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# STARSHIPS

The rules for starship combat are based on the rules for character combat. Like character-scale combat, starship battles unfold on a square grid, with each starship occupying one or more squares on the grid. As with character-scale combat, starship battles play out in rounds.

The starship combat system presented here strikes a balance between realism and ease of play. The system can be made more realistic by adapting bits and pieces of the vehicle movement and combat rules to the 500-foot-per-square starship scale. These basic starship combat rules also assume that all starships involved in the battle are crewed by nonheroic characters. What happens when heroes take the controls is discussed later.

## STARSHIP TYPES AND SUBTYPES

Every starship has a type and a subtype. A starship's type represents its relative mass and determines its fighting space (how many 500-foot squares it occupies) on the battle grid. There are five types of starships: ultralight, light, mediumweight, heavy, and superheavy.

A starship's subtype identifies the ship's basic purpose or configuration. Starship subtypes include the following: fighter, corvette, destroyer, strike cruiser, battleship, and freighter.

## STARSHIP FIGHTING SPACE

Each square in starship scale measures 500 feet along a side (instead of 5 feet, as in character-scale combat). All starships, regardless of size, have a square fighting space. Some starships occupy a single 500-foot square, while others have a larger fighting space, as noted below.

An **ultralight starship** can be up to 250 feet long. It occupies a 250-foot-by-250-foot fighting space, and up to four ultralight starships can occupy a single 500-foot square.

A **light starship** measures 251–500 feet in length. It has a 500-foot-by-500-foot fighting space and occupies a single 500-foot square.

A **mediumweight starship** measures 501–1,000 feet in length. It occupies a 1,000-foot-by-1,000-foot fighting space (4 500-foot squares).

A **heavy starship** measures 1,001–1,500 feet long. It has a 1,500-foot-by-1,500-foot fighting space (9 500-foot squares).

A **superheavy starship** is 1,501 feet long or longer. The smallest superheavy starships (measuring 1,501–2,000 feet long) have a 2,000-foot-by-2,000-foot fighting space (16 500-foot squares), although larger fighting spaces are possible.

## STARSHIP COMBAT SEQUENCE

Starship combat is played out in rounds. Each round, each starship acts in turn in a regular cycle. Generally, starship combat runs as follows.

**Step 1:** Every starship starts the battle flat-footed. Once a starship acts, it is no longer flat-footed.

**Step 2:** The GM determines which starships are aware of each other at the start of the battle. (Cloaking devices and other devices might hide a ship from another ship's sensors.) If some but not all of the starships are aware of their enemies, a surprise round happens before regular rounds begin. Starships that are aware of the enemies can act in the surprise round, so they roll for initiative. In initiative order (highest to lowest), starships that started the battle aware of their enemies each take one move or attack action. Starships that were unaware don't get to act in the surprise round. If no starship or every starship begins the battle aware, there is no surprise round.

**Step 3:** Starships that have not yet rolled initiative do so. All starships are now ready to begin their first regular round.

**Step 4:** Starships act in initiative order. All crew aboard a starship act on the starship's turn.

**Step 5.** When each starship has had a turn, the starship with the highest initiative acts again, and steps 4 and 5 repeat until combat ends.

## COMBAT STATISTICS

Several fundamental statistics determine how well a starship performs in combat. This section summarizes these vital statistics, and the following sections detail how to use them.

## ATTACK ROLL

An attack roll represents one starship's attempt to strike another on its turn in a round. Most starships are armed with ranged weapons aimed by gunners.

When a starship makes an attack roll, roll 1d20 and add the appropriate modifiers (described below). If the result equals or beats the target's Defense, the attack hits and deals damage. A starship's attack roll is:

**1d20 + gunner's ranged attack bonus + range penalty + starship's size modifier + targeting system's equipment bonus**

**Gunner's Ranged Attack Bonus:** Unless noted otherwise, all starship gunners are assumed to have the Starship Gunnery feat. Without this feat, a starship gunner takes a –4 nonproficient penalty on attack rolls with starship weapons. For simplicity, all gunners aboard a starship have identical ranged attack bonuses.

**Range Penalty:** The range penalty for a ranged weapon depends on what weapon the starship is using and the distance to the target. All ranged weapons have a range increment, as noted in Table: Starship Weapons.

As with character weapons, any attack from a distance of less than one range increment is not penalized for range. However, each full range increment causes a cumulative –2 penalty on the attack roll.

A beam weapon has a maximum range of 10 increments. A projectile weapon has an unlimited range, since projectiles don't lose inertia in space.

**Starship's Size Modifier:** Starships are Huge, Gargantuan, or Colossal in size. Table: Starship Sizes notes the size modifiers for ships of different sizes.

**Targeting System's Equipment Bonus:** Most starships have computerized targeting systems to help gunners train weapons on targets. A standard targeting system provides an equipment bonus on the gunner's attack roll depending on the ship's size: Huge +1, Gargantuan +2, Colossal +3. Improved targeting systems (see Starship Sensors) grant higher bonuses. Table: Starship Sizes summarizes the targeting system equipment bonuses for ships of different sizes.

**Automatic Misses and Hits:** As in character combat, a natural 1 on the attack roll is always a miss. A natural 20 is always a hit. A natural 20 also always threatens a critical hit (see Critical Hits, below).

**Table: Starship Sizes**

Starship Size	Starship's Size Modifier <sup>1</sup>	Targeting System's Equipment Bonus <sup>2</sup>	Autopilot System's Equipment Bonus <sup>3</sup>	Starship's Length	Starship's Weight
Colossal	–8	+3	+3	64 ft. or more	250,000 lb. or more
Gargantuan	–4	+2	+2	32–64 ft.	32,000–250,000 lb.
Huge	–2	+1	+1	Less than 32 ft. 4	,000–32,000 lb.

1 A starship applies its size modifier on all attack rolls and to its Defense.

2 A starship applies its targeting system's equipment bonus on all attack rolls.

3 A starship on autopilot applies its autopilot system's equipment bonus to its Defense.

## DEFENSE

A starship's Defense represents how difficult it is to hit in combat. It's the attack roll result that an enemy ship needs to achieve a hit. In general, starships are easy to hit, which is why they rely on armor to absorb damage (see Starship Armor, below).

A starship's Defense is partly determined by the skill of the pilot or the quality of its automatic pilot system.

### PILOTED SHIPS

A starship with a living pilot has a Defense equal to:

**10 + starship's size modifier + pilot's class bonus to Defense + pilot's Dexterity modifier**

**Starship's Size Modifier:** The bigger a starship is, the easier it is to hit in combat. The smaller it is, the harder it is to hit. Size modifiers are shown on Table: Starship Sizes.

**Pilot's Class Bonus to Defense:** The pilot imparts her class bonus to Defense to the ship's Defense. This bonus applies even if the starship is flat-footed or otherwise denied the pilot's Dexterity bonus to its Defense.

All starship pilots are assumed to have the appropriate Starship Operation feat. Consequently, they apply their full class bonus to Defense (instead of one-half the modifier) to a starship's Defense.

**Pilot's Dexterity Modifier:** In any given round, a pilot may choose to transfer her full Dexterity bonus to the starship's Defense. However, doing so forces the pilot to focus entirely on flying the ship, and consequently the pilot loses the Dexterity bonus to her own Defense for the round.

A pilot cannot apply her Dexterity bonus to a starship's Defense if she or the starship is flat-footed.

### AUTOPILOTED SHIPS

Every starship comes equipped with a basic autopilot system that enables it to dodge enemy fire without need for a pilot. A starship on autopilot has a Defense equal to:

**10 + starship's size modifier + autopilot system's equipment bonus**

**Starship's Size Modifier:** Size modifiers are shown on Table: Starship Sizes.

**Autopilot System's Equipment Bonus:** An autopilot system provides an equipment bonus to Defense depending on the ship's size: Huge +1, Gargantuan +2, Colossal +3. A ship equipped with an improved autopilot system (see Starship Defense Systems) gains a higher bonus.

## CREW

The quality of the crew determines how well a starship performs in and out of combat. Unless otherwise noted, every starship has a trained crew of nonheroic characters. However, situations could arise where a starship must rely on an untrained crew. Conversely, expert crews and ace crews are also available—for the right price. Table: Crew Quality compares four different qualities of crew: untrained, trained, expert, and ace.

**Skill Check Modifier:** Apply this modifier to all skill checks made by crew.

**Pilot's Dexterity Modifier:** A pilot's Dexterity modifier applies to the starship's initiative rolls and the starship's Defense.

**Pilot's Class Bonus to Defense:** A pilot's class bonus to Defense applies to the starship's Defense and to opposed grapple checks.

**Gunner's Attack Bonus:** A gunner's attack bonus applies to all ranged attacks made by the ship.

**Modifier to Starship's Base Purchase DC:** The amount by which the crew increases the base purchase DC of the ship. (This modifier is already factored in to the base purchase DCs of the ships presented below.)

**Table: Crew Quality**

Crew Quality	Skill Check Modifier <sup>1</sup>	Pilot's Class Bonus to Defense	Pilot's Dexterity Modifier	Gunner's Modifier to Attack Bonus	Starship's Base Purchase DC
Untrained	+0	+1	+0	-4	-4
Trained	+4	+3	+2	+2	0
Expert	+8	+5	+4	+4	+4
Ace	+12	+7	+6	+8/+3	+8

<sup>1</sup> This includes Pilot checks.

## CREW IMPROVEMENT

To improve in quality, a starship's crew of nonheroic characters must "put in the hours" and gain combat experience. Table: Crew Improvement shows the length of the crew's tour of duty and the number of ship-to-ship battles the crew must survive to be considered of a particular quality. A crew cannot be elevated to a higher quality until it meets the minimum required time spent serving aboard the ship and the minimum amount of ship-to-ship combat experience.

**Table: Crew Improvement**

Crew Quality	Length of Tour of Duty	Starship Battles Survived
Untrained	0–5 months	0
Trained	6–11 months	0–3
Expert	12–35 months	4–11
Ace	3 years or more	12+

## DAMAGE

When a starship hits with a weapon, it deals damage according to the type of weapon (see Table: Starship Weapons). Damage is deducted from the target's current hit points. If a starship's hit points are reduced to 0 or fewer, the ship is in bad shape (see Hit Points, below).

## MULTIPLYING DAMAGE

Sometimes a starship weapon multiplies damage by some factor, such as when it scores a critical hit. Just as in character combat, you can either roll the damage (with all modifiers) multiple times and total the results, or roll the damage once and multiply the result by the given multiplier.

Bonus damage represented as extra dice, such as from the Engineer's weapon upgrade class ability, is an exception. Do not multiply bonus damage dice when a starship scores a critical hit.

## CRITICAL HITS

Critical hits by starships work just like critical hits by characters. When a starship makes an attack roll and gets a natural 20, the starship hits regardless of the target's Defense, and it has scored a threat of a critical hit. To find out whether it is actually a critical hit, the starship immediately makes another attack roll with all the same modifiers as the attack roll that scored the threat. If the second roll also results in a hit against the target's Defense, the starship's attack is a critical hit.

For a more colorful application of the critical hit system, see Optional Critical Hit Results, below.

## OPTIONAL CRITICAL HIT RESULTS

A critical hit with a starship weapon normally multiplies the weapon's damage. The GM may opt to use a randomized critical hit resolution system instead: Whenever a critical hit is scored, the attacker rolls percentile dice and consults Table: Optional Critical Hit Results to determine the effects of the critical hit on the target.

**Table: Optional Critical Hit Results**

d% Roll	Effect(s)
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01–35	Normal critical hit
36–50	Normal critical hit, crew casualties
51–55	Severe critical hit, artificial gravity disabled
56–60	Severe critical hit, crew casualties
61–65	Damaged system: comm system
66–70	Damaged system: defense system
71–75	Damaged system: engines
76–80	Damaged system: sensors
81–85	Damaged system: targeting system
86–90	Damaged system: weapon
91–95	Destroyed defensive system
96–100	Destroyed weapon

**Normal Critical Hit:** Roll critical hit damage normally.

**Crew Casualties:** A number of crewmembers and passengers are killed (this effect applies only if the ship isn't destroyed). Roll 1d10 to determine the number of crew fatalities and, if the ship carries passengers, 1d10 to determine the number of passenger casualties. Only supporting GM characters are affected.

A starship with less than one-half of its normal crew complement takes a –2 penalty on all attack rolls and checks.

A starship with less than one-quarter of its normal crew complement takes a –4 penalty on all attack rolls and checks.

A starship with no crew flies on autopilot and cannot attack. If a crewless ship doesn't have a functional autopilot system, it is immobile. If this result is rolled again and the ship has no living crew or passengers, ignore this result and reroll.

**Severe Critical Hit:** Roll critical hit damage using a  $\times 10$  multiplier instead of the weapon's normal multiplier. In addition, the ship and its crew are shaken for 1 round.

**Artificial Gravity Disabled:** The starship's artificial gravity is disabled for 1d10 rounds. During this time, an untrained crew takes a –4 penalty on all attack rolls and skill checks while coping with the zero-gravity conditions. Trained, expert, or ace crews take no penalties, as they are assumed to have the Zero-G Training feat. Ignore this result if it comes up again while the artificial gravity system is disabled.

**Damaged System:** A damaged system remains inoperable until it is repaired, which requires 10 hours of work and a successful Repair check (DC 30). A starship's engineer (or engineering team) can perform jury-rig repairs on the system as a full-round action with a successful Repair check (DC 25), but the repairs last only until the end of the battle (or until the system is disabled again). During that round of jury-rigged repairs, the starship can continue to take actions.

*Comm System:* One communications system of the attacker's choice is disabled. If this result is rolled again and the ship has no undamaged comm systems, ignore this result and reroll.

*Defense System:* One defense system of the attacker's choice is disabled. If this result is rolled again and the ship has no undamaged defense systems, ignore this result and reroll.

*Engines:* The starship's tactical speed decreases by 1,000 feet until the engines are repaired. If this result is rolled again, the effect is cumulative. If the ship's tactical speed has already been reduced to 0 feet due to engine damage, ignore this result and reroll.

*Sensors:* The starship is blinded until repaired. All the ship's targets gain the equivalent of total concealment (50% miss chance). If this result is rolled again, ignore the result and reroll.

*Targeting System:* The starship's targeting system ceases to function. The starship loses the targeting system's equipment bonus on attack rolls until the system is repaired. Reroll if this result comes up again.

*Weapon:* One of the starship's beam weapons, projectile weapons, or missile launchers (attacker's choice) ceases to function. The weapon remains inoperable until it is repaired. If this result is rolled again and the ship has no functional weapons, ignore this result and reroll.

**Destroyed Defensive System:** One of the starship's defensive systems (determined by the attacker) is destroyed. It cannot be repaired and must be replaced. If this result is rolled again and the ship has no defensive systems, ignore this result and reroll.

**Destroyed Weapon:** One of the starship's weapons (determined by the attacker) is destroyed. It cannot be repaired and must be replaced. If this result is rolled again and the ship has no weapons, ignore this result and reroll.

If the destroyed weapon was fire-linked, the other weapons to which it was linked continue to function normally. If the destroyed weapon was part of a weapon battery, the remaining weapons in the battery continue to function normally.

## STARSHIP ARMOR

Starship armor is designed to absorb damage rather than make a starship harder to hit. Consequently, a starship's armor plating provides hardness instead of an equipment bonus to Defense.

Subtract a starship's hardness from the damage each time it takes a hit. If a ship's hardness is greater than the amount of damage dealt by the attack, the starship takes no damage.

See Starship Armor for the various types of armor available at different Progress Levels, as well as the hardness of each type.

## DAMAGE CONTROL

A starship equipped with a damage control system can perform damage control as a move action. With a successful Repair check (DC 15), the ship regains a number of hit points depending on its type, as shown on Table: Damage Control Systems. A ship with an improved or advanced damage control system regains even more hit points (see Starship Defense Systems). Damage control cannot be performed if the ship has been reduced to negative hit points.

## HIT POINTS

A starship's hit points represent how much punishment it can take before being disabled or destroyed. A starship's hit points are based on its type and subtype.

A ship's hit points decrease when it takes damage. Damage doesn't have any impact on a ship's combat ability until its current hit points reach 0 or lower.

At 0 hit points, a ship is disabled.

At negative hit points, a ship begins breaking apart.

When its hit points drop to a certain negative hit point total, the ship is destroyed. The point at which a ship is destroyed varies depending on its type, as shown in Table: Destruction Threshold.

**Table: Destruction Threshold**

Ship Type	Destroyed At
Ultralight	-20 hp
Light	-40 hp
Mediumweight	-60 hp
Heavy	-80 hp
Superheavy	-100 hp

## DISABLED (0 HIT POINTS)

When a starship's current hit points drop to exactly 0, it's disabled. The ship can only take a single move or attack action each turn (not both); it cannot jump to cruising speed or take any other full-round actions. If it attacks, attempts to escape at cruising speed, or performs any other action that would strain its systems, it takes 1 point of damage after the completing the act. Unless the activity increases the starship's current hit points, it drops to -1 hit point and begins breaking apart (see Breaking Apart, below).

A disabled starship is considered helpless. It has a Defense of 5 + its size modifier.

Repairs that raise a starship above 0 hit points make it fully functional again, just as if it had never been reduced to 0 or lower.

## BREAKING APART (NEGATIVE HIT POINTS)

When a starship's current hit points drop below 0, the starship begins to break apart. At this point, the ship is immobile, helpless, and beyond repair. Any attempt to repair it automatically fails. As a ship breaks apart, its crew can evacuate (see Starship Evacuation, below).

A ship that is breaking apart can take no actions and loses 1 hit point every round. This continues until the ship is destroyed.

## DESTROYED

When a starship's current hit points reaches its destruction threshold (as shown above), it explodes. Any crewmembers still aboard the ship at this time take 20d6 points of damage (no save) and are jettisoned into the void of space.

## STARSHIP EVACUATION

Most ultralight starships are equipped with evacuation pods or fully enclosed, detachable cockpits that jettison the crew to safety in the event of a shipwide catastrophe. In fact, unless noted otherwise, every starship has sufficient evacuation pods or launches to accommodate its normal crew complement and passenger manifest.

A ship's crew and passengers can evacuate any time before the ship is destroyed (see above). Table: Evacuation Times shows the time required for crews to evacuate, based on the ship's type. While the crew is evacuating, the starship either flies on autopilot (if it has 1 hp or more remaining) or is stopped dead in space (if it has been disabled or is breaking apart).

Use the statistics for a launch (see below) to represent a typical evacuation pod.

**Table: Evacuation Times**

Ship Type	Untrained Crew Evacuation Time	Trained Crew Evacuation Time <sup>1</sup>
Ultralight	1d3 rounds	Move action
Light	1d6 rounds	Full-round action
Mediumweight	2d6 rounds	1d4 rounds
Heavy	3d6 rounds	2d4 rounds
Superheavy	4d6 rounds	3d4 rounds

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1 Includes expert and ace crews.

## STARSHIP CONDITION SUMMARY

A number of adverse conditions can affect the way a starship or its crew operates, as defined here. If more than one condition affects a starship, apply both if possible. If not possible, apply only the most severe condition.

**Blinded:** The starship's sensors are inoperable. All targets have the equivalent of total concealment (50% miss chance).

**Breaking Apart:** The starship is at negative hit points. It can take no actions, cannot be repaired, and loses 1 hit point each round until it is destroyed.

**Dazed:** The starship, its crew, and its passengers can take no actions, but they take no penalty to Defense. A dazed condition usually lasts 1 round.

**Destroyed:** The ship is destroyed and cannot be repaired. Crewmembers aboard the destroyed ship take 20d6 points of damage and are ejected into space.

**Entangled:** An entangled starship takes a –2 penalty on attack rolls in addition to a –2 penalty to Defense. If the ship is physically anchored to a larger object (such as an asteroid), the entangled ship can't move. Otherwise, it can move at half tactical speed, but can't surge forward.

**Flat-Footed:** A starship that has not yet acted during a combat is flat-footed. A flat-footed starship cannot apply its pilot's Dexterity bonus to its Defense.

**Grappled:** When grappled, a starship can't move. It can attack, attempt to break free from its opponent, or perform other actions. It can't apply the pilot's Dexterity bonus to its Defense.

**Helpless:** A starship that is reduced to negative hit points is helpless. A helpless starship has an effective Defense of 5 + its size modifier.

**Immobilized:** An immobilized starship is held immobile (but is not helpless), usually in a grapple. It takes a –4 penalty to its Defense and can't apply the pilot's Dexterity bonus to its Defense.

**Shaken:** All passengers and crewmembers (pilots and gunners included) take a –2 penalty on attack rolls, saving throws, and skill checks.

**Stunned:** All passengers and crewmembers lose their Dexterity bonus, drop what they are holding, and can take no attack or move actions. In addition, they take a –2 penalty to Defense. The starship's autopilot system kicks in until the pilot regains her senses.

## SPEED

Starships have two basic speeds: tactical speed and cruising speed.

### TACTICAL SPEED

Tactical speed only comes into play when two or more starships engage in battle or otherwise interact with each other. A ship's tactical speed is measured in 500-foot squares and tells how far a starship can move in a move action. A starship's tactical speed depends on the type of ship and the type of engines (see Starship Engines). Certain types of armor can reduce a starship's tactical speed (see Starship Armor).

A starship normally moves as a move action, leaving an attack action to attack. It can, however, use its attack action as a second move action (see Starship Actions, below). This could let the ship move again, for a total movement of up to double its normal tactical speed. Another option is to surge forward (a full-round action). This lets the ship move up to four times its normal speed, but it can only surge forward in a straight line, and doing so affects its Defense (see Surge Forward).

### CRUISING SPEED

Cruising speed determines how quickly a ship moves across vast distances, such as between planets or star systems. A ship's cruising speed depends on the type of ship and its engines (see Starship Engines).

A ship can enter or leave a battle at cruising speed, but once it enters battle, it automatically drops to tactical speed. Cruising speed does not come into play during starship battles or in any other situation where two or more starships interact.

## INITIATIVE

Every round, each starship gets to do something. The starships' initiative checks, from highest to lowest, determine the order in which they act.

## INITIATIVE CHECKS

At the start of a battle, each starship makes a single initiative check. An initiative check is a Dexterity check that uses the starship pilot's Dexterity modifier. (A ship without a pilot has an initiative check modifier of +0.) A pilot with the Improved Initiative feat gets a +4 bonus on the check.

The GM determines what order starships are acting in, counting down from highest initiative result to lowest, and each starship acts in turn. On all following rounds, the starships act in the same order (unless a starship takes an action that changes its initiative; see Special Initiative Actions). If two or more starships have the same initiative check result, the



starships that are tied go in order of total initiative modifier (including Dexterity modifier and Improved Initiative feat bonus, if applicable). If there is still a tie, roll a die.

**Flat-Footed Starships:** At the start of a battle, before a starship has had a chance to act (specifically, before its first turn in the initiative order), it is flat-footed. It can't apply the pilot's Dexterity bonus to Defense while flat-footed.

## JOINING A BATTLE

If starships enter a battle after it has begun, they roll initiative at that time and act whenever their turn comes up in the existing order.

## SURPRISE

At the start of combat, a starship is surprised if it was not aware of its enemies and they were aware of it. Likewise, a starship can surprise its enemies if it knows about them before they're aware of it.

### DETERMINING AWARENESS

The GM determines which starships are aware of which others at the start of any battle. The GM may call for Computer Use checks to operate shipboard sensors (see the expanded Computer Use skill description), Spot checks, or other checks to determine whether one ship detects another.

A starship makes only one roll or check against surprise, regardless of its crew complement.

### THE SURPRISE ROUND

If some but not all of the starships are aware of their enemies, a surprise round happens before regular rounds begin.

Starships that are aware of their enemies can act in the surprise round, so they roll for initiative. In initiative order (highest to lowest), starships that started the battle aware of their opponents each take either an attack action or move action during the surprise round (see Action Types, below). If no starship or all starships are surprised, a surprise round does not occur.

### UNAWARE STARSHIPS

Starships that are unaware at the start of battle do not get to act in the surprise round. Unaware combatants are flat-footed because they have not acted yet. A flat-footed starship loses its pilot's Dexterity bonus to Defense.

## STARSHIP ACTIONS

The fundamental actions of moving and attacking cover most of what a starship wants to do in a battle. They're described here. Other, more specialized options are touched on in Table: Starship Actions, and covered later in Special Initiative Actions.

A starship gets two move actions and one attack action each round. It can take two move actions followed by an attack action, an attack action followed by two move actions, or an attack action sandwiched between two move actions. A ship may choose to *not* take an attack action on its turn, but it gets only two move actions regardless. It can also forgo all of the above combinations and take a single full-round action. All of these options are discussed below, under Action Types.

A starship's choices of actions can be summarized as follows.

Attack action → move action → move action, or

Move action → attack action → move action, or

Move action → move action → attack action, or

Full-round action

## THE COMBAT ROUND

As with character-scale combat, each round of starship combat represents about 6 seconds in the game world.

Each round's activity begins with the starship with the highest initiative result and then proceeds, in order, from there.

Each round of a combat uses the same initiative order. When a starship's turn comes up in the initiative sequence, that ship performs its entire round's worth of actions. (For exceptions, see Attacks of Opportunity and Special Initiative Actions.)

## ACTION TYPES

As in character combat, starships may make attack actions, full-round actions, move actions, and free actions. In a normal round, a starship can perform an attack action and two move actions (in any order), two move actions, or a single full-round action. It can also perform as many free actions as the GM allows.

In some situations (such as in the surprise round), a starship may be limited to taking only a single attack or move action.

### ATTACK ACTION

An attack action allows a starship to make an attack or perform other similar actions.

### MOVE ACTION

A move action allows a starship to move its tactical speed or perform some other action that takes a similar amount of time.

If a starship moves no actual distance in a round, it can take one 500-foot shift before, during, or after the action. The ship cannot take a 500-foot shift if it used one or both of its move actions to move.

### FULL-ROUND ACTION

A full-round action consumes all of a starship's time during a round. The only movement it can take during a full-round action is a 500-foot shift before, during, or after the action. Some full-round actions do not allow you to take a 500-foot shift. A starship can also perform free actions (see below).

### FREE ACTION

Free actions consume a very small amount of time and effort, and over the span of the round, their impact is so minor that they are considered free. However, the GM puts reasonable limits on what a ship can really do for free.

**Table: Starship Actions**

<b>Attack Actions</b>	<b>Attack of Opportunity?<sup>2</sup></b>
Aid another	No
Attack (ranged)	No
Attack an object	No
Escape a grappling ship	No
Feint (see Bluff skill)	No
Grapple another ship <sup>1</sup>	Yes
Total defense	No
<b>Move Actions</b>	<b>Attack of Opportunity?<sup>2</sup></b>
Damage control	No
Move at tactical speed	No
Operate sensors	No
Ram <sup>3</sup>	Yes
Sending/jamming a transmission	No
Start/complete a full-round action	Varies
<b>Full-Round Actions</b>	<b>Attack of Opportunity?<sup>2</sup></b>
Jump to cruising speed	Yes
Surge forward	Yes
Withdraw	No
<b>Free Actions</b>	<b>Attack of Opportunity?<sup>2</sup></b>
Communicate via comm system	No
Turn	No
<b>Special Initiative</b>	<b>Actions Attack of Opportunity?<sup>2</sup></b>
Delay	No
Ready	No
<b>No Action</b>	<b>Attack of Opportunity?<sup>2</sup></b>
500-foot shift	No
Avoid hazard	No

<sup>1</sup> Technically, a grapple constitutes a single melee attack, not an action. A grapple can be made once in an attack action or as an attack of opportunity.

<sup>2</sup> Only starships armed with point-defense systems can make attacks of opportunity.

<sup>3</sup> Ramming is considered part of a move action.

### ATTACK ACTIONS

Most common attack actions are described below.

#### ATTACK (RANGED)

As a single attack action, a starship can fire one or more of its ranged weapons at any target or targets within range and within line of sight. A target is in line of sight if there are no solid obstructions between the attacking starship and the target. The maximum range for a beam weapon is 10 range increments. Weapons that fire projectiles have an unlimited range in space.

If firing several weapons, a starship does not need to specify the targets of all of its attacks ahead of time. It can see how the earlier attacks turn out before assigning the later ones.

If a starship fires a ranged weapon at a target that occupies a square adjacent to an ally, it takes a –4 penalty on its attack roll because the gunner must aim carefully to avoid hitting the ally.

**Attacks of Opportunity:** A starship can fire its ranged weapons without provoking attacks of opportunity from enemy ships.

#### ATTACK AN OBJECT

Attacking objects follows the same rules for starships as for characters. Table: Space Objects lists the Defense, hardness, and hit points of objects commonly encountered in space and on the cosmic battlefield. Colossal objects occupy four 500-foot squares (a 1,000-footby- 1,000-foot fighting space). All other objects occupy a single 500-foot square.



**Table: Space Objects**

Object	Defense	Hardness	Hit Points
Asteroid, Colossal	−3	8	36,000
Asteroid, Gargantuan	1	8	9,000
Asteroid, Huge	3	8	4,500
Asteroid, Large	4	8	1,125
Debris cloud, Colossal	−3	0	1,600
Debris cloud, Gargantuan	1	0	400
Iceball, Colossal	−3	0	7,200
Iceball, Gargantuan	1	0	1,800
Iceball, Huge	3	0	900
Iceball, Large	4	0	225
Mine (Medium-size)	5	10	50
Space hulk, Colossal	−3	10	3,600
Space hulk, Gargantuan	1	10	900
Space hulk, Huge	3	10	450

**GRAPPLE ANOTHER SHIP**

For rules on using grapplers and tractor beams to hold and immobilize starships, see Grappling Systems.

**ESCAPE A GRAPPLING SHIP**

Grappler arms and tractor beams allow starships to hold and immobilize one other. See Grappling Systems for rules on escaping grapplers and tractor beams.

**AID ANOTHER**

A starship can help an ally attack or defend by distracting or interfering with an enemy in weapon range. The aiding starship makes an attack roll against Defense 10. If the attack roll succeeds, the starship doesn't actually damage the enemy ship—but its ally gains either a +2 circumstance bonus on attack rolls against that opponent or a +2 circumstance bonus to Defense against that opponent (your choice) on its next turn.

**FEINT**

See the expanded Bluff skill description for details.

**TOTAL DEFENSE**

Instead of attacking, a ship can use its attack action to defend itself by performing complex evasive maneuvers. This is called a total defense action. A ship that uses the total defense action doesn't get to attack, but it gains a +4 dodge bonus to its Defense for 1 round. The ship's Defense improves at the start of this action, so it helps against any attacks of opportunity the ship is subject to during its move action.

**Fighting Defensively:** Instead of diverting all of its attention to defending itself, a starship can choose to fight defensively while taking a regular attack action. If it does so, it takes a −4 penalty on its attacks in a round to gain a +2 dodge bonus to Defense during the same round.

**MOVE ACTIONS**

Unless otherwise noted, move actions don't require a Pilot check to perform.

**MOVE AT TACTICAL SPEED**

A starship can move its tactical speed as a move action. If it takes this kind of move action during its turn, it cannot also take a 500-foot shift.

**Attacks of Opportunity:** Moving through a threatened square provokes an attack of opportunity if the enemy ship has a point defense system (see Starship Defense Systems).

**DAMAGE CONTROL**

A starship equipped with a damage control system can perform damage control as a move action (see Starship Defense Systems).

Damage control cannot be performed if the ship has been reduced to negative hit points.

**OPERATE SENSORS**

See the expanded Computer Use skill description and Starship Sensors for details.

**RAM**

Ramming is considered part of a move action. A pilot can use her starship to ram an object, including another starship. First, the pilot must enter the target's square or fighting space and declare her attempt to ram the target. If the target has point-defense systems, it can make an attack of opportunity against the ramming starship. Second, the pilot must make a Pilot check (DC = 5 + the target's Defense). If the Pilot check fails, the ship misses the target and may finish its move. If the check

succeeds, the starship collides with the intended target, dealing damage both to itself and the target (reduced by hardness, if applicable).

A pilot cannot ram the same ship or object more than once during a given round. However, a pilot that fails to ram a target may attempt to ram a different target if her starship has sufficient movement left to reach the new target.

Table: Collision Damage shows the amount of damage dealt to both colliding forces, based on the size of the smaller of the two colliding objects.

**Table: Collision Damage**

Size of Smaller Ship or Object	Collision Damage <sup>1</sup>
Colossal	12d6×10
Gargantuan	6d6×10
Huge	3d6×10
Large	1d6×10
Medium-size or smaller	—

<sup>1</sup> Damage is applied to the ramming starship and its target.

### SENDING/JAMMING A TRANSMISSION

See the expanded Computer Use skill description for details.

### START/COMPLETE FULL-ROUND ACTION

The “start/complete full-round action” move action lets a starship begin undertaking a full-round action (such as those listed on Table: Starship Actions) at the end of its turn, or complete a full-round action by using a move action at the beginning of its turn in the round following the round when it started the full-round action. If a starship starts a full-round action at the end of its turn, the next action it takes must be to complete the full-round action—it can’t take another type of action before finishing what it started.

### FULL-ROUND ACTIONS

A full-round action requires an entire round to complete. If it doesn’t involve moving any distance, a starship can combine it with a 500-foot shift.

### JUMP TO CRUISING SPEED

As a full-round action, a starship can leave the battlefield by jumping to cruising speed. Doing so effectively takes the ship out of the fight, although enemy ships can pursue the fleeing ship if they wish.

A starship cannot jump to cruising speed if it has 0 or fewer hit points.

**Attacks of Opportunity:** A starship that jumps to cruising speed provokes attacks of opportunity from threatening enemy ships armed with point-defense systems (see Starship Defense Systems).

### SURGE FORWARD

A starship can use its afterburners to surge forward as a full-round action. When a starship surges forward, it can move up to four times its tactical speed in a straight line. (It does not get a 500-foot shift.) It loses its pilot’s Dexterity bonus to Defense and any dodge bonuses to Defense since it can’t avoid attacks.

A starship can surge forward for as many rounds as the pilot likes.

**Attacks of Opportunity:** A starship that surges forward provokes attacks of opportunity from threatening enemy ships armed with point-defense systems (see Starship Defense Systems).

### WITHDRAW

Withdrawing from combat is a full-round action. When a starship withdraws, it can move up to twice its tactical speed. (It doesn’t also get a 500-foot shift.) The square it starts from is not considered threatened for purposes of withdrawing, and therefore enemies with point-defense systems do not get attacks of opportunity against it when it moves from that square. If, during the process of withdrawing, the starship moves through another threatened square (other than the one it started in) without stopping, enemies get attacks of opportunity as normal.

### FREE ACTIONS

A starship can perform multiple free actions during its turn, subject to the GM’s approval. In general, if one or more free actions take longer than 6 seconds to complete, they are not free actions. Free actions include communicating via a comm system and turning.

### COMMUNICATE VIA COMM SYSTEM

Starships (and their crews) can communicate and coordinate with each other as a free action. A GM may rule that a particularly long or complex message cannot be communicated as a free action.

### TURN

Starships—even immensely large ones—are highly maneuverable in space. As a free action, a ship can adjust its orientation on the battle grid by pivoting or turning. The direction a starship is facing has no bearing on combat, since its weapons can be trained to fire in any direction.

## COVER AND CONCEALMENT

Starships use the same rules as characters for cover and concealment in combat.

## SPECIAL INITIATIVE ACTIONS

Usually a starship acts as soon as it can in combat, but sometimes it may want to act later, at a better time, or in response to the actions of another ship. Starships can delay or ready actions in the same manner as characters.

## AVOIDING HAZARDS

A hazard is any unmanned obstacle of Large size or bigger that a starship might hit, either because the starship has entered the hazard's square or because the hazard has entered the starship's fighting space. Sample hazards include asteroids, clouds of space debris, and electromagnetic storms (which deal electricity damage). When a starship enters a square occupied by a hazard, or vice versa, the pilot of the starship must make a Pilot check. (Making this check does not count as an action.) The DC of the check depends on the size of the obstacle, as shown in Table: Avoid Hazard DCs. If the Pilot check succeeds, the starship avoids the hazard. If the check fails, a collision occurs (use Table: Collision Damage to determine collision damage to both the starship and the hazard). A new check must be made each round the starship and the hazard occupy the same square.

**Table: Avoid Hazard DCs**

Hazard Size	Pilot Check DC
Colossal	5
Gargantuan	20
Huge	15
Large	10

## MOVING THROUGH OCCUPIED SQUARES

A starship can pass through a square occupied by another starship or object.

**Ally or Nonopposing Starship:** You can safely move through a square occupied by an ally or nonopposing starship.

**Enemy Starship:** Moving through a square occupied by an enemy provokes an attack of opportunity if the enemy has a point-defense system (see Starship Defense Systems). You can move safely through a square occupied by an enemy that doesn't resist—such as one that is disabled—as if the enemy was nonopposing.

**Hazard:** Safely moving through a square occupied by a hazard—such as a cloud of space debris or an asteroid—requires a successful Pilot check (see Avoiding Hazards).

## Crossfire

If two allied starships are on opposite sides of an enemy and each within 1,000 feet (2 squares) of that opponent, they can catch the enemy ship in their crossfire. Because the enemy is forced to defend itself on two fronts, the allied starships gain a +2 bonus on attack rolls made against the ship caught in their crossfire. The enemy ship must be directly between the two allied ships, however.

## ATTACKS OF OPPORTUNITY

Attacks of opportunity work differently with starships than with characters.

A starship can only make an attack of opportunity if it is equipped with a point-defense system (see Starship Defense Systems). A starship can use its point-defense system to make an attack of opportunity against an enemy ship that enters or passes through its fighting space (any square it occupies on the battle grid) or any adjacent square.

## THREATENED SQUARES

A starship equipped with a point-defense system threatens the squares it occupies (its fighting space) and all adjacent 500-foot squares. It can therefore make attacks of opportunity against enemy ships that enter or pass through its fighting space or any adjacent square.

A starship without a point-defense system does not threaten ships that enter or pass through its fighting space or adjacent squares.

## PROVOKING AN ATTACK OF OPPORTUNITY

Two actions can provoke attacks of opportunity: moving out of a threatened square, and performing an action within a threatened square that distracts the pilot and forces her to do something other than evade incoming fire.

**Moving Out of a Threatened Square:** When a starship moves out of a threatened square, it generally provokes an attack of opportunity. There are two important exceptions, however. A starship doesn't provoke an attack of opportunity if it limits its movement to a single 500-foot shift or if it withdraws (see Withdraw).

Thus, if the square a starship occupies at the beginning of its turn is a threatened square, any movement it makes provokes an attack of opportunity (unless it withdraws or limits its move to a single 500-foot shift). If it doesn't start in a threatened square but moves into one, it must stop there, or else it provokes an attack of opportunity as it leaves that square.

**Performing an Action that Distracts the Pilot:** Some actions, when performed in a threatened square, provoke attacks of opportunity because they make the pilot divert her attention from the battle at hand. Firing a starship weapon in a threatened square does not provoke attacks of opportunity, but Table: Starship Actions notes actions that do.

## MAKING AN ATTACK OF OPPORTUNITY

An attack of opportunity is a single attack made with a ranged starship weapon. A starship can only make one attack of opportunity per round. It doesn't have to make an attack of opportunity if it doesn't want to.

An attack of opportunity is made using the starship's normal attack bonus—even if it's already attacked in this round.

## STARSHIP TYPES

A starship can be one of the following five types: ultralight, light, mediumweight, heavy, or superheavy. A starship's type determines how much space it occupies on the battle grid, as well as its game statistics.

To build a starship hull from scratch, a character must succeed at a Craft (structural) check (DC 30) after investing the requisite amount of assembly time, based on the ship's type: ultralight 600 hours, light 1,200 hours, mediumweight 2,400 hours, heavy 4,800 hours, superheavy 9,600 hours. 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 ship's base purchase DC.

## STARSHIP STATISTICS

This chapter includes ready-to-use statistics for various starship subtypes. These statistics represent baseline models only. A starship's statistics and performance can be improved by upgrading its weapons, armor, shields, defensive systems, and engines.

Each starship description includes the following statistics.

**Type:** The starship's type (ultralight, light, mediumweight, heavy, or superheavy) determines its fighting space on the battle grid.

**Subtype:** The starship's subtype describes the ship's primary function (for example, fighter or strike cruiser).

**Defense:** A starship's Defense determines how hard the ship is to hit. A starship's flat-footed Defense does not include the pilot's Dexterity modifier. A starship's autopilot Defense is used when the ship's autopilot system is engaged.

**Hardness:** A ship's hardness is determined by its armor. Hardness reduces the amount of damage the ship takes from weapon attacks. Better armor can improve a ship's hardness.

**Hit Dice:** A ship's Hit Dice (HD) determines how many hit points it has. Hit Dice are never rolled to determine a ship's hit points; the ship always gets maximum hit points for each Hit Die.

**Initiative Modifier:** A starship's initiative modifier is equal to the pilot's Dexterity modifier, with a +4 bonus if the pilot has the Improved Initiative feat.

**Pilot's Class Bonus:** The pilot's class bonus to Defense applies to the starship's normal and flat-footed Defense.

**Pilot's Dex Modifier:** The pilot's Dexterity modifier applies to the starship's Defense, except when the ship is flat-footed or grappled.

**Gunner's Attack Bonus:** The gunner's attack bonus applies to ranged weapon attacks.

**Size:** The ship's size affects its Defense, weapon attack rolls, and grapple modifier.

**Tactical Speed:** Tactical speed represents how far the starship can move as a move action using its thrusters. Speed is listed in feet and squares. Most starships have a base tactical speed of 3,000 feet. Better engines can improve a starship's tactical speed (see Starship Engines), while heavier armor can reduce a ship's tactical speed (see Starship Armor.).

**Length:** The ship's length in feet.

**Weight:** The ship's weight in pounds or tons.

**Targeting System Bonus:** The ship's computerized targeting system provides an equipment bonus on a gunner's attack rolls and a similar equipment bonus on attack rolls made by the ship's point-defense system (see Attack of Opportunity, below). This equipment bonus is already factored in to the ship's attack statistics.

**Crew:** The ship's standard crew complement is given here. A ship cannot operate with less than one-quarter of its standard crew complement. The crew's quality is given in parentheses, along with the crew's modifier to skill checks (including Pilot checks made to avoid hazards). The quality of the crew determines the pilot's class bonus to Defense, the pilot's Dexterity modifier, and the gunner's attack bonus (see Table: Crew Quality for details).

**Passenger Capacity:** The maximum number of passengers that can be safely lodged aboard the ship.

**Cargo Capacity:** The maximum tonnage of cargo that the ship can store in its holds.

**Grapple Modifier:** The ship's grapple check modifier is based on its size (Huge +8, Gargantuan +12, Colossal +16).

Grapple checks come into play whenever grapplers and tractor beams are used (see Grappling Systems).

**Base Purchase DC:** The base purchase DC includes the ship's hull and a trained crew, but not its engines, armor, shields, defensive systems, sensor systems, comm systems, weapons, or grappling systems (which must be purchased separately).

**Restriction:** The ship's restriction rating.

**Attack:** This line shows the ranged weapon attacks a starship typically makes when it uses an attack action.

**Attack of Opportunity:** If the ship has a point-defense system installed, it threatens ships passing through its fighting space or adjacent squares. Use the line to resolve attacks of opportunity made by the ship.

**Standard Design Specs:** The ship's engines, armor, defensive systems, sensors, communications, weapons, and grappling systems are listed here.

## IMPROVING A STARSHIP'S STATISTICS

The starship statistics presented below use standard design specs appropriate for the lowest Progress Level at which these ships can be played (PL 6 or PL 7 for most ships). Improving a starship's statistics requires upgrades to its crew, armor, defensive systems, sensor systems, and/or weapons, as discussed throughout this chapter.

## ULTRALIGHT STARSHIP SUBTYPES

Ultralight ships cover most small spacecraft, including fighters, cutters, launches, and couriers.

An ultralight starship can be up to 250 feet long. It occupies a 250-foot-by-250-foot fighting space, and up to four ultralight starships can occupy a single 500-foot square. Due to their relatively small size, ultralight starships can form into wings (see Ultralight Starship Wings).

In addition, all ultralight starships share the following design specs.

**Engines:** All ultralight starships have thrusters. In addition, ships of PL 6 or higher have one other type of engine (see Starship Engines).

**Armor:** An ultralight ship has one type of armor (see Starship Armor).

**Defensive Systems:** An ultralight starship has a maximum of one defensive system per 3 Hit Dice (see Starship Defense Systems).

**Sensors:** An ultralight starship has a maximum of two sensor systems (see Starship Sensors).

**Communications:** An ultralight starship has a maximum of two external communication systems (see Starship Comm Systems).

**Weapons:** An ultralight starship has one beam, projectile, or missile weapon per 3 Hit Dice (see Starship Weapons).

These weapons are often fire-linked. An ultralight ship cannot be armed with mines.

**Grappling Systems:** An ultralight starship may have up to two grappling systems (see Grappling Systems). Each grappling system takes away one of the ship's weapon slots (see above).

## ULTRALIGHT SHIP DESCRIPTIONS

Specific subtypes of ultralight starships are given here.

### ORBITAL SHUTTLE (PL 5)

An orbital shuttle can haul people and light equipment into orbit and return safely to the planet below, but it is not suitable for long-range space travel to other planets or star systems.

<b>Type:</b> Ultralight	<b>Size:</b> Gargantuan (–4 size)
<b>Subtype:</b> Orbital shuttle	<b>Tactical Speed:</b> 2,500 ft. (5 sq.)
<b>Defense:</b> 11	<b>Length:</b> 60 feet
<b>Flat-footed Defense:</b> 9	<b>Weight:</b> 220,000 lb.
<b>Autopilot Defense:</b> 8	<b>Targeting System Bonus:</b> —
<b>Hardness:</b> 20	<b>Crew:</b> 4 (trained +4)
<b>Hit Dice:</b> 6d20 (120 hp)	<b>Passenger Capacity:</b> 12
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 22,000 lb.
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +12
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 52
<b>Gunner's Attack Bonus:</b> —	<b>Restriction:</b> Restricted (+2)

**Attack:** None

**Attack of Opportunity:** None

**Standard PL 5 Design Specs:**

**Engines:** Thrusters

**Armor:** Alloy plating  
**Defense Systems:** Autopilot system, damage control system (1d10)  
**Sensors:** Class I sensor array  
**Communications:** Radio transceiver  
**Weapons:** None  
**Grappling Systems:** Grapplers

#### COURIER (PL 6)

A courier is capable of extended operation away from its base (frequently a larger ship). Many low-end star yachts fall into the courier category.

<b>Type:</b> Ultralight	<b>Size:</b> Gargantuan (–4 size)
<b>Subtype:</b> Courier	<b>Tactical Speed:</b> 3,000 ft. (6 sq.)
<b>Defense:</b> 11	<b>Length:</b> 45 feet
<b>Flat-footed Defense:</b> 9	<b>Weight:</b> 90,000 lb.
<b>Autopilot Defense:</b> 8	<b>Targeting System Bonus:</b> +2
<b>Hardness:</b> 20	<b>Crew:</b> 4 (trained +4)
<b>Hit Dice:</b> 8d20 (160 hp)	<b>Passenger Capacity:</b> 12
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 9,000 lb.
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +12
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 48
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Licensed (+1)

**Attack:** Laser +0 ranged (6d8)  
**Attack of Opportunity:** None

#### Standard PL 6 Design Specs:

**Engines:** Ion engine, thrusters  
**Armor:** Polymeric  
**Defense Systems:** Autopilot system, damage control system (1d10)  
**Sensors:** Class II sensor array, targeting system  
**Communications:** Laser transceiver, radio transceiver  
**Weapons:** 1 laser (range incr. 3,000 ft.)  
**Grappling Systems:** Grapplers

#### ESCORT (PL 6)

Escorts are a long-range patrol craft employed for various duties, including the protection of merchant ships and remote bases. Gunships or missile boats could qualify as escorts.

<b>Type:</b> Ultralight	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Escort	<b>Tactical Speed:</b> 3,000 ft. (6 sq.)
<b>Defense:</b> 7	<b>Length:</b> 180 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 900 tons
<b>Autopilot Defense:</b> 5	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 8 (trained +4)
<b>Hit Dice:</b> 20d20 (400 hp)	<b>Passenger Capacity:</b> 24
<b>Initiative Modifier:</b> +4	<b>Cargo Capacity:</b> 30 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 52
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** 2 fire-linked heavy neutron guns –3 ranged (15d8) and 2 fire-linked rail cannons –8 ranged (9d12) and CHE missile –8 ranged (6d12/19–20)

**Attack of Opportunity:** Point-defense system +3 ranged (1d12×10)

#### Standard PL 6 Design Specs:

**Engines:** Ion engine, thrusters  
**Armor:** Vanadium

**Defense Systems:** Damage control system (1d10), magnetic field, point-defense system, radiation shielding, sensor jammer  
**Sensors:** Class III sensor array, targeting system  
**Communications:** Laser transceiver, radio transceiver  
**Weapons:** 2 fire-linked heavy neutron guns (range incr. 6,000 ft.), 2 fire-linked rail cannons (range incr. 3,000 ft.), 1 CHE missile launcher (8 missiles)  
**Grappling Systems:** Grapplers

#### FAST FREIGHTER (PL 6)

Fast freighters are commercial starships generally employed in frequent runs, such as delivering supplies to small outposts and bases, or occasional runs of high-bulk cargo, such as heavy machinery or vehicles. Fast freighters often carry some minor defensive armament.

<b>Type:</b> Ultralight	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Fast freighter	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 7	<b>Length:</b> 110 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 450 tons
<b>Autopilot Defense:</b> 5	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 20	<b>Crew:</b> 4 (trained +4)
<b>Hit Dice:</b> 16d20 (320 hp)	<b>Passenger Capacity:</b> 4
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 300 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 52
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** 2 fire-linked heavy lasers –3 ranged (12d8) and 2 fire-linked rail cannons –8 ranged (9d12)  
**Attack of Opportunity:** None

#### Standard PL 6 Design Specs:

**Engines:** Ion engine, thrusters  
**Armor:** Polymeric  
**Defense Systems:** Autopilot system, damage control system (1d10), magnetic field, radiation shielding, sensor jammer  
**Sensors:** Class II sensor array, targeting system  
**Communications:** Laser transceiver, radio transceiver  
**Weapons:** 2 fire-linked heavy lasers (range incr. 4,000 ft.), 2 fire-linked rail cannons (range incr. 3,000 ft.)  
**Grappling Systems:** Grapplers

#### FIGHTER (PL 6)

Designed for action against other small craft, fighters lack the punch to be effective against large targets unless they've been modified to carry warheads.

<b>Type:</b> Ultralight	<b>Size:</b> Gargantuan (–4 size)
<b>Subtype:</b> Fighter	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 19	<b>Length:</b> 36 feet
<b>Flat-footed Defense:</b> 13	<b>Weight:</b> 39,000 lb.
<b>Autopilot Defense:</b> 6	<b>Targeting System Bonus:</b> +2
<b>Hardness:</b> 20	<b>Crew:</b> 1 (ace +12)
<b>Hit Dice:</b> 8d20 (160 hp)	<b>Passenger Capacity:</b> 1
<b>Initiative Modifier:</b> +8	<b>Cargo Capacity:</b> 1,700 lb.
<b>Pilot's Class Bonus:</b> +7	<b>Grapple Modifier:</b> +8
<b>Pilot's Dex Modifier:</b> +6	<b>Base Purchase DC:</b> 48
<b>Gunner's Attack Bonus:</b> +8/+3	<b>Restriction:</b> Military (+3)

**Attack:** 2 fire-linked fusion beams +6/+1 ranged (15d8)  
**Attack of Opportunity:** None

#### Standard PL 6 Design Specs:



**Engines:** Ion engine, thrusters  
**Armor:** Polymeric  
**Defense Systems:** Damage control system (1d10), sensor jammer  
**Sensors:** Class III sensor array, targeting system  
**Communications:** Laser transceiver, radio transceiver  
**Weapons:** 2 fire-linked fusion beams (range incr. 3,000 ft.)  
**Grappling Systems:** None

#### LAUNCH (PL 6)

A launch is a shuttle designed simply to move small amounts of people from one point to another. Launches are rarely armed or armored. Evacuation pods and lunar landers fit into this category.

<b>Type:</b> Ultralight	<b>Size:</b> Huge (–2 size)
<b>Subtype:</b> Launch	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 13	<b>Length:</b> 24 feet
<b>Flat-footed Defense:</b> 11	<b>Weight:</b> 24,000 lb.
<b>Autopilot Defense:</b> 9	<b>Targeting System Bonus:</b> +1
<b>Hardness:</b> 20	<b>Crew:</b> 1 (trained +4)
<b>Hit Dice:</b> 4d20 (80 hp)	<b>Passenger Capacity:</b> 4
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 2,400 lb.
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +8
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 40
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Licensed (+1)

**Attack:** Laser +1 ranged (6d8)  
**Attack of Opportunity:** None

#### Standard PL 6 Design Specs:

**Engines:** Ion engine, thrusters  
**Armor:** Polymeric  
**Defense Systems:** Autopilot system  
**Sensors:** Class II sensor array, targeting system  
**Communications:** Laser transceiver, radio transceiver  
**Weapons:** 1 laser  
**Grappling Systems:** None

#### SCOUT (PL 6)

Scouts are designed to cross great distances and locate enemies quickly without engaging in serious combat.

<b>Type:</b> Ultralight	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Scout	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 7	<b>Length:</b> 150 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 600 tons
<b>Autopilot Defense:</b> 5	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 8 (trained +4)
<b>Hit Dice:</b> 15d20 (300 hp)	<b>Passenger Capacity:</b> 8
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 30 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 52
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Military (+3)

**Attack:** 2 fire-linked heavy neutron guns –3 ranged (15d8) and 2 CHE missiles –8 ranged (6d12/19–20)  
**Attack of Opportunity:** None

#### Standard PL 6 Design Specs:

**Engines:** Ion engine, thrusters  
**Armor:** Vanadium

**Defense Systems:** Autopilot system, damage control system (1d10), radiation shielding, self-destruct system, sensor jammer  
**Sensors:** Class II sensor array, targeting system  
**Communications:** Laser transceiver, radio transceiver  
**Weapons:** 2 fire-linked heavy neutron guns (range incr. 6,000 ft.), 2 CHE missile launchers (8 missiles each)  
**Grappling Systems:** Grapplers

### ASSAULT FIGHTER (PL 7)

The assault fighter is similar to the PL 6 fighter, but with superior engines, armaments, and defenses at the cost of less cargo capacity.

<b>Type:</b> Ultralight	<b>Size:</b> Gargantuan (–4 size)
<b>Subtype:</b> Assault fighter	<b>Tactical Speed:</b> 4,000 ft. (8 sq.)
<b>Defense:</b> 19	<b>Length:</b> 32 feet
<b>Flat-footed Defense:</b> 13	<b>Weight:</b> 36,000 lb.
<b>Autopilot Defense:</b> 6	<b>Targeting System Bonus:</b> +4
<b>Hardness:</b> 20 (ballistic) or 40 (other damage forms)	<b>Crew:</b> 1 (ace +12)
<b>Hit Dice:</b> 9d20 (180 hp)	<b>Passenger Capacity:</b> 1
<b>Initiative Modifier:</b> +8	<b>Cargo Capacity:</b> 1,200 lb.
<b>Pilot's Class Bonus:</b> +7	<b>Grapple Modifier:</b> +8
<b>Pilot's Dex Modifier:</b> +6	<b>Base Purchase DC:</b> 48
<b>Gunner's Attack Bonus:</b> +8/+3	<b>Restriction:</b> Military (+3)

**Attack:** 2 fire-linked particle beams +8 ranged (18d8) and plasma missile +3 ranged (18d8/19–20); or 2 fire-linked particle beams +8/+3 ranged (18d8)

**Attack of Opportunity:** None

### Standard PL 7 Design Specs:

**Engines:** Induction engine, thrusters

**Armor:** Deflective

**Defense Systems:** Autopilot system, improved damage control (2d10), stealth screen

**Sensors:** Class V sensor array, improved targeting system

**Communications:** Mass transceiver, radio transceiver

**Weapons:** 2 fire-linked particle beams (range incr. 4,000 ft.), 1 plasma missile launcher (8 missiles; range incr. 5,000 ft.)

**Grappling Systems:** None

### Ultralight Starship Wings

Two to four ultralight starships can unite to form a wing. All ships forming the wing must have the same subtype (fighter, for instance) and identical design specs (engines, weapons, and so on). In addition, all starships in the wing formation must be occupying the same 500-foot square to be counted as part of the wing.

In starship combat, a wing is treated as a single vessel, much like a battery of weapons is treated as a single weapon. (See Grapplers and Tractor Beams, below, for the one exception to this rule.) One of the ships forming the wing is declared the wing's commander. The wing commander decides all of the wing's actions and resolves all of the wing's attacks; the other ships forming the wing provide support and follow the commander's lead.

If the wing commander's ship is destroyed or grappled, another ship in the wing may assume the role of wing commander on the wing's next turn.

**Movement:** All ships in the wing move together, as one ship. The wing commander determines the wing's movement. The wing's tactical speed equals the tactical speed of the slowest ship in the wing.

**Attacks:** Only the wing commander makes attacks. However, every other ship in the wing can aid the wing commander's attack rolls or Pilot checks using the aid another action; this is the only type of attack action wingmen can take.

**Defense:** Each wingman provides a +1 cover bonus to the wing commander's Defense. The wing commander, preoccupied with moving and attacking, does not modify the Defense of any ships in the wing.

**Attacks of Opportunity:** A wing provokes attacks of opportunity from enemy ships as though it was a single ship. However, damage from a point-defense system is distributed among the ships in the wing as the wing commander sees fit. For example, if a point-defense system deals 180 points of damage to the wing, the wing commander could split the damage evenly among three ships in the wing (each ship would take 60 points of damage), or choose to have one ship take all the damage. A ship's

armor reduces the amount of damage it takes normally; conceivably, the damage could be split into small enough fractions that the wing, as a whole, suffers very little damage.

**Grapplers and Tractor Beams:** Ships in a wing may be targeted separately by grapplers and tractor beams. (See Grappling Systems for more information on these grappling devices.) A grappled ship immediately drops out of formation and is no longer considered part of the wing.

## LIGHT STARSHIP SUBTYPES

Light starships include corvettes, frigates, destroyers, haulers, and industrial ships, such as garbage barges and fuel carriers. Light starships are somewhat better armed and armored than ultralight starships, but sacrifice a little in the way of speed. A light starship measures 251–500 feet long. It has a 500-footby- 500-foot fighting space and occupies a single 500-foot square. In addition, all light starships share the following design specs.

**Engines:** All light starships have thrusters plus one other type of engine (see Starship Engines).

**Armor:** A light starship has one type of armor (see Starship Armor).

**Defensive Systems:** A light starship has a maximum of one defensive system per 10 Hit Dice (see Starship Defense Systems).

**Sensors:** A light starship has a maximum of two sensor systems (see Starship Sensors).

**Communications:** A light starship has up to two external communication systems (see Starship Comm Systems).

**Weapons:** A light starship has one beam, projectile, or missile weapon per 10 Hit Dice (see Starship Weapons). These weapons are often fire-linked. A light starship cannot be armed with mines.

**Grappling Systems:** A light starship may have up to two grappling systems (see Grappling Systems). Each grappling system takes away one of the ship's weapon slots (see above).

## LIGHT SHIP DESCRIPTIONS

Specific subtypes of light starships are given here.

### CORVETTE (PL 6)

Essentially a larger version of the escort ship, the corvette serves as both a gunship and fleet escort. Of the military vessels designed to operate independently in wartime, corvettes are the smallest.

<b>Type:</b> Light	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Corvette	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 7	<b>Length:</b> 320 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 3,200 tons
<b>Autopilot Defense:</b> 5	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 16 (trained +4)
<b>Hit Dice:</b> 40d20 (800 hp)	<b>Passenger Capacity:</b> 32
<b>Initiative Modifier:</b> +4	<b>Cargo Capacity:</b> 150 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 56
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Military (+3)

**Attack:** 2 fire-linked fusion beams –3 ranged (15d8) and 2 fire-linked CHE missiles –8 ranged (9d12/19–20); or 2 fire-linked CHE missiles –3 ranged (9d12/19–20) and 2 fire-linked fusion beams –8 ranged (15d8)

**Attack of Opportunity:** Point-defense system +3 ranged (2d12×10)

### Standard PL 6 Design Specs:

**Engines:** Ion engine, thrusters

**Armor:** Vanadium

**Defense Systems:** Autopilot system, improved damage control (3d10), magnetic field, point-defense system, radiation shielding

**Sensors:** Class III sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 2 fire-linked fusion beams (range incr. 3,000 ft.), 2 firelinked CHE missile launchers (8 missiles each)

**Grappling Systems:** Grapplers

### DESTROYER (PL 6)

Destroyers take their name from the torpedo-boat destroyers of the late 19th century. They are integral to the defense of a task force, screening it against small craft and attack ships. Destroyers are often armed with one or two bombs or missiles

useful against much larger ships. A destroyer is usually about 450 to 600 feet long and masses about 8,000 tons. It carries a crew of 150 to 200.

<b>Type:</b> Light	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Destroyer	<b>Tactical Speed:</b> 3,000 ft. (6 sq.)
<b>Defense:</b> 11	<b>Length:</b> 450 feet
<b>Flat-footed Defense:</b> 7	<b>Weight:</b> 8,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 80 (expert +8)
<b>Hit Dice:</b> 80d20 (1,600 hp)	<b>Passenger Capacity:</b> 48
<b>Initiative Modifier:</b> +4	<b>Cargo Capacity:</b> 400 tons
<b>Pilot's Class Bonus:</b> +5	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +4	<b>Base Purchase DC:</b> 60
<b>Gunner's Attack Bonus:</b> +4	<b>Restriction:</b> Military (+3)

**Attack:** 4 fire-linked heavy neutron guns –1 ranged (20d8) and 2 fire-linked nuclear missiles –6 melee (24d8/19–20) and needle driver –6 melee (8d12); or 4 fire-linked nuclear missiles –1 ranged (24d8/19–20) and 2 fire-linked heavy neutron guns –6 melee (20d8) and needle driver –6 melee (8d12)

**Attack of Opportunity:** Point-defense system +3 ranged (2d12×10)

#### Standard PL 6 Design Specs:

**Engines:** Fusion torch, thrusters

**Armor:** Vanadium

**Defense Systems:** 1 chaff launcher (16 chaff bundles), 1 decoy drone launcher (4 drones), improved autopilot system, improved damage control (3d10), magnetic field, point-defense system, radiation shielding, self-destruct system

**Sensors:** Class II sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 4 fire-linked heavy neutron guns (range incr. 6,000 ft.), 2 fire-linked nuclear missile launchers (8 missiles each), 1 needle driver (range incr. 4,000 ft.)

**Grappling Systems:** Grapplers

#### FRIGATE (PL 6)

A military vessel used for scouting and escort duties, the frigate is primarily intended to act as a screen for larger vessels against attacks by small craft.

<b>Type:</b> Light	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Frigate	<b>Tactical Speed:</b> 3,000 ft. (6 sq.)
<b>Defense:</b> 11	<b>Length:</b> 360 feet
<b>Flat-footed Defense:</b> 7	<b>Weight:</b> 4,800 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 60 (expert +8)
<b>Hit Dice:</b> 60d20 (1,200 hp)	<b>Passenger Capacity:</b> 32
<b>Initiative Modifier:</b> +4	<b>Cargo Capacity:</b> 200 tons
<b>Pilot's Class Bonus:</b> +5	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +4	<b>Base Purchase DC:</b> 60
<b>Gunner's Attack Bonus:</b> +4	<b>Restriction:</b> Military (+3)

**Attack:** 2 fire-linked heavy neutron guns –1 ranged (15d8) and 2 nuclear missiles –6 ranged (16d8/19–20) and needle driver –6 ranged (8d12); or 2 fire-linked nuclear missiles –1 ranged (24d8/19–20) and 2 unlinked heavy neutron guns –6 ranged (10d8) and needle driver –6 ranged (8d12)

**Attack of Opportunity:** Point-defense system +3 ranged (2d12×10)

#### Standard PL 6 Design Specs:

**Engines:** Fusion torch, thrusters

**Armor:** Vanadium

**Defense Systems:** Improved autopilot, improved damage control (3d10), magnetic field, point-defense system, radiation shielding, self-destruct system

**Sensors:** Class II sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 2 fire-linked heavy neutron guns (range incr. 6,000 ft.), 2 fire-linked nuclear missile launchers (8 missiles each), 1 needle driver (range incr. 4,000 ft.)

**Grappling Systems:** Grapplers

### HAULER (PL 6)

The hauler is a space-going tug that drags heavy, nonpowered loads and modular cargo containers, though they have precious little cargo space of their own. Haulers are fitted with big power plants and huge engines, at the expense of crew quarters and armaments.

<b>Type:</b> Light	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Hauler	<b>Tactical Speed:</b> 2,500 ft. (5 sq.)
<b>Defense:</b> 7	<b>Length:</b> 450 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 6,000 tons
<b>Autopilot Defense:</b> 5	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 20	<b>Crew:</b> 8 (trained +4)
<b>Hit Dice:</b> 36d20 (720 hp)	<b>Passenger Capacity:</b> 8
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 3,300 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 56
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** 2 fire-linked heavy lasers –3 ranged (12d8)

**Attack of Opportunity:** Point-defense system +3 ranged (2d12×10)

### Standard PL 6 Design Specs:

**Engines:** Fusion torch, thrusters

**Armor:** Alloy plating

**Defense Systems:** Autopilot system, damage control system (2d10), point-defense system

**Sensors:** Class II sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 2 fire-linked heavy lasers (range incr. 4,000 ft.)

**Grappling Systems:** Grapplers

### MEDIUMWEIGHT STARSHIP SUBTYPES

Mediumweight starships encompass cruisers, clippers, and most transports. They balance firepower and defense with speed and maneuverability.

A mediumweight starship measures 501–1,000 feet long. It occupies a 1,000-foot-by-1,000-foot fighting space (4 500-foot squares). In addition, all mediumweight starships share the following design specs.

**Engines:** All mediumweight starships have thrusters plus one other type of engine (see Starship Engines).

**Armor:** A mediumweight starship has one type of armor (see Starship Armor).

**Defensive Systems:** A mediumweight starship has a maximum of one defensive system per 25 Hit Dice (see Starship Defense Systems).

**Sensors:** A mediumweight starship has a maximum of three sensor systems (see Starship Sensors).

**Communications:** A mediumweight starship has up to two external communication systems (see Starship Comm Systems).

**Weapons:** A mediumweight starship has one beam, projectile, or missile weapon per 25 Hit Dice (see Starship Weapons). These weapons are often fire-linked or arrayed in batteries. A minelayer is considered a single weapon. Although it weighs no more than a few thousand pounds, each mine consumes 100 tons of a ship's cargo capacity (most of it taken up by the launch system and radiation shielding).

**Grappling Systems:** A mediumweight starship may have up to two grappling systems (see Grappling Systems). Each grappling system takes away one of the ship's weapon slots (see above).

### MEDIUMWEIGHT SHIP DESCRIPTIONS

Specific subtypes of mediumweight starships are given here.

### BULK FREIGHTER (PL 6)

Bulk freighters usually carry cargo in bulk containers, and carry out regular runs between densely populated systems.

<b>Type:</b> Mediumweight	<b>Size:</b> Colossal (–8 size)
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<b>Subtype:</b> Bulk freighter	<b>Tactical Speed:</b> 2,500 ft. (5 sq.)
<b>Defense:</b> 7	<b>Length:</b> 800 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 32,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 20	<b>Crew:</b> 8 (trained +4)
<b>Hit Dice:</b> 125d20 (2,500 hp)	<b>Passenger Capacity:</b> 8
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 20,000 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 60
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** 4 fire-linked heavy lasers –3 ranged (16d8)

**Attack of Opportunity:** Point-defense system +3 ranged (3d12×10)

#### Standard PL 6 Design Specs:

**Engines:** Fusion torch, thrusters

**Armor:** Alloy plating

**Defense Systems:** Improved autopilot system, improved damage control (4d10), point-defense system, radiation shielding, sensor jammer

**Sensors:** Class II sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 4 fire-linked heavy lasers (range incr. 4,000 ft.)

**Grappling Systems:** Grapplers

#### CLIPPER (PL 6)

This small liner or personnel transport is intended for passenger use, as opposed to heavy cargo. Clippers are frequently fitted with top-of-the-line engines for the best possible speed.

<b>Type:</b> Mediumweight	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Clipper	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 7	<b>Length:</b> 850 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 27,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 32 (trained +4)
<b>Hit Dice:</b> 150d20 (3,000 hp)	<b>Passenger Capacity:</b> 80
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 10,000 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 60
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** Battery of 5 lasers +1 ranged (6d8/19–20)

**Attack of Opportunity:** Point-defense system +3 ranged (3d12×10)

#### Standard PL 6 Design Specs:

**Engines:** Ion engine, thrusters

**Armor:** Vanadium

**Defense Systems:** Damage control (3d10), 1 decoy drone launcher (2 drones), improved autopilot system, magnetic field, point-defense system, radiation shielding

**Sensors:** Class II sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 1 battery of 5 lasers (range incr. 3,000 ft.)

**Grappling Systems:** Grapplers

#### CRUISER (PL 6)

The cruiser is a warship that serves several roles. It may be part of a task force, escorting capital ships or laying mines. It may operate independently as a scout and raider. Conversely, it may serve in diplomatic and scientific tasks. Light cruisers



frequently have outstanding endurance and can operate with little or no resupply for months on end. A cruiser hull could serve equally well as an escort carrier or assault transport.

<b>Type:</b> Mediumweight	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Cruiser	<b>Tactical Speed:</b> 3,000 ft. (6 sq.)
<b>Defense:</b> 7	<b>Length:</b> 720 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 28,800 tons
<b>Autopilot Defense:</b> 5	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 120 (trained +4)
<b>Hit Dice:</b> 200d20 (4,000 hp)	<b>Passenger Capacity:</b> 80
<b>Initiative Modifier:</b> +6	<b>Cargo Capacity:</b> 7,200 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 64
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Military (+3)

**Attack:** Battery of 3 fusion beams –1 ranged (10d8/19–20) and battery of 3 CHE missiles –6 ranged (6d12/18–20); or

Battery of 3 CHE missiles –1 ranged (6d12/18–20) and battery of 4 fusion beams –6 ranged (10d8/19–20)

**Attack of Opportunity:** Point-defense system +3 ranged (3d12×10)

#### Standard PL 6 Design Specs:

**Engines:** Fusion torch, thrusters

**Armor:** Vanadium

**Defense Systems:** Autopilot system, 1 chaff launcher (8 chaff bundles), 1 decoy drone launcher (8 drones), improved damage control (4d10), magnetic field, point-defense system, radiation shielding, self-destruct system

**Sensors:** Class III sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 1 battery of 4 fusion beams (range incr. 3,000 ft.), 1 battery of 3 CHE missile launchers (24 missiles each), 1 minelayer (36 fusion mines with magnetic fields and stealth screens; 5d10×10 damage)

**Grappling Systems:** Grapplers

#### STRIKE CRUISER (PL 7)

These armored cruisers often serve as the centerpiece of raiding or patrolling task forces, especially if heavier warships are unavailable. Many strike cruisers are configured for task force command functions; the command cruiser is a common variant of this hull type. A strike cruiser hull could easily serve as a light carrier or assault carrier.

<b>Type:</b> Mediumweight	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Strike cruiser	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 11	<b>Length:</b> 950 feet
<b>Flat-footed Defense:</b> 7	<b>Weight:</b> 38,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +5
<b>Hardness:</b> 40	<b>Crew:</b> 160 (expert +8)
<b>Hit Dice:</b> 250d20 (5,000 hp)	<b>Passenger Capacity:</b> 40
<b>Initiative Modifier:</b> +8	<b>Cargo Capacity:</b> 1,200 tons
<b>Pilot's Class Bonus:</b> +5	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +4	<b>Base Purchase DC:</b> 68
<b>Gunner's Attack Bonus:</b> +4	<b>Restriction:</b> Military (+3)

**Attack:** Battery of 4 antimatter guns +4 ranged (10d8/19–20) and battery of 3 plasma missiles –2 ranged (18d8/18–20); or

Battery of 3 plasma missiles +3 ranged (18d8/18–20) and battery of 4 antimatter guns –1 ranged (10d8/19–20)

**Attack of Opportunity:** Point-defense system +5 ranged (3d12×10)

#### Standard PL 7 Design Specs:

**Engines:** Particle impulse engine, thrusters

**Armor:** Neutronite

**Defense Systems:** 1 chaff launcher (16 chaff bundles), improved autopilot system, improved damage control (4d10), light fortification, magnetic field, particle field, point-defense system, radiation shielding, repair drones, self-destruct system

**Sensors:** Class V sensor array, improved targeting system

**Communications:** Drivesat comm array, mass transceiver



**Weapons:** 1 battery of 4 antimatter guns (range incr. 5,000 ft.), 1 battery of 3 plasma missile launchers (16 missiles each), 1 minelayer (8 gravitic mines with displacers, magnetic fields, and particle fields; 10d10×10 damage)  
**Grappling Systems:** Grapplers, tractor beam emitter

## HEAVY STARSHIP SUBTYPES

Heavy starships are the workhorses of space travel: battle cruisers, battleships, fleet carriers, tankers, liners, and heavy transports. They move relatively quickly—thanks to massive engines—but maneuver very slowly. Their real strength lies in their armor and armaments; even civilian heavy starships are built to take a pounding.

A heavy starship measures 1,001–1,500 feet long. It has a 1,500-foot-by-1,500-foot fighting space (9 500-foot squares). In addition, all heavy starships share the following design specs.

**Engines:** All heavy starships have thrusters plus one other type of engine (see Starship Engines).

**Armor:** A heavy starship has one type of armor (see Starship Armor).

**Defensive Systems:** A heavy starship has a maximum of one defensive system per 50 Hit Dice (see Starship Defense Systems).

**Sensors:** A heavy starship has a maximum of three sensor systems (see Starship Sensors).

**Communications:** A heavy starship has two external communication systems (see Starship Comm Systems).

**Weapons:** A heavy starship has one beam, projectile, or missile weapon per 50 Hit Dice (see Starship Weapons). These weapons are often arrayed in batteries. A minelayer is considered a single weapon. Although it weighs no more than a few thousand pounds, each mine consumes 100 tons of a ship's cargo capacity (most of it taken up by the launch system and radiation shielding).

**Grappling Systems:** A heavy starship may have up to two grappling systems (see Grappling Systems). Each grappling system takes away one of the ship's weapon slots (see above).

## HEAVY SHIP DESCRIPTIONS

Specific subtypes of heavy starships are given here.

### BATTLESHIP (PL 6)

The mainstay of many spacefaring navies, the battleship is heavily armed and armored, although not very maneuverable. Battleships serve as the backbone of any battle fleet.

<b>Type:</b> Heavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Battleship	<b>Tactical Speed:</b> 3,000 ft. (6 sq.)
<b>Defense:</b> 11	<b>Length:</b> 1,250 feet
<b>Flat-footed Defense:</b> 7	<b>Weight:</b> 125,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 400 (expert +8)
<b>Hit Dice:</b> 400d20 (8,000 hp)	<b>Passenger Capacity:</b> 200
<b>Initiative Modifier:</b> +4	<b>Cargo Capacity:</b> 30,000 tons
<b>Pilot's Class Bonus:</b> +5	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +4	<b>Base Purchase DC:</b> 72
<b>Gunner's Attack Bonus:</b> +4	<b>Restriction:</b> Military (+3)

**Attack:** Battery of 3 heavy neutron guns +1 ranged (10d8/19–20) and 2 fire-linked nuclear missiles –6 ranged (24d8/19–20) and needle driver –6 ranged (8d12); or 2 fire-linked nuclear missiles –1 ranged (24d8/19–20) and battery of 3 heavy neutron guns –4 ranged (10d8/19–20) and needle driver –6 ranged (8d12)

**Attack of Opportunity:** Point-defense system +3 ranged (4d12×10)

### Standard PL 6 Design Specs:

**Engines:** Fusion torch, thrusters

**Armor:** Vanadium

**Defense Systems:** 1 chaff launcher (16 chaff bundles), 1 decoy drone launcher (4 drones), improved autopilot system, improved damage control (5d10), magnetic field, point-defense system, radiation shielding, self-destruct system

**Sensors:** Class II sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 1 battery of 4 heavy neutron guns (range incr. 6,000 ft.), 2 fire-linked nuclear missile launchers (16 missiles each), 1 needle driver (range incr. 4,000 ft.)

**Grappling Systems:** Grapplers

## FLEET CARRIER (PL 6)

The fleet carrier has the ability to launch devastating attacks from millions of miles away, in the form of large numbers of fighters or assault fighters. Most fleet carriers are lightly armed, as they rely on their escorting vessels and payload of fighters to defend them against attack.

In addition to its normal cargo capacity, a fleet carrier can hold 16 fighters or assault fighters. Its listed crew complement does not include the ace pilots who fly these fighter craft. (Pilots count against the passenger capacity.) A fleet carrier can deploy up to 4 ultralight craft as a move action.

<b>Type:</b> Heavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Fleet carrier	<b>Tactical Speed:</b> 3,000 ft. (6 sq.)
<b>Defense:</b> 11	<b>Length:</b> 1,400 feet
<b>Flat-footed Defense:</b> 7	<b>Weight:</b> 140,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 320 (expert +8)
<b>Hit Dice:</b> 500d20 (10,000 hp)	<b>Passenger Capacity:</b> 80
<b>Initiative Modifier:</b> +6	<b>Cargo Capacity:</b> 40,000 tons
<b>Pilot's Class Bonus:</b> +5	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +4	<b>Base Purchase DC:</b> 72
<b>Gunner's Attack Bonus:</b> +4	<b>Restriction:</b> Military (+3)

**Attack:** Battery of 5 neutron guns +3 ranged (6d8/19–20) and 2 batteries of 2 CHE missiles –5 ranged (6d12/18–20)

**Attack of Opportunity:** Point-defense system +3 ranged (4d12×10)

### Standard PL 6 Design Specs:

**Engines:** Fusion torch, thrusters

**Armor:** Vanadium

**Defense Systems:** 2 chaff launchers (8 chaff bundles each), 2 decoy drone launchers (4 drones each), improved autopilot system, improved damage control (5d10), magnetic field, point-defense system, radiation shielding, self-destruct system

**Sensors:** Class III sensor array, targeting system

**Communications:** Laser transceiver, radio transceiver

**Weapons:** 1 battery of 5 neutron guns (range incr. 5,000 ft.), 2 batteries of 2 CHE missile launchers (4 launchers total, 16 missiles each)

**Grappling Systems:** Grapplers

## HEAVY TRANSPORT (PL 6)

The heavy transport is designed to move great amounts of specialized cargo such as bulk freight, containerized freight, or roll-on/rolloff vehicle storage.

<b>Type:</b> Heavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Heavy transport	<b>Tactical Speed:</b> 3,000 ft. (6 sq.)
<b>Defense:</b> 7	<b>Length:</b> 1,320 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 120,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 24 (trained +4)
<b>Hit Dice:</b> 350d20 (7,000 hp)	<b>Passenger Capacity:</b> 20
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 60,000 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 68
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** Battery of 3 heavy lasers –1 ranged (8d8/19–20) and battery of 3 gauss guns –6 ranged (8d12/19–20); or Battery of 3 gauss guns –1 ranged (8d8/19–20) and battery of 3 heavy lasers –6 ranged (8d12/19–20)

**Attack of Opportunity:** Point-defense system +3 ranged (4d12×10)

### Standard PL 6 Design Specs:

**Engines:** Fusion torch, thrusters

**Armor:** Vanadium

**Defense Systems:** Damage control system (4d10), decoy drone launcher (2 drones), improved autopilot, magnetic field, point-defense system, radiation shielding, sensor jammer  
**Sensors:** Class II sensor array, targeting system  
**Communications:** Laser transceiver, radio transceiver  
**Weapons:** 1 battery of 3 heavy lasers (range incr. 4,000 ft.), 1 battery of 3 gauss guns (range incr. 4,000 ft.)  
**Grappling Systems:** Grapplers

#### TANKER (PL 6)

A tanker is a large starship intended for the transport of large quantities of gases or liquids. It can be adapted for other forms of cargo storage, but most ships of this size carry water, hydrogen, petrochemicals, or oxygen.

<b>Type:</b> Heavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Tanker	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 7	<b>Length:</b> 1,200 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 120,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 32 (trained +4)
<b>Hit Dice:</b> 250d20 (5,000 hp)	<b>Passenger Capacity:</b> 8
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 52,000 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 64
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** 1 battery of 4 heavy lasers +0 ranged (8d8/19–20)  
**Attack of Opportunity:** Point-defense system +3 ranged (4d12×10)

#### Standard PL 6 Design Specs:

**Engines:** Ion engine, thrusters  
**Armor:** Vanadium  
**Defense Systems:** Damage control system (4d10), improved autopilot, point-defense system, radiation shielding, sensor jammer  
**Sensors:** Class II sensor array, targeting system  
**Communications:** Laser transceiver, radio transceiver  
**Weapons:** 1 battery of 4 heavy lasers (range incr. 4,000 ft.)  
**Grappling Systems:** Grapplers

#### BATTLE CRUISER (PL 7)

The battle cruiser is a formidable warship that sacrifices weight of armor in exchange for speed. Its heavy weapons can make short work of any smaller vessel, and it can usually outrun anything big enough to stand up to it in a fair fight.

<b>Type:</b> Heavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Battle Cruiser	<b>Tactical Speed:</b> 4,000 ft. (8 sq.)
<b>Defense:</b> 11	<b>Length:</b> 1,360 feet
<b>Flat-footed Defense:</b> 7	<b>Weight:</b> 140,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +5
<b>Hardness:</b> 30	<b>Crew:</b> 320 (expert +8)
<b>Hit Dice:</b> 450d20 (9,000 hp)	<b>Passenger Capacity:</b> 160
<b>Initiative Modifier:</b> +4	<b>Cargo Capacity:</b> 50,000 tons
<b>Pilot's Class Bonus:</b> +5	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +4	<b>Base Purchase DC:</b> 72
<b>Gunner's Attack Bonus:</b> +4	<b>Restriction:</b> Military (+3)

**Attack:** 4 fire-linked heavy particle beams +1 ranged (32d8) and 1 battery of 3 plasma missiles –2 ranged (18d8/18–20)  
**Attack of Opportunity:** Point-defense +5 ranged (4d12×10)

#### Standard PL 7 Design Specs:

**Engines:** Particle impulse engine, thrusters  
**Armor:** Cerametal

**Defense Systems:** 1 chaff launcher (8 chaff bundles), 1 decoy drone launcher (4 drones), improved autopilot, improved damage control (5d10), magnetic field, particle field, radiation shielding, self-destruct system

**Sensors:** Class IV sensor array, improved targeting system

**Communications:** Drivesat comm array, mass transceiver

**Weapons:** 4 fire-linked heavy particle beams (range incr. 5,000 ft.), 1 battery of 3 plasma missile launchers (16 missiles each), 1 minelayer (50 gravitic mines with displacers, magnetic fields, and particle fields; 10d10×10 damage)

**Grappling Systems:** Tractor beam emitter

### **LINER (PL 7)**

This is a full-sized passenger ship. Although any vessel this size can't avoid carrying some cargo, the liner specializes in moving a large number of passengers, usually in varying degrees of luxury.

<b>Type:</b> Heavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Liner	<b>Tactical Speed:</b> 4,000 ft. (8 sq.)
<b>Defense:</b> 7	<b>Length:</b> 1,200 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 84,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +5
<b>Hardness:</b> 30	<b>Crew:</b> 200 (trained +4)
<b>Hit Dice:</b> 250d20 (5,000 hp)	<b>Passenger Capacity:</b> 800
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 40,000 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 68
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** Battery of 4 plasma cannons +2 ranged (14d8/19–20)

**Attack of Opportunity:** Point-defense system +5 ranged (4d12×10)

### **Standard PL 7 Design Specs:**

**Engines:** Induction engine, thrusters

**Armor:** Cerametal

**Defense Systems:** Damage control (4d10), improved autopilot system, particle field, point-defense system

**Sensors:** Class IV sensor array, improved targeting system

**Communications:** Drivesat comm array, mass transceiver

**Weapons:** 1 battery of 4 plasma cannons (range incr. 3,000 ft.)

**Grappling Systems:** Tractor beam emitter

## **SUPERHEAVY STARSHIP SUBTYPES**

Superheavy starships include mammoth, ponderous dreadnoughts, super-carriers, and super-freighters.

A superheavy starship measures 1,501 feet long or longer. The smallest superheavy starships (measuring 1,501–2,000 feet long) have a 2,000-foot-by-2,000-foot fighting space (16 500-foot squares), although larger fighting spaces are possible.

In addition, all superheavy starships share the following design specs.

**Engines:** All superheavy starships have thrusters plus as many as two other types of engine (see Starship Engines).

**Armor:** A superheavy starship has one type of armor (see Starship Armor).

**Defensive Systems:** A superheavy starship has a maximum of one defensive system per 150 Hit Dice (see Starship Defense Systems).

**Sensors:** A superheavy starship has a maximum of three sensor systems (see Starship Sensors).

**Communications:** A superheavy starship has two external communication systems (see Starship Comm Systems).

**Weapons:** A superheavy starship has one beam, projectile, or missile weapon per 150 Hit Dice (see Starship Weapons).

These weapons are often arrayed in batteries. A minelayer is considered a single weapon. Although it weighs no more than a few thousand pounds, each mine consumes 100 tons of a ship's cargo capacity (most of it taken up by the launch system and radiation shielding).

**Grappling Systems:** A superheavy starship may have up to two grappling systems (see Grappling Systems). Each grappling system takes away one of the ship's weapon slots (see above).

## **SUPERHEAVY SHIP DESCRIPTIONS**

Specific subtypes of superheavy starships are given here.

## COLONY SHIP (PL 7)

This massive vessel is designed to haul everything a new colony needs to get started. Its cavernous storage decks can accommodate thousands of colonists with heavy machinery, prefabricated buildings, equipment, and supplies throughout the long trip to a new world.

<b>Type:</b> Superheavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Colony ship	<b>Tactical Speed:</b> 4,000 ft. (8 sq.)
<b>Defense:</b> 7	<b>Length:</b> 2,000 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 400,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +5
<b>Hardness:</b> 30	<b>Crew:</b> 400 (trained +4)
<b>Hit Dice:</b> 800d20 (16,000 hp)	<b>Passenger Capacity:</b> 2,000
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 100,000 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 72
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** Battery of 4 particle beams +2 ranged (12d8/19–20) and battery of 2 plasma missiles –5 ranged (18d8/18–20); or Battery of 2 plasma missiles +0 ranged (18d8/18–20) and battery of 4 particle beams –3 ranged (12d8/19–20)

**Attack of Opportunity:** Point-defense system +5 ranged (5d12×10)

### Standard PL 7 Design Specs:

**Engines:** Particle impulse engine, photon sails, thrusters

**Armor:** Cerametal

**Defense Systems:** Improved autopilot system, improved damage control (6d10), magnetic field, particle field, point-defense system, radiation shielding, repair drones, self-destruct system

**Sensors:** Class IV sensor array, improved targeting system

**Communications:** Drivesat comm array, mass transceiver

**Weapons:** 1 battery of 4 particle beams (range incr. 4,000 ft.), 1 battery of 2 plasma missile launchers (16 missiles each)

**Grappling Systems:** Grapplers, tractor beam emitter

## DREADNOUGHT (PL 7)

The mightiest ships found in the battle lines of a stellar navy, dreadnoughts are titanic vessels armed with awesome firepower and virtually impregnable defenses. Its fighting space takes up 36 500-foot squares (a 6-square-by-6-square area).

<b>Type:</b> Superheavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Dreadnought	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 11	<b>Length:</b> 2,750 feet
<b>Flat-footed Defense:</b> 7	<b>Weight:</b> 540,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +5
<b>Hardness:</b> 40	<b>Crew:</b> 2,000 (expert +8)
<b>Hit Dice:</b> 1,200d20 (24,000 hp)	<b>Passenger Capacity:</b> 1,600
<b>Initiative Modifier:</b> +6	<b>Cargo Capacity:</b> 120,000 tons
<b>Pilot's Class Bonus:</b> +5	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +4	<b>Base Purchase DC:</b> 80
<b>Gunner's Attack Bonus:</b> +4	<b>Restriction:</b> Military (+3)

**Attack:** 4 fire-linked quantum cannons +1 ranged (32d8) and battery of 4 heavy mass cannons –1 ranged (10d12/19–20) and 2 fire-linked mass reaction missiles –4 ranged (20d8/18–20)

**Attack of Opportunity:** Point-defense system +5 ranged (5d12×10)

### Standard PL 7 Design Specs:

**Engines:** Induction engine, thrusters

**Armor:** Neutronite

**Defense Systems:** 1 chaff launcher (8 chaff bundles), 1 decoy drone launcher (8 drones), displacer, improved autopilot system, improved damage control (6d10), light fortification, magnetic field, particle field, point-defense system, radiation shielding, repair drones, self-destruct system

**Sensors:** Class V sensors, improved targeting system

**Communications:** Drivesat comm array, mass transceiver

**Weapons:** 1 battery of 4 heavy mass cannons (range incr. 6,000 ft.), 4 fire-linked quantum cannons (range incr. 6,000 ft.), 1 battery of 2 mass reaction missile launchers (60 missiles each), 1 minelayer (100 gravitic mines with displacers, magnetic fields, and particle fields; 10d10×10 damage)

**Grappling Systems:** Tractor beam emitter

### STAR CARRIER (PL 7)

A larger version of the fleet carrier, the star carrier serves as a mobile base for smaller craft. A star carrier's fighting space takes up 36 500- foot squares (a 6-square-by-6-square area).

In addition to its normal cargo capacity, a star carrier can hold 72 fighters or assault fighters. Its listed crew complement does not include the ace pilots who fly these fighter craft. (Pilots count against the passenger capacity.) A star carrier can deploy up to 8 ultralight craft as a move action.

<b>Type:</b> Superheavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Star carrier	<b>Tactical Speed:</b> 3,500 ft. (7 sq.)
<b>Defense:</b> 11	<b>Length:</b> 3,000 feet
<b>Flat-footed Defense:</b> 7	<b>Weight:</b> 600,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +5
<b>Hardness:</b> 40	<b>Crew:</b> 2,400 (expert +8)
<b>Hit Dice:</b> 1,000d20 (20,000 hp)	<b>Passenger Capacity:</b> 600
<b>Initiative Modifier:</b> +6	<b>Cargo Capacity:</b> 200,000 tons
<b>Pilot's Class Bonus:</b> +5	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +4	<b>Base Purchase DC:</b> 80
<b>Gunner's Attack Bonus:</b> +4	<b>Restriction:</b> Military (+3)

**Attack:** Battery of 5 mass cannons +5 ranged (8d12/19–20) and battery of 4 antimatter guns –1 ranged (10d8/19–20)

**Attack of Opportunity:** Point-defense system +5 ranged (5d12×10)

### Standard PL 7 Design Specs:

**Engines:** Induction engine, thrusters

**Armor:** Neutronite

**Defense Systems:** 1 decoy drone launcher (4 drones), improved autopilot system, improved damage control (6d10), light fortification, magnetic field, particle field, point-defense system, radiation shielding, repair drones, self-destruct system

**Sensors:** Class V sensors, improved targeting system

**Communications:** Drivesat comm array, mass transceiver

**Weapons:** 1 battery of 5 mass cannons (range incr. 5,000 ft.), 1 battery of 4 antimatter guns (range incr. 5,000 ft.)

**Grappling Systems:** Tractor beam emitter

### STAR FREIGHTER (PL 7)

The largest of the starships built for routine commercial purposes, the star freighter can be modified to serve as a super-tanker or super-transport.

<b>Type:</b> Superheavy	<b>Size:</b> Colossal (–8 size)
<b>Subtype:</b> Freighter	<b>Tactical Speed:</b> 4,000 ft. (8 sq.)
<b>Defense:</b> 7	<b>Length:</b> 1,800 feet
<b>Flat-footed Defense:</b> 5	<b>Weight:</b> 320,000 tons
<b>Autopilot Defense:</b> 7	<b>Targeting System Bonus:</b> +3
<b>Hardness:</b> 30	<b>Crew:</b> 40 (trained +4)
<b>Hit Dice:</b> 800d20 (16,000 hp)	<b>Passenger Capacity:</b> 24
<b>Initiative Modifier:</b> +2	<b>Cargo Capacity:</b> 200,000 tons
<b>Pilot's Class Bonus:</b> +3	<b>Grapple Modifier:</b> +16
<b>Pilot's Dex Modifier:</b> +2	<b>Base Purchase DC:</b> 76
<b>Gunner's Attack Bonus:</b> +2	<b>Restriction:</b> Restricted (+2)

**Attack:** 2 batteries of 3 heavy particle beams –1 ranged (16d8/19–20)

**Attack of Opportunity:** Point-defense system +5 ranged (5d12×10)



### Standard PL 7 Design Specs:

**Engines:** Particle impulse engine, thrusters

**Armor:** Cerametal

**Defense Systems:** Damage control system (5d10), improved autopilot system, magnetic field, particle field, point-defense system, radiation shielding, repair drones, self-destruct system

**Sensors:** Class IV sensor array, improved targeting system

**Communications:** Drivesat comm array, mass transceiver

**Weapons:** 2 batteries of 3 heavy particle beams (range incr. 5,000 ft.)

**Grappling Systems:** Grapplers, tractor beam emitter

## STARSHIP CLASS TEMPLATES

A starship class template allows the creation of modified or improved versions of the various starship subtypes presented above. A template usually has an evocative name, giving rise to such ships as the *Lightning*-class frigate or the *Katana*-class assault fighter.

A starship class template is nothing more than an alternative list of design specs that allow players and GMs to increase (or decrease) a ship's Hit Dice and swap out some or all of a starship's systems. The following starship class templates are presented as examples:

### LIGHTNING-CLASS TEMPLATE (PL 7)

The *Lightning*-class template can be applied to any PL 6 light starship. The starship's design specs should be adjusted as follows.

**Engine Upgrade:** Induction engine, thrusters (tactical speed +1,000 feet).

**Armor Upgrade:** Neutronite (hardness 40, tactical speed –500 feet).

**Defense System Upgrade:** Light fortification (25% chance to ignore a critical hit; replaces a PL 5 or PL 6 defense system).

**Sensors Upgrade:** Class V sensor array (+2 initiative), improved targeting system (targeting system bonus +5).

**Communications Upgrade:** Drivesat comm array, mass transceiver.

**Weapons Upgrade:** 2 fire-linked quantum cannons (24d8 damage; range incr. 6,000 ft.; replaces PL 5 or PL 6 fire-linked weapon system).

**Grappling System Upgrade:** Tractor beam emitter (replaces grapplers).

### KATANA-CLASS TEMPLATE (PL 8)

The *Katana*-class template can be applied to any ultralight fighter or assault fighter. The starship's design specs should be adjusted as follows.

**Hit Dice:** Increase by +1d20.

**Engine Upgrade:** Inertial flux engine, thrusters (tactical speed +1,500 feet).

**Armor Upgrade:** Ablative (hardness 40).

**Defense System Upgrade:** Advanced damage control (3d10), magnetic field, medium fortification (50% chance to ignore a critical hit; replaces a PL 6 or PL 7 defense system).

**Sensors Upgrade:** Class VII sensor array (+2 initiative), improved targeting system, Achilles targeting software (increases threat range of all weapon systems by 1).

**Communications Upgrade:** Drive transceiver.

**Weapons Upgrade:** 2 fire-linked maser cannons (18d8 damage; range incr. 6,000 ft.; replaces PL 6 or PL 7 fire-linked weapon system).

## STARSHIP ENGINES

A starship's engine determines how fast the ship moves. The more efficient the engine, the faster it can move the ship—and the more expensive it is. In addition, certain low-tech engines burn fuel of some sort, increasing the operational cost. In space, fuel-burning engines rely on vector jets to adjust their course, using fuel only in short, controlled burns to increase momentum.

To build a starship engine from scratch, a character must succeed at a Craft (mechanical) check (DC 30) after investing 120 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 engine's purchase DC.

Installing an engine requires a successful Craft (mechanical) check (DC 30) after investing 60 hours in the process. A character without a mechanical tool kit takes a –4 penalty on the skill check.

The various types of engines are listed below.

**Minimum Ship Size:** The minimum size the starship must be to have this type of engine.

**Tactical Speed Bonus:** The bonus that the engine provides to the starship's tactical speed, given in feet and squares.

**Purchase DC:** The engine's purchase DC.



### THRUSTERS (PL 5)

Thrusters can propel a ship through a planetary atmosphere and land it safely on a planetary surface. Thrusters also serve as secondary engines when primary engines fail or shut down. Common types of thrusters include the scramjet, chemical rocket, repulsion thrust, or powered airfoil, although the exact form doesn't matter.

A ship with thrusters as its primary source of propulsion must refuel after every battle or every orbital mission. Thruster fuel has a purchase DC of 31.

**Minimum Ship Size:** Huge.

**Tactical Speed Bonus:** +0 feet.

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

### FUSION TORCH (PL 6)

This engine consists of a fusion reactor with one wall of the magnetic bottle missing, directing the thrust in the form of superheated plasma. The fusion torch is intended for space-only applications; its exhaust stream would melt anything it landed on and incinerate everything within a few hundred yards of ground zero; it also expels a tremendous amount of radiation. Many ships fitted with fusion torch rockets use thrusters for atmospheric travel. Otherwise, they must remain permanently in space, relying on shuttlecraft to reach a planet's surface. The fusion torch uses hydrogen for fuel.

A ship using a fusion torch as its primary source of propulsion must refuel after every three battles or interplanetary trips.

Fusion torch fuel has a purchase DC of 23.

**Minimum Ship Size:** Gargantuan.

**Tactical Speed Bonus:** +500 feet (+1 square).

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

### ION ENGINE (PL 6)

The ion engine generates power to break down molecules of a fuel material to create ions, and then expels them by means of a magnetic impeller. It doesn't provide as effective a mass-thrust ratio as the fusion torch, but it's more fuel efficient, and its exhaust is not nearly as dangerous. Ion engines don't function in any kind of atmosphere, so most ships with this kind of power plant also come equipped with thrusters.

A ship using an ion engine as its primary source of propulsion must refuel after every five battles or interplanetary trips. Ion engine fuel has a purchase DC of 29.

**Minimum Ship Size:** Huge.

**Tactical Speed Bonus:** +500 feet (+1 square).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

### PHOTON SAILS (PL 6)

Photon sails are immense but extremely fragile foil structures only a few molecules thick. Light pressure from a nearby star (or laser drive station, when available) provides motive force. The sails' acceleration rates drop to half if the ship is beyond the edge of a star system and drop to one-quarter if the only available light is starlight. The sails can be wrecked by minor damage, but every ship equipped with photon sails carries at least three spare sets. Unfortunately, it takes 12 hours to replace damaged sails, though deployment or stowage of the sails takes only 1 minute.

In combat, any weapon hit against a sail-driven starship destroys the deployed photon sails and prevents the ship from moving until the sails are replaced. The sail-ship continues on its last course and retains its former speed until the sails are replaced. Accordingly, most sail-ships carry a secondary propulsion system (such as thrusters or an ion engine) for emergency maneuvering and sailing against the sun. Photon sails are completely useless in atmosphere—in fact, they're instantly destroyed by atmospheric entry—making a secondary propulsion system a virtual necessity for most sail-ships.

**Minimum Ship Size:** Gargantuan.

**Tactical Speed Bonus:** None.

**Purchase DC:** 10 + one-quarter the base purchase DC of the starship (per set of photon sails).

### INDUCTION ENGINE (PL 7)

Hands-down the best engine available at this or any previous Progress Level, the induction engine uses artificial gravity to provide incredible thrust and maneuverability. The induction engine requires no fuel and produces no exhaust; it's ideal for atmospheric, orbital, or deep-space work.

**Minimum Ship Size:** Huge.

**Tactical Speed Bonus:** +1,000 feet (+2 squares).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

### **PARTICLE IMPULSE ENGINE (PL 7)**

The particle impulse engine is the next evolutionary step of the PL 6 ion engine. It uses magnetic fields to produce a constant stream of high-energy particles, as well as to provide vectored thrust. The major advancement of the particle impulse drive over the ion drive is that the particle impulse engine uses a negligible amount of fuel, which it also manufactures. The drive's reaction is so efficient that the tiny amounts of matter present in interplanetary or interstellar space can be collected through weak magnetic fields and converted into a thrust medium. Better still, the particle impulse engine is capable of atmospheric entry. It causes some damage to any surface close to its exhaust ports, but nowhere near as much damage as PL 6 engines do.

**Minimum Ship Size:** Gargantuan.

**Tactical Speed Bonus:** +1,000 feet (+2 squares).

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

### **GRAVITIC REDIRECTOR (PL 8)**

A refinement of the induction engine, the gravitic redirector creates a gravitic singularity—essentially, a sub-microscopic black hole—in the vicinity of the ship, producing a constant pull on the ship. By changing the location of the singularity relative to the ship, the pilot can change the direction of the ship's travel. The gravitic redirector is more powerful and more efficient than the induction engine, and at the height of the technology's heyday, virtually foolproof. A gravitic redirector does not operate within a planetary atmosphere, and most ships fitted with this kind of engine also have secondary thrusters or rely on shuttlecraft.

**Minimum Ship Size:** Colossal.

**Tactical Speed Bonus:** +1,500 feet (+3 squares).

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

### **INERTIAL FLUX ENGINE (PL 8)**

By precisely controlling the quantum energy level of every atom on the ship simultaneously, the inertial flux engine assumes the inertial states necessary to produce motion in any direction. In effect, by operating the controls, the pilot chooses from instant to instant what vector the ship's atoms will next possess, and the inertial flux engine alters them simultaneously—along with everything else aboard, including the crew and passengers. An inertial flux engine does not operate within a planetary atmosphere, and most ships fitted with this kind of engine also have secondary thrusters or rely on shuttlecraft.

**Minimum Ship Size:** Gargantuan.

**Tactical Speed Bonus:** +1,500 feet (+3 squares).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

### **SPATIAL COMPRESSOR (PL 9)**

The most advanced engine available, the spatial compressor surrounds the ship in a field that “folds” or “wrinkles” the fabric of space in the direction the pilot wishes to travel. This results in a continuous series of micro-jumps in which the ship flickers into and out of reality, teleporting thousands of times every second.

Since the ship has no intrinsic velocity (it's stationary while it teleports), the spatial compressor can instantaneously stop or change direction and thrust vector without any maneuvering whatsoever.

However, the engine still needs to build up cyclic speed to increase the frequency of its microjumps, so it accelerates normally. The spatial compressor requires a lot of power, but no fuel. It is safe for atmospheric flight.

**Minimum Ship Size:** Colossal.

**Tactical Speed Bonus:** +2,000 feet (+4 squares).

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

## **STARSHIP ARMOR**

A starship can have only one type of armor installed. To surround a starship's hull in armor or to upgrade the armor, a character must succeed at a Craft (structural) check (DC 30) after investing 600 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 armor's (or upgraded armor's) purchase DC.

Different types of starship armor are presented below.

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

**Tactical Speed Penalty:** The amount by which the armor reduces the starship's tactical speed, given in feet and squares.

**Weight:** The armor's weight.

**Purchase DC:** The armor's purchase DC.

**Restriction:** The restriction rating of the armor.

### **ALLOY PLATING (PL 5)**

Alloy plating is made of advanced metal alloys engineered for high resistance to attacks at relatively low weights.

**Hardness:** 20.

**Tactical Speed Penalty:** –500 feet (–1 square).

**Weight:** One-eighth the weight of the starship (rounded down).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

**Restriction:** None.

### **POLYMERIC (PL 6)**

Polymeric armor is made up of advanced polymers, such as carbon fiber and high-grade fiberglass. It is relatively cheap and light, but doesn't offer tremendous protection.

**Hardness:** 20.

**Tactical Speed Penalty:** None.

**Weight:** One-tenth the weight of the starship (rounded down).

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

**Restriction:** Licensed (+1).

### **VANADIUM (PL 6)**

Interlocking plates of light vanadium alloy absorb a respectable amount of damage and are easy to mold to a starship's hull.

**Hardness:** 30.

**Tactical Speed Penalty:** None.

**Weight:** One-eighth the weight of the starship (rounded down).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

**Restriction:** Military (+3).

### **CERAMETAL (PL 7)**

Combining the heat-resistant qualities of tough ceramics with the ductile strength of metal, cerametal armor offers a good compromise between protection and economy.

**Hardness:** 30.

**Tactical Speed Penalty:** None.

**Weight:** One-eighth the weight of the starship (rounded down).

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

**Restriction:** Licensed (+1).

### **DEFLECTIVE (PL 7)**

Deflective armor is composed of a shiny, light, flexible polymer especially good at neutralizing energy damage but less effective against ballistic attacks.

**Hardness:** 20 against attacks that deal ballistic damage, 40 against all other attacks.

**Tactical Speed Penalty:** None.

**Weight:** One-tenth the weight of the starship (rounded down).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

**Restriction:** Military (+3).

### **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 about five times more than a similar volume of lead.

**Hardness:** 40.

**Tactical Speed Penalty:** –500 feet (–1 square).

**Weight:** One-quarter the weight of the starship (rounded down).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

**Restriction:** Military (+3).

### **ABLATIVE (PL 8)**

This silvery, reflective armor is amazingly thin, yet has tremendous tensile strength and the ability to absorb damage better than most kinds of armor plating.

**Hardness:** 40.

**Tactical Speed Penalty:** None.

**Weight:** One-tenth the weight of the starship (rounded down).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

**Restriction:** Military (+3).

### NANOFLUIDIC (PL 8)

Consisting of a thick layer of gel-like fluid sandwiched in a neutronite structure, nanofluidic armor is “smart” armor—it concentrates at the point of impact to blunt physical blows and circulates around heat sources to dissipate energy.

**Hardness:** 50.

**Tactical Speed Penalty:** –500 feet (–1 square).

**Weight:** One-quarter the weight of the starship (rounded down).

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

**Restriction:** Military (+3).

## STARSHIP DEFENSE SYSTEMS

Armor does an admirable job of preventing damage to the superstructure of a starship, but it’s really only the last line of defense. Since the late Industrial Age, aircraft have been outfitted with an ever-increasing number of defensive systems designed to avoid or avert damage to a craft’s hull—or to repair it before catastrophe occurs.

To build a defense system from scratch, a character must succeed at a Craft (electronic) check (DC 30) and a Craft (mechanical) check after investing 60 hours in its assembly. A character without an electrical or mechanical tool kit takes a –4 penalty on the appropriate skill check. The character must also make a Wealth check against the system’s purchase DC. Installing a defensive system requires a successful Craft (mechanical) check (DC 30) after investing 30 hours. A character without a mechanical tool kit takes a –4 penalty on the skill check.

Different types of defensive systems are detailed below.

**Purchase DC:** The purchase DC of the system.

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

### AUTOPILOT SYSTEM (PL 5)

An autopilot system “kicks in” whenever the pilot is unable to fly the starship. An autopilot system isn’t as good at avoiding attacks as a living pilot, but it’s better than nothing. Larger vessels have more adaptive autopilot systems than smaller ships (although this increased sophistication doesn’t outweigh the penalties associated with the ships’ larger sizes).

An autopilot system provides an equipment bonus to the starship’s Defense depending on the ship’s size: Huge +1, Gargantuan +2, Colossal +4. This bonus applies only when the autopilot system is engaged.

**Purchase DC:** 5 + one-quarter the base purchase DC of the starship.

**Restriction:** None.

### DAMAGE CONTROL SYSTEM (PL 5)

A starship equipped with a damage control system can perform damage control as a move action. With a successful Repair check (DC 15), the ship regains a number of hit points depending on its type, as shown on Table: Damage Control Systems. Damage control cannot be performed if the ship has been reduced to negative hit points.

**Purchase DC:** Varies by starship type (see Table: Damage Control Systems).

**Restriction:** None.

**Table: Damage Control System**

Ship Type	Hit Points Restored	Purchase DC
Ultralight	1d10	18
Light	2d10	22
Mediumweight	3d10	27
Heavy	4d10	33
Superheavy	5d10	40

### SENSOR JAMMER (PL 5)

A sensor jammer interferes with radar and enemy sensor scans. It also confounds missile guidance systems.

Sensor checks made against a ship with an active sensor jammer take a –5 penalty. In addition, the ship gains one-half concealment against missile attacks (20% miss chance).

Any ship with a Class III sensor system (or better) is not subject to the effects of the sensor jammer, ignoring the penalty and miss chance.

**Purchase DC:** 5 + one-half the base purchase DC of the starship.

**Restriction:** Military (+3).

### AUTOPILOT SYSTEM, IMPROVED (PL 6)

An improved autopilot system provides an equipment bonus to the starship's Defense depending on the ship's size: Huge +3, Gargantuan +4, Colossal +5. This bonus applies only when the autopilot system is engaged. An improved autopilot system replaces the PL 5 autopilot system.

**Purchase DC:** 5 + one-half the base purchase DC of the starship.

**Restriction:** None.

#### **CHAFF LAUNCHER (PL 6)**

Chaff consists of a cloud of millions of tiny metal strips or particles. This detritus interferes with sensors and missiles. Deploying chaff— usually via a small bundle from the rear or underside of a starship—is a move action. The chaff fills one 500-foot square with these strips or particles. Sensor scans directed at anything within the square take a –10 penalty, and scanning something on the direct opposite side of the chaff field incurs a –5 penalty. Any missile that passes through the chaff field to reach its intended target suffers a 30% miss chance (as though the target has three-quarters concealment).

**Purchase DC:** 20 for chaff launcher and one chaff bundle, 15 for each additional chaff bundle.

**Restriction:** Licensed (+1).

#### **DAMAGE CONTROL, IMPROVED (PL 6)**

A starship equipped with improved damage control regains an additional +1d10 points of damage each time damage control is performed successfully (see Damage Control System, above).

**Purchase DC:** 5 + the purchase DC of a standard damage control system.

**Restriction:** Licensed (+1).

#### **DECOY DRONE LAUNCHER (PL 6)**

A decoy drone is a small, self-guided missile that mimics the electromagnetic and infrared signatures of the ship that launched it.

Deploying a decoy drone is an attack action, and the drone occupies the same fighting space as the ship it imitates. The decoy drone negates the equipment bonus on attack rolls granted by an enemy ship's targeting system. Launching multiple decoy drones grants no cumulative effect.

A deployed and intact decoy drone can be recovered or captured with a successful grapple. It can also be targeted and destroyed. A decoy drone has a Defense of 12 and 10 hit points, and it rolls 1d20+4 on opposed grapple checks.

**Purchase DC:** 28 for drone launcher and one drone, 25 for each additional drone.

**Restriction:** Restricted (+2).

#### **MAGNETIC FIELD (PL 6)**

The magnetic field is the first primitive energy shield. It uses vast amounts of power to surround the ship with potent lines of magnetic force. Missiles and weapons that deal ballistic damage fired at a starship with a magnetic field take a –4 penalty on attack rolls.

A mine can be equipped with a magnetic field.

**Purchase DC:** 5 + one-half the base purchase DC of the starship or mine.

**Restriction:** Military (+3).

#### **POINT-DEFENSE SYSTEM (PL 6)**

A point-defense system serves two functions: It targets all incoming missiles, and it allows a starship to make attacks of opportunity against enemy ships passing through its threatened area. The point-defense system consists of batteries of automated weapons programmed to fire when either of these two conditions is met.

A point-defense system does not fire upon mines, cannot be controlled manually by the crew, and cannot be used to make normal attacks.

**Destroy Missiles:** A point-defense system has a 20% chance of destroying any incoming missile. A destroyed missile deals no damage to the ship.

**Make Attacks of Opportunity:** A starship equipped with a point-defense system threatens the space it occupies as well as all adjacent 500-foot squares. When making an attack of opportunity, the point-defense system rolls 1d20 and adds the ship's targeting system bonus on the roll. If the result equals or exceeds the enemy ship's Defense, the point-defense weapons deal ballistic damage based on the ship's type, as shown in Table: Point-Defense Systems. Point-defense systems cannot score critical hits.

**Purchase DC:** Varies by starship type (see Table: Point-Defense Systems).

**Restriction:** Licensed (+1).

**Table: Point-Defense Systems**

Starship Type	Point-Defense Damage	Purchase DC
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Ultralight	1d12×10	31
Light	2d12×10	34
Mediumweight	3d12×10	36
Heavy	4d12×10	38
Superheavy	5d12×10	40

### RADIATION SHIELDING (PL 6)

Radiation shielding protects a ship's crew and passengers against the harmful radiation of neutron stars, solar flares, and other external causes. All personnel aboard the ship gain a +5 circumstance bonus on saves to resist the effects of radiation poisoning.

**Purchase DC:** 5 + one-half the base purchase DC of the starship.

**Restriction:** None.

### SELF-DESTRUCT SYSTEM (PL 6)

A self-destruct system ensures that a starship cannot be captured, dissected for information, or used against its builders. Installing a starship self-destruct system requires a Demolitions check (DC 30) instead of a Craft check and takes an amount of time as determined by the ship's type: ultralight 1 hour, light 10 hours, mediumweight 30 hours, heavy 60 hours, superheavy 120 hours. If the Demolitions check fails by 10 or more, the system detonates, destroying the ship and possibly harming others nearby.

A self-destruct system can be programmed to activate only under specified conditions—usually the voice authorization of the ship's commander, and usually only after the crew has had sufficient time to evacuate (see Starship Evacuation).

The self-destruct system obliterates the starship (killing all aboard) regardless of how many hit points it has remaining. A starship destroyed by its own self-destruct system has no salvageable parts.

The starship's self-destruction triggers an explosion of shrapnel that deals collateral slashing damage to all other ships in its fighting space; mediumweight, heavy, and superheavy ships also deal collateral damage to ships in adjacent squares. A successful Pilot check (DC 15) reduces the damage by half. Table: Starship Self-Destruct Systems shows the amount of collateral damage (and the system's purchase DC) based on the starship's type.

**Purchase DC:** Varies by starship type (see Table: Starship Self-Destruct Systems).

**Restriction:** Restricted (+2).

**Table: Starship Self-Destruct Systems**

Starship Type	Collateral Damage	Purchase DC
Ultralight	1d6×10	26
Light	2d6×10	32
Mediumweight	3d6×10	38
Heavy	4d6×10	44
Superheavy	5d6×10	50

### STEALTH SCREEN (PL 6)

An improved version of the sensor jammer (see above), the stealth screen is a sophisticated electromagnetic transceiver capable of detecting incoming electromagnetic energy from radars, ladars, and other sensor devices. When it detects such energy, it responds by generating an electromagnetic interference pattern. In addition, it monitors the ship's own EM emissions and cloaks them in a similar manner. Finally, the stealth shield masks the ship's mass signature. Sensor checks made against a ship with an active stealth screen take a –10 penalty.

Additionally, a deployed mine has a 50% chance of not detecting the screened ship as it enters or leaves its detonation area. Finally, a starship with an active stealth screen gains one-half concealment against all attacks (20% miss chance).

A mine can be equipped with a stealth screen.

**Purchase DC:** 10 + one-half the base purchase DC of the starship or mine.

**Restriction:** Military (+3).

### DISPLACER (PL 7)

Using the same technology that will someday drive the PL 9 spatial compression engine, the displacer “shifts” the ship a few hundred yards several times a second in a random series of short-range teleportations.

All enemy attacks against the displacing ship have a 30% miss chance, as though it has three-quarters concealment.

A mine can be equipped with a displacer.

**Purchase DC:** 10 + one-half the base purchase DC of the starship or mine.

**Restriction:** Military (+3).

### **LIGHT FORTIFICATION (PL 7)**

The starship's structural integrity is reinforced so that the ship 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.

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

**Restriction:** Licensed (+1).

### **PARTICLE FIELD (PL 7)**

Generators project a field of alpha particles (helium nuclei that have been stripped of their electrons) around the ship. The field absorbs energy damage; weapons that wholly or partly deal concussion, electricity, fire, or nonspecific energy damage (such as beam weapons) fired at the starship take a -4 penalty on attack rolls.

A mine can be equipped with a particle field.

**Purchase DC:** 10 + one-half the base purchase DC of the starship or mine.

**Restriction:** Military (+3).

### **REPAIR DRONES (PL 7)**

Repair drones are Small spiderlike robots that rapidly deploy to damaged sections of a ship's outer hull. They are programmed to repair damage quickly and efficiently.

A ship with repair drones can perform damage control as a free action. A ship without a damage control system cannot be fitted with repair drones.

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

**Restriction:** Military (+3).

### **DAMAGE CONTROL, ADVANCED (PL 8)**

A starship equipped with advanced damage control regains an additional +2d10 points of damage each time damage control is performed successfully (see Damage Control System, above). Advanced damage control replaces (and does not stack with) improved damage control.

**Purchase DC:** 10 + the purchase DC of a standard damage control system.

**Restriction:** Military (+3).

### **CLOAKING SCREEN (PL 8)**

An improvement of the PL 7 stealth screen, the cloaking screen warps light and energy around the ship's hull, rendering the ship invisible to visual and electronic sensors.

A cloaked ship has total concealment. To attack a cloaked ship, an attacker must guess in which square the ship 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.

Additionally, a deployed mine cannot detect a cloaked ship and does not detonate when the ship enters or leaves its burst area. The ship's pilot must make a Pilot check (DC 5, +5 per additional mine) to avoid a collision with the mine if the starship enters the mine's square; on a failed check, the mine detonates.

A cloaking screen cannot be used in conjunction with chaff, since the chaff cloud would give away the ship's position. It also cannot operate simultaneously with any sort of field (including magnetic fields and particle fields), as the field gives away the ship's position.

A mine can be equipped with a cloaking screen.

**Purchase DC:** 15 + one-half the base purchase DC of the starship or mine.

**Restriction:** Military (+3).

### **MEDIUM FORTIFICATION (PL 8)**

As light fortification (see above), except that the medium fortification system converts 75% of all critical hits into regular hits.

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

**Restriction:** Licensed (+1).

### **NANITE REPAIR ARRAY (PL 8)**

The final refinement of damage control systems, the nanite repair array consists of numerous nodules filled with nanites—microscopic robots—scattered throughout the ship. The nanite repair array can repair a ship with negative hit points; however, not even nanites can repair a destroyed ship.

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

**Restriction:** Restricted (+2).



## HEAVY FORTIFICATION (PL 9)

As light fortification (see above), except that the heavy fortification system converts all critical hits into regular hits.

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

**Restriction:** Licensed (+1).

## STARSHIP SENSORS

A starship would be lost in the blackness of outer space without a sophisticated sensor array enabling it to perceive its surroundings. Sensor arrays allow a starship's crew to plot safe courses through unexplored star systems, avoid comets and electromagnetic storms, navigate asteroid belts, analyze planetary surface conditions, detect other starships nearby, and analyze damage to the ship's outer hull. Without a functional sensor array, a ship and its crew are virtually paralyzed. This section describes several standard sensor arrays. Each sensor array includes a list of functions; each function requires a move action and a successful Computer Use check (DC 15).

To build a sensor system from scratch, a character must succeed at a Craft (electronic) 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.

Installing a sensor system requires a successful Craft (electrical) check (DC 30) after investing 30 hours. A character without an electrical tool kit takes a -4 penalty on the skill check.

Different types of sensor systems are detailed below.

**Purchase DC:** The purchase DC of the system.

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

### CLASS I SENSOR ARRAY (PL 5)

This array includes radar, hi-res video, and infrared heat sensor units. As a move action, a Class I sensor array can perform either of the following functions with a successful Computer Use check (DC 15):

- Ascertain the location and type (ultralight, light, and so on) of all visible ships on the battlefield.
- Identify and ascertain the location of all visible hazards on the battlefield (such as asteroids and mines).
- Analyze the chemical composition of a planet's atmosphere (the ship must be orbiting the planet).

**Purchase DC:** 21.

**Restriction:** None.

### CLASS II SENSOR ARRAY (PL 6)

This array incorporates hi-res video, infrared and electromagnetic sensors, and lidar detection units. (The lidar uses low-powered laser beams to locate targets.) As a move action, a Class II sensor array can perform any one of the following functions with a successful Computer Use check (DC 15):

- Ascertain the location, type (ultralight, light, and so on), and subtype (fighter, destroyer, and so on) of all visible ships on the battlefield.
- Identify and ascertain the location of all visible hazards on the battlefield (such as asteroids and mines).
- Identify all PL 5 or PL 6 weapons on a specific ship (number and type of weapons present), including their organization into batteries (but not fire links).
- Ascertain the presence of any or all of the following systems on a specific ship: grapplers, magnetic field, point-defense system.
- Identify a specific ship's armor type (PL 5 and PL 6 armor types only).
- Analyze the chemical composition of a planet's atmosphere (the ship must be orbiting the planet).

**Purchase DC:** 27.

**Restriction:** None.

### CLASS III SENSOR ARRAY (PL 6)

As the Class II sensor array, except that the ship also gains a +2 equipment bonus on all initiative checks. This array is normally installed on ships built for combat.

**Purchase DC:** 30.

**Restriction:** None.

## TARGETING SYSTEM (PL 6)

A computerized targeting system helps starship gunners aim weapons and track enemy ships. A targeting system provides an equipment bonus on attack rolls depending on the ship's size: Huge +1, Gargantuan +2, Colossal +3.

The purchase DC of the targeting system depends on the size of the ship.

**Purchase DC:** 18 (Huge), 23 (Gargantuan), or 28 (Colossal).

**Restriction:** Licensed (+1).

#### **CLASS IV SENSOR ARRAY (PL 7)**

This array includes hi-res video, electromagnetic sensors, multiband radar, spectroanalyzers, and mass detectors. (A mass detector locates objects via their gravitational signatures.)

As a move action, a Class IV sensor array can perform any one of the following functions with a successful Computer Use check (DC 15):

- Ascertain the location, type (ultralight, light, and so on), subtype (fighter, destroyer, and so on), and mass of all visible ships on the battlefield.
- Identify and ascertain the location of all visible hazards on the battlefield (such as asteroids and mines).
- Identify all of the PL 5, PL 6, and PL 7 weapons on a specific ship (number and type of weapons present), including their organization as fire-linked weapons and batteries.
- Ascertain the presence of any or all of the following systems on a specific ship: grapple, magnetic field, particle field, point-defense system, tractor beam.
- Identify a specific ship's armor type (PL 5, PL 6, or PL 7 armor types only).
- Identify the type of engines a ship has.
- Determine the number of life forms aboard a specific ship.
- Analyze the chemical composition of a planet's atmosphere (the ship must be orbiting the planet).
- Analyze and chart the topography of a 1,000-square-mile area on a planet's surface (the ship must be orbiting the planet).
- Determine a planet's prevailing meteorological conditions and weather patterns (the ship must be orbiting the planet).

**Purchase DC:** 33.

**Restriction:** None.

#### **CLASS V SENSOR ARRAY (PL 7)**

As the Class IV sensor array, except that the ship also gains a +2 equipment bonus on all initiative checks. This array is normally installed on ships built for combat.

**Purchase DC:** 36.

**Restriction:** None.

#### **TARGETING SYSTEM, IMPROVED (PL 7)**

A starship equipped with an improved targeting system gains an equipment bonus on attack rolls depending on the ship's size: Huge +3, Gargantuan +4, Colossal +5. This system replaces the PL 6 targeting system.

The purchase DC of the improved targeting system depends on the size of the ship.

**Purchase DC:** 22 (Huge), 27 (Gargantuan), or 32 (Colossal).

**Restriction:** Licensed (+1).

#### **CLASS VI SENSOR ARRAY (PL 8)**

This array includes hi-res video, electromagnetic sensors, spectroanalyzers, multiphase radar, and mass detectors.

As a move action, a Class VI sensor array can perform any one of the following functions with a successful Computer Use check (DC 15):

- Ascertain the location, type (ultralight, light, and so on), subtype (fighter, destroyer, and so on), and mass of all ships on the battlefield.
- Identify and ascertain the location of all hazards on the battlefield (such as asteroids and mines).
- Determine a specific ship's PL 5, PL 6, PL 7, and PL 8 design specs (engines, defensive systems, sensor systems, communication systems, and weapons, including fire-linked weapons and batteries).
- Detect the presence and location of ships and mines using active cloaking screens (targets still gain the benefits of total concealment).
- Determine the number and type of life forms aboard a specific ship ("type" refers to the creature type).
- Analyze the chemical composition of a planet's atmosphere (the ship must be orbiting the planet).
- Determine the number and type of life forms within a 4,000-square mile region on a planet's surface (the ship must be orbiting the planet, and "type" refers to the creature type).
- Analyze and chart the topography of a 4,000-square-mile area on a planet's surface (the ship must be orbiting the planet).
- Determine a planet's prevailing meteorological conditions and weather patterns (the ship must be orbiting the planet).

**Purchase DC:** 39.

**Restriction:** None.

#### **CLASS VII SENSOR ARRAY (PL 8)**

As the Class VI sensor array, except that the ship also gains a +2 equipment bonus on all initiative checks. This array is normally installed on ships built for combat.

**Purchase DC:** 42.

**Restriction:** None.

### ACHILLES TARGETING SOFTWARE (PL 8)

Any starship with a targeting system can have Achilles targeting software; the software does not take up one of the starship's sensor system slots.

Achilles targeting software enables the ship to better train its weapons on an enemy's critical systems. Achilles targeting software increases the critical threat ranges of the ship's beam, projectile, and missile weapons by 1. This effect stacks with other systems that expand a weapon's critical threat range, such as weapon batteries.

The purchase DC of Achilles targeting software depends on the size of the ship.

**Purchase DC:** 26 (Huge), 31 (Gargantuan), or 36 (Colossal).

**Restriction:** Restricted (+2).

### CLASS VIII SENSOR ARRAY (PL 9)

This array is an amplified version of the Class VI sensor array.

As a move action, a Class VIII sensor array can perform any one of the following functions with a successful Computer Use check (DC 15):

- Ascertain the location, type (ultralight, light, and so on), subtype (fighter, destroyer, and so on), and mass of all ships in the star system.
- Identify and ascertain the location and trajectories of all hazards in the star system (such as asteroids and mines).
- Determine a specific ship's design specs (engines, defensive systems, sensor systems, communication systems, and weapons, including fire-linked weapons and batteries).
- Detect the presence and exact location of ships and mines equipped with cloaking screens, and negate the effects of stealth screens, displacers, and cloaking screens.
- Determine the number, type, and species of life forms aboard a specific ship ("type" refers to the creature type).
- Analyze the chemical composition of a planet's atmosphere (the ship must be in the same system as the planet).
- Determine the number, type, and species of life forms on a planet's surface (the ship must be orbiting the planet, and "type" refers to the creature type).
- Analyze and chart the topography of a planet's surface (the ship must be orbiting the planet).
- Determine a planet's prevailing meteorological conditions and weather patterns (the ship must be in the same system as the planet).

**Purchase DC:** 45.

**Restriction:** None.

### CLASS IX SENSOR ARRAY (PL 9)

As the Class VIII sensor array, except that the ship also gains a +2 equipment bonus on all initiative checks. This array is normally installed on ships built for combat.

**Purchase DC:** 48.

**Restriction:** None.

## STARSHIP COMM SYSTEMS

The ability to communicate with other ships and bases is vital to starships. The more advanced a ship's communications capabilities, the better informed its crew is, and the better they can coordinate with other ships in the same fleet.

To build a communication system from scratch, a character must succeed at a Craft (electrical) check (DC 30) after investing a number of hours equal to the ship's Hit Dice. 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 system's purchase DC.

Installing a comm system requires a successful Craft (mechanical) check (DC 30) and a successful Craft (electrical) check (DC 30) after investing 30 hours. A character without a mechanical or electrical tool kit takes a -4 penalty on the appropriate skill check.

The following section describes various ship-to-ship comm. systems.

**Purchase DC:** The cost of the comm system.

### Internal Comm Systems

Internal comm systems, though as vital as ship-to-ship communications, are not covered in depth here. Obviously, the larger a ship's crew complement, the greater its need for internal communications. The crew must stay in contact to do their jobs properly. Smaller ships can often get by with headsets jacked into the ship's network, or short-range two-way radios, or even just shouting to each other from nearby crew stations. Larger ships require a more sophisticated system.

A standard internal communication system allows two-way audio communication from any comm station to any other comm station on the same ship. An internal comm system has a purchase DC based on the ship's type: ultralight 13, light 16,

mediumweight 19, heavy 22, superheavy 25. Increase the purchase DC by +2 if the comm stations include video screen displays as well.

#### **RADIO TRANSCEIVER (PL 5)**

The radio transceiver can transmit on multiple frequencies in either LOS (line of sight) or omnidirectional mode, sending messages at the speed of light. A radio transceiver can handle up to ten simultaneous two-way conversations.

**Purchase DC:** 21.

#### **LASER TRANSCEIVER (PL 6)**

This system uses a beam of coherent light to transmit messages. The laser is unidirectional; the signal cannot be intercepted or jammed unless it's beamed directly at a hostile ship or station. However, if the comm officer doesn't know exactly where the receiving station is, the laser transceiver is a waste of effort. This has some hidden drawbacks; a character cannot use the laser transceiver for a general distress call to all stations in the area, for example. A ship can't receive laser communications unless it is equipped with the transceiver.

Lasers are limited to the speed of light (8 AU/hour), meaning it can take hours or days to get a response within a system, or even weeks to get a response at interstellar distances.

**Purchase DC:** 23.

#### **DRIVESAT COMM ARRAY (PL 7)**

This massive comm array provides rapid interstellar communications. The array consists of a constellation of dozens of small transmitters that transmit and receive messages through space at faster-thanlight speeds, enabling communications with a range of 50 light-years.

The signals travel at a rate of 5 light-years per hour. Because of the need for steady signal, the ship must remain stationary to transmit and receive messages. If the ship moves while its drivesat array is transmitting or receiving, the ship's communication officer must make a Computer Use check (DC 30) to avoid losing the signal.

Only mediumweight, heavy, and superheavy ships can be equipped with a drivesat comm array.

**Purchase DC:** 53.

#### **MASS TRANSCEIVER (PL 7)**

This device can transmit instantaneously to any point in the same star system, with no "lag" due to FTL limitations.

However, its range is limited to about 1,000 AU, so the signal can't cross interstellar space.

**Purchase DC:** 25.

#### **DRIVE TRANSCEIVER (PL 8)**

The drive transceiver is the first interstellar comm system that's truly practical for small ships or second-rate colonies. It operates like the much larger PL 7 drivesat comm array, sending a signal up to 50 lightyears distant. The signal travels at a rate of 5 light-years per hour. The target station must also be equipped with a drive transceiver.

**Purchase DC:** 28.

#### **ANSIBLE (PL 9)**

The ansible is a device that induces precise changes in the energy states of atomic nuclei, without regard to distance or time. In effect, it permits instantaneous interstellar communications—voice, video, or data transfer—to any other ship or station equipped with an ansible. Much like a radio, the receiving station has to be attentive to a particular "frequency," so two ansible-equipped stations must have some prearranged communications protocols; an ansible cannot pick up any transmissions not intended for that specific frequency.

**Purchase DC:** 33.

### **STARSHIP WEAPONS**

Starship weapons fall into one of four categories: beam weapons, projectile weapons, missiles, and mines. Each category of weapon is described in greater detail below.

Starship weapons require the Starship Gunnery feat to operate proficiently. Without this feat, a gunner takes a –4 penalty on attack rolls made with starship weapons. Trained, expert, and ace crew gunners are assumed to have this feat.

To build a starship weapon system from scratch, a character must succeed at a Craft (mechanical) check (DC 30) after investing 300 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.

Installing a weapon system requires a successful Craft (mechanical) check (DC 30) after investing 30 hours. A character without a mechanical tool kit takes a –4 penalty on the skill check.

**Modifying Weapons:** Certain beam and projectile weapons—as noted in Table: Starship Weapons—can be modified for different rates of fire. With 1 hour of work and a successful Repair check (DC 30), these weapons can be reconfigured for

semiautomatic or automatic fire mode. (Resetting a weapon to its original configuration requires another check and 1 hour.) Weapons can be purchased in their modified versions, but the purchase DC of a modified weapon increases by +3.

## Average Weapon Damage

Some starship weapons (particularly fire-linked weapons) deal incredible damage. To speed up play, you can decide to deal average damage with weapon attacks instead of rolling handfuls of dice and adding them up. Table: Starship Weapons lists average damage in parentheses in the Damage column.

## BEAM WEAPONS

Beam weapons deal energy damage, usually of a nonspecific type. They range from weapons as simple as a high-powered laser to monstrous devices capable of harnessing the fundamental forces of the universe.

Beam weapons draw power from a starship's power plant and are considered to have unlimited ammunition.

**Beam Weapon Mounts:** Beam weapons are mounted on turrets or in banks that, coupled with the starship's ability to adjust its orientation, allow the weapons to fire in any direction. The cost of a turret mount or bank is included in the purchase DC of the weapon.

## PROJECTILE WEAPONS

Projectiles are generally solid slugs delivered to the target, where the velocity and density of the slug hopefully punch through the target's defenses. The most basic projectile weapons launch a small hunk of metal at roughly the speed of sound; the most advanced can push around mountains or molecules at greater than the speed of light.

Projectile weapons tend to be slightly more expensive than beam weapons, but the top end damage is considerably higher.

Starships have sufficient storage space to contain a virtually unlimited supply of projectile weapon ammunition.

**Projectile Weapon Mounts:** Like beam weapons, projectile weapons are mounted on turrets or in banks that, coupled with the starship's ability to adjust its orientation, allow the weapons to fire in any direction. The cost of a turret mount or bank is included in the purchase DC of the weapon.

## MISSILES

A missile is an explosive warhead fixed to a guided rocket and fired from a missile launcher. The type of warhead determines both the type and amount of damage.

All missiles are equipped with guidance systems that negate the penalty for range increments. Missiles are purchased in racks of eight.

**Missile Launchers:** A starship must be equipped with missile launchers to fire missiles. Each type of missile has its own type of missile launcher; for example, a launcher designed to fire CHE missiles cannot fire KE submunition missiles.

Missiles can fire in any direction. A missile launcher has a purchase DC of 20.

## MINES

Mines are immobile explosives that must be deployed to be effective. Mines are equipped with sensors to scan approaching ships and detonate when hostile ships draw near. Some mines also come equipped with cloaking screens and other defensive systems to conceal their presence (see Defensive Systems).

Mines are sold individually. Although a mine weighs no more than a few thousand pounds, one mine consumes 100 tons of a ship's cargo capacity (most of it taken up by the launch system and radiation shielding).

**Minelayers:** A starship must be equipped with a minelayer (purchase DC 25) to deploy mines, and only Colossal ships can be fitted with minelayers. A minelayer consists of two or more mine rails—low-powered magnetic accelerators that can deploy one mine per round.

**Deploying a Mine:** A starship equipped with a minelayer can, as an attack action, deploy a single mine in any 500-foot square it occupies. Only after the starship leaves the mine's detonation area does the mine activate.

A starship that deploys a mine sets the conditions under which the mine detonates. Up to four mines can be deployed in the same 500-foot square and programmed to detonate simultaneously.

A deployed mine is a Medium-size object with Defense 5, hardness 10, and 50 hit points. Damaging or destroying a deployed mine has a 50% chance per hit of detonating it.

**Detonating a Mine:** When certain predetermined conditions are met (usually when an enemy ship enters the mine's detonation area), the deployed mine explodes. The mine's detonation area includes the square it occupies and all adjacent 500-foot squares (9 squares total). All ships within the mine's detonation area take damage when the mine detonates. A pilot may attempt a Pilot check (DC 25) to reduce the damage by half; making this check does not count as an action.

## FIRE-LINKED WEAPONS

Fire-linked weapons are identical beam weapons, projectile weapons, or missile launchers that point and fire in the same direction. In effect, this arrangement creates a single weapon (fired with a single attack roll) that deals greater damage than either weapon alone.

Each full doubling of the number of fire-linked weapons (two weapons, four, eight, and so on) increases the damage by one-half the base damage. For example, a fighter using two fire-linked rail cannons (damage 6d12 each) deals 9d12 points of damage with a successful attack. Fire-linking weapons adds +1 to the purchase DC of each weapon in the link; taking the above example, each fire-linked rail cannon would have a purchase DC of 31 instead of 30.

Variable fire links also exist, allowing the gunner to decide from attack to attack whether to fire the weapons individually (as normal), in a full link (as described above), or in a partial link. A partial link allows the pilot to fire the linked weapons in groups of two. Only starships with four or more fire-linked weapons can be fired in a partial link. The variable version of the fire link adds +3 to the purchase DC of each weapon in the link.

## WEAPON BATTERIES

A weapon battery consists of a cluster of up to five identical beam weapons, projectile weapons, or missile launchers that fire as a single weapon (requiring a single attack roll). When using battery fire, every weapon after the first in a battery adds a +1 bonus on the attack roll, to a maximum of +4 for a five-weapon battery. If the attack succeeds, roll damage as if one of the weapons had hit. In addition, a weapon battery has a greater chance of scoring a critical hit. Regardless of the number of weapons in the battery, the threat range is increased by 1. For example, a battery of plasma cannons (normal threat range of 20) has a threat range of 19–20. This effect stacks with other systems that expand a weapon's critical threat range, such as Achilles targeting software.

Batteries of weapons cannot be “split” into individual weapons; they either fire all together, or not at all. Installing weapons in a battery increases the purchase DC of each weapon by +1.

Only mediumweight, heavy, and superheavy starships can be equipped with weapon batteries.

## WEAPON DESCRIPTIONS

Table: Starship Weapons provides the following statistics for various ranged weapons:

**Damage:** The damage the weapon deals.

**Critical:** The critical threat range of the weapon.

**Damage Type:** Most beam weapons deal a nonspecific type of energy damage that is not subject to energy resistance. A few weapons deal a specific kind of energy damage; for example, a laser deals fire damage. Projectile weapons deal ballistic damage.

**Range Increment:** A weapon's range increment is given in feet. An attack at less than this distance is not penalized for range. However, each full range increment causes a cumulative –2 penalty on the attack roll. Beam weapons dissipate and become ineffective past 10 range increments, while projectile weapons have unlimited range.

**Rate of Fire:** Ranged weapons have three possible rates of fire: single shot, semiautomatic, or automatic.

*Single Shot:* A weapon with a single shot rate of fire can fire only one shot per attack, even if the gunner has a feat or other ability that normally allows more than one shot per attack.

*Semiautomatic (S):* A semiautomatic ranged weapon fires one shot per attack (effectively acting as a single shot weapon). However, a gunner who gains multiple attacks per round because of his level or because of certain feats can fire a semiautomatic beam weapon multiple times in rapid succession, getting more than one shot per attack.

*Automatic (A):* Automatic ranged weapons fire a burst or stream of shots. Only weapons with the automatic rate of fire can be set on autofire or be used with feats that take advantage of automatic fire. See the Starship Weapons on Autofire for more rules and information.

**Minimum Ship Size:** The minimum size of starship capable of supporting the weapon.

**Purchase DC:** The purchase DC of the weapon.

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

## Starship Weapons on Autofire

If a starship weapon has an automatic rate of fire, it can be set on autofire. Autofire affects an area and everything in it, not a specific target. The starship using the autofire weapon targets a 1,000-foot-by-1,000-foot area and makes an attack roll; the targeted area has an effective Defense of 10. If the attack succeeds, the pilots of all ships within the affected area must make a Pilot check (DC 15) or take the weapon's damage.

Apply a penalty on the check based on the size of the pilot's ship: Huge –2, Gargantuan –4, Colossal –8.

Some starship weapons—such as the needle driver—only have autofire settings and can't normally fire single shots.

**Table: Starship Weapons**

Weapon Damage	Critical	Damage Type	Range Increment	Rate of Fire	Minimum Ship Size	Purchase DC	Restriction
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<b>Progress Level 6: Fusion Age</b>								
Fusion beam	10d8 (45)	20	Energy	3,000 ft.	Single	Gargantuan	33	Res (+2)
Gauss gun	8d12 (52)	20	Ballistic	4,000 ft.	Single <sup>1</sup>	Gargantuan	35	Res (+2)
Laser	6d8 (27)	20	Fire	3,000 ft.	Single <sup>1</sup>	Huge	28	Lic (+1)
Laser, heavy	8d8 (36)	20	Fire	4,000 ft.	Single	Colossal	31	Res (+2)
Mine, fusion	5d100 (275)	—	Energy	—	—	Colossal	33	Mil (+3)
Missile, CHE	6d12 (39)	19–20	Ballistic	—	Single	Gargantuan	25 <sup>2</sup>	Mil (+3)
Missile, KE submunition	4d12 (26)	19–20	Ballistic	—	Single	Gargantuan	22 <sup>2</sup>	Lic (+1)
Missile, nuclear	16d8 (72)	19–20	Energy	—	Single	Gargantuan	45 <sup>2</sup>	Mil (+3)
Needle driver	8d12 (52)	20	Ballistic	4,000 ft.	A	Gargantuan	36	Lic (+1)
Neutron gun	6d8 (27)	20	Energy	5,000 ft.	Single	Colossal	31	Mil (+3)
Neutron gun, heavy	10d8 (45)	20	Energy	6,000 ft.	Single	Colossal	35	Mil (+3)
Rail cannon	6d12 (39)	20	Ballistic	3,000 ft.	Single <sup>1</sup>	Gargantuan	30	Lic (+1)
<b>Progress Level 7: Gravity Age</b>								
Antimatter gun	10d8 (45)	20	Energy	5,000 ft.	Single	Colossal	38	Mil (+3)
Mass cannon	8d12 (52)	20	Ballistic	5,000 ft.	Single	Gargantuan	37	Lic (+1)
Mass cannon, heavy	10d12 (65)	20	Ballistic	6,000 ft.	Single	Colossal	40	Res (+2)
Mine, gravitic	10d100 (550)	—	Energy	—	—	Colossal	43	Mil (+3)
Missile, mass reaction	20d8 (90)	19–20	Energy	—	Single	Colossal	50 <sup>2</sup>	Mil (+3)
Missile, plasma	18d8 (81)	19–20	Fire	—	Single	Gargantuan	46 <sup>2</sup>	Res (+2)
Particle beam	12d8 (54)	20	Energy	4,000 ft.	Single	Gargantuan	36	Res (+2)
Particle beam, heavy	16d8 (72)	20	Energy	5,000 ft.	Single	Colossal	39	Res (+2)
Plasma cannon	14d8 (63)	20	Fire	3,000 ft.	Single <sup>1</sup>	Gargantuan	36	Lic (+1)
Plasma cannon, heavy	18d8 (81)	20	Fire	4,000 ft.	Single <sup>1</sup>	Colossal	39	Res (+2)
Quantum cannon	16d8 (72)	20	Energy	6,000 ft.	Single	Gargantuan	41	Res (+2)
<b>Progress Level 8: Energy Age</b>								
Automaser	12d8 (54)	20	Energy	6,000 ft.	A	Colossal	40	Res (+2)
EMP cannon	8d8 (36) <sup>3</sup>	20	Electricity	4,000 ft.	Single	Gargantuan	41	Res (+2)
Kinetic lance	10d12 (65)	20	Concussion	3,000 ft.	Single <sup>1</sup>	Colossal	42	Res (+2)
Maser cannon	12d8 (54)	20	Energy	6,000 ft.	Single <sup>1</sup>	Gargantuan	40	Lic (+1)
Maser cannon, heavy	16d8 (72)	20	Energy	8,000 ft.	Single <sup>1</sup>	Colossal	44	Res (+2)
Mine, zero point	15d100 (825)	—	Energy	—	—	Colossal	48	Mil (+3)
Missile, nova burst	12d8 (54)	19–20	Ballistic/ Energy	—	Single	Gargantuan	45 <sup>2</sup>	Mil (+3)
Missile, starload	20d8 (90)	19–20	Energy	—	Single	Huge	45 <sup>2</sup>	Mil (+3)
Neutronium driver	12d12 (78)	20	Ballistic	5,000 ft.	Single	Colossal	42	Mil (+3)
Sliver gun	8d12 (52)	20	Ballistic	3,000 ft.	S, A	Gargantuan	39	Res (+2)
Zero bore	16d8 (72)	20	Energy	6,000 ft.	Single	Colossal	52	Mil (+3)
<b>Progress Level 9: Matter Age</b>								
Blacklaser	16d8 (72)	20	Energy	8,000 ft.	S, A	Huge	50	Mil (+3)
Mine, null <sup>4</sup>	10d100 (550)	—	Energy	—	—	Colossal	53	Mil (+3)
Singularity cannon	20d8 (90)	20	Energy	5,000 ft.	Single	Colossal	53	Mil (+3)
String projector	12d12 (78)	20	Energy	6,000 ft.	Single	Colossal	54	Mil (+3)
Tachyon gun	14d8 (63)	20	Energy	10,000 ft.	Single	Gargantuan	52	Mil (+3)

1 With a successful Repair check (DC 30) and 1 hour of work, this weapon can be modified for semiautomatic or automatic fire mode.

Resetting the weapon to its original configuration requires another check and another hour of labor.

2 The purchase DC includes a basic launch system (missile rack or missile tube) and eight missiles with warheads. The purchase DC is 2 lower without the launch system.

3 In addition to taking damage, the ship is dazed for 1 round (see Starship Condition Summary).

4 This weapon's damage ignores a ship's hardness.

## FUSION BEAM (PL 6)



The fusion beam initiates a fusion reaction and then directs the blast at the target.

**GAUSS GUN (PL 6)**

The gauss gun is an electromagnetic accelerator that fires tiny ball bearings at an extremely high velocity.

**LASER (PL 6)**

The simplest beam weapon, the laser is used generally for small craft. It consists of a focused beam of white-hot light.

**LASER, HEAVY (PL 6)**

The heavy laser is simply an oversized laser that pours more energy on the target. It's too big to install on light spacecraft, but is common on destroyers and larger warships.

**MINE, FUSION (PL 6)**

A fusion mine initiates a fusion reaction that deals damage to all starships in its square and all adjacent squares.

**MISSILE, CHE (PL 6)**

A CHE (conventional high-explosive) warhead can destroy a small vessel, but it's less effective against larger warships unless launched in numbers. Heavy vessels, such as battleships, can usually ignore the weapon despite its payload of hundreds of kilos of advanced chemical explosives.

**MISSILE, KE SUBMUNITION (PL 6)**

This warhead consists of a bundle of dozens or even hundreds of tungsten steel darts, each mounted on small rocket motors. As the weapon approaches its target, the warhead splits open, unleashing a lethal hail of high-velocity metal arrows. The impact alone can vaporize several square yards of heavy armor.

**MISSILE, NUCLEAR (PL 6)**

This 1-megaton warhead is essentially a fusion bomb rigged to a guided rocket.

**NEEDLE DRIVER (PL 6)**

The needle driver is a larger, heavier version of the rail cannon (see below), with an extremely high rate of fire. It fires small metal flechettes at the rate of thousands of rounds per minute.

**NEUTRON GUN (PL 6)**

This device directs an intense blast of neutron radiation at the target.

**NEUTRON GUN, HEAVY (PL 6)**

This weapon is simply a larger version of the neutron gun.

**RAIL CANNON (PL 6)**

Rail cannons use a series of electromagnets to propel projectiles down a magnetic track. The projectiles are kinetic-energy weapons with no explosive charge, but at close ranges, they can still be quite devastating.

**ANTIMATTER GUN (PL 7)**

Using the same basic technology as the PL 6 rail cannon, the antimatter gun throws a piece of antimatter at the target. The impact alone is extremely destructive. Following the initial impact damage, the "splatter" of antimatter from the disintegrating warhead creates a cluster-bomb effect around the point of impact, increasing the chance of a critical hit.

**MASS CANNON (PL 7)**

The mass cannon uses gravitic technology to "charge" 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.

**MASS CANNON, HEAVY (PL 7)**

The heavy mass cannon is a larger and more powerful version of the mass cannon.

**MINE, GRAVITIC (PL 7)**

When a gravitic mine detonates, it creates a brief artificial gravity well that pulls on ships in its square and in all adjacent squares, tearing their hulls.

**MISSILE, MASS REACTION (PL 7)**

This warhead uses a dark matter reaction to unleash a powerful wave of energy. The effect is more concentrated than a nuclear blast, but it's less likely to cause unwanted collateral damage.

**MISSILE, PLASMA (PL 7)**

The plasma warhead improves on the PL 6 chemical explosive. It creates a burst of white-hot plasma that can blast a small ship out of space with one shot.

**PARTICLE BEAM (PL 7)**

The next phase of the PL 6 neutron gun, the particle beam projects a stream of protons, neutrons, or alpha particles at the target—each particle accelerated to near light-speed.

**PARTICLE BEAM, HEAVY (PL 7)**

This weapon is simply a larger version of the particle beam.

**PLASMA CANNON (PL 7)**

Using a powerful electrical charge to convert a mix of chemicals into white-hot plasma, this weapon then accelerates the plasma mass toward the target with a simple rail gun. The result is a bolt of incandescent plasma that can explosively vaporize objects in its path.

**PLASMA CANNON, HEAVY (PL 7)**

This weapon is simply a larger version of the plasma cannon.

### **QUANTUM CANNON (PL 7)**

The quantum cannon fires a stream of highly charged subatomic particles, destabilizing the atoms of the target and creating localized fission reactions.

### **AUTOMASER (PL 8)**

The automaser uses multiple firing arrays to channel high-energy maser compressions into shorter pulse widths. This weapon fires only in automatic mode.

### **EMP CANNON (PL 8)**

The EMP cannon induces an electromagnetic pulse effect similar to that of a nuclear explosion. This makes the EMP cannon especially effective against electronic equipment. In addition to taking damage, the starship is dazed for 1 round. Neither crew nor passengers are dazed, however.

### **KINETIC LANCE (PL 8)**

The kinetic lance creates a high-velocity stream of virtual particles simulating solid matter. The impact of these particles is quite destructive—rather like a collision with a solid object.

### **MASER CANNON (PL 8)**

Maser cannons channel an enormous amount of power through a linear antenna array, creating a broad-spectrum blast of energy that devastates the target with heat, light, and intense radiation.

### **MASER CANNON, HEAVY (PL 8)**

The heavy maser cannon is a larger version of the maser cannon. With 1 hour of work and a successful Repair check (DC 30), a heavy maser can be reconfigured for semiautomatic or automatic fire mode. (Resetting the weapon to its original configuration requires another check and another hour of labor.) Increase the purchase DC of the modified pulse maser by +5.

### **MINE, ZERO POINT (PL 8)**

This mine creates a spontaneous quantum fluctuation of energy—the same energy as the Big Bang, though obviously on a smaller scale.

### **MISSILE, NOVA BURST (PL 8)**

The nova burst warhead generates an incredible gravitational force that compresses normal matter into an incredibly dense mass, which then explodes in a colossal detonation.

### **MISSILE, STARLOAD (PL 8)**

The starload warhead is essentially an improved version of the PL 7 mass reaction missile.

### **NEUTRONIUM DRIVER (PL 8)**

This version of the rail gun is configured to fire a projectile of false neutronium—a slug the size of a baseball, but with a temporary mass of thousands of tons. Because neutronium is electrically neutral, the driver mechanism actually encapsulates the projectile in a sleeve or sabot of ordinary matter to fire the slug.

### **SLIVER GUN (PL 8)**

An efficient mass driver loaded with flechettes of tungsten steel, the sliver gun is the PL 8 version of a heavy machine gun. It cycles at a rate of fire of almost 4,000 rounds per minute, and each sliver can tear through a yard or more of heavy armor.

### **ZERO BORE (PL 8)**

The zero bore creates a stream of energy that encourages extraordinary amounts of quantum energy fluctuation—the so-called “zero point” energy. Anything in its path is wrecked by the spontaneous destruction of space itself.

### **BLACKLASER (PL 9)**

Using the fluorescent gaseous form of dark matter, a blacklaser fires a beam of coherent light. To human eyes, it appears to be a beam of purplish light bordering on ultraviolet, but it is composed of radiation much more energetic and dangerous than ordinary photons.

### **MINE, NULL (PL 9)**

This weapon is horrifyingly simple in design. It harnesses nuclear strong force to generate a field in which all atomic bonds cease to exist. Matter in the mine’s square and all adjacent squares is pulverized into subatomic dust.

A null mine ignores a ship’s hardness.

### **SINGULARITY CANNON (PL 9)**

The singularity cannon creates a quantum black hole and fires it at the enemy. A quantum black hole is no bigger than a single molecule, but it masses hundreds of millions of tons and can rip even the toughest armor to shreds.

### **STRING PROJECTOR (PL 9)**

The string projector creates a super-dense cosmic string that passes through the target. A cosmic string is a short-lived chain of extraordinary mass; the effect on the target is similar to being pierced by the mass of a mountain, but concentrated into a space the size of a strand of hair.

### **TACHYON GUN (PL 9)**

The tachyon gun fires a blast of high-energy, faster-than-light particles at the target.

## **GRAPPLING SYSTEMS**

The following devices are commonly found on starships but don't fit under the headings of armor, engines, sensors, defensive systems, or weapons.

Installing one of these systems requires a successful Craft (mechanical) check (DC 30) after investing 30 hours. A character without a mechanical tool kit takes a -4 penalty on the skill check.

**Purchase DC:** The purchase DC of the system.

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

### GRAPPLERS (PL 5)

Grapplers consist of two or more robotic arms fitted with magnetic grips or pads capable of latching onto a single target, usually another ship. Grapplers can also be used to grab Small or larger objects adrift in space.

Using grapplers against another ship or an unattended object is an attack action. Against another ship, this action provokes an attack of opportunity if the ship being grabbed has a point-defense system. To successfully grab the target, the starship must first enter the target's square; then the starship's pilot must succeed at a Pilot check. The Pilot check's DC depends on the size and Defense of the target being grabbed, as shown on Table: Grappler Pilot Check DCs below. If the check succeeds, the starship successfully latches onto the target, and the two ships continue to occupy the same space until the grapplers release their hold. The grappling ship cannot move as long as it wishes to remain latched and moves in concert with the grappled ship. Neither ship can attack the other as long as the grapplers maintain their hold.

As an attack action, a grabbed starship can free itself from a grabbing ship by succeeding at an opposed Pilot check. Each ship adds a special grapple bonus on its check based on its size: Huge +8, Gargantuan +12, Colossal +16. A ship may only attempt to free itself once per round.

A starship using grapplers to latch onto another ship can release the hold and retract the grapplers as a free action.

**Purchase DC:** 10 + one-half the base purchase DC of the starship.

**Restriction:** None.

**Table: Grappler Pilot Check DCs**

Size of Target	Pilot Check DC
Colossal	5 + target's Defense
Gargantuan	10 + target's Defense
Huge	15 + target's Defense
Large	20 + target's Defense
Medium-size	25 + target's Defense
Small	30 + target's Defense

### TRACTOR BEAM EMITTER (PL 7)

A tractor beam emitter projects a short-range gravitational "tether" that latches onto or immobilizes a single target, usually a ship or unattended object. The target must be in the same square or in an adjacent square.

Using a tractor beam against a starship or an unattended object is an attack action. Against another ship, this action provokes an attack of opportunity if the ship being grabbed has a point-defense system.

To grab a target with its tractor beam, a starship must succeed at a ranged attack roll. If the attack succeeds, the smaller ship is immediately pulled into the larger ship's space (if it isn't in occupying the same space already); if both ships are the same size, the target is pulled into the tractorship's space. In any case, being pulled into another ship's space by a tractor beam does not count against a ship's movement. If the tractorship is one or more size categories larger than the target, the target is effectively immobilized, and tractorship drags the target with it when it moves. If the tractorship is the same size category as the target or smaller, both the tractorship and the target are effectively immobilized. See the Starship Condition Summary for the effects of being immobilized.

As an attack action, a tractorship can free itself from the tractorship by succeeding at an opposed Pilot check. Each ship adds a special grapple bonus on its check based on its size: Huge +8, Gargantuan +12, Colossal +16. A ship may only attempt to free itself from a tractor beam (or any other grappling device) once per round. A ship held by multiple tractor beams may attempt a single grapple check to escape all of the beams, but must beat the grapple check results of all opponents.

A starship using a tractor beam to grab another ship can terminate the beam (thereby releasing its hold on the other ship) as a free action.

Only Gargantuan and Colossal ships can be equipped with a tractor beam emitter.

**Purchase DC:** 15 + one-half the base purchase DC of the starship.

**Restriction:** Licensed (+1).

## HEROES IN STARSHIPS

A hero in a starship fills one of several possible roles, which determines what the character can do.

**Commander:** A ship's commander makes decisions about tactics and issues orders to the crew. The commander can help another crewmember by taking an aid another action. The commander must be located on the starship's command deck to do so.

Aiding another crewmember is a move action. A starship can only have one commander, and ships under Colossal size tend not to have a commander at all.

**Pilot:** The pilot of a starship controls its movement. Most starships have only one position from which the starship can be piloted. Piloting a starship is always at least a move action, which means that the pilot may be able to do something else with her attack action each round. On smaller ships such as fighters, the pilot also serves as the gunner. A starship can have only one pilot at a time.

**Copilot:** The copilot can help the pilot on Pilot checks by taking an aid another action. The copilot must be located somewhere on the ship from where he can see the starship's surroundings and advise the pilot (usually the command deck or cockpit). Aiding the pilot is a move action, leaving the copilot with an attack action each round to do something else. A copilot may also serve as a gunner or sensor operator if he can access one of the starship's weapon systems or the ship's sensors from his station. A starship can have only one copilot at a time.

**Gunner:** A gunner controls one of the ship's weapon systems, applying her ranged attack bonus and Dexterity modifier to the attack rolls. A ship with multiple weapon systems can have multiple gunners.

**Sensor Operator:** Although the copilot usually operates the sensors, some ships (particularly heavy and superheavy ships) have a dedicated crew position for a sensor operator. A sensor operator can take an aid another action either to help the pilot with Pilot checks, or to help a gunner with attack rolls. Either is a move action, leaving the sensor operator with an attack action each round to do something else. A starship can have as many sensor operators as it has different sensor systems (see Starship Sensors).

**Engineer:** A starship's engineer keeps the ship in working order. If a system has failed for any reason, it is usually up to the engineer to get that system working again. An engineer can attempt a Repair check to fix minor problems as a full round action. A starship can have one engineer, plus one additional engineer each for the ship's life support, sensors (and communications), and defensive systems.

**Passenger:** All other personnel aboard the starship are considered passengers for purposes of starship combat. Passengers have no specific role in the starship's operation, but they help repel boarders or take other actions.

## BY HOOK OR BY CROOK

Heroes who cannot afford to buy their own starship can always borrow, requisition, rent, or steal one as the need arises.

**Borrowing a Starship:** A character with the favor talent can attempt a favor check (DC 30) to borrow a starship from a friendly contact, assuming that the contact has a ship available. The contact must have an attitude of helpful, and improving a contact's attitude requires a Diplomacy check. The GM sets the terms of the favor.

**Requisitioning a Starship:** A character working for an agency can requisition a starship as "equipment," using the rules for requisitioning equipment.

**Renting a Starship:** The issue of starship rental won't come up in campaigns where space traffic is limited to military vessels. However, in campaigns featuring commercial and privately owned starships, heroes can rent a starship for much less than it costs to buy one. Only ultralight or light starships with a restriction rating of licensed (+1) or restricted (+2) can be rented, and the heroes must have the appropriate license to operate the vessel. Renting a starship for a day requires a successful Wealth check against one-quarter of the starship's purchase DC. Increase the purchase DC by 2 if the ship is equipped for interstellar travel or if a trained crew is provided as part of the rental agreement. Renters must cover any damages sustained by the ship during the rental period.

**Stealing a Starship:** Characters can steal a starship only after disabling its security locks (Disable Device DC 40, one check per lock), overcoming any hostile crewmembers aboard, and defeating the ship's onboard computer security system (Computer Use DC 40). A ship's computer security system can be accessed from any onboard computer terminal, although using a bridge terminal reduces the DC by 5. For more information on defeating computer security, see the Computer Use skill description.