

# How to Build an Interstellar Warship, Part One: The Basics

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## I. Introduction

Greetings, I've written this little guide in order to give some of the RPer's out there a guide on how to actually develop their own customized interstellar warships. If you don't know who I am already, I'm Derran Tyler, one of the original creators of the RP military organization, the Nerimian Defense Initiative (NDI). I'm the one that's responsible for the in-depth starship designs of the NDI which have been giving the various military organizations in Ayenee a great deal of trouble in the various space wars in which we've role-played on the Ayenee RP Message Board.

The purpose of this guide is to provide a basic outline for people to develop their own warships in order to even the playing field just a little bit. I feel this is needed because some people really do not seem to understand the fundamentals of creating an effective combat unit. While it would seem easy to just stick a bunch of large weapons on a ship that can travel long distances using whatever technology you deem fit, that is rarely fun (at least in my humble opinion). The goal when creating an interstellar warship that fulfills a role needed by your military organization. This is why navies have different types of warships instead of a one-size-fits-all type warship.

## II. Types of Warships

Let us begin with the most generic and most famous of warship designs, the mighty Battleship. The battleship is quite simply the largest, most powerful warship class in terms of sheer firepower. It should possess the strongest and most durable armor available as well as weapons systems that can crush any smaller warship classification. Battleships serve as command vessels, not only because of their size, but because the enormous amount of resources they take to build make them a symbol of pride and power for whomever possesses them.

The weaknesses of the battleship are rather obvious. It is big and slow, thus it is not going to catch very many targets. Its size also makes it the obvious target of any major enemy attack, which means that a battleship is going to need escorting vessels to truly remain effective. However, the most dangerous weapon to any battleship is a starfighter. A starfighter can strike repeatedly against a mammoth battleship without fear of getting hit back. In large numbers, starfighters can cripple a battleship.

The next classification would be the Cruiser, by far the most generic type of vessel in any interstellar navy. Cruisers are extremely versatile in their application as they can be suited for many different tasks. Heavy Cruisers are the most common cruiser design, with enough firepower that they can trade shots

with a battleship and deal significant damage. Light Cruisers combine firepower with impressive speed and are usually second-line units. However, there are many other variations of cruisers that are far too numerous to list here. Be inventive in the application of your cruiser designs, as they are the jack-of-all-trades warship of a fleet.

Now we begin to move into the smaller classifications of warships, namely the Destroyer. The Destroyer is a fast, nimble vessel with enough firepower to deal a decent amount of damage to a cruiser. Destroyers are excellent escort vessels and they can be used to defend the capital ships of the fleet. I myself have developed several variations on the destroyer, so once again, try and make this class of ship work for you.

The Frigate is the smallest large warship design available, and oddly enough, this is probably the most predominate classification as they are small and very cheap to build. Armor is rather thin, but they make up for this in speed. Once again, these are escort vessels, so don't expect to put a frigate on the front lines and expect it to survive very long.

There are other classes of warships available, but these are the very basic types of warship, so I'm going to end it there.

### III. Vital Warship Systems

Let's face it, a warship isn't just a floating gun platform, it's a self-contained military unit. Not only must a warship be able to fight, it must be able to support and protect its crew from the dark void of space with armor and deflector shields. It must also be able to communicate with bases and/or other warships surrounding it and detect its surroundings with advanced sensors. Most importantly, a warship needs propulsion systems in order to even move and power its weapons systems. All of these systems must work in tandem in order for the warship to be an effective and worthwhile combat unit.

Since we are talking about interstellar warships here, let us start with the most obvious, propulsion systems.

Propulsion systems are perhaps the most vital element of any warship. Why? Propulsion systems not only move the ship, but they power the warship's other systems. So in essence, we could really call this Propulsion/Power. The bigger the ship, the more engines you are going to need to power the weapons, the life-support systems, the sensors, and everything else. An enemy knows out your power, and that ship is essentially dead in the water.

There are two types of drives: sub-light and faster-than-light (FTL). Sub-light drives propel a ship at sub-light speeds, and they are designed for fast travel when inside a star system. These are the drives that allow the ship to maneuver during combat. FTL drives are the 'hyperspace' or 'fold' drives of a warship that makes interstellar travel possible. Use whatever FTL drive theories that you wish.

Sensor systems are another essential element of a warship. If a crew can't see what's around it, then it is traveling blind, and that is incredibly dangerous. When one takes into account what a warship must do, sensors are vital to any fighting ship. You can use whatever type of sensors you want, it really doesn't matter.

However, there is a spin-off of sensor systems that is a sub-category of sensors, and that would be Electronic Warfare systems. Standard electronic countermeasures (ECM), stealth, or cloaking systems are included in all of this classification.

Force Field systems are another development that exists purely for defense not only against enemy weapons, but against space debris that exists in space as the warship moves. Think about it, little micro fragments of rock or whatever striking the armor of your ship as you're traveling at thousands of miles per hour through space. Propel anything fast enough and it'll go through anything. Small particle-based shields are therefore necessary to maintain the integrity of a ship's armor while moving. The more known shields are designed to defeat enemy weapons such as lasers, particle beams, or whatever they can throw against you. These shields basically absorb damage from enemy attacks so the armor isn't struck. Such shields aren't infallible, but they greatly prolong the life expectancy of a craft during combat.

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Weapons systems are probably the most notable of any warship, because the weapons make it possible for a warship to fight against its enemies. Missiles, lasers, particle beams, huge death rays, or whatever else you want to use are fair game. Just remember to take into account the size of the warship you're mounting this weapon on.

Life-support systems are no-brainers. They process and recycle air so that your crew can live inside of the ship. These systems keep temperatures at comfortable levels; generate artificial gravity so the crew's muscles don't atrophy. Basically, anything you can envision that is absolutely necessary to the survival of the crew is included in this class.

## IV. Allocating Weapons Systems

Perhaps this is the most important section of this little guide. Through seeing people generate their own warship designs, all the designs have surprisingly enough been the same. They place a main gun, some secondary guns, maybe a few missile launchers, and they send their ship on its merry way thinking its fit to do combat.

Maybe against similarly equipped warships, but against a competently designed warship, one will find that such a ship has multiple types of weapons that are not only based upon their damage capacity, but how they deal damage, range, and even firing arcs.

So let's break down weapons into some basic types, shall we?

Primary Weapons are your big guns. They draw the most power, deal the most damage, and are usually the preferred weapon of any ship captain. Not gonna go into detail here, because most people seem to understand the concept of placing a large gun on their warship.

Secondary Weapons are the weapons that back up your main gun. Let's face it, if your primary weapon is truly that powerful, it has to recharge sometimes. Also, you may not want to overkill everything, so this is where you bring in your secondary weapons. They could be weaker versions of your primary weapon or something else entirely different. Again, it really doesn't matter here.

Point-Defense Weapons are weapons that are small, precise weapons designed to take on small, agile targets. They are short-range weapons that are designed to take on targets that get just a little too close for comfort. Think of small anti-aircraft batteries on Star Wars ships that shoot down X-Wings.

Ballistic Weapons could be rail guns, or more commonly, missiles or torpedoes. These weapons can often deal more damage on a localized area (Example: Missiles tipped with nuclear warheads), but they are limited by quantity and sheer speed.

These are the four main types of weapons, but lets see how we actually allocate these weapons on an actual warship.

As stated before, every warship should have its own primary weapon, which should deal the most damage of any single weapon the ship. Also, it should have secondary weapons backing up this weapon. Most people understand this fact, but what most people don't get is that you need more than just a standard firing array. When fighting enemy warships, they aren't just going to attack you at the front. They are going to attack you from the front, the sides, and from behind. Thus, you must have weapons that can fire on multiple firing arcs.

A firing arc is simply the angle at which a weapon can fire. A weapon can be fixed, that is, they can be mounted facing in one direction and cannot move. This means that the entire ship must move in order to fire this weapon. Most primary weapons are of the fixed variety. However, you also have limited-arc weapons that can move 30-degrees or so off centerline. They are still limited to firing in one basic direction, but they can vary the direction of their fire slightly. Turreted weapons, however, can rotate full 360-degrees off centerline, firing in any direction that they are needed. Point defense weapons are on turrets, as they need to be able to fire in any direction to accurately strike their intended targets.

In order to have an effective warship, one needs to have limited-arc and turreted weapons that can cover all possible firing arcs so the warship has 100% coverage against enemy attacks. Otherwise, you create a warship that is unable to defend itself against starfighters, flanking, or rear attacks.

## V. Conclusion

So what have we learned today, kids? We've learned that there are four basic types of warships: Battleships, cruisers, destroyers, and frigates. We've also learned that a warship is more than a gun platform, but rather a complex development of engineering that incorporates many different systems into its basic operation. Finally, we've learned that warships have different types of weapons and that mixing the various types of weapons ultimately results in a warship that is highly effective in combat.

In the second part of this guide, we'll delve into much deeper issues. We'll begin to learn about specialized systems and creating a balanced combat fleet that maximizes the strengths of each class of warship while downplaying the inherent weaknesses. Until that time, I bid thee farewell.

**- Derran Tyler**

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