MECHA

Mecha technology can be found in societies of PL 6 or higher.

MECHA BODY SIZE

Mecha bodies come in Large, Huge, Gargantuan, and Colossal sizes. A mecha's size determines how many equipment slots (places where weapons and additional equipment can be installed) it has, and how well it measures up in combat. See Table: Mecha Sizes for a summary of this information.

Size Modifier: Apply this modifier to the mecha's attack rolls and to its Defense.

Equipment Slots: The number of locations where weapons and other mecha equipment can be installed.

Hit Points: The mecha's hit points, and the number of hit points the mecha provides its operator.

Base Speed: The mecha's base land speed. Certain types of armor reduce base speed (see Mecha Armor).

Height: The mecha's height in feet.

Weight: The mecha's weight in pounds.

Fighting Space: The mecha's fighting space.

Reach: The mecha's reach, even without weapons.

Purchase DC: The base purchase DC of the mecha without armor, weapons, and other equipment.

Restriction: The level of license required to purchase the mecha legally.

Table: Mecha Sizes

Size	Size Modifier	Equipment Slots	Hit Points	Base Speed	Height	Weight	Fighting Space	Reach	Purchase DC	Restriction
Colossal	−8	25	800	60 ft.	64–128 ft.	250,000 lb. or more	30 ft. by 30 ft.	15 ft.	60	Mil (+3)
Gargantuan	−4	17	400	50 ft.	32–64 ft.	32,000–250,000 lb.	20 ft. by 20 ft.	15 ft.	48	Mil (+3)
Huge	−2	11	200	40 ft.	16–32 ft.	4,000–32,000 lb.	15 ft. by 15 ft.	10 ft.	44	Mil (+3)
Large	−1	7	100	30 ft.	8–16 ft.	500–4,000 lb.	10 ft. by 10 ft.	10 ft.	40	Res (+2)

LARGE MECHA

Essentially big suits of armor, Large mecha excel in urban battlefields and starship boarding actions, where they move through buildings and corridors to find the enemy. Large mecha are the easiest to operate. However, they can't carry the intense array of weapons that bigger mecha can, nor are they as strong or durable.

Combat Statistics: A Large mecha adds a +8 equipment bonus to a character's Strength score. It imposes a −1 size penalty on attack rolls and to Defense. Depending on the material used, a Large mecha has 100 bonus hit points, which are added to the character's total and subtracted first when the character takes damage. It takes a −4 penalty on Hide checks.

A Large mecha has a single slam attack that deals 1d8 points of damage (plus the character's increased Strength modifier). Its reach is 10 feet, and its base speed is 30 feet.

Base Purchase DC: 40.

Equipment Slots: A Large mecha has 7 equipment slots available. These slots are located as follows.

Helmet: 1 slot.
Back: 1 slot.
Left arm: 1 slot.
Right arm: 1 slot.
Shoulders: 1 slot.
Torso: 1 slot.
Boots: 1 slot.

HUGE MECHA

Common weapons on the futuristic battlefield, Huge mecha offer a solid balance between cost, agility, and sheer bulk. They perform well in any combat environment, but they favor locations with some variation in terrain. In the wide-open desert or depths of outer space, they can fall prey larger mecha.

Combat Statistics: A Huge mecha adds a +16 equipment bonus to a character's Strength score. It imposes a −2 size penalty on attack rolls and to Defense. Depending on the material used, a Huge mecha has 200 bonus hit points, which are added to the character's total and subtracted first when the character takes damage. It takes a −8 penalty on Hide checks.

A Huge mecha has a single slam attack that deals 2d6 points of damage (plus the character's increased Strength modifier). Its reach is 10 feet.

Base Purchase DC: 44.

Equipment Slots: A Huge mecha has 11 equipment slots available. These slots are located as follows.

Helmet: 1 slot.
Visor: 1 slot.
Back: 1 slot.
Left arm: 1 slot.
Left hand: 1 slot.
Right arm: 1 slot.
Right hand: 1 slot.
Shoulders: 1 slot.
Torso: 1 slot.
Belt: 1 slot.
Boots: 1 slot.

GARGANTUAN MECHA

Gargantuan mecha are highly experimental in PL 6 societies, but quite common at PL 7. Units of this size are titans of the battlefield, able to destroy almost anything they can hit. Gargantuan mecha are common in outer space environments but are often too expensive and unwieldy for planet-based missions.

Combat Statistics: A Gargantuan mecha adds a +24 equipment bonus to a character's Strength score and a –2 penalty to Dexterity. It imposes a –4 size penalty on attack rolls and to Defense. Depending on the material used, a Gargantuan mecha has 400 bonus hit points, which are added to the character's total and subtracted first when the character takes damage. It takes a –12 penalty on Hide checks. A Gargantuan mecha has a single slam attack that deals 2d8 points of damage (plus the character's increased Strength modifier). Its reach is 15 feet.

Base Purchase DC: 48.

Equipment Slots: A Gargantuan mecha has 17 equipment slots available. These slots are located as follows.

Helmet: 1 slot.
Visor: 1 slot.
Cranium: 1 slot.
Back: 2 slots.
Left arm: 1 slot.
Left hand: 1 slot.
Right arm: 1 slot.
Right hand: 1 slot.
Shoulders: 2 slots.
Torso: 2 slots.
Belt: 1 slot.
Left leg: 1 slot.
Right leg: 1 slot.
Boots: 1 slot.

COLOSSAL MECHA

Colossal mecha do not exist in PL 6 societies and are rare sights even at PL 7. Only at PL 8 do they leave the experimental stage and enter the battlefield in respectable numbers. Massive juggernauts, Colossal mecha represent the epitome of futuristic warfare, with firepower sufficient to destroy starships or level entire city blocks. They typically serve as mobile artillery and walking weapon platforms.

Combat Statistics: A Colossal mecha adds a +32 equipment bonus to a character's Strength score and a –4 penalty to Dexterity. It imposes a –8 size penalty on attack rolls and to Defense. Depending on the material used, a Colossal mecha has 800 bonus hit points, which are added to the character's total and subtracted first when the character takes damage. It takes a –16 penalty on Hide checks. A Colossal mecha has a single slam attack that deals 4d6 points of damage (plus the character's increased Strength modifier). Its reach is 15 feet.

Base Purchase DC: 60.

Equipment Slots: A Colossal mecha has 25 equipment slots available. These slots are located as follows.

Helmet: 2 slots.
Visor: 1 slot.
Cranium: 1 slot.
Back: 2 slots.

Left arm: 2 slots.
Left hand: 1 slot.
Right arm: 2 slots.
Right hand: 1 slot.
Shoulders: 2 slots.
Torso: 4 slots.
Belt: 2 slots.
Left leg: 2 slots.
Right leg: 2 slots.
Boots: 1 slot.

Quadrupedal Mecha

Mecha can be built with four legs instead of two. A quadrupedal mecha sacrifices equipment slots for added speed and stability. Its base land speed increases by 10 feet, and it gains a +4 stability bonus on checks made to resist bull rush and trip attempts.

A Large quadrupedal mecha has 6 equipment slots instead of 7, giving up its boots slot.

A Huge quadrupedal mecha has 8 equipment slots instead of 11, giving up both hand slots (left and right) and its boots slot.

A Gargantuan quadrupedal mecha has 14 equipment slots instead of 17, giving up both hand slots (left and right) and its boots slot.

A Colossal quadrupedal mecha has 22 equipment slots instead of 25, giving up both hand slots (left and right) and its boots slot.

MECHA SUPERSTRUCTURE

A mecha's superstructure—its exoskeleton, interior braces, and other structural parts—can be made from any sufficiently advanced metal alloy. Whatever its composition, a mecha's superstructure has a hardness that reduces the damage the mecha takes from weapons and collisions.

To build a mecha superstructure from scratch, a character must succeed at a Craft (mechanical) check (DC 30) and a Craft (structural) check (DC 30) after investing the requisite amount of assembly time, based on the mecha's size: Large 150 hours, Huge 300 hours, Gargantuan 600 hours, Colossal 1,200 hours. A character without a mechanical tool kit takes a –4 penalty on both skill checks. The character must also make a Wealth check against the mecha's base purchase DC.

Different types of superstructure materials are presented below and summarized in Table: Superstructure Materials.

Hardness: The amount of damage the material absorbs from a weapon hit or collision.

Base Purchase DC Modifier: The modifier applied to the mecha's base purchase DC.

Restriction: Since mecha require a license to own and operate, the materials used for making them do not require special licenses to purchase.

Table: Superstructure Materials

Superstructure Material	Hardness	—— Modified Base Purchase DC ——			
		Large	Huge	Gargantuan	Colossal
Alumisteel (PL 5)	10	36	40	44	56
Duralloy (PL 6)	15	40	44	48	60
Vanadium (PL 6)	20	44	48	52	64
Neovulcanium (PL 7)	20	40	44	48	60
Neutronite (PL 7)	25	44	48	52	64
Megatanium (PL 8)	30	40	40	48	60

ALUMISTEEL (PL 5)

This easy-to-acquire alloy is lightweight and reasonably strong. Alumisteel can also be used for armor (see Mecha Armor, below).

Hardness: 10.

Base Purchase DC Modifier: –4.

DURALLOY (PL 6)

Duralloy is harder, heavier, and more durable than alumisteel. It can also be used to fashion armor (see Mecha Armor, below).

Hardness: 15.

Base Purchase DC Modifier: None.

VANADIUM (PL 6)

Vanadium alloy absorbs a respectable amount of damage and is easy to mold.

Hardness: 20.

Base Purchase DC Modifier: +4.

NEOVULCANIUM (PL 7)

Similar to duralloy, neovulcanium uses plasma-forging techniques to create an alloy of unparalleled resilience. Neovulcanium can also be used for armor (see Mecha Armor, below).

Hardness: 20.

Base Purchase DC Modifier: None.

NEUTRONITE (PL 7)

Neutronite is a tough steel alloy into which a weave of free neutrons has been pressed. It is extremely resilient but also incredibly massive, weighing approximately five times more than a similar volume of lead.

Hardness: 25.

Base Purchase DC Modifier: +4.

MEGATANIUM (PL 8)

Sandwiched layers of crystal carbon and neovulcanium held in a magnetic matrix, megatanium is exceedingly hard and durable. Megatanium can also be used for armor (see Mecha Armor, below).

Hardness: 30.

Base Purchase DC Modifier: None.

MECHA ARMOR

Armor can be welded or otherwise fixed securely to a mecha's superstructure, providing an equipment bonus to the mecha's Defense. Mecha armor does not impose a maximum Dexterity bonus upon the mecha operator (as worn armor does) and does not require a special proficiency feat to use.

Installing armor on a mecha requires a Craft (mechanical) check (DC 20). The check is made after investing an amount of time determined by the mecha's size: Large 3 hours, Huge 6 hours, Gargantuan 12 hours, and Colossal 24 hours. Armor can be removed in half the time with a successful Repair check (DC 20).

Different types of mecha armor are presented below, along with the following statistics:

Equipment Bonus: The equipment bonus that the armor provides to the operator's Defense.

Armor Penalty: Mecha armor applies this penalty on its operator's Balance, Climb, Escape Artist, Hide, Jump, Move Silently, and Tumble checks.

Speed Penalty: The amount by which the armor reduces the mecha's base speed.

Purchase DC: The cost of the armor.

Restriction: Since mecha require a license to own and operate, mecha armor does not require a special license to purchase.

ALUMISTEEL ARMOR (PL 5)

This easy-to-acquire alloy is lightweight and reasonably strong. Alumisteel can also be used as a building material for mecha superstructures (see Mecha Superstructure, above).

Equipment Bonus: +5.

Armor Penalty: –6**.**

Speed Penalty: –5 feet**.**

Purchase DC: 10 + one-half the mecha's base purchase DC.

DURAPLASTIC ARMOR (PL 5)

Duraplastic armor is made of advanced plastic polymers, such as carbon fiber and high-grade fiberglass. Although relatively cheap and light, it doesn't offer tremendous protection.

Equipment Bonus: +3.

Armor Penalty: –4**.**

Speed Penalty: None**.**

Purchase DC: 5 + one-half the mecha's base purchase DC.

DURALLOY ARMOR (PL 6)

Duralloy is harder, heavier, and more durable than alumisteel. It can also be used as a building material for mecha superstructures (see Mecha Superstructure, above).

Equipment Bonus: +8.

Armor Penalty: –8**.**
Speed Penalty: –10 feet**.**
Purchase DC: 10 + one-half the mecha's base purchase DC.

RESILIUM ARMOR (PL 6)
Resilium is a more malleable alloy than duralloy, although not as strong.
Equipment Bonus: +6.
Armor Penalty: –5**.**
Speed Penalty: None**.**
Purchase DC: 5 + one-half the mecha's base purchase DC.

CRYSTAL CARBON ARMOR (PL 7)
Grown in orbital laboratories, crystal carbon is a composite fiber material that narrowly outperforms neovulcanium (see below) on the battlefield.
Equipment Bonus: +10.
Armor Penalty: –8**.**
Speed Penalty: None**.**
Purchase DC: 15 + one-half the mecha's base purchase DC.

NEOVULCANIUM ARMOR (PL 7)
Similar to duralloy, neovulcanium uses plasma-forging techniques to create an alloy of surprising resilience. It is also used as a building material for mecha superstructures (see Mecha Superstructure, above).
Equipment Bonus: +10.
Armor Penalty: –10**.**
Speed Penalty: –5 feet**.**
Purchase DC: 10 + one-half the mecha's base purchase DC.

MEGATANIUM ARMOR (PL 8)
Sandwiched layers of crystal carbon and neovulcanium held in a magnetic matrix, megatanium is exceedingly hard and durable. It can also be used as a building material for mecha superstructures (see Mecha Superstructure, above).
Equipment Bonus: +12.
Armor Penalty: –10**.**
Speed Penalty: –10 feet**.**
Purchase DC: 10 + one-half the mecha's base purchase DC.

REACTIVE ARMOR (PL 8)
Consisting of layers of insulating gel or compressed gas between cerametal sheets, reactive armor provides the same protection as crystal carbon armor but is considerably cheaper and easier to produce.
Equipment Bonus: +8.
Armor Penalty: –5**.**
Speed Penalty: None**.**
Purchase DC: 5 + one-half the mecha's base purchase DC.

MECHA EQUIPMENT
Mecha equipment falls into several categories: flight systems, sensor systems, defense systems, weapons (both hand-held and integrated), and miscellaneous systems.
Installing a piece of equipment on a mecha—be it a weapon or some other integrated system—requires a Craft (mechanical) check (DC 20). The check is made after investing an amount of time determined by the mecha's size: Large 10 minutes, Huge 30 minutes, Gargantuan 1 hour, Colossal 3 hours. If the weapon or system occupies more than one equipment slot on the mecha, multiply the installation time by the number of slots it takes up. An integrated weapon or system can be removed in half the time with a successful Repair check (DC 20).
In addition to a general description, each piece of equipment includes the following information:
Equipment Slots: The number of equipment slots needed to install the equipment. Some pieces of equipment are limited to specific body slots, as noted here.
Activation: How long it takes to activate the piece of equipment (usually an attack action).
Range/Range Increment: A range listing indicates the maximum distance out to which the equipment functions. If a range increment is listed instead, it represents the distance at which accuracy begins to decline, as per the rules on range increments.
Unless otherwise noted, equipment with a range increment has a maximum of ten increments.

Target or Targets/Effect/Area: This entry starts with one of three headings: Target, Effect, or Area. If the target of the component is You, you do not receive a saving throw (and there is no saving throw entry for the piece of equipment). If a component is a weapon capable of autofire, it will be noted here.

Duration: The amount of time a piece of equipment continues to operate before it needs to be reactivated, or how long its effect lasts. A duration of persistent means the equipment functions until the mecha is destroyed (reduced to 0 hit points) or the mecha's operator turns it off (usually as a free action).

Saving Throw: If a piece of equipment calls for a saving throw, the type of saving throw is listed here, along with the effect of a successful save.

Purchase DC: The purchase DC for the Wealth check to acquire the equipment.

Restriction: The level of license required to purchase the equipment legally.

Leave Room for the Pilot

When equipping a mecha from scratch, make sure to leave at least two vacant equipment slots for the mecha operator's cockpit. (The cost of the cockpit is already factored into the mecha's base purchase DC.) On Large mecha, the operator always occupies two of the following three equipment slots: helmet, torso, and back. On Huge and bigger mecha, the designer has more choice when placing the operator's cockpit.

Copilot and passenger cockpits are described under Miscellaneous Equipment.

MECHA FLIGHT SYSTEMS

All mecha are equipped with legs that allow them to walk and run. A mecha's size determines its base speed, as noted in Table: Mecha Sizes. This section describes various optional flight systems. To build a flight system from scratch, a character must succeed at a Craft (mechanical) check (DC 30) after investing 60 hours in its assembly. A character without a mechanical tool kit takes a –4 penalty on the skill check. The character must also make a Wealth check against the flight system's purchase DC.

AFTERBURNER SYSTEM (PL 6)

The afterburner system dumps a shot of raw fuel into the mecha's thruster system, giving the mecha a temporary speed boost. The mecha's fly speed is doubled for 1 round. The afterburner system is good for only one use; additional activations require additional afterburner systems.

Equipment Slots: 1, must be torso, back, or leg.
Activation: Free action.
Range: Personal.
Target: You.
Duration: 1 round.
Saving Throw: None.
Purchase DC: 8 + one-quarter the mecha's base purchase DC.
Restriction: None.

JETPACK (PL 6)

A jetpack combines vectored thrust with simple avionics, granting the mecha a fly speed of 100 feet (clumsy). The jetpack carries enough fuel for the mecha to travel a total of 1,000 feet; refueling has a purchase DC of 16.

Equipment Slots: 1, must be back or boots; or 2, must be left leg and right leg.
Activation: Free action.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's base purchase DC.
Restriction: None.

JET-ASSIST WINGS (PL 7)

Jet-assist wings allow a flying mecha to maneuver more effectively, but do not provide the mecha with the ability to fly. A mecha with jet-assist wings improves its flight maneuverability by one category (clumsy to poor, poor to average, and so on).

Equipment Slots: 1, must be back or shoulders (Large or Huge); 2, must be back or shoulders (Gargantuan or Colossal).
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.

Saving Throw: None.
Purchase DC: 5 + one-quarter the mecha's purchase DC.
Restriction: None.

THRUSTER BOOTS (PL 7)
Thruster boots combine powerful fusion thrusters to give the mecha a fly speed of 150 feet (poor).
Equipment Slots: 1, must be boots.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's purchase DC.
Restriction: None.

RAMJET THRUSTER BOOTS (PL 8)
The best thruster system available uses ramjet technology to improve the performance of the PL 7 thruster boots, granting the mecha a fly speed of 200 feet (poor).
Equipment Slots: 1, must be boots.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's purchase DC.
Restriction: None.

MECHA SENSOR SYSTEMS

Sensor systems make it easier for mecha operators to perceive their surroundings; however, not all mecha are equipped with sensors (or even require them). In such cases, mecha operators must rely on their own acute vision and hearing.

A mecha equipped with sensors conducts passive scans of the surrounding area constantly, without the operator's attention. A passive scan extends in all directions at once, providing the operator with data on surrounding terrain, obstacles, and the location of other creatures, vehicles, and mecha within several miles of the mecha's position.

A sensor system can also be used to conduct an active scan of a single target. With a successful Computer Use check (DC 15) and a move action, a mecha's operator can use the onboard sensor system to actively scan a single nonliving target (usually another mecha or vehicle) and determine specific information about that target, as specified in the sensor system's description.

To build a sensor system from scratch, a character must succeed at a Craft (electrical) check (DC 30) after investing 60 hours in its assembly. A character without an electrical tool kit takes a –4 penalty on the skill check. The character must also make a Wealth check against the sensor system's purchase DC.

CLASS I SENSOR SYSTEM (PL 6)
This sensor system includes air/space radar that allows a mecha operator to scan the basic topography of the surrounding area and pick out targets well enough to aim weapons at them. A Class I sensor system grants a +2 equipment bonus on the operator's Navigate and Spot checks.

With a successful Computer Use check (DC 15) and a move action, the operator can use the sensor system to actively scan a single nonliving target (usually another mecha or vehicle) and determine all the following information about that target:
• The target's size.
• The target's locomotive capabilities.
• The target's present direction or trajectory.
Equipment Slots: 1.
Activation: Move action (active scan mode only).
Range: 1-mile-radius emanation centered on your mecha.
Area: 1 nonliving target (active scan only).
Duration: Persistent (passive scan mode) or 1 round (active scan mode).
Saving Throw: None.
Purchase DC: 18.
Restriction: None.

CLASS II SENSOR SYSTEM (PL 6)

This sensor system includes an electromagnetic (EM) detector array that localizes electromagnetic emissions, and an infrared detector that tracks targets by their heat signatures. It also incorporates a high-resolution video system that differentiates targets by their visual profile. The hi-res video system incorporates a zoom feature, allowing close inspection of distant targets. A Class II sensor system grants a +2 equipment bonus on the operator's Navigate and Spot checks.

With a successful Computer Use check (DC 15) and a move action, the operator can use the sensor system to actively scan a single nonliving target (usually another mecha or vehicle) and determine all the following information about that target:

• The target's size.
• The target's locomotive capabilities.
• The target's present direction or trajectory.
• The number of living creatures aboard, if applicable.
• The composition of the target's hull or superstructure, as well as the type of its armor, if any.
• The target's weapon systems (functional and nonfunctional).

Equipment Slots: 1.
Activation: Move action (active scan mode only).
Range: 1-mile-radius emanation centered on your mecha.
Area: 1 nonliving target (active scan only).
Duration: Persistent (passive scan mode) or 1 round (active scan mode).
Saving Throw: None.
Purchase DC: 21.
Restriction: None.

CLASS III SENSOR SYSTEM (PL 6)

This system combines the features of the Class II sensor system with an advanced night-vision unit.

The mecha operator gains darkvision to a range of 90 feet. A Class III sensor system also grants a +2 equipment bonus on the operator's Navigate and Spot checks.

With a successful Computer Use check (DC 15) and a move action, the operator can use the sensor system to actively scan a single nonliving target (usually another mecha or vehicle) and determine all the following information about that target:

• The target's size.
• The target's locomotive capabilities.
• The target's present direction or trajectory.
• The number of living creatures aboard, if applicable.
• The composition of the target's hull or superstructure, as well as the type of its armor, if any.
• The target's weapon systems (functional and nonfunctional).

Equipment Slots: 1.
Activation: Move action (active scan mode only).
Range: 1-mile-radius emanation centered on your mecha.
Area: 1 nonliving target (active scan only).
Duration: Persistent (passive scan mode) or 1 round (active scan mode).
Saving Throw: None.
Purchase DC: 25.
Restriction: Licensed (+1).

ENIGMA SENSOR SUITE (PL 6)

Using a combination of thermal imaging, X-rays, and vibration sensors, the Enigma sensor suite enables the operator to effectively see through solid objects. Fine details can't be detected, but a mecha using the Enigma suite could tell, for example, that three Medium-size humanoids were crouched behind a closed door, or that an escape tunnel runs from one building to another.

A mecha with the Enigma suite reduces the effects of concealment by two grades. Thus, an object with total concealment (50% miss chance) would have three-quarters concealment (30% miss chance) instead.

Equipment Slots: 1.
Activation: None.
Range: 150 feet.
Area: Cone-shaped emanation.
Duration: 1 round.
Saving Throw: None.
Purchase DC: 29.
Restriction: None.

ORACLE TARGETING SYSTEM (PL 6)
The standard computer-assisted targeting system for mecha combines holographic displays and heuristic target-prediction profiling to increase a mecha operator's accuracy. The system grants an enhancement bonus on attack rolls (+1 to +5) when using a specific ranged weapon selected by the operator. Switching the bonus from one weapon to another requires a move action.

The Oracle system has five different categories (denoted Mark I through Mark V). The purchase DC varies depending on the enhancement bonus conferred.

Equipment Slots: 1, must be helmet or visor.
Activation: Move action (to activate or switch).
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 16 for Mark I (+1), 18 for Mark II (+2), 20 for Mark III (+3), 22 for Mark IV (+4), 24 for Mark V (+5).
Restriction: None.

CLASS IV SENSOR SYSTEM (PL 7)
This system includes electromagnetic (EM), infrared detector, hi-res video, and nightvision sensors similar to those found on the Class II and Class III systems. It also incorporates a ladar system that uses low-powered laser beams to quickly locate and identify difficult terrain, distant obstacles, and targets.

The mecha operator gains darkvision to a range of 120 feet. A Class IV sensor system also grants a +4 equipment bonus on the operator's Navigate and Spot checks.

With a successful Computer Use check (DC 15) and a move action, the operator can use the sensor system to actively scan a single nonliving target (usually another mecha or vehicle) and determine all the following information about that target:
• The target's size.
• The target's locomotive capabilities.
• The target's present direction or trajectory.
• The number of living creatures aboard, if applicable.
• The composition of the target's hull or superstructure, as well as the type of its armor, if any.
• The target's weapon systems (both functional and nonfunctional).
• How much damage (in hit points) the target has taken.

Equipment Slots: 1.
Activation: Move action (active scan mode only).
Range: 10-mile-radius emanation centered on your mecha.
Area: 1 nonliving target (active scan only).
Duration: Persistent (passive scan mode) or 1 round (active scan mode).
Saving Throw: None.
Purchase DC: 27.
Restriction: Licensed (+1). **Oracle Targeting System**

CLASS V SENSOR SYSTEM (PL 7)
This system improves upon earlier sensor systems by replacing the air/space radar with powerful multiband radar that quickly and effortlessly identifies and tracks mecha, creatures, and vehicles. It also combines the electromagnetic, infrared, and video scanners into a single, more powerful array. The Class V sensor system also extends the mecha's nightvision capability.

The mecha operator gains darkvision to a range of 180 feet. A Class V sensor system also grants a +6 equipment bonus on the operator's Navigate and Spot checks.

With a successful Computer Use check (DC 15) and a move action, the operator can use the sensor system to actively scan a single nonliving target (usually another mecha or vehicle) and determine all the following information about that target:
• The target's size.
• The target's locomotive capabilities.
• The target's present direction or trajectory.
• The number of living creatures aboard, if applicable.
• The composition of the target's hull or superstructure, as well as the type of its armor, if any.
• The target's weapon, defense, and sensor systems (both functional and nonfunctional).
• How much damage (in hit points) the target has taken.

Equipment Slots: 1.
Activation: Move action (active scan mode only).
Range: 10-mile-radius emanation centered on your mecha.

Area: 1 nonliving target (active scan only).
Duration: Persistent (passive scan mode) or 1 round (active scan mode).
Saving Throw: None.
Purchase DC: 30.
Restriction: Licensed (+1).

CLASS VI SENSOR SYSTEM (PL 8)

This sensor system resembles the Class V sensor array, except that it replaces the multiband radar unit with multiphase radar capable of penetrating nearly any obstacle or barrier.

The mecha operator gains darkvision to a range of 180 feet. A Class VI sensor system also grants a +8 equipment bonus on the operator's Navigate and Spot checks.

With a successful Computer Use check (DC 15) and a move action, the operator can use the sensor system to actively scan a single nonliving target (usually another mecha or vehicle) and determine all the following information about that target:
• The target's size.
• The target's locomotive capabilities.
• The target's present direction or trajectory.
• The number of living creatures aboard, if applicable.
• The composition of the target's hull or superstructure, as well as the type of its armor, if any.
• The target's weapon, defense, and sensor systems (both functional and nonfunctional).
• How much damage (in hit points) the target has taken, and how much damage it can withstand (that is, hit points remaining).
Equipment Slots: 1.
Activation: Move action (active scan mode only).
Range: 100-mile-radius emanation centered on your mecha.
Area: 1 nonliving target (active scan only).
Duration: Persistent (passive scan mode) or 1 round (active scan mode).
Saving Throw: None.
Purchase DC: 32.
Restriction: Licensed (+1).

MECHA DEFENSE SYSTEMS

Defense systems include energy shields, life support systems, and other equipment intended to protect the mecha and its operator from harm.

To build a defense system from scratch, a character must succeed at a Craft (mechanical) check (DC 30) after investing 60 hours in its assembly. A character without a mechanical tool kit takes a –4 penalty on the skill check. The character must also make a Wealth check against the defense system's purchase DC.

BULWARK TACTICAL SHIELD (PL 5)

The Bulwark tactical shield—a high-tech version of the shields carried by knights of old—is worn on one of the mecha's arms. It improves the mecha's equipment bonus to Defense by +4.
Equipment Slots: 1, must be arm.
Activation: None.
Range: Touch.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 5 + one-quarter the mecha's base purchase DC.
Restriction: None.

BASTION TACTICAL SHIELD (PL 6)

The Bastion tactical shield improves upon the Bulwark tactical shield (see above). It improves the mecha's equipment bonus to Defense by +6.

When not deployed, the Bastion tactical shield can retract into the mecha's arm. Deploying or retracting the shield is a move action.
Equipment Slots: 1, must be arm.
Activation: None or move action (see text).
Range: Touch.
Target: You.

Duration: Persistent.
Saving Throw: None.
Purchase DC: 5 + one-quarter the mecha's base purchase DC.
Restriction: None.

LX-10 ANTISHOCK ARRAY (PL 6)
The LX-10 antishock array grounds the mecha and protects it against electrical attacks. The mecha gains electricity resistance 10.
Equipment Slots: 1.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 21.
Restriction: None.

BARRICADE TACTICAL SHIELD (PL 7)
A larger version of the Bastion tactical shield, the Barricade shield not only improves the mecha's equipment bonus to Defense by +8, but its superior ceramic coating grants the mecha fire resistance 10.
When not deployed, the Barricade tactical shield can retract into the mecha's arm. Deploying or retracting the shield is a move action.
Equipment Slots: 1, must be arm.
Activation: None or move action (see text).
Range: Touch.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 8 + one-quarter the mecha's base purchase DC.
Restriction: None.

DELPHI DEFENSE SUITE (PL 7)
The Delphi defense suite consists of a heuristic collision avoidance system, enhanced crew restraints, and a series of adrenal and nonadrenal autoinjectors for the mecha operator. The Delphi defense suite grants the operator a resistance bonus on all saving throws for 1 minute: +1 for the Mark I version and up to +5 for the Mark V version.
Equipment Slots: 1 (Mark I and Mark II versions), 2 (Mark III, Mark IV, and Mark V versions).
Activation: Attack action.
Range: Personal.
Target: You.
Duration: 1 minute.
Saving Throw: None.
Purchase DC: 21 for Mark I (+1), 23 for Mark II (+2), 25 for Mark III (+3), 27 for Mark IV (+4), 29 for Mark V (+5).
Restriction: None.

LIGHT FORTIFICATION (PL 7)
The mecha's structural integrity is reinforced so it can shake off attacks that would cripple it otherwise. Light fortification converts 25% of all critical hits into regular hits.
Installing light fortification requires a Craft (structural) check instead of a Craft (mechanical) check. Light fortification takes the place of one of the mecha's equipment slots.
Equipment Slots: 1 (equivalent).
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 10 + one-half the mecha's base purchase DC.
Restriction: Licensed (+1).

LX-20 ANTISHOCK ARRAY (PL 7)

Similar to the LX-10 antishock array, the LX-20 antishock array grants the mecha electricity resistance 20. In addition, it insulates and protects the crew from the collateral dazing effect of an electromagnetic pulse, such as the type caused by an M-70 EMP rocket launcher (page 163).

CLOAKING SCREEN (PL 8)
The cloaking screen warps light and energy around the mecha, rendering it invisible to visual and electronic sensors.
A cloaked mecha has total concealment. To attack a cloaked mecha, an attacker must guess in which square the mecha currently is (or determine its position based on where it attacked last), and even if the guess is accurate, there is a 50% chance that the attack misses. A cloaked mecha gains a +40 bonus on Hide checks if immobile, or a +20 bonus on Hide checks if moving. Pinpointing the location of a cloaked mecha that isn't attempting to hide requires a Spot check against DC 40 if immobile or DC 20 if moving (as if the mecha operator had rolled a 0 on the Hide check).
Equipment Slots: 1.
Activation: Attack or move action.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 20 + one-quarter the mecha's base purchase DC.
Restriction: Military (+3).

DEFLECTION FIELD (PL 8)
The deflection field uses broadcast magnetics to provide a semipermeable energy field around the mecha. It provides a +1 to +5 deflection bonus to the mecha's Defense. The purchase DC of the system is based on the type of field (denoted Mark I through Mark V).
The operator can activate or deactivate the deflection field once per round as a free action.
Equipment Slots: 1.
Activation: None or free action (see text).
Range: Touch.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 24 for Mark I (+1), 27 for Mark II (+2), 30 for Mark III (+3), 33 for Mark IV (+4), 36 for Mark V (+5).
Restriction: Licensed (+1).

MEDIUM FORTIFICATION (PL 8)
Similar to the light fortification system, the medium fortification system converts 75% of all critical hits into regular hits. Medium fortification takes the place of two of the mecha's equipment slots.
Equipment Slots: 2 (equivalent).

HEAVY FORTIFICATION (PL 9)
Similar to the light fortification system, the heavy fortification system converts all critical hits into regular hits. Heavy fortification takes the place of three of the mecha's equipment slots.
Equipment Slots: 3 (equivalent).

MECHA WEAPONS
Mecha use both melee and ranged weapons to dispatch foes. In addition, a weapon can either be handheld or integrated into the mecha's superstructure; each version has its benefits.
Handheld Weapons: A handheld weapon does not cost an equipment slot. However, a mecha with a handheld weapon can be disarmed.
Integrated Weapons: An integrated weapon takes up one or more of the mecha's equipment slots, but the mecha cannot be disarmed of the weapon. Table: Mecha Weapons summarizes each weapon's statistics.
To build a handheld or integrated weapon from scratch, a character must succeed at a Craft (mechanical) check (DC 30) after investing 60 hours in its assembly. A character without a mechanical tool kit takes a –4 penalty on the skill check. The character must also make a Wealth check against the weapon's purchase DC.

Table: Mecha Weapons

Weapon	Damage	Critical	Damage Type	Range Increment	Rate of Fire	Magazine	Size	Weight	Purchase DC	Restriction

Progress Level 5: Information Age										
A3X Dragon flame thrower	4d6	—	Fire	—	Single	20 int.	Large	75 lb.	21	Mil (+3)
M-9 Barrage chaingun	5d6	20	Ballistic	60 ft.	S, A	Linked	Huge	100 lb.	21	Res (+2)
M-53 Firestar rocket launcher	10d6	—	Fire	—	Single	6 int.	Huge	35 lb.	24	Mil (+3)
M-55 Crud rocket launcher	10d6	—	Slashing	—	Single	6 int.	Huge	35 lb.	24	Mil (+3)
M-87 Talon missile launcher	15d6	20	Ballistic/ Fire	—	Single	4 int.	Huge	20 lb.	23	Mil (+3)
PS-15 Panther claws	Varies[1]	19–20	Slashing	—	—	—	Varies[1]	—	Varies[1]	—
Thunderbolt shock rod	Varies[1]	20	Electricity/ Bludgeoning	—	—	—	Varies[1]	—	Varies[1]	—
Warpath recoilless rifle	10d6	20	Ballistic	40 ft.	S, A	20 box	Huge	50 lb.	22	Mil (+3)
Progress Level 6: Fusion Age										
Corona microwave beam	5d6	20	Fire	15 ft.	Single	—	Large	15 lb.	19	Res (+2)
LK8 armor-piercing pike	Varies[1]	3	Piercing	—	—	—	Varies[1]	—	Varies[1]	—
M-21 Comet autolaser	8d6	20	Fire	75 ft.	S, A	—	Huge	40 lb.	22	Mil (+3)
M-70 EMP rocket launcher	10d6[2]	20	Electricity	—	Single	6 int.	Huge	35 lb.	27	Mil (+3)
M-75 Cricket rocket launcher	10d6[2]	—	Sonic	—	Single	6 int.	Huge	35 lb.	25	Mil (+3)
NKP Puma pop-up turret	8d6	20	Fire	75 ft.	Single	—	Large	20 lb.	23	Mil (+3)
T-95 Cavalcade chaingun	7d6	20	Ballistic	60 ft.	S, A	Linked	Huge	80 lb.	21	Res (+2)
Typhoon 240 laser cannon	10d6	20	Fire	100 ft.	Single	—	Huge	80 lb.	25	Mil (+3)
Progress Level 7: Gravity Age										
Chrysanthemum laser array	16d6	—	Fire	—	Single	1 int.	Huge	50 lb.	26	Mil (+3)
M-300 Rhino mass cannon	8d12	20	Ballistic	100 ft.	Single	—	Huge	65 lb.	29	Mil (+3)
PS-25 Tiger claws	Varies[1]	19–20	Slashing	—	—	—	Varies[1]	—	Varies[1]	—
Tsunami 480 plasma cannon	12d6	See text	Fire	See text	Single	—	Huge	75 lb.	25	Mil (+3)
XJ-A Python electro-whip	Varies[1]	20	Electricity	—	—	—	Varies[1]	—	Varies[1]	—
Progress Level 8: Energy Age										
Avenger electro-scimitar[3]	Varies[1]	18–20	Slashing/ Electricity	—	—	—	Varies[1]	—	Varies[1]	—
LT-5 Longshot mass driver	15d6	20	Ballistic	120 ft.	Single	10 box	Huge	90 lb.	24	Mil (+3)
RP-91 Reaper laser scythe[3]	Varies[1]	4	Slashing/ Fire	—	—	—	Varies[1]	—	Varies[1]	—

1 See the weapon's description for details.

2 See the weapon's description for collateral effects to crew and passengers.

3 This mastercraft weapon grants a +1 bonus on attack rolls.

A3X DRAGON FLAME-THROWER (PL 5)

Used primarily against soft, unarmored targets, the A3X Dragon flame-thrower sprays a 30-foot cone of burning liquid fuel. Anyone caught within the cone must succeed at a Reflex save (DC 13) or take 4d6 points of fire damage. The flame-thrower carries enough fuel for 20 attacks; refueling the tank has a purchase DC of 12.
Equipment Slots: 1.
Activation: Attack action.
Range Increment: Emanates from mecha.
Area: 30-foot cone.
Duration: Instantaneous.
Saving Throw: Reflex half (DC 13).
Purchase DC: 21.
Restriction: Military (+3).

M-9 BARRAGE CHAINGUN (PL 5)
Essentially a high-tech version of the medium machinegun, the M-9 Barrage has multiple barrels that fire large-caliber ammunition, dealing 5d6 points of ballistic damage on a successful hit. The base unit has enough room for four 50-round ammo belts. Each additional equipment slot devoted to ammo storage has room for six more ammo belts. Each additional ammo belt has a purchase DC of 8.
Equipment Slots: 1, must be hand (or arm if Large), arm, or shoulders.
Activation: Attack action.
Range Increment: 60 feet.
Target: Single target within 600 feet, or autofire.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 21.
Restriction: Restricted (+2).

M-53 FIRESTAR ROCKET LAUNCHER (PL 5)
M-53 Firestar rocket launchers fire self-guided incendiary-tipped rockets at any point within range. When the rocket reaches the designated target point—which can be a point in mid-air—it explodes, dealing 10d6 points of fire damage to everything within its burst radius. A successful Reflex save (DC 17) reduces the damage by half. The system carries six rockets.
Equipment Slots: 1 for launcher, must be hand (or arm if Large), arm, or shoulders; 1 for each six-rocket pack.
Activation: Attack action.
Range: 200 feet.
Area: 20-foot-radius burst.
Duration: Instantaneous.
Saving Throw: Reflex half (DC 17).
Purchase DC: 24 for rocket launcher and 6 rockets, 12 per additional 6-rocket pack.
Restriction: Military (+3).

M-55 CRUD ROCKET LAUNCHER (PL 5)
The M-55 Crud rocket launcher is similar to the M-53 Firestar rocket launcher. M-55 Crud shells release high-velocity shrapnel that deals 10d6 points of slashing damage to everything within its burst radius. A successful Reflex save (DC 17) reduces the damage by half.

M-87 TALON MISSILE LAUNCHER (PL 5)
The most common missile launcher installed on mecha, the M-87 Talon deals 15d6 points of damage to its target; half of the damage is ballistic damage, and half of the damage is fire damage. The missile's guidance system negates the normal penalty for range increments.
Equipment Slots: 1 for launcher, must be hand (or arm if Large), arm, or shoulders; 1 for each 4-missile battery.
Activation: Attack action.
Range: 2,000 feet.
Target: Single target.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 23 for missile launcher and 4 missiles, 21 per additional 4-missile pack.
Restriction: Military (+3).

PS-15 PANTHER CLAWS (PL 5)

A mecha equipped with these durable alloy claws can tear great rents in most metal plating. The claws can be extended or retracted as a free action.

The claws convert the mecha's slam attack into a claw attack that deals slashing damage. The amount of damage is based on the mecha's size: Large 2d6, Huge 2d8, Gargantuan 4d6, and Colossal 4d10. The claws have a critical threat range of 19–20. The claws are one size category smaller than the mecha's size category.

Equipment Slots: 1, must be hand (or arm if Large).
Activation: Attack action.
Range: Touch.
Target: Single target within reach.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's base purchase DC.
Restriction: None.

THUNDERBOLT SHOCK ROD (PL 5)

The Thunderbolt shock rod is essentially a one-handed metal rod with an electrical current running through the end. Damage is determined by the size of the mecha wielding it: Large 6d6, Huge 8d6, Gargantuan 10d6, and Colossal 12d6. Half of the damage is bludgeoning damage, and half is electricity damage.

The shock rod's size category is the same as the mecha's size category.

Equipment Slots: 1, must be hand (or arm if Large).
Activation: Attack action.
Range: Touch.
Target: Single target within reach.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's base purchase DC.
Restriction: None.

WARPATH RECOILLESS RIFLE (PL 5)

The Warpath recoilless rifle is a rapid-fire cannon that fires shells that detonate on impact. Each shell deals 10d6 points of damage, and the system's magazine holds 20 shells.

Equipment Slots: 1 for rifle, must be hand (or arm if Large); 1 for each 20-round magazine.
Activation: Attack action.
Range Increment: 40 feet.
Target: Single target within 400 feet, or autofire.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC : 22 for rifle and 20-round magazine, 15 per additional magazine.
Restriction: Military (+3).

CORONA MICROWAVE BEAM (PL 6)

The Corona microwave beam is the cheapest PL 6 mecha energy weapon. It deals 5d6 points of fire damage on a successful hit.

Equipment Slots: 1.
Activation: Attack action.
Range Increment: 15 feet.
Target: Single target within 150 feet.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 19.
Restriction: Restricted (+2).

LK8 ARMOR-PIERCING PIKE (PL 6)

This massive carbon-alloy polearm deals piercing damage based on the size of the mecha wielding it: Large 2d10, Huge 4d10, Gargantuan 6d10, and Colossal 8d10. It deals triple damage on a successful critical hit. The mecha applies one and one-half times its Strength bonus on damage rolls when wielding the weapon with both hands. The pike has an extra 5 feet of reach.

The armor-piercing pike's size category is one greater than the mecha's size category, up to a maximum size of Colossal.

Equipment Slots: 1, must be hand (or arm if Large).

Activation: Attack action.
Range: Touch.
Target: Single target within reach.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's base purchase DC.
Restriction: None.

M-21 COMET AUTOLASER (PL 6)

Consisting of a rotating ring of laser cannons, the M-21 Comet autolaser deals 8d6 points of fire damage with a successful attack.
Equipment Slots: 2, including hand (or arm if Large), arm, or shoulders.
Activation: Attack action.
Range Increment: 75 feet.
Target: Single target within 750 feet, or autofire.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 22.
Restriction: Military (+3).

M-70 EMP ROCKET LAUNCHER (PL 6)

The M-70 EMP rocket launcher is similar to the M-53 Firestar rocket launcher. An EMP shell releases an electromagnetic pulse that deals 10d6 points of electricity damage to everything within its burst radius. A successful Reflex save (DC 17) reduces the damage by half.
If a mecha takes any damage from an EMP rocket, all crew and passengers aboard the damaged mecha must succeed at a Fortitude save (DC 15) or be dazed for 1 round.
Purchase DC: 27 for rocket launcher and 6 rockets, 15 per additional 6-rocket pack.

M-75 CRICKET ROCKET LAUNCHER (PL 6)

The M-75 Cricket rocket launder is similar to the M-53 Firestar rocket launder. A Cricket shell releases a sonic pulse that deals 10d6 points of sonic damage to everything within its burst radius. A successful Reflex save (DC 17) reduces the damage by half.
If a mecha takes any damage from a Cricket rocket, all crew and passengers aboard the damaged mecha must succeed at a Fortitude save (DC 15) or be deafened for 1d6 rounds.
Purchase DC: 25 for rocket launcher and 6 rockets, 13 per additional 6-rocket pack.

NKP PUMA POP-UP TURRET (PL 6)

The NKP Puma pop-up turret is a miniature plasma cannon concealed under a breakaway hatch in a mecha's hull. A triumph of miniaturization, it packs significant wallop in a small, versatile (it can be installed in any equipment slot) package. It deals 8d6 points of fire damage.
Equipment Slots: 1.
Activation: Attack action.
Range Increment: 75 feet.
Target: Single target within 750 feet.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 23.
Restriction: Military (+2).

T-95 CAVALCADE CHAINGUN (PL 6)

More compact and powerful than the M-9 Barrage chaingun, the M-95 Cavalcade has multiple barrels that fire large-caliber ammunition, dealing 7d6 points of ballistic damage on a successful hit. The base unit has enough room for four 50-round ammo belts. Each additional equipment slot devoted to ammo storage has room for six more ammo belts. Each additional ammo belt has a purchase DC of 10.
Equipment Slots: 1, must be hand (or arm if Large), arm, or shoulders.
Activation: Attack action.
Range Increment: 60 feet.
Target: Single target within 600 feet, or autofire.
Duration: Instantaneous.

Saving Throw: None.
Purchase DC: 21 for weapon, 10 for ammo belt.
Restriction: Restricted (+2).

TYPHOON 240 LASER CANNON (PL 6)

A reliable laser cannon, the Typhoon 240 deals 10d6 points of fire damage with a successful attack.
Equipment Slots: 2, including hand (or arm if Large), arm, shoulders, or visor.
Activation: Attack action.
Range Increment: 100 feet.
Target: Single target within 1,000 feet.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 25.
Restriction: Military (+3).

CHRYSANTHEMUM LASER ARRAY (PL 6)

A barrage of phosphorus lasers deals massive damage to the mecha's surroundings, making this a weapon of last resort. Everything within 60 feet of the mecha (but not the mecha itself) takes 16d8 points of fire damage, after which the lasers burn themselves out. A successful Reflex save (DC 25) means the target takes only half damage.
Once fired, the Chrysanthemum burst array becomes nonfunctional and must be replaced.
Equipment Slots: 1.
Activation: Attack action.
Range: 0 feet.
Area: 60-foot-radius burst centered on you.
Duration: Instantaneous.
Saving Throw: Reflex half (DC 25).
Purchase DC: 26.
Restriction: Military (+3).

M-300 RHINO MASS CANNON (PL 7)

The M-300 Rhino mass cannon charges a small bit of matter with incredible gravitational energy, then hurls it at the target, where its increased gravitational pull causes it to slam into the target like a wrecking ball. The weapon deals 8d12 points of ballistic damage on a successful hit.
Equipment Slots: 2, including hand (or arm if Large), arm, or shoulders.
Activation: Attack action.
Range Increment: 100 feet.
Target: Single target within 1,000 feet.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 29.
Restriction: Military (+3).

PS-25 TIGER CLAWS (PL 7)

An improvement over the PS-15 Panther claws, PS-25 Tiger claws have monofilament edges that shear through armor plating like knives through butter. They can be extended or retracted as a free action.
The claws convert the mecha's slam attack into a claw attack that deals slashing damage. The amount of damage is based on the mecha's size: Large 6d8, Huge 8d8, Gargantuan 10d8, and Colossal 12d8. The claws have a critical threat range of 19–20.
The claws are one size category smaller than the mecha's size category.
Equipment Slots: 1, must be hand (or arm if Large).
Activation: Attack action.
Range: Touch.
Target: Single target within reach.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's base purchase DC.
Restriction: None.

TSUNAMI 480 PLASMA CANNON (PL 7)

The Tsunami 280 plasma cannon has two aperture settings: focused beam and wide-angle beam. The mecha operator can switch between settings as a move action. The focused beam setting deals 12d6 points of fire damage with a successful ranged attack, and it has a critical threat range of 20. On the wide-angle setting, the weapon automatically hits everything within a 60-foot cone for 12d6 points of fire damage, but those in the area can make a Reflex save (DC 19) to reduce the damage by half. Critical hits aren't possible on the wide-angle setting.
Equipment Slots: 3, including hand (or arm if Large), arm, shoulders, or visor.
Activation: Attack action.
Range Increment/Range: 150 feet (focused beam), or 60 feet (wide-angle).
Target/Area: Single target within 1,500 feet, or 60-foot cone.
Duration: Instantaneous.
Saving Throw: None or Reflex half (DC 19; see text).
Purchase DC: 25.
Restriction: Military (+3).

XJ-A PYTHON ELECTRO-WHIP (PL 7)
The XJ-A Python is an electrified cable with embedded servomotors that wrap around the target. The Python deals electricity damage according to the mecha's size: Large 2d10, Huge 4d10, Gargantuan 6d10, and Colossal 8d10. The Python has an extra 15 feet of reach.
When using the Python, you get a +2 equipment bonus on your opposed attack roll when attempting to disarm an opponent (including the roll to avoid being disarmed if you fail to disarm your opponent).
Because the electro-whip can wrap around an enemy's leg or other limb, you can make a trip attack with it by succeeding at a melee touch attack. If you are tripped during your own trip attempt, you can drop or detach the Python electro-whip to avoid being tripped.
The electro-whip's size category is the same as the mecha's size category.
Equipment Slots: 1, must be hand (or arm if Large).
Activation: Attack action.
Range: Touch.
Target: Single target within reach.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's base purchase DC.
Restriction: Restricted (+2).

AVENGER ELECTRO-SCIMITAR (PL 8)
The Avenger electro-scimitar is a lightweight and efficient one-handed melee weapon. As a mastercraft item, it grants a +1 bonus on attack rolls.
Damage for the energy scimitar is based on the size of the mecha wielding it: Large 4d6, Huge 8d6, Gargantuan 12d6, and Colossal 16d6. The energy scimitar has a critical threat range of 18–20. Half of the damage the energy sword deals is slashing damage, and the other half is electricity damage.
The electro-scimitar's size category is the same as the mecha's size category.
Equipment Slots: 1, must be hand (or arm if Large).
Activation: Attack action.
Range: Touch.
Target: Single target within reach.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 15 + one-quarter the mecha's base purchase DC.
Restriction: None.

LT-5 LONGSHOT MASS DRIVER (PL 8)
Mass drivers fire hyper-accelerated spent-uranium slugs at the target, dealing damage strictly through the massive kinetic energy the round imparts to the target. A mass driver round deals 15d6 points of ballistic damage, and the system's magazine holds 10 rounds. Each 10-round magazine has a purchase DC of 12.
Equipment Slots: 2 for weapon, including hand (or arm if Large), arm, or shoulders; 1 for each 10-round ammo bay.
Activation: Attack action.
Range Increment: 120 feet.
Target: Single target within 1,200 feet.
Duration: Instantaneous.
Saving Throw: None.

Purchase DC: 24 for drive and 10-round magazine, 12 per additional magazine.
Restriction: Military (+3).

RP-91 REAPER LASER SCYTHE (PL 8)
The RP-91 Reaper is a two-handed melee weapon with a crystal carbon shaft housing laser and magnetic field generators. When activated by the mecha operator, it suspends a laser beam within a razor-thin magnetic "envelope" shaped like a farmer's scythe. As a mastercraft item, it grants a +1 bonus on attack rolls.

Damage with a successful melee attack depends on the size of the wielding mecha: Large 4d10, Huge 6d10, Gargantuan 8d10, and Colossal 10d10. On a successful critical hit, the damage is quadrupled. Half of the damage the energy sword deals is slashing damage, and the other half is fire damage. The mecha applies one and one-half times its Strength bonus on damage rolls when wielding the weapon.

The laser scythe's size category is one size category larger than the mecha's size category, up to a maximum size of Colossal.
Equipment Slots: 2, must be hand (or arm if Large).
Activation: Attack action.
Range: Touch.
Target: Single target within reach.
Duration: Instantaneous.
Saving Throw: None.
Purchase DC: 15 + one-quarter the mecha's base purchase DC.
Restriction: None.

MISCELLANEOUS EQUIPMENT
This section describes various other pieces of mecha equipment that don't fall neatly under the other categories, including a variety of electrical systems.

Building a system from scratch requires a character to make a Wealth check against the system's purchase DC, invest time in its assembly, and succeed at a Craft (electrical), Craft (mechanical), or Craft (structural) check (DC 30)—whichever seems most appropriate given the type of equipment. See the Craft skill description for further guidance. A character without the appropriate electrical or mechanical tool kit takes a –4 penalty on the skill check.

COCKPIT, COPILOT (PL 5)
This extra cockpit provides a comfortable station inside the mecha for a Small or Medium-size copilot. A copilot has the ability to fire the mecha's ranged weapons, perform active scans using the mecha's sensor systems, or aid the pilot's attacks and skill checks (using the aid another action). Melee combat, defense, and movement remain under the control of the mecha's operator in the main cockpit. A copilot doesn't grant the mecha additional attacks in a round, and only one character may fire each ranged weapon each round. The mecha operator or copilot can transfer weapon control as a free action.

As a move action, the mecha's operator can lock out one or more copilot cockpits, shutting off the cameras, locking the hatches, and so on.

It takes a successful Computer Use check (DC 25 if the operator is disabled, 35 if the operator is still active) to switch overall control of the mecha to a copilot cockpit.
Equipment Slots: 3, must be torso or back.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 20.
Restriction: None.

COCKPIT, PASSENGER (PL 5)
This extra cockpit merely provides a comfortable place inside the mecha for a Small or Medium-size passenger to sit. The passenger can't do anything other than observe the surroundings (seeing exactly what the mecha's operator sees), communicate privately with the operator and publicly over open frequencies, and leave the cockpit as a full-round action. As a move action, the operator can prevent any of the above by shutting off the cameras, locking the hatch, and so on.
Equipment Slots: 2, must be torso or back.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.

Saving Throw: None.
Purchase DC: 20.
Restriction: None.

COMM SYSTEM (PL 5)
The mecha is equipped with a radio transceiver that can transmit on multiple frequencies in either LOS (line of sight) or omnidirectional mode. It can handle up to ten simultaneous two-way conversations.
Equipment Slots: 0.
Activation: Free action.
Range: 100 miles.
Target: One or more radio transceivers.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 21.
Restriction: None.

LIFE SUPPORT SYSTEM (PL 5)
The mecha's life support system provides a closed environment, allowing the mecha operator to ignore the effects of inhaled poisons and immersion in water. The onboard air supply lasts for 24 hours. A mecha equipped with a life support system has one less equipment slot.
Equipment Slots: 1 (equivalent).
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 14.
Restriction: None.

HV-5 HAVEN ESCAPE POD (PL 6)
The HV-5 Haven escape pod jettisons the cockpit and the mecha operator from the rest of the mecha (typically because the mecha is about to be destroyed). The operator can activate it as a move action and move normally at the Haven's fly speed. The Haven can also be activated as a free action, in which case it flies under the operator's direction up to its fly speed, but can move no farther that round.
The Haven escape pod has a fly speed of 90 feet (clumsy), 50 hit points, hardness 10, and a Defense of 18. Three rounds after it jettisons from the mecha, it runs out of fuel, landing or crashing as appropriate.
Equipment Slots: 1, must be torso.
Activation: Free action or move action (see text).
Range: Personal.
Target: You.
Duration: 3 rounds.
Saving Throw: None.
Purchase DC: 15 + one-quarter the mecha's base purchase DC.
Restriction: None.

SPACE SKIN (PL 6)
Space skin colloquially refers to a series of environmental stabilizers that allow the mecha operator (and other living creatures aboard the mecha) to ignore the effects of vacuum, thus enabling the mecha to operate in space.
A mecha equipped with space skin has one less equipment slot.
Equipment Slots: 1 (equivalent).
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 18.
Restriction: None.

STEALTH SUITE (PL 6)

Based on high-tech low observables technology, this combination of sound baffles, heat dispersers, and nonreflective paint combines to give the mecha a +10 bonus on Hide and Move Silently checks. Cost and the size penalty combine to make this structural option impractical on all but the smallest mecha.
Equipment Slots: 1.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 10 + one-quarter the mecha's base purchase DC.
Restriction: Licensed (+1).

ADVANCED DIAGNOSTICS (PL 7)
Multiple redundant systems coupled with the ability to detect and correct minor system faults allow the mecha to repair moderate damage. Advanced diagnostics restores 1d10 points of damage per hour, during which time the mecha cannot move or attack. Only the mecha's bonus hit points are repaired, not damage to the mecha's operator.
Equipment Slots: 1.
Activation: Move action.
Range: Personal.
Target: You.
Duration: 1 round.
Saving Throw: None.
Purchase DC: 15 + one-quarter the mecha's base purchase DC.
Restriction: None.

STRUCTURAL ENHANCEMENT (PL 7)
Significant advances in engineering inspire a series of modifications to the mecha's superstructure, granting it an additional 50 hit points. A mecha can undergo structural enhancement multiple times, gaining 50 additional hit points each time, but it can never have more than twice its starting hit points (as noted in Table: Mecha Sizes).
A character may structurally enhance a mecha with a successful Craft (structural) check (DC 30) after devoting an amount of time that varies depending on the mecha's size: Large 30 hours, Huge 60 hours, Gargantuan 120 hours, Colossal 240 hours. A character attempting the procedure without a mechanical tool kit takes a –4 penalty on the skill check.
Each time a mecha is structurally enhanced, it loses one equipment slot.
Equipment Slots: 1 (equivalent).
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 15 + one-half the mecha's base purchase DC.
Restriction: None.

ZERO-G STABILIZER (PL 7)
A zero-G stabilizer allows the mecha and its operator to function normally in low-gravity and zero-gravity environments, as though the operator has the Zero-G Training feat (see page 15).
Equipment Slots: 1.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 15.
Restriction: None.

CRACKERJACK NEURAL LINK (PL 8)
This unit links the operator's brain directly to the mecha, making it feel less like a machine and more like an extension of the operator's body. While driving or piloting the mecha, the operator gains a +2 bonus on initiative checks. In addition, the operator can use any of his nonmecha-specific feats while operating a mecha. (This ability does not grant the operator any new feats.)

Equipment Slots: 1, must be helmet or cranium.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 15 + one-quarter the mecha's base purchase DC.
Restriction: Restricted (+2).

NANOREPAIR UNIT (PL 8)

State-of-the-art nanites swarm over the surface of the mecha at the first indication of damage. The mecha automatically heals 5 points of damage per round. The nanorepair unit ceases to function if the mecha loses all its hit points.
Equipment Slots: 1.
Activation: None.
Range: Personal.
Target: You.
Duration: Persistent.
Saving Throw: None.
Purchase DC: 15 + one-quarter the mecha's base purchase DC.
Restriction: Restricted (+2).

SAMPLE MECHA

Size: The mecha's body size (and its size penalty on attack rolls and to Defense, in parentheses).
Bonus Hit Points: The bonus hit points the mecha gives the operator. This value also represents the mecha's total hit points.
Superstructure: The chief material used in the construction of the mecha's superstructure.
Hardness: The hardness afforded by the mecha's superstructure. Hardness reduces the amount of damage the mecha takes from an attack.
Armor: The type of armor installed on the mecha. Some types of armor reduce a mecha's speed.
Bonus to Defense: The mecha's equipment bonus to Defense, as provided by its armor.
Armor Penalty: Apply this penalty to the operator's Balance, Climb, Escape Artist, Hide, Jump, Move Silently, and Tumble checks.
Reach: The mecha's reach.
Strength Bonus: The equipment bonus the mecha provides to its operator's Strength.
Dexterity Penalty: The penalty the mecha applies to its operator's Dexterity (if any).
Speed: The mecha's base land speed (and fly speed, if applicable).
Base Purchase DC: The mecha's base purchase DC does not include armor or equipment.
Standard Equipment Package: The standard equipment found on the baseline model.

MYRMIDON (PL 6)

The Myrmidon primarily serves as a light infantry support mecha, replacing an armored vehicle on the battlefield. It has also proven effective in close-combat situations, particular in urban arenas.
A Myrmidon installed with the standard equipment package (see below) has a purchase DC of 41.

Size: Large (–1 size)	**Bonus Hit Points:** 100
Superstructure: Duralloy	**Hardness:** 15
Armor: Duralloy	**Bonus to Defense:** +8
Armor Penalty: –8	**Reach:** 10 ft.
Strength Bonus: +8	**Dexterity Penalty:** —
Speed: 20 ft., fly 90 ft. (clumsy)	**Base Purchase DC:** 40

Standard Equipment Package: Pilot's cockpit (torso and back), Class II sensor system (helmet), M-9 Barrage chaingun (left arm), 6 50-round ammo belts for M-9 Barrage chaingun (shoulders), PS-15 Panther claws (right arm), jetpack (boots), comm system (no slots).

SCOURGE (PL 6)

The Scourge assault mecha uses heavy weapons to disable enemy mecha and vehicles, and leaves them to a mop-up crew of traditional infantry. This frees up the assault mecha for more suitable tasks than disassembling captured ordnance.
A Scourge installed with the standard equipment package (see below) has a purchase DC of 49.

Size: Huge (–2 size)	**Bonus Hit Points:** 200

Superstructure: Vanadium	**Hardness:** 20
Armor: Duralloy	**Bonus to Defense:** +8
Armor Penalty: –8	**Reach:** 10 ft.
Strength Bonus: +16	**Dexterity Penalty:** —
Speed: 30 ft., fly 90 ft. (poor)	**Base Purchase DC:** 48

Standard Equipment Package: Pilot's cockpit (torso and back), Class II sensor system (helmet), Enigma sensor suite (visor), Typhoon 240 laser cannon (left arm and left hand), M-53 Firestar rocket launcher (right h and), 6-pack o f M -53 Firestar rockets (right arm), jet-assist wings (shoulders), LX-10 antishock array (belt), jetpack (boots), comm. system (no slots).

MANTICORE (PL 7)

The Manticore is a flying quadrupedal assault mecha designed to take out enemy infantry units with a hailstorm of large-caliber shells. The Manticore has a special tail slot that replaces its belt equipment slot; the tail incorporates a deadly Chrysanthemum laser array.

A Manticore installed with the standard equipment package (see below) has a purchase DC of 45.

Size: Huge (–2 size)	**Bonus Hit Points:** 200
Superstructure: Neovulcanium	**Hardness:** 20
Armor: Crystal carbon	**Bonus to Defense:** +10
Armor Penalty: –8	**Reach:** 10 ft.
Strength Bonus: +16	**Dexterity Penalty:** —
Speed: 50 ft., fly 100 ft. (poor)	**Base Purchase DC:** 44

Standard Equipment Package: Pilot's cockpit (torso and helmet), Class IV sensor system (visor), T-95 Cavalcade chaingun (right arm), 6 extra 50-round ammo belts (left arm), Chrysanthemum laser array (tail), jet-assist wings (shoulders), jetpack (back), comm. system (no slots).

TEMPEST (PL 7)

The Tempest is a heavy support mecha, designed to work alongside tanks and other heavy armored vehicles, or as the centerpiece of smaller mecha platoons.

A Tempest installed with the standard equipment package (see below) has a purchase DC of 49.

Size: Gargantuan (–4 size)	**Bonus Hit Points:** 450
Superstructure: Neovulcanium	**Hardness:** 20
Armor: Crystal carbon	**Bonus to Defense:** +10
Armor Penalty: –8	**Reach:** 15 ft.
Strength Bonus: +24	**Dexterity Penalty:** –2
Speed: 50 ft., fly 150 ft. (average)	**Base Purchase DC:** 48

Standard Equipment Package: Pilot's cockpit (torso and belt), Mark III Oracle targeting system (visor), Class IV sensor system (cranium), jet-assist wings (back), Tsunami 480 plasma cannon (left hand, left shoulder, and helmet), Bulwark tactical shield (left arm), M-87 Talon missile launcher (right shoulder), 4-pack of M-87 Talon missiles (right arm), XJ-A Python electro-whip (right hand), HV-5 Haven escape pod (torso), life support system (left leg), thruster boots (boots), 50-hp structural enhancement (1 slot equivalent), comm system (no slots).

PARAGON (PL 8)

Nothing less than a mobile weapons platform, the Paragon dominates any battlefield and can lay waste to entire armies. In space, it can fight toe-to-toe with armed starships.

A Paragon installed with the standard equipment package (see below) has a purchase DC of 61.

Size: Colossal (–8 size)	**Bonus Hit Points:** 900
Superstructure: Megatanium	**Hardness:** 30
Armor: Megatanium	**Bonus to Defense:** +12
Armor Penalty: –10	**Reach:** 15 ft.
Strength Bonus: +32	**Dexterity Penalty:** –4
Speed: 50 ft., fly 200 ft. (poor)	**Base Purchase DC:** 60

Standard Equipment Package: Advanced diagnostics (helmet), Class V sensor system (helmet), Crackerjack neural link (cranium), Mark IV Oracle targeting system (visor), jet-assist wings (back), Avenger electro-scimitar (left hand), Barricade tactical shield (right arm), M-300 Rhino mass cannon (right hand and right arm), M-87 Talon missile launcher (left shoulder), 2 4-packs of M-87 Talon missiles (left arm), M-70 EMP rocket launcher (right shoulder), 2 6-packs of M-70 EMP rockets

(torso), HV-5 Haven escape pod (torso), zero-G stabilizer (torso), Mark II deflection field (belt), life support system (left leg), ramjet thruster boots (boots), 100-hp structural enhancement (2 slots equivalent), light fortification (1 slot equivalent), space skin (1 slot equivalent).

MECHA CARGO CAPACITY

Although they are not built to haul cargo, mecha superstructures have a limited amount of storage space. Table: Mecha Cargo Capacity lists the maximum weight in additional cargo (not including crew, weapons, or other integrated equipment) a mecha can transport in its internal storage compartments, as well as the maximum size of an object that will fit inside one of these internal compartments.

Table: Mecha Cargo Capacity

Mecha Size	Cargo Capacity	Maximum Object Size
Colossal	1,250 lb.	Huge
Gargantuan	500 lb.	Large
Huge	250 lb.	Medium-size
Large	50 lb.	Small

MOVEMENT AND COMBAT

Combat between mecha is conducted much as it is between characters. Characters operating mecha are simply much larger and stronger than they would otherwise be, and they can wield truly frightening weapons. However, they still obey the essential rules of movement and combat. They still threaten squares within their reach, take move actions and attack actions, duck behind cover to gain a bonus to Defense, and so forth. In some respects, however, mecha movement and combat differs from character movement and combat. The following sections describe specific situations that arise when mecha maneuver and clash on the battlefield.

COCKPIT ACCESS

It takes a full-round action to climb into a mecha's cockpit and a move action to activate its various systems so it can move and fight. It takes a full-round action to get out of a mecha unless an HV-5 Haven escape pod or similarly expeditious device is used (see Miscellaneous Equipment).

DRIVING, PILOTING, AND MOVEMENT

Mecha operators use the Drive skill to operate their mecha on the ground and the Pilot skill to operate their mecha in the air or in space.

In general, mecha operators don't need to make Drive or Pilot checks to steer their mecha around the battlefield. However, these skills may come into play in combat under the following circumstances:

• When trying to move past a foe without provoking an attack of opportunity, a mecha operator can make a Drive check or Pilot check (as appropriate) instead of a Tumble check.

• A mecha operator can oppose a trip attempt with a Drive check (if on the ground) or a Pilot check (if in the air).

• A successful Pilot check can pull a mecha out of a stall (see Flying Mecha, below).

• A character in a copilot cockpit can use the aid another action, making Drive or Pilot checks (as appropriate) to aid the Drive and Pilot checks of the mecha's operator.

FLYING MECHA

The vehicle rules are entirely appropriate for ground cars and other normal modes of transportation; however, even a clumsy mecha is more maneuverable than a normal vehicle.

On the ground, mecha move as characters. They can turn at any time, move in any direction, and stop on a dime. In the air, though, they are more limited.

Most flying mecha have to s low down to make a turn, and many are limited to fairly wide turns and must maintain a minimum forward speed. Each flying mecha has a maneuverability rating, as shown on Table: Flight Maneuverability. A mecha's flight systems determine its maneuverability.

Minimum Forward Speed: If a flying mecha fails to maintain its minimum forward speed, it must land at the end of its movement. If it is too high above the ground to land, it falls straight down, descending 150 feet in the first round of falling. If this distance brings it to the ground, it takes falling damage. If the fall doesn't bring the mecha to the ground, the operator must succeed at a Pilot check (DC 20) to recover. Otherwise, it falls another 300 feet. If it hits the ground, it takes falling damage. Otherwise, it has another chance to recover on its next turn.

Hover: The ability to stay in one place while airborne.

Fly Backward: The ability to fly backward.

Reverse: A mecha with good maneuverability uses up 5 feet of its speed to start flying backward.

Turn: How much the flying mecha can turn after covering the stated distance.

Turn in Place: A mecha with good or average maneuverability can "spend" some of its speed to turn in place.

Maximum Turn: How much the mecha can turn in any one space.

Up Angle: The angle at which the mecha can ascend.

Up Speed: How fast the mecha can ascend.

Down Angle: The angle at which the mecha can descend.

Down Speed: A flying mecha can descend at twice its normal flying speed.

Between Down and Up: An average, poor, or clumsy mecha must fly level for a minimum distance after descending and before ascending. Any flying mecha can begin descending after an ascent without an intervening distance.

Table: Flight Maneuverability

Maneuver	Perfect	Good	Average	Poor	Clumsy
Minimum forward speed	None	None	Half	Half	Half
Hover	Yes	Yes	No	No	No
Fly backward	Yes	Yes	No	No	No
Reverse	Free	–5 ft.	—	—	—
Turn	Any	90°/5 ft.	45°/5 ft.	45°/5 ft.	45°/10 ft.
Turn in place	Any	+90°/5 ft.	+45°/5 ft.	No	No
Maximum turn	Any	Any	90°	45°	45°
Up angle	Any	Any	60°	45°	45°
Up speed	Full	Half	Half	Half	Half
Down angle	Any	Any	Any	45°	45°
Down speed	Double	Double	Double	Double	Double
Between down and up	0 ft.	0 ft.	5 ft.	10 ft.	20 ft.

MECHA IN OUTER SPACE

Only a mecha equipped with space skin (see Miscellaneous Equipment) can operate in outer space. However, the mecha's operator takes a –4 penalty on all attack rolls and skill checks unless she has the Zero-G Training feat or has equipped her mecha with a zero-g stabilizer.

In outer space, mecha fly just like they do in the atmosphere, with three exceptions. First, all flying mecha improve by one maneuverability category (clumsy becomes poor, poor becomes average, average becomes good, and so on). Second, all mecha can ascend and descend regardless of the limitations on Table: Flight Maneuverability, and their speed is unchanged if they do so. Finally, all mecha can hover in space and need not maintain a minimum forward speed.

MECHA CRITICAL HITS

Whenever you confirm a critical hit against a mecha, you may choose to roll percentile dice and consult Table: Mecha Critical Hits instead of dealing the normal critical hit damage for the attack. However, you must accept the results of the roll, even if those results are less than desirable.

Table: Mecha Critical Hits

d%	Roll Effect(s)
01–15	Normal damage, crew dazed
16–35	Normal critical hit, crew dazed
36–45	Normal critical hit, mecha knocked prone
46–50	Severe critical hit, crew dazed, mecha stunned
51–55	Severe critical hit, mecha knocked prone
56–60	Crew hit (normal damage)
61–70	Normal damage, equipment damaged
71–80	Normal damage, equipment destroyed
81–90	Normal critical hit, slot damaged
91–100	Normal critical hit, slot destroyed

Normal Damage: The attack deals normal damage (do not apply critical hit multipliers).

Crew Dazed: Each crewmember aboard the mecha, including its operator, must succeed on a Fortitude save (DC 15) or be dazed for 1 round. Unable to act, a dazed character can take no actions, but still retains his or her full Defense.

Normal Critical Hit: Roll critical hit damage normally.

Mecha Knocked Prone: The force of the attack knocks the mecha prone. All crewmembers and passengers aboard take 1d6 points of bludgeoning damage as they are knocked about their cockpits. A prone mecha takes a –4 penalty on melee attack rolls and can't use thrown ranged weapons. The mecha gains a +4 bonus to Defense against ranged attacks, but takes a –4 penalty to Defense against melee attacks.

Standing up from prone is a move action that provokes attacks of opportunity.

Mecha Stunned: The mecha automatically drops what it is holding and can take no attack or move actions for 1 round. While the mecha is stunned, apply a –2 penalty to the mecha operator's Defense (even though the operator is not stunned).

Severe Critical Hit: Roll critical hit damage using a x5 multiplier instead of the weapon's normal multiplier.

Crew Hit: The attack bypasses the mecha's armor and superstructure. Apply normal damage to one crewmember or passenger (determined randomly), ignoring the mecha's bonus hit points.

Equipment Destroyed: One piece of equipment (attacker's choice) is damaged and ceases to function until repaired. It can be a flight system, sensor system, defense system, weapon (handheld or integrated), or miscellaneous system. Repairing a damaged system requires 1 hour of work and a successful Repair check (DC 20).

Equipment Destroyed: One piece of equipment (attacker's choice) is destroyed and ceases to function. It can be a flight system, sensor system, defense system, weapon (handheld or integrated), or miscellaneous system. A destroyed system cannot be repaired, only replaced.

Slot Damaged: One of the mecha's equipment slots (attacker's choice) is damaged. Any piece of equipment wholly or partially installed in that slot will not function until the slot is repaired. Repairing a damaged equipment slot requires 1 hour of work and a successful Repair check (DC 25).

Slot Destroyed: One of the mecha's equipment slots (attacker's choice) is destroyed, along with any piece of equipment wholly or partially installed in it. Rebuilding a destroyed equipment slot requires 12 hours of work and a successful Craft (mechanical) check (DC 30).

RANGED ATTACKS AND ATTACKS OF OPPORTUNITY

Mecha only provoke attacks of opportunity from creatures of their own size or larger (including other mecha) when they fire a ranged weapon in a threatened area.

STOWING HAND SLOT EQUIPMENT

Any piece of mecha equipment integrated into a mecha's hand slot—and only the hand slot—can be stowed magnetically against the mecha or in a storage compartment as a move action. This frees up the hand to perform more delicate manipulation (such as opening a door or pressing a button) or grabbing another piece of mecha equipment.

A mecha may have more pieces of equipment for its hand slots than it has hand slots available; it just can't use them all at once.

MECHA-RELATED FEATS

Mecha operators c an s elect feats that r elate specifically to operating mecha. These feats are all considered bonus feats for the Mecha Jockey advanced class. Whenever the Mecha Jockey is allowed to select a bonus feat, she can choose one of these.

Essential Mecha Feats

A character without the Mecha Operation feat and Mecha Weapon Proficiency feat suffers serious penalties while operating a mecha of any size. The penalties for not having these feats are summarized below:

Mecha Operation: A character without this feat takes a –4 penalty on Balance, Climb, Drive, Escape Artist, Hide, Move Silently, Pilot, and Tumble checks when operating a mecha. Furthermore, the character cannot run or charge.

Mecha Weapon Proficiency: A character without this feat takes a –4 penalty on attack rolls made while operating a mecha. Furthermore, the character cannot apply the various firearm feats (such as Advanced Firearms Proficiency, Dead Aim, Double Tap, Shot on the Run, and Strafe) to a mecha's ranged weapons.

Mecha and Feats

If you have the Mecha Weapon Proficiency feat, any feats that apply to firearms (such as Double Tap and Strafe) also apply to relevant ranged mecha weapons.

Melee-oriented feats from the Brawl and Combat Martial Arts trees don't apply if you're operating a mecha, although a character with the Mecha Operation feat threatens all areas within reach of the mecha, and making a slam or other melee attack with a mecha doesn't provoke an attack of opportunity.

Feats from the Defense Martial Arts tree f unction normally for characters in mecha.

ADVANCED MECHA OPERATION

You have received advanced training or extensive practice in mecha movement.

Prerequisite: Mecha Operation.

Benefit: Choose a size of mecha (Large, Huge, Gargantuan, or Colossal). When you are operating a mecha of the chosen size, you gain a +1 dodge bonus to Defense. Furthermore, armor penalties for operating the mecha are 2 less than they would otherwise be (minimum penalty –0).

HAIR TRIGGER

You have developed a delicate sense of timing, and your area attacks hit your foes when they're ill-prepared to defend against them.

Prerequisite: Base attack bonus +6.

Benefit: Whenever you make an attack from your mecha that requires enemies to make Reflex saving throws, the DC for such saves is increased by +2.

MECHA CRUSH

You can hurl your mecha's body onto opponents to deal tremendous damage.

Prerequisite: Mecha Operation.

Benefit: As an attack action, you can maneuver your mecha to jump or fall onto opponents, using the mecha's body to crush them. This attack is useful only against creatures at least two size categories smaller than your mecha. The base damage for a crush attack depends on your mecha's size category, as given below. Add 1.5 times your mecha-modified Strength bonus to this base damage to determine the total damage for the attack.

Mecha Size	Damage
Large	2d6
Huge	2d8
Gargantuan	4d6
Colossal	4d8

A crush attack deals bludgeoning damage and affects as many creatures as can fit under your mecha's body. Each creature in the affected area must succeed on a Reflex save (DC 10 + your mecha's size modifier for grapple attacks). On a failure, the creature is pinned and automatically takes crush damage each round the pin is maintained.

MECHA FLING

You can pick up an opponent with your mecha and fling it.

Prerequisite: Mecha Operation, at least one free hand slot.

Benefit: Your mecha can make a grapple check at a –20 penalty against an opponent at least two size categories smaller than it. If the grapple succeeds, you can use an attack action to fling the held opponent on your next action. The range increment for the thrown foe is 10 feet, and the maximum range is 100 feet.

A creature may be thrown horizontally or vertically. If thrown vertically, it takes normal falling damage. If thrown horizontally, it takes damage as though it had fallen half the distance thrown (rounded down), and you may apply your mecha-modified Strength bonus to the damage.

Your mecha may also fling your opponent at another mecha, vehicle, or creature. To do so, make an attack roll at a –4 penalty, with appropriate range penalties, against the target. If you hit, both the thrown creature and the target take the amount of damage that the thrown creature would have otherwise taken, as given above.

MECHA OPERATION

You know how to operate a mecha.

Benefit: You do not suffer the restrictions on movement and penalties on skill checks for being unfamiliar with mecha controls. You can move normally in a mecha and generally perform any action as if you weren't inside a mecha, subject to the obvious limitations of size. You threaten areas within your reach even if unarmed.

Normal: Characters without this feat take a –4 penalty on Balance, Climb, Drive, Escape Artist, Hide, Move Silently, Pilot, and Tumble checks when operating a mecha. Furthermore, they cannot run or charge.

MECHA SWEEP

You can use your mecha to wield improvised weapons and attack several spaces at once.

Prerequisite: Mecha Operation, Power Attack, two free hand slots.

Benefit: You can use your mecha's great size and strength, along with your own knowledge of balance and leverage, to pick up a heavy object (such as a large tree or boulder) and attack an area as an attack action. The area affected is a half-circle

with a radius equal to your mecha's reach. This attack deals damage to all creatures two or more size categories smaller than your mecha within the area. The base damage dealt depends on your mecha's size, as given below. Add 1.5 times your mecha's Strength bonus to this base damage to determine the total damage for the attack.

Mecha Size	Damage
Large	1d6
Huge	1d8
Gargantuan	2d6
Colossal	2d8

Though it can deal significant damage, this form of attack is awkward and unbalancing. You take a –2 penalty to your mecha's Defense and on Reflex saves until your next turn.

MECHA TRAMPLE
Your mecha can knock down and crush opponents.
Prerequisite: Mecha Operation, base attack bonus +4.
Benefit: When you attempt to overrun an opponent while operating a mecha, the target may not choose to avoid your mecha. If your mecha knocks down the target, your mecha may make one free slam attack against the target, gaining a +4 bonus on the attack roll because the target is prone.

MECHA WEAPON BOOST
By disabling safeguards and shunting auxiliary power into your weapons, you can attain greater destructive power at the cost of weapon accuracy.
Prerequisite: Base attack bonus +8, Repair 6 ranks.
Benefit: You can take a penalty of up to –5 on your attack roll. If you do, the mecha weapon of your choice deals +1d6 points of damage for each –1 penalty you took. The attack penalty persists until the beginning of your next turn, but the additional damage applies only to the next single attack you make.

MECHA WEAPON PROFICIENCY
You know how to acquire targets and fire your mecha's weapons using onboard computers and sensors.
Prerequisite: Mecha Operation.
Benefit: You no longer suffer the standard penalties on attack rolls while you're in your mecha. You can use any feats that refer to firearms with your ranged mecha weapons.
Normal: Characters without this feat take a –4 penalty on attack rolls made while in a mecha cockpit. Furthermore, they cannot apply firearm feats to a mecha's ranged weapons.

STUN MECHA
By channeling electricity into an enemy mecha's control system, you can temporarily short it out.
Prerequisite: Base attack bonus +8, Mecha Operation, Precise Shot.
Benefit: If you threaten a critical hit with an electricity attack against another mecha, you may automatically confirm the critical. In addition to suffering the effects of the critical hit, the mecha is automatically stunned for 2d4 rounds. The stunned mecha automatically drops what it is holding and can take no attack or move actions. While the mecha is stunned, apply a –2 penalty to the mecha operator's Defense (even though the operator is not stunned).

THRUSTER BLAST
By directing your vectored thrusters all around your mecha, you can kick up a cloud of dust and debris that obscures the battlefield.
Prerequisite: Pilot 10 ranks, mecha flight system (either jetpack, thruster boots, or ramjet thruster boots).
Benefit: You can aim your thruster exhaust toward the ground to create a hemispherical cloud. If you are within 30 feet of the ground and there is loose debris or dust, you can create a cloud with a 50-foot radius centered directly below you. The generated winds snuff out small fires and give guided missiles attacking you a –4 penalty on their attack rolls. Creatures without eye protection caught within the debris cloud are blinded while inside it and for 1 round after emerging from it. The debris cloud grants anyone inside it one-half concealment (20% miss chance). Mecha with sensor systems ignore the concealment effects.
Because some mecha have vectored thrust systems, their flight path isn't affected by the aim of the exhaust. They don't have to hover or fly upward to create the cloud.

MECHA JOCKEY

Select this advanced class if you want your character to be an expert mecha operator, in command of a massive, armored war machine equipped with terrifying weaponry. The fastest path into this advanced class is from the Fast hero basic class, though other paths are possible.

REQUIREMENTS

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

Skills: Drive 6 ranks.

Feats: Mecha Operation.

CLASS INFORMATION

The following information pertains to the Mecha Jockey advanced class.

Hit Die

The Mecha Jockey gains 1d10 hit points per level. The character's Constitution modifier applies.

Action Points

The Mecha Jockey gains a number of action points equal to 6 + one-half his character level, rounded down, each time he attains a new level in this class.

Class Skills

The Mecha Jockey's class skills are as follows. Bluff (Cha), Computer Use (Int), Drive (Dex), Knowledge (current events, popular culture, streetwise, technology) (Int), Navigate (Int), Pilot (Dex), Profession (Wis), Read/Write Language (none), Repair (Int), Sleight of Hand (Dex), Speak Language (none), Spot (Wis), Tumble (Dex).

Skill Points at Each Level: **5 + Int modifier.**

Table: The Mecha Jockey

Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+0	+2	+1	Mecha Weapon Proficiency	+1	+0
2nd	+1	+0	+3	+2	Luv my mecha (+1)	+1	+0
3rd	+2	+1	+3	+2	Bonus feat	+2	+1
4th	+3	+1	+4	+2	Mecha feint	+2	+1
5th	+3	+1	+4	+3	Luv my mecha (+2)	+3	+2
6th	+4	+2	+5	+3	Bonus feat	+3	+2
7th	+5	+2	+5	+4	Evasive action	+4	+3
8th	+6	+2	+6	+4	Luv my mecha (+3)	+4	+3
9th	+6	+3	+6	+4	Bonus feat	+5	+4
10th	+7	+3	+7	+5	Improved evasive action	+5	+4

Class Features

The following features pertain to the Mecha Jockey advanced class.

Mecha Weapon Proficiency

At 1st level, the Mecha Jockey gains the bonus feat Mecha Weapon Proficiency.

Luv My Mecha

Starting at 2nd level, a Mecha Jockey gains a bonus on Drive, Pilot, and Repair checks when applied to a mecha he designates as familiar. The same bonus is applied to the Mecha Jockey's attack rolls with the mecha's ranged weapons. This bonus is +1 at 2nd level and increases by 1 every three levels thereafter (+2 at 5th level, +3 at 8th level).

To designate a mecha as familiar, the Mecha Jockey must have operated it for at least one month. Minor changes and upgrades to the mecha don't affect familiarity, but if the Mecha Jockey switches to a mecha with a different size, different superstructure, different flight system, or more than one new weapon, he must operate it for at least one month before he is familiar with it. A Mecha Jockey can be familiar with only one mecha at a time.

Bonus Feat

At 3rd, 6th, and 9th level, the Mecha Jockey gains a bonus feat. The bonus feat must be selected from the following list, and the Mecha Jockey must meet all the prerequisites of the feat to select it. Advanced F irearms Proficiency, Advanced Mecha Operation, Burst Fire, Cleave, Combat Expertise, Dead Aim, Dodge, Double Tap, Far Shot, Force Stop, Gearhead, Great Cleave, Hair Trigger, Improved Bull Rush, Improved Disarm, Improved Sunder, Improved Trip, Mecha Crush, Mecha Fling, Mecha Operation, Mecha Sweep, Mecha Trample, Mecha Weapon Boost, Mobility, Personal Firearms Proficiency, Point

Blank Shot, Power Attack, Precise Shot, Shot on the Run, Skip Shot, Spring Attack, Strafe, Stun Mecha, Thruster Blast, Weapon Focus (mecha weapon only), Whirlwind Attack.

Mecha Feint

At 4th level, a Mecha Jockey operating a mecha can make a Bluff check in combat as a move action (instead of an attack action). He receives a +2 bonus on the Bluff check made to feint in melee combat.

If the Mecha Jockey has the Improved Feint feat, his bonus on Bluff checks made to feint increases to +4 while operating a mecha.

Evasive Action

At 7th level, the Mecha Jockey can make a Drive, Pilot, or Tumble check (as appropriate) to lessen the damage dealt by a successful attack against his mecha. If the check result exceeds the attack roll, the damage is reduced by half (round fractions down, minimum of 1 point of damage). The Mecha Jockey can make an evasive action check once per round.

Improved Evasive Action

At 10th level, the Mecha Jockey's evasive action ability improves. A successful Drive, Pilot, or Tumble check negates all damage dealt by the attack.