

Foldspace MASC (FoMASC) Drive

The Foldspace [Major Artificial Space Compression](#), or FoMASC Drive is a system which incorporates the compression of real and non-Euclidean space to imitate the effects of true Hyperspace Fold drives. Developed through a combination of reverse engineered pre-Yamatai starship wrecks found in the environs of their home system, which garnered certain clues as to the functioning of phasing and hyperspace fold, and extensive use of [Veyrinite](#) technologies, the [Iromakuanhe](#) eventually developed the capacity for long-range interstellar faster-than-light travel. The resulting drives could be considered functional approximations of conventional hyperspace fold systems, but are able to operate on a smaller power bandwidth because of the improved power transmission and distortion generators inherent in [Veyrinite](#) components.

However, the large cost of a completed FoMASC drive offsets their relative advantages, meaning that the number of 'true' Fold Drives is smaller than the number of vessels with FoMASC variants. Those with completed drives that may effectuate directional Folds without a preexisting fold in space or a strong anchor to move towards are called 'Fold Ships', while large spaceborne structures that generate permanent passages are known as 'Fold Gates'. Many ships with FoMASC systems use variants known as 'Jump Drives' which can only move towards predefined locations, created by beacons known as 'Jump Beacons', Fold Gates and even certain larger classes of Fold Ship.

The drive functions in three phases, which through their properties and execution differentiate it from conventional hyperspace FTL drives. The process begins by generating a flowing overlap in non-Euclidean¹⁾ space around the ship, causing the origin and destination to occupy the same location in space-time and the space surrounding both points to be dragged through towards the other side. At this point, the ship may perceive a combination of the ambient photons at both locations, which can be perceived as an extremely blurred and distorted superimposition of the space surrounding the ship were it in either location. Both points 'pull' on the space surrounding the ship, until it begins to phase out of the origin and the equilibrium is nullified, causing the distortion surrounding the vessel to be 'pulled' towards its destination. Photons from the origin can no longer be detected after a transitional period where emissions decrease gradually for several minutes, and remaining emissions from the destination appear like a series of stretched strands emanating from a distant point at the 'front'²⁾. While in this state, the vessel very gradually begins to phase out of the transitional foldspace that replaces the origin and emerges entirely in the destination.

Generally, time can be noted as passing 210% normal³⁾ during fold, and up to 3600% while entering and leaving fold.

In preparation from the journey, the vessel must disable any space-distortion drives or shield systems and cocoon itself in a distortion which will act as a sail and protective shell as it 'rides' the spatial fold. This effectively isolates it from realspace entirely, preventing it from being damaged once it has engaged faster-than-light travel and causing it to have volume of zero in the context of real and virtual space, which reduces the number of virtual particle collisions to almost zero when passing through all but the largest of stellar masses. Although the vessel may still be heavily damaged by passing through any large objects, it is unlikely that it will be destroyed unless its destination has been defined as being inside of such a large mass⁴⁾, in which case it will likely be completely annihilated upon arrival.

General Information

Name: FoMASC Drive Type: FTL Propulsion System Government: [Iromakuanhe Astral Commonwealth](#)
Designer: Solan Starworks Manufacturer: [Solan Starworks](#)

Advantages

- The drive is able to operate with a smaller power bandwidth than a comparable drive.⁵⁾
- The drive could be employed to create permanent two-way gates.
- The drive allows some degree of preparation in-transit as time is mildly dilated in the inverse direction.
- A vessel with this drive experiences few to no virtual collisions when in transit.
- A vessel with this drive cannot be attacked in-transit, even with FTL weaponry.

Disadvantages

- The drive itself is relatively expensive because it employs large amounts of [Veyrinite](#).
- The drive is slower than a comparable unit of [NH-22C Yamataian](#) or [Nepleslian](#) make.
- The drive may require stasis sleep to prevent mental fatigue from long travel times, because of inverse time dilation.

Technical Information



Drive Types

Fold

Foldships have complete FoMASC Drives and have the ability to make point to point folds without assistance from other vessels. Such vessels tend to be considered valuable by [Astral Vanguard](#) commanders for their monetary and strategic value. Often include capital ships, heavy cruisers and scout vessels.

Fold Docks are lightly armored automated utility ships that consist of a chassis, reactor and drive system, often fragile in appearance but large enough to dock with up to thirty vessels at once and carry many more within its distortion field. They are designed to carry jump ships without a fold-capable flagship across long distance, when jump drives are not available.

Fold Gates are monolithic structures with the capacity to create permanent, two-way, multi-kilometer wide folds between eachother. Jump ships and civilian vessels with older [MASC Drives](#) are expected to take these to move between systems, and many fold ships may elect to take them to conserve power and shorten travel times.

Statistics			
Ship Type	Charge Time	Relative Velocity	Maximum Travel Distance
Space Fortresses ⁶⁾	180 Minutes	.05 ly/m	100 Light Years
Capital	30 Minutes	.05 ly/m	50 Light Years
Fold Dock	45 Minutes	.5 ly/m	75 Light Years
Heavy Cruiser ⁷⁾	25 Minutes	.075 ly/m	30 Light Years
Cruiser	20 Minutes	.1 ly/m	40 Light Years
Scout ⁸⁾	7.5 Minutes	.5 ly/m	75 Light Years
 Not approved for IC usage. 			
Fold Gate ⁹⁾	5 Minutes	60 ly/m	30 LY

Jump

Jumpships are military and civilian ships with incomplete FoMASC drives that depend on their supporting flagship to carry them between systems. They can make relatively fast 'Fold Jumps' towards any Fold Gate or a Fold Dock that is acting as an anchor, and can ride with their FoldShip by extending its distortion field to encompass themselves, and contribute power to ensure the fleet travels safely and quickly to its destination. An entire fleet of jumpships in proper formation can move through foldspace with their flagship as easily as it does.

Jump Beacons are utility structures dropped at various non-essential locations that generate spatial anchors similar to those of 'true' fold systems and allow jumpship patrols to move between systems in a given sector. When destroyed, their spatial anchor persists for a short time, allowing for a group of jumpships to arrive to investigate once the distress call is received.

Statistics			
Ship Type	Charge Time	Relative Velocity	Maximum Travel Distance
Escort	10 Minutes	.05 ly/m	30 Light Years
Logistics Ships ¹⁰⁾	20 Minutes	.1 ly/m	15 Light Years
Automated Ships ¹¹⁾	20 Minutes	.1 ly/m	15 Light Years

OOO Notes

Authored by [Exhack](#) and approved by [Wes](#) on Feb 8, 2008 ¹²⁾

¹⁾

4th dimensional

²⁾

Or realistically, any point depending on what orientation the ship was in relative to the destination at fold.

³⁾

Relative.

⁴⁾

Such as a sun or the core of a gas giant

5)

In a pinch, a destroyer could power its drive with a frigate-class reactor.

6)

Or any ship that is meant to only move occasionally such as mobile shipyards.

7)

Light carrier, battlecruiser.

8)

Picket ships, stealth frigates and science vessels.

9)

Statistics are for craft using a gate.

10)

Cargo ships, mobile repair frigates and smaller colony ships.

11)

Such as unmanned, single weapon frigates built exclusively around a single superweapon, or self-guiding orbital drop projectiles.

12)

<https://stararmy.com/roleplay-forum/index.php?threads/iromakuanhe-masc-drive.1501/#post-18468>

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