Gravidyne Drive (TL12+)

The Gravidyne, or G-dyne, drive works by creating an artificial gravity well ahead of the ship, causing it to "fall" into the well, thus accelerating the ship. The G-dyne uses the ships hull as a focus to create the gravity well so there are no obvious engine ports or emitters. The gravity well does not have to be placed in front of the ship, it can be positioned as desired. By moving the gravity wells position slightly, the ship is capable of steering itself. Because the ship focuses the forces of gravity through the ships hull, it is necessary to mount the proper drive on the appropriate hull size. Mounting a large G-dyne on a small hull will tear the hull apart, mounting a small G-dyne on a large hull will overload the drive.

There are two main types, commercial and military, distinguished mainly by legality, but also by statistics.

Commercial (Legality Class 4)
Small: $5,000, 1 ton and 1 cy, plus $500, .1 ton, .1 cy and 1 MW per 10 tons of thrust. Max hull size: 2,500 cy.
Large: $50,000, 25 tons and 10 cy, plus $250, .05 tons, .05 cy and .5 MW per 10 tons of thrust; Min hull size: 2,000 cy.
Miniaturized: $1,500, .02 tons, .02 cy and .2 MW per 10 tons of thrust; Max hull size: 100 cy.

Military (Legality Class 0)
Small: $10,000, .5 tons and 1 cy, plus $750, .05 tons, .1 cy and .5 MW per 10 tons of thrust; Max hull size: 5,000 cy.
Large: $75,000, 20 tons and 10 cy, plus $500, .01 tons, .05 cy and .1 MW per 10 tons of thrust; Min hull size: 2,000 cy.
Miniaturized: $2,000, .01 ton, .01 cy and .1 MW per 10 tons of thrust; Max hull size: 100 cy.

The "Max hull size" is the maximum size for a ship hull that carries that type of G-dyne. The "Min hull size" is the minimum size for a ship hull that can carry that type of G-dyne.

At TL 13 halve the cost of the drive and the miniaturized version can be put on a hull up to 150 cy. At TL 14+, quarter the cost of the drive, double the thrust, and the miniaturized version can be put on a hull up to 250 cy.

G-dyne Bonuses

A benefit of using the hull as a focus is that the ship does not require independent Artificial Gravity units to create gravity.

As long as the engines are active the ship can have anywhere from micro-gravity up to 2 Gs, if more internal gravity is needed additional Artificial Gravity generators must be installed.

Different sections of the ship can have different levels of gravity with a little bit of fine tuning.

The miniaturized version is not powerful enough to provide any meaningful level of gravity, the best it can provide is 0.3 Gs.

Grav Compensators are still necessary counteract acceleration.

Another benefit of using a G-dyne drive is that when it is active it provides +1 DF of protection due to the gravity field that surrounds the ship. This field is capable of deflecting or distorting hits to the vessel, thus resulting in less damage.