

Maximum Wake

Your vehicle guide for design, use and combat resolution based off of the Maximum Metal vehicle creation system.

Although many larger naval ships exist across the world ships larger than a destroyer have no real place in a Cyberpunk game and even they should be relegated to something only the opposing forces have access to or otherwise be under GM control.

A vehicle creation system for boats and ships loosely based off of the Maximum Metal vehicle creation system.

Base Vehicle Creation Chart

Name	Inflatable Rafts	Rigid Inflatable Boats	Patrol Boat/Speed Boat	Coastal/Yacht	Corvette	Frigate & Destroyer
SDP Range	'5 - 30'	9 - 75	75 - 450	500 - 800	850 - 4000	4000 - 23000
SDP Limits	2.5 SDP per space	3 SDP per space	12 SDP per Space	16 SDP per Space	21 SDP per Space	30 SDP per Space
SDP Cost	75 per SDP	535 per SDP	700 per SDP	1200 per SDP	2500 per SDP	6000 per SDP
Spaces	'2 - 12'	'3 - 25'	'4 - 30'	8 - 50	16 - 180	120 - 1100
Top Speed	25mph/40kmh	40mph/64kmh	45mph/72kmh	45mph/72kmh	40mph/64kmh	35mph/56kmh
Range	62miles/100km	186miles/300km	500miles/805km	800miles/1287km	1800miles/2897km	2000miles/3218km
Mass	4.5 kg per SDP	35 kg per SDP	12 SDP per ton	8 SDP per ton	5 SDP per ton	3 SDP per ton
Radar Ranges	NA	10miles/16km	18miles/29km	20miles/32km	25miles/40km	30miles/48km

Name	Fire/Rescue Tug/Fishing Trawler	Small Cargo Ship	Light Fleet Oiler	Large Fleet Oiler	Large Cargo Ship
SDP Range	100-4200	200-1450	500-1650	1650-2300	1450-2000
SDP Limits	21 SDP per Space	11 SDP per Space	18 SDP per Space	8 SDP per Space	5 SDP per Space
SDP Cost	900 per SDP	800 per SDP	1100 per SDP	1400 per SDP	1600 per SDP
Spaces	60 - 200	60 - 135	60 - 95	80 - 300	100 - 450
Top Speed	18mph	20mph	20mph	23mph	23mph
Range	800miles	1500miles	1500miles	12000miles	14000miles
Mass	2 SDP per ton	5 SDP per ton	4 SDP per ton	1 SDP per 20 tons	1 SDP per 20 tons
Radar Ranges	18miles/29km	20miles/32km	20miles/32km	25miles/40km	25miles/40km

Although the basic ship classes denote basic sizes and variety of warship classes civilian ships can also be designed with the same basic specifications, allowing a wide variety of military and civilian ships.

Options:

Weapons: Machine-guns & light vehicle weapons

Weapon Name	5.56 Machine-gun	7.62 Machine-gun	5.56 mini Gun	7.62 Minion	10mm Machine-gun	12.7mm Machine-gun
Weapon Accuracy	1	0	0	0	1	0
Damage	5d6	7d6+2	5d6	7d6+2	8d6	6d10
Ammo	100	100	1000	1000	250	100
Rate of Fire	10	10	100	100	35	10
Penetration	2	2	2	2	3	'3/4'
Range Short	450	500	450	500	600	600
Burst Radius	NA	NA	NA	NA	NA	NA
Spaces	'1/2'	'1/2'	1	1	1	1

Weapon Name	12.7mm Mini Gun	14.5mm Machine-gun	40mm Grenade Launcher	40mm Auto Grenade Launcher
Weapon Accuracy	0	0	1	0
Damage	6d10	7d10	Varies	Varies
Ammo	1000	100	8	50
Rate of Fire	100	10	1	20
Penetration	3	4	'2/4'	'2/4'
Range Short	500 meters	550 meters	250	1600
Burst Radius	NA	NA	5m/1m	5m/1m
Spaces	1	1	'1/2'	1

Weapons: AutoCannon

Weapon Name	20 – 25mm Autocannon	27 – 30mm Autocannon	20mm Gatling	30mm Gatling
Weapon Accuracy	0	0	0	0
Damage	8d10	9d10	4D10 or 8d10 ammo type	6d10 or 9d10 ammo type
Ammo	100	100	1000	1200
Rate of Fire	10	10	100	100
Penetration	4	5	4	6
Range Short	500 meters	600 meters	500 meters	600 meters
Burst Radius	NA	NA	NA	NA
Spaces	1	1	2	4

Weapons: Deck Guns

Weapon Name	57 mm Cannon	Dual 57 mm Cannon	76 mm Cannon	Dual 76 mm Cannon
Weapon Accuracy	0	0	0	0
Damage	70 + (5d10)	70 + (5d10)	85 + (6d10)	85 + (6d10)
Ammo	80	120	50	80
Rate of Fire	6	10	2	4
Penetration	6	6	7	7
Range Extreme	6 miles	6 miles	11 miles/18km	11 miles/18km
Burst Radius	3 meters	3 meters	5 meters	5 meters
Spaces	5	12	7	15
Weapon Cost	60000	140000	80000	200000
Ammo Cost per round	3000	3000	4000	4000

Weapon Name	100 mm Cannon	130 mm Cannon	Dual 130 mm Cannon	155 mm Cannon
Weapon Accuracy	0	0	0	0
Damage	90 + (8d10)	150 + (8d10)	150 + (8d10)	180 + (7d10)
Ammo	40	30	50	35
Rate of Fire	1	1	2	1
Penetration	8	12	12	15
Range Extreme	17 km	36 km	36km	48km or 112 miles (14.9)miles
Burst Radius	5 meters	6 meters	6 meters	8 meters
Spaces	9	18	40	30
Weapon Cost	110000	145000	335000	160000
Ammo Cost per round	5500	7250	7250	8000

Weapons: Missile Systems, Surface to Surface & Anti Submarine

Denotes that the Missile is capable of attacking land targets.

ASM: Anti Ship Missile

ASW: Anti Submarine Warfare rocket boosted torpedo

VSAM: Vehicle Surface to Air Missile

Weapon Name	Penguin ASM	Harpoon ASM ##	Cruise & SSN: ASM ##	Asroc: ASW
Weapon Accuracy	15 skill	Skill 17	Skill 16	Skill 15
Damage	95 + (6d10)	190 + (8d10)	350 + (10d10)	120 + (8d10)
Ammo	1	1	1	1
Rate of Fire	1	1	1	1
Penetration	8	16	30	12
Range Max.	25 miles/35km	75 miles	1500 miles	17 miles
Burst Radius	12 meters	48 meters	72 meters	24 meters
Spaces	3	8	15	5
Cost per Missile reload	75000 Eb	185000 Eb	265000 Eb	90000 Eb

Missile Systems: Surface to Air

Weapon Name	VSAM	VSAM II	VSAM III
Weapon Accuracy	Skill 15	Skill 18	Skill 20
Damage	110 + (6D10)	150 + (6D10)	210 + (8D10)
Ammo	1	1	1
Rate of Fire	1	1	1
Penetration	8	10	12
Range Max.	12km	35 miles	70 miles
Burst Radius	10 meters	12 meters	18 meters
Spaces	1	3	5
Cost per Missile reload	10000 Eb	45000 Eb	98000 Eb

Railguns:

Weapon Name	4mm	1cm	2cm	3cm	5cm
Weapon Accuracy	1	2	1	0	0
Damage (ignores armor)	10 + (5d10)	30 + (4d10)	45 + (6d10)	60 + (6d10)	90 + (8d10)
Ammo	500	50	50	50	30
Rate of Fire	10	2	1	'1/2'	'1/4'
Penetration	7	10	17	22	30

Weapon Name	4mm	1cm	2cm	3cm	5cm
Range Extreme	2km	15km	18km	24km	42km
Burst Radius	NA	NA	NA	NA	NA
Spaces	2	5	9	15	35
Weapon Cost	25000	750000	1.5 million	3 million	7 million
Ammo Cost per round	250	7500	15000	30000	70000

Other Weapon Systems:

Weapon Name	Torpedoes 12.75 "	Torpedoes 21"	120mm Mortar	80mm Mortar	Mine Small	Mine Large
Weapon Accuracy	Skill 15	Skill 17	0	0	2	2
Damage	60 + (4d10)	230 + (8d10)	80 + (6d10)	50 + (6d10)	75 + (6d10)	185 + (6d10)
Ammo	1	1	1		NA	NA
Rate of Fire	1	1	1	2	NA	NA
Penetration	5	9	7	5	8	10
Range Extreme	5 miles	13 miles	6000 meters	3500	NA	NA
Burst Radius	10 meters	24	6 meters	5 meters	48	72
Spaces	2	5	3	1	2	4
Weapon Cost	45000	85000	5000	1500	NA	NA
Ammo Cost per round	NA	NA	250	150	1000	1400

Construction Options: Primary Design Options

Option	Cost	Space	Ship Size	Bonus
Helio & VTOL Launch Pad	NA	30 Spaces per Launch Pad	Patrol or Larger	Ability to Launch & refuel
Trimaran Hull	SDP Cost * 200%	Adds 15% more Spaces	Any	Better Maneuvering +3 +20% more SDP
Hydrofoil Propulsion	SDP Cost * 175%	20% of total Spaces	Corvette or Smaller	Speed Increased by 100% Maneuvering -1
Archaic Sailing Propulsion	NA	25% of total spaces	Patrol or larger	Unlimited range, reduce top speed to 8mph. Speed is based on wind strength see table below
Oars/Rowing	Requires minimum of average crews size no cybernetic controls to provide propulsion.	NA	Coastal or Smaller	Unlimited range,reduce top speed to 4 mph up to 6mph for 30 minutes maximum time
Hoverlift Propulsion Assist	SDP Cost * 125%	5% of total Spaces	Corvette or Smaller	Speed increased by 10%
Turbo Diesel Engine	SDP Cost * 150%	10% of total Spaces	Any	Speed increased by 20%
Nuclear Propulsion	200 million	NA	Corvette or Larger	Unlimited Range
Increased Range (Fuel)	10% of Spaces per additional 33% range increase	10% of Spaces for 33% more range	Any	Increased range
Decreased Range (Fuel)	Add 10% more spaces per 33% range decrease	Add 10% more spaces per 33% range decrease	Any	Decrease in range
Cybernetic Controls	SDP Cost * 140%	NA	Patrol or Larger	Reduces Crew needed
RPV Drone System	280,000 Eb Basic System	3 Spaces	Coastal or Larger	Long range target acquisition

RPV Drone System: a system such as this includes one Remotely Piloted Vehicle or Drone and a small control console aboard the ship for command and control. The primary usage for such a system is for detecting enemy targets at ranges further than ship based radar and the ability to transmit the coordinates back to the ship for missile guidance. A second use is for gathering information on other types of targets on the water or on land with a variety of sensors including Radar, Passive IR and a laser range finder/targeting system.

A standard Drone type is the Predator II system:

Range	Wing span	length	Top Speed	Endurance	Weight Empty	Weapon Payload
454 miles	48.7 ft / 14.8 meters	27 ft / 8.22 meters	140 mph	40 hours	950 lb./431 kg	4 spaces of weapons

Basic Facts: Standard Armor by Type

Ship Type	Standard Armor (SP)	Maximum Armor (SP)	Cost per SP over Standard	Speed Reduction per extra armor
Inflatable Raft	0	18	60 Eb	7% speed reduction per 5 SP
Rigid Inflatable Boat	0	20	450 Eb	5% speed reduction per 10 SP
Patrol Ship/Speed Boat	10	40	500 Eb	5% speed reduction per 10 SP
Coastal Ship/Yacht	20	60	1200 Eb	5% speed reduction per 20 SP
Corvette Class/Fishing Trawler	40	80	6000 Eb	2% speed reduction per 20 SP
Frigate & Destroyer Class	80	180	25000 Eb	2% speed reduction per 40 SP
Fire Tug/ Fishing Trawler	20	80	800 Eb	5% speed reduction per 10 SP
Oil Tanker	40	200	9000 Eb	2% speed reduction per 20 SP
Cargo Ship	20	160	9000 Eb	2% speed reduction per 20 SP

Basic Facts: Crew Size by Type

Ship Type	Minimum Standard Controls	Cybernetic Controls	Average Standard Controls	Average Cybernetic Controls
Patrol	1	1	3	1
Coastal	3	1	15	3
Corvette	12	3	35	12
Frigate & Destroyer	21	7	200	65
Cargo Ship/Oil Tanker	15	3	50	25

Combat: Rules on Sinking a Watercraft

When a watercraft has taken 10% or more damage they begin to take on water and slow to a maximum speed of 75% of their maximum capability.

When a watercraft has taken 25% or more damage they receive more damage to the ship and slow to 75% of max. speed and will need to make dry-dock repairs. Secondly, 50 SDP damage is taken every hour due to water damage unless 25% or more of the crew works bilge pumps and such to drain the water.

When a watercraft has taken 50% or more damage they are slowed to a max. of 50% of full speed. They will need dry-dock repairs and will take on 200 SDP of water damage per hour unless 25% or more of the crew is put to draining out the water.

When a Watercraft has taken 75% or more damage they are slowed to 25% of full speed. The ship will need extensive dry-dock repair and will sink to the bottom within one hour time unless 50% of the crew works to keep her afloat. Every hour the ship will take 50 SDP of damage from water even with water drainage from half of the crew. The ship must seek a port quickly to avoid sinking.

When a Watercraft has 100% damage the ship will break in half and sinks to the bottom of the river or Ocean within 1d6 minutes. Many times a vast majority of the crew will end up on the ocean floor with their ship at this point.

Combat: Watercraft Hit Location Chart

01-06: Fuel Storage hit multiply SDP damage by 150% except for damage done by Railguns

07-16: Crew compartment hit 15% of total crew take 6d6 damage minus armor worn, if general quarters had previously been sounded. 40% of crew takes 6d6 damage if not on alert status.

17-24: Engine compartment hit: Ship drops to 25% of full speed if underway due to engine damage.

25-31: Helio/VTOL Launchpad hit, unable to launch or recover aircraft, if aircraft aboard it is damaged as if it took a direct hit by the weapon.

32-67: Cargo/Hull hit Reduce ships SDP value only or optionally destroy some cargo.

68-83: Weapon System Hit, See Weapons Sub-table below.

84-94: Bridge hit, 5% of crew takes 6d6 damage minus armor worn plus all weapons and controls are at -4

95-100: Ammunition Storage/Powder Magazine hit multiply SDP damage by 200%

Weapons Hit Sub-table: 1d10

If the weapon hit on the chart does not exist on the vessel in question ignore the result and take SDP damage only.

1: Anti Missile System or VSAM system destroyed

2-3: Anti Submarine Warfare System destroyed

4-6: Primary Deck Gun destroyed

7-8: Anti Ship Missile System destroyed

9: Secondary Deck-gun or Autocannon destroyed

10: Tertiary or machine-gun mounts destroyed

Construction: Optional Extras

Name	Availability	Cost	Spaces	Description
Composite Armor	R	400% of base SDP	NA	Adds 25% more SP and halves penetration of HE rounds
IR Baffling	P	10% of base SDP	NA	Reduces effectiveness of IR missile and detection by 2
Stealth Construction	R	500% of base SDP	1/8 of total spaces	Reduces signature of vehicle decreases detection ability of radar by 5 miles and other detection & missiles by 5 points.
Crash Control Systems	E	250 Eb per person	NA	Provides SP40 protection Vs collision or crash damage usable only by Patrol ships or in the Bridge area for larger ships.
Environmental Control	E	2500 Euro	1 space	Air tight filtration system for pollution or biological weapons
Chaff	P	1000 Euro	1 space	Chaff Launcher holds 20 bundles, reloads cost 250 Euro. Fills air with reflective metal strips that confuse radar and radar guided missiles 70% chance.
Flares	P	1000 Euro	1 space	Launches flares into sky to help defeat heat seeking missiles. Cause use of Thermograph awareness rolls at -5 and reduces attack ability of heat seeking missiles. Reloads of the 20 shot capacity cluster is 100 Euro.
Smoke Launchers	C	250 Euro	1 space	Launches either normal or IR smoke 50 to 100 meters from boat reloads cost 25 Euro for standard 300 for IR.
Phalanx Radar system	R	30000 Eb	2	Used to track and destroy missiles with a 20mm or 30mm Gatling cannon system. 90% effective. Each additional missile reduces effective chance of stopping each successive missile by 10%.
Laser Comm. link	P	7000 Eb	NA	Line of sight encrypted communication cannot be jammed.
Radio	E/C/P	200/1000/2500 Euro	NA	Allows radio Communication over 80km for short range radio, 500km for long range radio, and military radio which is jam resistant 40% of the time.
Satellite Uplink	C	5000 Euro	1 space	Allows direct connection to satellite communication
Scrambler	C	500 Euro	NA	An addition for Radio systems allows coded communication between two like encoded communication systems.
Computer sights	C/C/P/P/P	2500/5000/10000/15000 25000 Euro	NA	Computer aided targeting systems, each level provides +1 extra to hit. Maximum of +5.
Weapon Stabilization	P	50% of weapons cost	½ space of weapon	Provides stabilization for weapons while moving, eliminates negative modifiers for firing while in motion.
Rangefinders	C/P	3000/10000/12000/15000	NA	Assists to aim weapons accurately. Visual rangefinders give a +1 bonus, Radar, laser and Microwave rangefinders give a +2 bonus but can be blocked either by smoke for lasers or Chaff for radar and microwave rangefinders.
Multi-target	P	50000	NA	Allows the tracking of up to 100 targets and allows weapons systems to fire on as many as 10 targets per turn with a dedicated weapons designator/operator.
Remote Targeting	P	1200 Euro	NA	Allows a forward observer to remotely target weapons beyond the horizon or to target indirect fire.
Robotic Weapons Control	P	25000 per weapon	NA	Robotic Weapons control can be linked to a remote targeting system and can be ordered by voice or cybernetic link to fire, once per turn. A (10) weapons skill base is used plus Weapons accuracy for to hit purposes.

Name	Availability	Cost	Spaces	Description
Auto Pilot	C	250 Euro	NA	Vehicle does the driving along a preset programmed route, may need minor directions from operator due to unknown obstacles.
Cybernetic Linkage	C	40% of total SDP Cost	NA	Allows control of a major system onboard via cybernetic links and reduces the crew size needed to operate the vessel.
ECM	P	500 000 Euro	1 space	Electronic Counter Measures is a sophisticated electronics system that is used to baffle, jam and mask electronics emissions and operation. The effects are the jamming of radio and radar, while military radio and radar are only jammed 60% of the time. Radar guided missiles subtract -15 from their ability to hit the target.
ECCM	P	100 000 Euro	1 space	Counter measures for ECM attempts to punch through jamming and negate the effects 40% reliable.
Image Enhancement	C	2500 Euro	NA	Allows the crew to have their full visual awareness bonus up to an extended range.
IR Sensors	C	1000/1500 Euro	NA	Either passive or active sensors, passive sensors detect heat emissions, active sensors adds in an IR active spotlight system getting rid of the need to illuminate your target or travel destination with visible light.
Light Amplification	C	500 Euro	NA	Negates modifiers due to darkness for awareness/notice, includes a dampening system to compensate for extreme light sources.
Navigation System	C	1000 Euro	NA	Uses a GPS system and can be coupled with radar for advanced object avoidance.
Radar	C/P			Radar comes standard on many ships as stated in the charts but may outfitted with the next strongest variety by expending several spaces onboard the ship.
Radar-ID	R	100 000 Euro	NA	Added to Military radar systems only. After two turns of scanning the computer matches the target with a known vehicle database.
Radar Detector				Detects radar frequencies and radar homing missiles.
Searchlight	C	300 euro	NA	External searchlight on flexible mount may be used to blind opponents WA +5 range 200 meters.
Hull Mounted Sonar	P	50 000 Euro	3	Basic Submarine Detection system 8 km range.
Advanced Dipping Sonar	R	380 000 Euro	7	Sonar available to lower on control cable 250 meters into water to pierce thermal layers. 32 km range.

Basic Facts: Standard Ship Sizes by Type

Ship Type	Length	Width (beam)	Draft
Patrol Ship/Speed Boat	3 - 36 meters	1 – 9 meters	1 meter
Coastal Ship/Yacht	30 – 40 meters	6 – 12 meters	1.5 meters
Corvette Class	38 – 70 meters	7 – 11 meters	2.5 meters
Frigate & Destroyer Class	100 – 180 meters	12 – 20 meters	3 meters
Light Fleet Oiler	105	14.8	3.5 meters
Small Cargo Ship	105	14.8	2+ meters
Large Fleet Oiler	206	30	5 meters
Large Cargo Ship	210	32.3	4 meters
Fire/Rescue Tug/Fishing Trawler	60 – 80 meters	8 – 16 meters	1.5 meters

Weather Effects:

Wind Direction:

Dice Roll (d10)	Direction
1	Insufficient or Calm subtract 50 from die roll for wind force table and then re-roll for direction here.
2	North
3	South
4	East
5	West
6	Northeast
7	Northwest
8	Southeast
9	Southwest
10	Excessive wind Add 80 to die roll for wind force table and then re-roll for direction here.

Wind Speed:

Percentage Die Roll	Wind Force	Speed in Mph/Kmh	Top Sail Speed	Damage
'(-49)-14'	Calm	0-1 mph	1mph	NA
'15-50'	Light Breeze	2-7 mph	4 mph	NA
'51-75'	Moderate breeze	8-18 mph	6 mph	NA
'75-90'	Strong breeze	19-31 mph	8 mph	1d6/3 per hour 40% chance
'91-96'	Strong Gail	32-54 mph	6 mph	1d6 SDP per hour 80% chance
'97-99'	Storm	55-72 mph	3 mph	1d6 SDP per hour
100 or more	Hurricane	73+ mph	NA	3d6 SDP per hour

Example Ship Constructions:

Brasilia industries Bravada Class Corvette:

Chaff, Flares, radar rangefinder

Top Speed	64kmh	Acc/Dec	15/20
Crew	35	Range	2897 km
Passengers	0	Cargo	NA
Maneuver	0	SDP	1365
SP	40	Type	Corvette
Mass	273 tons	Cost	4.2 million
length	40 meters	beam	7 meters

Weapon	57 mm Cannon	VSAM	4 : Penguin ASM	2: Asroc: ASW
Weapon Accuracy	2	Skill 15	15 skill	Skill 15
Damage	70 + (5d10)	110 + (6D10)	95 + (6d10)	120 + (8d10)
Ammo	80	1	1	1
Rate of Fire	6	1	1	1
Penetration	6	8	8	12
Range	6 miles	12km	25 miles/35km	17 miles
Burst Radius	3 meters	10 meters	12 meters	24 meters

Building the Corvette Starts with the basic weapons systems you want an idea of a ship size and range. The combined weapons for the Bravada takes 28 spaces plus the 35 spaces taken up by crew members at one space per person also add in any space taken up by optional systems 2 total. Total spaces equals 65, multiply this by 21 SDP per space to get total SDP of 1365 SDP. We can find our mass by dividing total SDP by 5 based on the Corvette creation chart for 273 tons of displacement. Since the ship is in the lower range of tonnage and SDP we chose a lower number value for it's length and beam.

Weapons Cost: this is calculated starting with the total SDP times 2500 equaling 3307500 for a base price before weapon systems. A total for all the weapons systems and ammo comes to 790000 for a standard ammo load shown above without any extra missile for the VSAM, Penguin, or ASROC launchers.

Optional Equipment: add up the costs for all optional equipment: Total 12000

Total Cost with standard weapons load: 4 million 109 thousand 500 EB

Militech Valkarie Class Trimaran Corvette:

Trimaran Hull, Helio Launch Pad, Turbo Diesel Engine, Cybernetic Controls, RPV Drove, chaff, flares

Top Speed	46mph	Acc/Dec	15/20
Crew	12	Range	1800 miles
Passengers	0	Cargo	NA
Maneuver	3	SDP	2604
SP	100	Type	Corvette
Mass	521 tons	Cost	583.5 million
length	60 meters	beam	10.5 meters

Weapon	Dual 76 mm Cannon	2cm	VSAM	6: Harpoon ASM ##	2: Asroc: ASW	20mm Gatling
Weapon Accuracy	0	1	Skill 15	Skill 17	Skill 15	0
Damage	85 + (6d10)	45 + (6d10)	110 + (6D10)	190 + (8d10)	120 + (8d10)	4D10 or 8d10 ammo type
Ammo	80	50	1	1	1	1000
Rate of Fire	4	1	1	1	1	100
Penetration	7	17	8	16	12	4
Range	11 miles/18km	18km	12km	75 miles	17 miles	500 meters
Burst Radius	5 meters	NA	10 meters	48 meters	24 meters	NA