

14. EMPLOYEE LOUNGE

A simple rest area with old sofas, worn office chairs, and chipped tables. It has a tri-dee entertainment system, several vending machines, and an array of coffee machines.

15. EMPLOYEE MEN'S RESTROOM

The restroom is only open for ThinkBest employees (identified through shepherd chips or identity chips). The amount of time an employee spends here is automatically logged into the computer. All sections of this room can be seen by security cameras.

16. EMPLOYEE WOMEN'S RESTROOM

These are set up the same as the men's restroom, except only the chief of security and the vice president can access the security cameras.
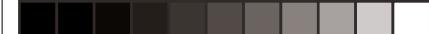
17. Employee Cafeteria

Most employees eat breakfast, lunch, and dinner in the cafeteria. They can charge food to their paychecks. Employees pick up their food from a window that looks into the kitchen, and they eat perched on rickety stools at long tables. The tables can be folded and stools put away so the room can be used for meetings of the whole company.

18. Elevator

Elevators go from the parking garage to the main floor. The elevators come only when an employee (identified by a shepherd chip or identity chip) presses the call button, or when overridden by the security command post or the mainframe computer. Each elevator has a security camera. Instrumental versions of popular music play on the elevators' speakers.

19. Stairway

The doors to the stairway open only to a registered employee, who is identified through a shepherd chip or identity chip.

20. Kitchen

The small kitchen is just well enough equipped to provide for the employee cafeteria. It has two small ovens, a number of cooktop burners, four large refrigerators, two big freezers, a number of pantries, and several cabinets storing plates, cookware, cutlery, pots, and pans.

21. VRNet Lab

A number of employees constantly monitor the VRNet from this lab, which is equipped with amazing VRNet rigs. These employees act as guards and administrators for the office's own VRNet nodes, but they also search the VRNet for information relevant to the company's interests and occasionally directly (and clandestinely) raid the nodes of competitors.

22. HINet Lab

The HINet is a new addition to the VRNet. This room has four comfortable chairs and direct access to the mainframe for HINet noderunners to work on the company's behalf.

23. Research Lab

Each research lab is equipped with a bank of advanced computers, chalkboards, dry-erase boards, graphic presentation gear, desks, electronic tool kits, electronic parts bins, desks, and lockers for securing reports.

24. Junior Executive Office

Just one step up from a cubicle, these offices are for junior executives, senior research staff, and middle management. Each office has a single desk, three chairs, VRNet rigs, a filing cabinet, and a small safe.

25. Desk Farm

This area contains cubicles used as offices by ThinkBest employees. Each work area has a small desk, a computer, and a security camera watching the occupant's every movement.

26. Computer Hub

The mainframe of all the ThinkBest computers, as well as the outgoing lines for the VRNet/HINet and a VRNet broadcast generator, are all stored here. Anyone with access to this room gains a +5 bonus on Computer Use checks made in regard to the local ThinkBest nodes.

27. Storage Room

The storage room holds holiday decorations, spare office equipment and supplies, old product displays, spare uniforms and gear for the labs, and unused chairs and tables.

28. Utility Closet

29. Utility Room

The utility room has the main access for outgoing plumbing, electrical wiring, data cables, and air conditioning vents. It also contains a generator capable of powering the whole building for 72 hours without exterior power and enough filtered water for 24 hours at normal usage levels.

30. Parking Garage

The secure parking garage has enough spaces for all the employees to park their own vehicles. The vice president and other chief executives have reserved parking spaces near elevators; all other parking is first-come first-served. Two armored security vans are kept here (in case key personnel need to be evacuated), as well as four security cars used to patrol nearby streets. One small shuttle bus is used to pick up or drop off employees who live in nearby corporate housing but lack their own vehicles, and an armored limousine is kept for transporting the vice president and important guests.

31. Vehicle Repair Bay

This small workspace is designed to do repairs and modifications to one vehicle at a time, allowing ThinkBest to take care of its own fleet of vehicles. Executives can get their cars tuned or repaired as well, as long as no company vehicles are in need of servicing. The area includes one vehicle lift, several diagnostic machines, and a full complement of mechanical tools and supplies.
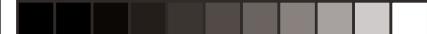
ThinkBest Research Compound

ThinkBest research compounds are large facilities dedicated to research and development. They are heavily guarded buildings that allow only cleared personnel to enter. Deliveries are made at a ThinkBest branch office and then taken to the compound by ThinkBest security. No guests, visitors, or even unrelated ThinkBest employees are allowed into a ThinkBest research compound.

Each compound has a number of labs of differing security levels, depending on both the secrecy of the project and the risks involved. Nanoaugmenters, for example, are developed in maximum security labs, while new HINet implants are developed in moderate security labs, and new models of VRNet rigs in "open" labs that any employees authorized to be in the compound can freely enter and move through.

This represents a typical ThinkBest research compound. It can be used for any highly secure facility, ranging from a disease-control hospital to a cybercrimes office of the FBI.

1. Vestibule

The main entrance to the building is a combination security station and reception area. Five security guards and at least one compound administrator are on duty here at all times. No one is allowed into the building without passing the security check, which confirms that he or she is an authorized employee of ThinkBest and has business in the building.

The vestibule includes metal detectors and various scanners at the entrance, a desk for the administrator on duty, and chairs for the security personnel. Since no one is supposed to linger here, there aren't any other seats or amenities.

2. Security Station

Each security station is a self-sufficient post with security monitors, a communications system, and a small armory with laser rifles, tangler guns, and light combat armor (for information on this equipment see page 67 of *d20 Future*). Guards also control access to the interior doors of the building, each of which is monitored by a camera. (The interior doors are left unlocked most of the time, but can be switched to open and close only on a command from one of the security stations.)

3. Central Security

The central security office is a deluxe security station (see above) as well as the office from which all security matters are handled and a lounge for security personnel. It has several desks, security monitors, sofas, small tables, and a kitchenette. The chief of security runs operations from here, and at least one senior security officer and a communications officer are on duty at all times. In case of a serious security breech, the communication officer calls other nearby ThinkBest facilities for reinforcements.

Communications officers also monitor the VRNet for any broadcasts coming out of the compound to ensure employees aren't broadcasting secure information.

4. Open Lab

The lowest level of security is maintained at the open labs. These are for general research and development of safe technologies that are a low priority. Nothing volatile, illegal, or cutting edge is ever developed in these rooms. Anyone allowed onto the compound can walk through these labs and they are often used as meeting spaces as well. Each is equipped with several worktables, a number of cabinets, a dedicated computer system, and the tools and kits necessary for electronic and cybernetic research and construction.

Open labs also serve as office space for groups of lower-ranking scientists. They never include VRNet rigs or HINet hardware, because such equipment is considered a security risk in any but the most closely monitored circumstances.

5. Medium Security Lab

Medium security labs are used for somewhat more dangerous or secret projects. They are kept closed, and only employees working on specific projects can gain entrance to the related lab. They are equipped in much the same way as open labs, save the addition of separate air ventilation systems and emergency alarm buttons.

6. Maximum Security Lab

Maximum security labs are located in the center of the building. It is here the most sensitive, illegal, and dangerous experimentation takes place. Access to these labs is controlled by the nearby security post—those working in the lab cannot open it on their own, even from within to exit the lab. There are no cameras in these labs (to prevent possible noderunner espionage). A computer automatically records who gains access to each lab and the amount of time spent there.

Each lab is equipped with the tools, gear, equipment, and computer systems needed for the research done within. The labs include a number of workbenches, a chalkboard, a dedicated computer, and cabinets and drawers to store the equipment needed for experimentation. Labs with living subjects include life support systems. Each lab has its own power supply and sealed air system separate from that of the rest of the building. These labs also have emergency switches, which when activated seals them completely and sets off alarms throughout the building.

THINKBEST RESEARCH COMPOUND

ONE SQUARE = 5 FEET

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Legend

- ⊙ SECURITY CAMERA
- ▽ SWING DOOR
- ▭ DOOR
- ◖ RECLINER
- ∷ COMM. SYSTEM
- ◌ CHAIR
- ⊙ TABLE/CHAIRS
- ▭▭ DOUBLE DOOR
- ▭ SOFA

- ▭ SECURITY DOOR
- Ⓖ SECURITY GUARD
- ▭ DESK
- ⊠ WEAPONS LOCKER
- { } OPEN DOORWAY
- ⊕ REVOLVING DOOR
- ≡ ONE-WAY GLASS
- ≡ GLASS
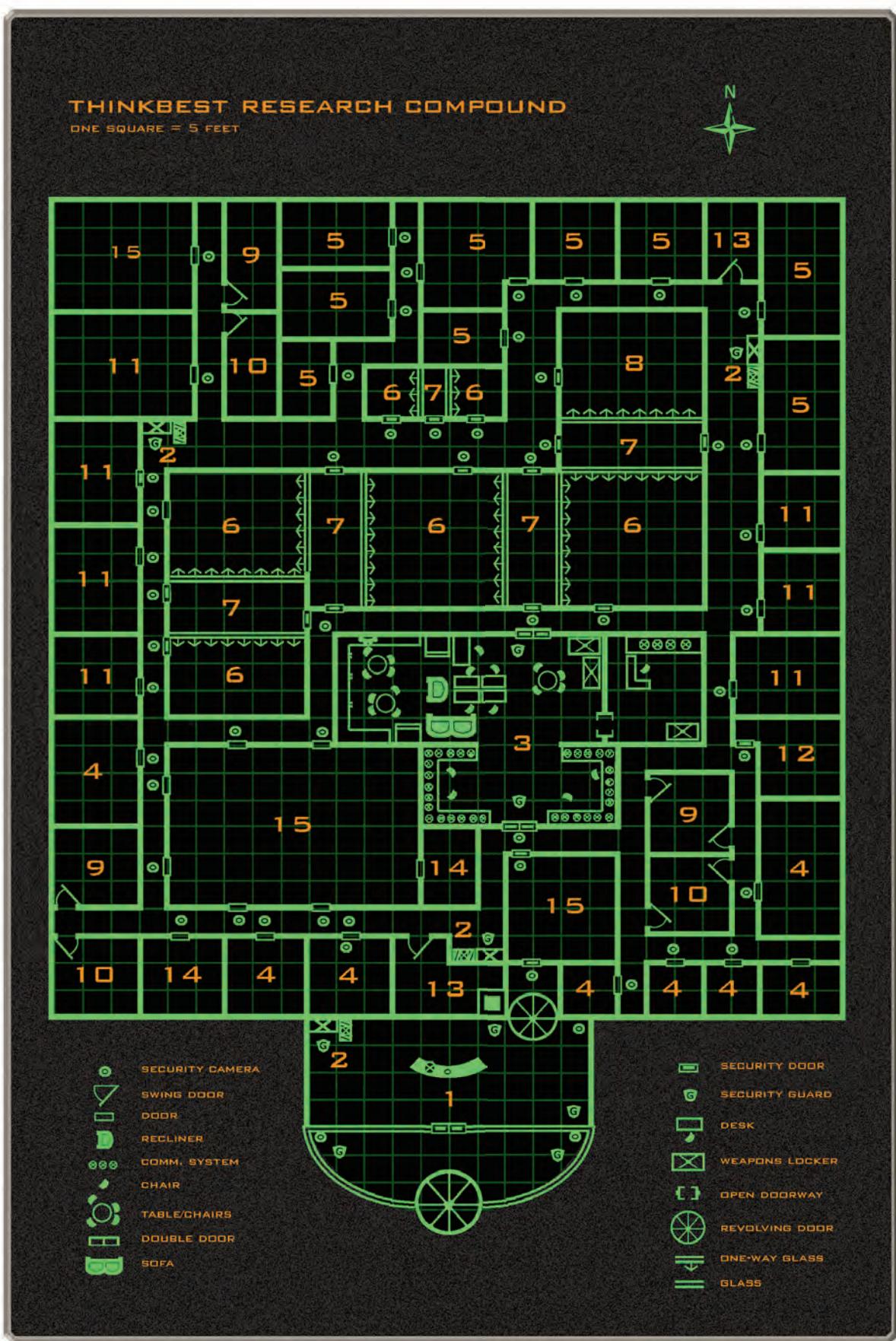
7. Observation Post

Each observation post looks into two other rooms. The observation posts allow administrators or security guards to watch the events of a maximum security lab or the quarantine room (see below) from relative safety behind bulletproof glass and away from the lab's sealed air system. Each post has twelve simple chairs and a communication system directly linked to the central security room.

Since maximum security labs don't have built-in cameras, each observation post also has several film cameras that can be manually directed to record the events of the lab (because the cameras use real film, the information stored in them can't be accessed from the VRNet).

8. Quarantine

The quarantine room is essentially a maximum security lab (complete with observation post) with nothing in it but four chairs and two bunk beds. It's used for experiments that have gone wrong and need to be sealed and observed, such as runaway nanoaugmenters, or patients with experimental implants who can't be controlled.

9. Men's Washroom

10. Women's Washroom

11. Office

Administrators and senior scientists use offices for nonresearch functions, including writing reports, interviewing employees, and the day-to-day paperwork such a facility generates. Each is quite spartan, with a desk, a few chairs, a filing cabinet, a wall safe, and a computer with VRNet rig. Any time the VRNet rig is activated, it automatically signals a communication officer in central security, who rides shotgun on the VRNet transmission to ensure that no secure information is broadcast without authorization.

12. Utility Room

13. Utility Closet

14. Storage Room

15. Open Area

Each open area is a gathering place for employees most of the time, with a random collection of office furniture, coffee pots, workbenches, and entertainment systems. When an experiment needs a large area to be performed, or specialty equipment with large space requirements needs to be installed, an open area is cleared of this clutter and converted for that specific purpose.

STEEL CROSS

Agenda: To provide quality care for clients with cybernetic implants, or those desiring to acquire implants.

Structure: A small business venture run by a controlling board made up of the surgeon/owners.

Symbol: A simple chrome cross, with all four arms the same length, on a black shield.

Most Common Allegiance: Steel Cross.

Requisition Limit: 25 (restricted).

Overview

Steel Cross is a small business venture—a single clinic owned and operated by the surgeons and cybernetics technicians who work in it. The guiding principle of the Steel Cross Clinic is to provide affordable, confidential, quality health care for cyborgs and individuals wishing to become cyborgs. Doctor Victor Von Stott is the moving force behind the business venture. Dr. Von Stott is a cybersurgeon who realized that the rapidly dropping price of implants made them a growth market. He developed ways of handling implant surgery with fewer overhead costs than big hospitals and raised enough money and fellow medical workers to start a small company.

Of course, the employees of Steel Cross are in it for the money; their commitment to quality is just their angle for earning additional business. By being a small company, they are able to take advantage of the rapid changes in the marketplace. They order small numbers of implants and thus never have out-of-date back stock; they can switch to more popular implants as soon as new trends emerge. Their main clients are gang members and mercenaries who want professional service without leaving themselves vulnerable to government databases. There's also the occasional corporate employee who wishes to add an implant without his employer knowing about it.

So far, the business has done very well. It's respected enough not to get too much trouble from gangs and other street folk, and small enough not to draw the attention of bigger corporations. As it grows, however, it risks losing both of those advantages, possibly before it can afford the additional complications. Steel Cross is going to need friends and trusted allies to survive the transition from individual clinic to rising corporate power.

Structure

Dr. Von Stott is the director of Steel Cross, which he runs with the aid of a council of surgeon/owners. All employees are given a small part of the company's ownership and have some input in large decisions, made at general meetings of the whole staff. Once the council has decided on the general course of the company, shift directors (of which Von Stott is one) handle the administration of the steps needed to accomplish those goals. To date, this loose
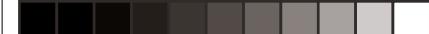
system of control has been sufficient, but it has yet to be tested against a serious problem.

Bases of Operation

Steel Cross has a single clinic, though it has considered opening franchised clinics in other cities. The clinic serves as office, surgical center, and retail center. Every business need is handled at the clinic, and some of the staff members spend so much time there it's practically their second home. A map of the clinic is presented on page 90.

Resources

Steel Cross has access to extensive implants at wholesale prices and a fair stock of wealth, but little else. The entire company has no more than a hundred employees and their duties keep them very busy. The security staff is only a dozen or so men, with another dozen who spend much of their time looking after employees with problems. This is sufficient for day-to-day problems, but any major difficulty forces Steel Cross to hire additional help.

Involving the Heroes

Steel Cross comes highly recommended as a safe, affordable organization for any cybernetics work a character might need. It's also increasingly a target of raiders and corporate saboteurs and in need of allies and trusted employees. The heroes could be hired on as additional security (or any other posts they're qualified for), or be called upon to solve a specific difficulty (a stolen file with confidential information, a kidnapped family member of one of the employees, or threats of a bombing, for example).

Members

Though they are all professionals, many of the members of Steel Cross are outcasts and misfits who couldn't make it in larger corporations. Dr. Von Stott accepts anyone with the necessary training for a post, even someone with a questionable record. He is not forgiving, however, about any misdeed done after someone becomes a Steel Cross employee. This led to a few problems in the early years, but most of the current employees are loyal to the company, of which they all own a small part.

Tavis Ironhand is one of the oldest employees of Steel Cross and serves as an enforcer for the business. His involvement with Doctor Von Stott dates back to a few years before the formation of Steel Cross, when the doctor found him bleeding in an alley (the victim of implant jackers). Doctor Von Stott patched Tavis back together and replaced his missing implants, even giving him improved versions of many of them. The doctor did this as a test of his ability to operate without the extensive facilities available in large hospitals, and Tavis remains extremely grateful for the help.

Tavis briefly served as the chief of security for Steel Cross, but he is too much of a leg-breaker for the job. He was demoted to being a security guard, a position he's much happier with. Tavis is the toughest member of the clinic's security staff and is the first person anyone at the clinic calls in case of trouble. His reputation as a street tough has helped the clinic avoid raids by brigands and black market implant dealers.

Tavis Ironhand (Steel Cross Security) (Tough Ordinary 5/Charismatic Ordinary 5): CR 9; Medium-size humanoid (human); HD 5d10+10 plus 5d6+10; hp 65; Mas 15; Init +1; Spd 30 ft.; Defense 19, touch 17, flat-footed 17 (+2 Dex, +5 natural, +2 equipment); BAB +5; Grap +7; Atk +7 melee (1d6+2, spurs) or +7 melee (1d6+2, metal baton); Full Atk +7 melee (1d6+2, spurs) or +7 ranged (2d8, laser pistol); FS 5 ft. by 5 ft.; Reach 5 ft.; SQ Low-light vision; AL Doctor Von Stott; SV Fort +8, Ref +6, Will +1; AP 0; Rep +1; Str 14, Dex 14, Con 15, Int 10, Wis 8, Cha 15.

Skills: Bluff +14, Diplomacy +10, Forgery +7, Gather Information +8, Hide +9, Investigate +4, Knowledge (current events) +7, Knowledge (streetwise) +7, Read/Write English, Speak English.

Feats: Armor Proficiency (light), Attentive, Deceptive, Low Profile, Personal Firearms Proficiency, Point Blank Shot, Simple Weapon Proficiency.

Background: Criminal (bonus class skills: Diplomacy, Hide).

Possessions: Laser pistol, metal baton, light undercover shirt, various personal possessions.

Implants: Artificial muscle fiber (+2), light amplification optics, subcutaneous cell phone, advanced prosthetic arm (right), spurs (right arm).

Steel Cross Clinic

The Steel Cross business venture owns its own small clinic, where new implants are installed or old implants are upgraded. The clinic serves as hospital, office, recovery center, and research facility, allowing Steel Cross doctors to handle all their business in one locale.

1. Waiting Room

This is where friends and family of patients wait while surgery takes place (normally limited to two visitors per patient). The room is filled with comfortable chairs and loveseats, several tri-dee entertainment systems, speakers filled with soft, gentle music, and coffee tables piled with out-of-date magazines. A small counter holds coffeepots and tea brewers and complimentary muffins.

2. Nurses' Station

This area includes a large desk where nurses manage most of the administration of the clinic and answer questions of patients and visitors. This is where everyone checks in upon entering the clinic, and it's where patients receive final instructions from their doctors before checking out.
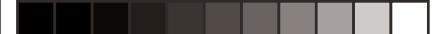
STEEL CROSS CLINIC

ONE SQUARE = 5 FEET

3D ENTERTAINMENT SYSTEM	TABLE	MEDICAL EQUIP.	MEN'S WASHROOM
EMERGENCY EXIT	VENDING	DESK	WOMEN'S WASHROOM
DOOR	COMM. SYSTEM	HALF HIGH WALL	CABINET
DOUBLE DOOR	SOFA	RECLINER	OPEN DOORWAY
SLIDER DOOR	CHAIR	CURTAIN	KITCHENETTE
SLIDER 2X DOOR	VR NET	STOOL	SWINGING DOOR
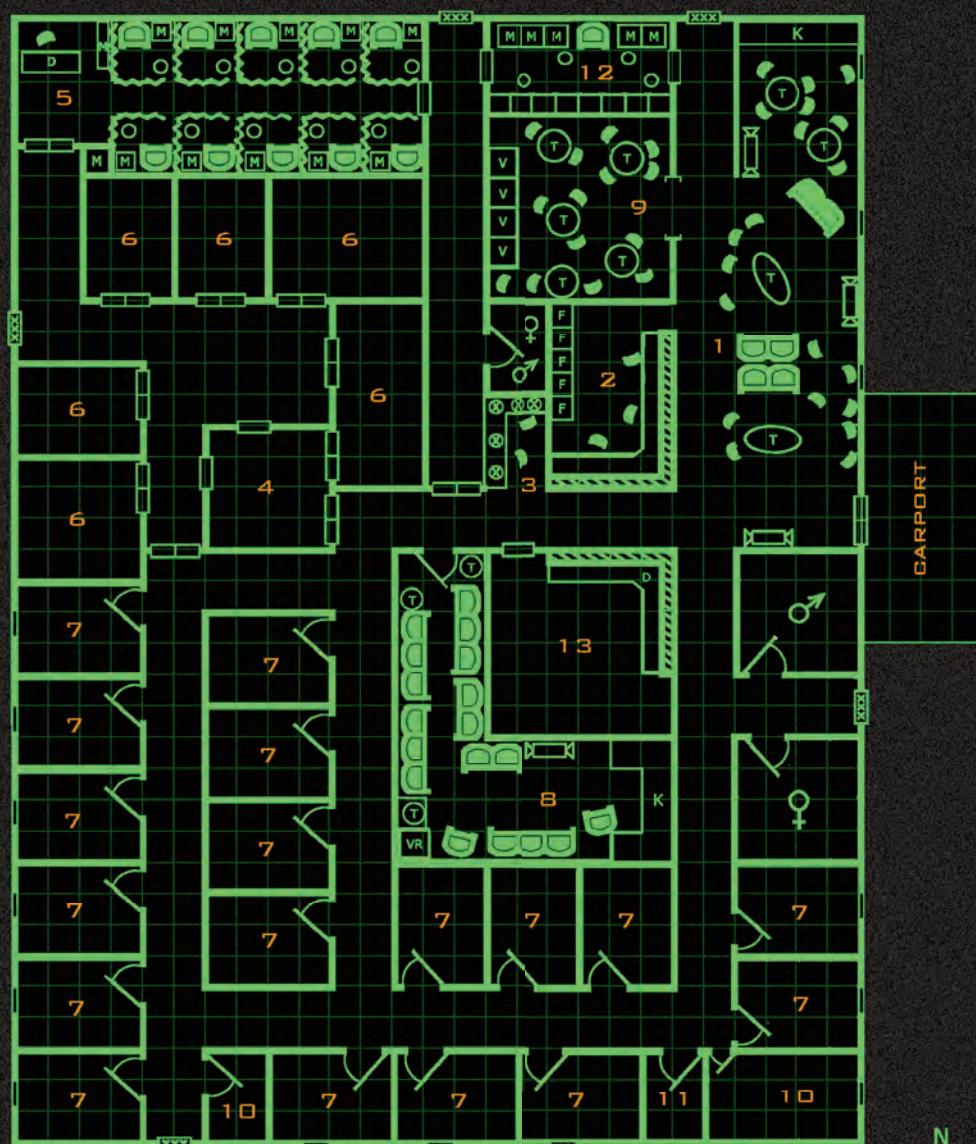
The clinics records are kept in filing cabinets, which are rigged to burn their contents if opened without the proper key.

3. SECURITY POST
The security post is little more than a set of monitors for security cameras, an intercom, and chairs for the security staff.

4. WASHROOM
This is where the surgeons prepare for surgery, washing in one of several built-in sinks and dressing in surgical scrubs. The washroom is equipped with viewscreens that display cameras in each operating room, allowing surgeons to view other surgeries as they prepare for their own.

5. PRE-OP
The pre-op area is where patients are prepared for surgery. There are several rows of comfortable, reclining chairs where patients sit while they are cleaned and hooked up with the monitors and intravenous systems needed for surgery. There are also several rolling stools, for visitors to sit near patients, and a few desks for the nurses on duty here. Several cameras placed throughout the room catch every angle of each surgery for review and possible use as a teaching tool.

6. OPERATING ROOMS
Each operating room has a single surgical table, overhead lights, and the monitors, surgical and medical equipment, and tools needed to perform any surgery.

7. RECOVERY ROOMS
Once surgery is over and a patient has awoken from the anesthesia, she is rolled into a recovery room to recuperate. Most patients are kept here for only a few hours (long enough to make sure the patient isn't developing complications), though more serious surgeries often involve an overnight stay. There's an adjustable bed, a small entertainment viewscreen, two chairs that pull out into (uncomfortable) cots for friends to stay overnight, a small dresser, an end table, and a small workstation for nurses to hook up medical monitors, IV drips, oxygen masks, and so on.

On the rare occasion when a nonsurgical patient is taken in by Steel Cross, a recovery room can serve the same function as any normal hospital room.

8. SURGEON'S LOUNGE
This room contains several faux-leather chairs and sofas, a full-size refrigerator, small kitchenette, coffee tables, a tri-dee system, and a VRNet rig. It is generally kept dim and quiet, and the clinic surgeons often take naps here between surgeries.

9. DELI
This room is little more than a few tables and chairs with food vending machines offering a variety of week-old sandwiches. The room is well lit and cool, but has little else to recommend it. The staff rarely eats here, though visitors often do (once, anyway).

10. UTILITY ROOM

11. UTILITY CLOSET

12. DIAGNOSTIC ROOM
The diagnostics room is designed to run tests on patients and their implants. It has an MRI, ultrasound scanner, computer diagnostics system for cybernetics, and the lab equipment needed to run blood tests. The room has a single reclining chair and several rolling stools for clinic staff.

13. PHARMACY
The pharmacy contains the drugs needed to treat the clinic's own patients, focusing on antibiotics, pain killers, and rejection suppressants. The pharmacy is always manned by a pharmacist and one security staff member because it's a tempting target for raiders. The pharmaceuticals are carefully inventoried and kept under lock and key at all times.

ADVANCED CLASSES
The Cyber Raver, a new advanced class presented below, can serve as the cornerstone (or at least one of the major elements) of a CyberRave campaign. The other advanced classes presented earlier in this book (the Bionic Agent, Cyberwarrior, Implant Hack, and Cybernaut) can also help set the tone of a CyberRave campaign. Of the advanced classes described in d20 Future, the Dreadnought, Helix Warrior, Technosavant, and Tracer could also be incorporated into such a setting.

CYBER RAVER
The Cyber Raver is the ultimate party and street life machine. A part of a rebel subculture, she strives to defend the ideals of individual freedom, including the freedom of others to suffer for their stupid decisions. She's decked out in the toughest street fashion (items with real class, not the corporate-driven fashions of high society) and has replaced flesh with chrome and steel to match. Her body is more than an accessory—it has been molded to express her inner self, an act of high tech tribal marking that only her fellow streetfolk understand. The Cyber Raver rejects everything the corporate and government world tries to sell her in easy prepackaged bites. She knows that to truly live life, she must reject the conformity of the masses while at the same
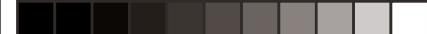
time proving she understands the principles of suffering and enjoying the experiences that come her way.

A Cyber Raver sees life as an endless struggle of individuality against conformity and knows individuality is doomed to lose—but that doom has no impact on her actions. She's free from outside influence even if no one else is free. The Cyber Raver bucks every law she can, though she might be a very moral individual. She resists being identified and categorized, preferring cash and barter to identity cards and credit chips. She believes society is going down for the count and wants to treat the end of humanity as the biggest party ever thrown. It's all about fiddling while Rome burns, or the band playing on the Titanic. It's not what you accomplish in life, but how you go about doing it that's important.

The easiest path into this advanced class is from the Charismatic hero basic class, though other paths are possible.

Requirements

To qualify to become a Cyber Raver, a character must fulfill the following criteria:

Skills: Gather Information 6, Knowledge (popular culture) 5, Knowledge (streetwise) 5.

Feats: Creative and either Low Profile or Renown.

Implants: A Cyber Raver must have at least one external cybernetic device.

Class Information

The following information pertains to the Cyber Raver advanced class.

Hit Die

The Cyber Raver gains 1d6 hit points per level. The character's Constitution modifier applies.

Action Points

A Cyber Raver gains a number of action points equal to 6 + one-half her character level, rounded down, every time she attains a new level in this class.

Class Skills

The Cyber Raver's class skills are as follows.

Bluff (Cha), Climb (Str), Computer Use (Int), Craft (all, each taken individually) (Int), Demolitions (Int), Diplomacy (Cha), Disable Device (Dex), Drive (Dex), Escape Artist (Dex), Gambling (Wis), Hide (Dex), Jump (Str), Listen (Wis), Move Silently (Dex), Pilot (Dex), Profession (Wis), Ride (Dex), Search (Int), Sleight of Hand (Dex), Spot (Wis), Survival (Wis), Swim (Str).

Skill Points at Each Level: 7 + Int modifier (6 + Int modifier for nonhumans).

Class Features

The following class features pertain to the Cyber Raver advanced class.

Know the Chrome

A Cyber Raver treats cybernetics as the greatest form of art and can identify an implant's make, manufacture, and function with ease. She can identify any external implant as a free action with a DC 15 Spot check, gaining knowledge of its cost, who made it, and its exact function. If she spots or detects an internal cybernetic implant, or sees it in action, she can identify the same details about it with a DC 18 Spot check. She also gains a +4 bonus on skill checks made to notice or locate cybernetics.

Tinker

A Cyber Raver learns so much about cybernetics that she can fix broken parts and even install them under the right circumstances. She is allowed to make Repair and Treat Injury checks in regards to cybernetic implants even if she has no ranks in those skills. Further, she gains a bonus on such checks equal to her class level. (A Cyber Raver who has these skills still adds her class level as a bonus when the check is made regarding cybernetics).

Bonus Feat

At 3rd level, and again at 6th level and 9th level, a Cyber Raver gains a bonus feat. The feat must be taken from

TABLE 5–1: THE CYBER RAVER

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+2	+2	+0	Know the Chrome	+1	+1
2nd	+1	+3	+3	+0	Tinker	+2	+2
3rd	+2	+3	+3	+1	Bonus feat	+2	+2
4th	+3	+4	+4	+1	—	+3	+3
5th	+3	+4	+4	+1	Street hero	+4	+3
6th	+4	+5	+5	+2	Bonus feat	+4	+4
7th	+5	+5	+5	+2	Reckless abandon	+5	+4
8th	+6	+6	+6	+2	—	+6	+5
9th	+6	+6	+6	+3	Bonus feat	+6	+5
10th	+7	+7	+7	+3	Rave	+7	+6

the following list, and the Cyber Raver must meet all the prerequisites of the feat to select it.

Advanced Firearms Proficiency, Attentive, Blind-fight, Brawl, Confident, Creative, Cybernetic Weapons Proficiency, Cybertaker, Cyborg, Dodge, Exotic Firearms Proficiency, Exotic Melee Weapon Proficiency, Frightful Presence, Gearhead, Heroic Surge, Implant Awareness, Iron Will, Nimble, Personal Firearm Proficiency, Quickdraw, Streetfighting, Trustworthy.

STREET HERO

By 5th level, a Cyber Raver is a well-known figure in the gray market and on the streets. Whenever dealing with someone from a street-life background or who deals in the semilegal world she inhabits, a Cyber Raver gains a +4 bonus on Charisma checks and Charisma-based skills, as well as on Knowledge (pop culture) and Knowledge (streetwise) checks.

RECKLESS ABANDON

At 7th level, a Cyber Raver becomes able to willfully ignore danger, making her immune to all fear and despair effects. Additionally, her willfulness grants her a +2 bonus on Will saves.

RAVE

The wild abandon of the Cyber Raver eventually allows her to fall into a frenzy of inspirational activity, a dance of combat, love, life, and death that transcends her own physical abilities and inspires those around her. Falling into a rave is a free action a Cyber Raver can take on her turn once per day and lasts for a number of rounds equal to 3 + her Cha modifier.

While in a rave, a Cyber Raver gains a +4 bonus to her Strength and Dexterity scores and a +2 morale bonus on Will saves. While raving, a Cyber Raver cannot use any Intelligence-based skills, the Concentration skill, or any abilities that require patience or concentration (nor can she cast spells or manifest psionic abilities or activate items that require a command word or complex set of keycodes to function). She can use any feat she has. A Cyber Raver can prematurely end her rave. At the end of the rave, she loses the rave modifiers and restrictions and becomes fatigued (−2 penalty to Strength and Dexterity, can't charge or run) for the duration of the current encounter.

Additionally, while a Cyber Raver is in a rave, she inspires all allies within 30 feet. Such allies gain a +2 morale bonus on saving throws and attack rolls.

STARTING OCCUPATIONS

Most of the starting occupations found in the *d20 Modern Roleplaying Game* work in the CYBERRAVE campaign as well. The criminal background grants a gray wealth bonus rather than a normal Wealth bonus and a few others (adventurer, celebrity, entrepreneur, investigative, religious, and technician) can split their wealth bonus increase between Wealth and gray wealth.

Cyber Raver

Corporate zombie

Insider

Insiders know people. That's their big claim to fame. They might have skills of their own, but an important part of their life has been getting groups in touch with each other. Most insiders work for a corporation or venture, but some are just street folk with more contacts that most.

Prerequisite: Charisma 13.

Skills: Choose three of the following skills as permanent class skills. If you choose a skill that is already a class skill, you receive a +1 competence bonus on checks using that skill.

Bluff, Diplomacy, Gather Information, Knowledge (business), Knowledge (streetwise), Listen, Sense Motive, Speak Language.

Reputation Bonus Increase: +1.

Gray Wealth Bonus Increase: +2.

Noderunner

Noderunners are professional VRNet/HINet navigators. They act as hired guns for computer raiders, security, and researchers.

Prerequisite: Intelligence 13.

Skills: Choose three of the following skills as permanent class skills. If you choose a skill that is already a class skill, you receive a +1 competence bonus on checks using that skill.

Computer Use, Craft (electronic), Decipher Script, Gather Information, Knowledge (current events), Knowledge (popular culture), Knowledge (streetwise), Knowledge (technology), Repair.

Reputation Bonus Increase: +1.

Wealth Bonus Increase: +3 split between Wealth and gray wealth.

No-Man

A no-man has done more than resist the pressures of the corporate-driven world—he has managed to stay completely off the radar. He has no identity chip or shepherd chip, no records, no citizen ID number, or tax record code. Of course, this also means he cannot use many legitimate businesses or call on social services.

Prerequisite: Cannot start with an ID chip or shepherd chip or the Renown or Windfall feats.

A number of additional starting occupations, specific to the setting, are presented below.

Corporate Zombie

A corporate zombie has been raised working for a corporation, trained by a corporation, buying from a corporation, and likely living in corporate housing. This life sucks out the soul over time, but it does provide an understanding of the corporate world and a few financial perks. In time, a few corporate zombies rebel against their upbringing, using their understanding of the business world against their wage-paying masters.

Prerequisite: Age 21 or older.

Skills: Choose three of the following skills as permanent class skills. If you choose a skill that is already a class skill, you receive a +1 competence bonus on checks using that skill.

Computer Use, Craft (any), Diplomacy, Gather Information, Knowledge (business), Knowledge (civics), Knowledge (earth and life sciences), Navigate, Profession, Research, Speak Language.

Wealth Bonus Increase: +4.

Skills: Choose two of the following skills as permanent class skills. If you choose a skill that is already a class skill, you receive a +1 competence bonus on checks using that skill.

Bluff, Disguise, Escape Artist, Hide, Knowledge (current events), Knowledge (streetwise), Move Silently, Perform, Sleight of Hand.

Bonus Feat: Gain the Low Profile feat.

Gray Wealth Bonus Increase: +3.

NEW FEAT

Because of the changes in rules used in the CYBERRAVE campaign, it offers one additional feat, which is presented below.

Street Broker

You have a larger than normal supply of good and rumors useful for buying things on the gray market.

Benefit: Your gray wealth bonus increases by 3. Also, you gain a +1 bonus on Knowledge (streetwise) checks.

Special: You can gain this feat multiple times. Each time, both of its effects stack.

ALTERNATE CYBERRAVE SETTINGS

The CYBERRAVE campaign, as presented here, is based on a number of specific assumptions. It's possible to change any or all of those assumptions to create a campaign with very different trappings and options.

PL 5 CyberRave

By reducing the PL to 5 (cybernetics 6), the campaign becomes much closer to the technology and culture of the real world. Cybernetic devices are a much newer advancement and only a series of recent advances causes them to explode into all cultures of the setting. Insurance companies adopt implants as preferable to other solutions and research companies offer them free to volunteers for human trails, causing a remarkable segment of the poor to have advanced cybernetics over the course of a few years. The VRNet is a new advance in computer technology (and the broadcast system that spreads it worldwide), but the HINet is still years away.

Since less time has passed since the reality of the current day, the government's switch to a totalitarian regime is a new development that is still angrily protested on campuses and in marches. Businesses have only recently won the right to act as nations and grant privileges like diplomatic immunity. ThinkBest was formed just months ago—though its already the largest corporation in the world. Criminals are quickly learning to take advantage of cybernetic weapons, VRNet—the new broadcast system that puts all electronic data at risk—and rapid transport that takes them from one jurisdiction to another before their crimes are even discovered.

In response, law enforcement agencies are simply throwing out the old operating procedures and doing whatever they

Alternative campaigns
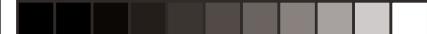
think needs to be done—damn the consequences. And as riots become more common and terrorists and criminals more powerful, many citizens are willing to overlook such lapses. Others, of course, resist the changes by any means necessary, including armed conflict.

In short, it's a time of change and flux. The old rules by which the world ran don't apply and no one is sure what will replace them. The heroes are on the cutting edge of this conflict, whether as hired guns for one group or another or as independent champions trying to change the course of society, or just keeping the peace in one downtrodden neighborhood.

PL 7 CyberRave

Pushing the campaign more than a century farther into the future, the CyberRave setting becomes PL 7 (cybernetics 8). The social institutions are long since established and considered a normal part of modern life. Space exploration spreads the nations and corporations of earth to new worlds, some of which are already inhabited. The HINet is the universal computer network and VRNet rigs have become useless antiques. This campaign can borrow from any of the settings from *d20 Future*, especially Bughunters, Genetech, Star Law, and Wasteland.

In a CyberRave/Bughunters campaign, the war is fought on two fronts—on the field and in the boardrooms. Even as soldiers fight and die to protect humanity, megacorporations struggle to prove their systems and weapons are the best tools for the job and sabotage each other (and soldiers using competitor's gear) to make their own offerings look better. On some worlds, the bugs take over, or at least make major forays into poorer residential areas, because it's not cost effective to stop them, leading to fights between Cyber Ravers and bugs for control of a given neighborhood.

In a CyberRave/Genetech setting, a conceptual war exists between agencies using cybernetic implants and those engineering special agents to operate without them. Battles between franks and cyborgs are common. Only the richest agencies and corporations can afford to create agents from the ground up, but almost anyone can afford a few implants. Conflict occurs on both the streetlevel common to the CyberRave campaign and the professional espionage of the Genetech setting. Only a few groups, possibly including the heroes, are willing to look at both franks and cyborgs without prejudice. Bigotry becomes a major campaign theme.

For a CyberRave/Star Law campaign, a single united spacefaring government replaces the smaller nations of the past and depends on Star Law to reign in overzealous corporations and dangerous criminals. The social pendulum that swung to totalitarianism decades ago has begun to swing back toward personal freedoms, and Star Law is charged with protecting that change. Of course, megacorporations resist this new paradigm and many street folk don't trust that things are really different. Even Star Law agents recruited from the lower ranks of society might have trouble being trusted by their former comrades, while at the same time struggling to fight for justice in the frontier regions of space.

A combined CyberRave/Wasteland setting is a postapocalyptic campaign where a few areas retain some level of civilization (ruled by megacorporations and totalitarian governments), but the lands beyond these walled communities are barren stretches of wilds and ruins. Mutants rule much of the wilds. Cyborg guards patrol the remaining cities. Streetfolk celebrate the end of the world in complete poverty while businesses try to find a way to make a profit on Armageddon. Many mercenaries travel from community to community, serving as hired guns or selling artifacts gathered from old ruins.

CyberRave Arcana

Adding magic and Shadow to a CyberRave campaign creates a variant on the *Urban Arcana Campaign Setting*. If the creatures of Shadow are new arrivals, the setting is essentially Urban Arcana with cybernetics and megacorporations. If the Shadow has been bleeding into our world for decades, the setting is much closer to a standard CyberRave campaign, with the occasional encounter with monsters and shamans.

Either way, the combination leads to some unusual results. Creatures of Shadow are much more likely to be noticed by common folk, but are mistaken for genetically altered creatures or the product of advanced cybernetics programs. There's little difference between an ogre and a full body cyborg, and a drow Mage can easily pass as a Battle Mind with cosmetic surgery. Further, as technology, cybernetics, and psionics mix, things such as cybernetic weapons with magic enhancement bonuses, bone runes, and VRNet spells begin to appear. Nearly anything goes, and the one thing that is assured is that something new is around the corner.

About the Author

OWEN K.C. STEPHENS, a freelance writer living in Oklahoma, has written numerous articles for the Wizards of the Coast website, including d20 Modern adventures and advice columns. His roleplaying game design credits include *Tempest Feud, Starships,* and *Ultimate Alien Anthology* for the *Star Wars® Roleplaying Game*.