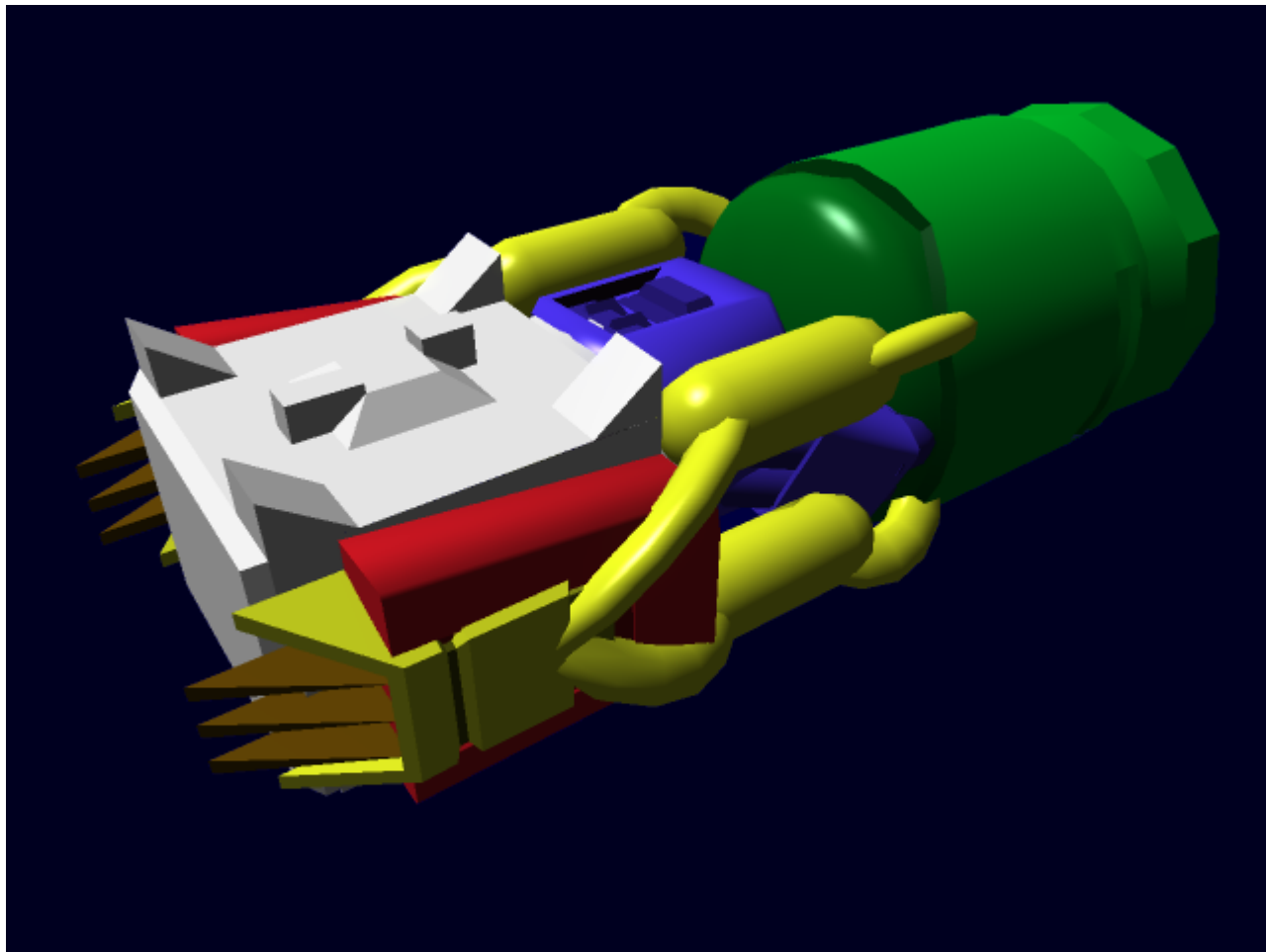


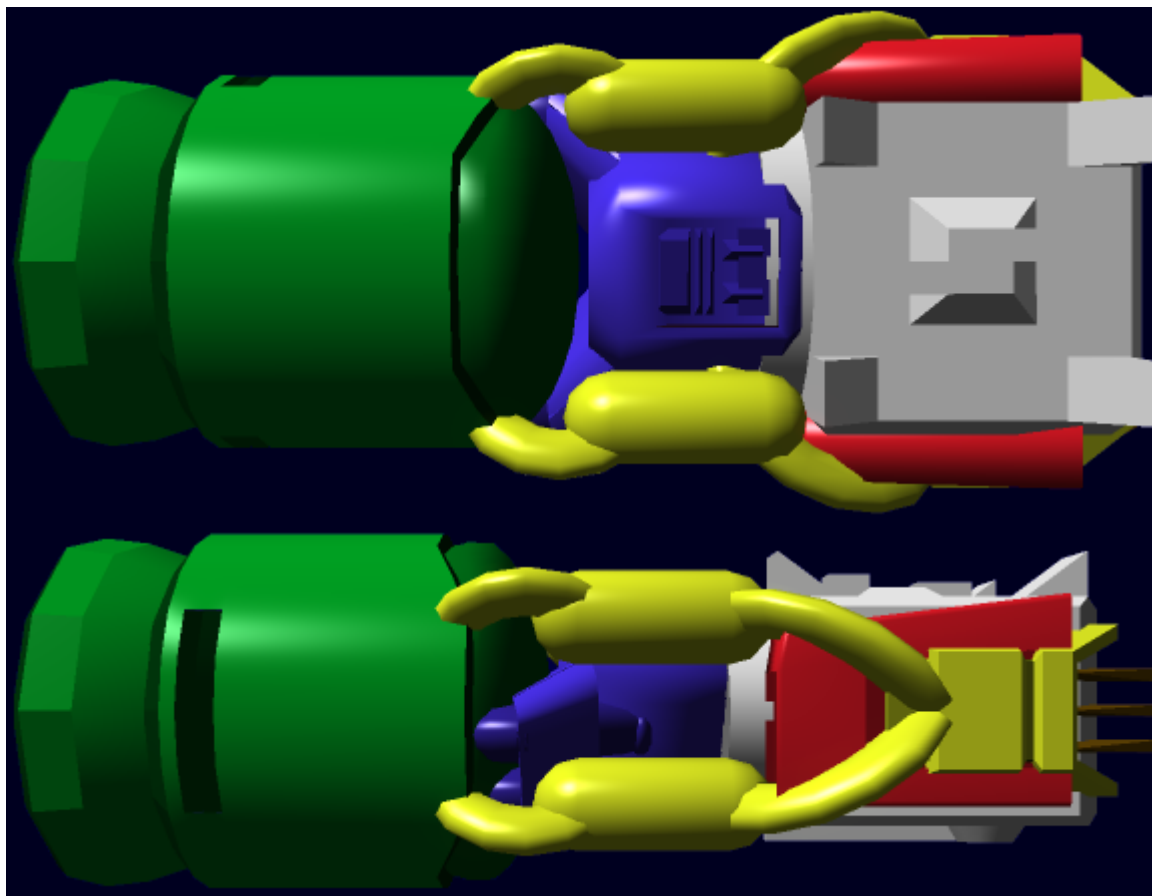
Inline Aether to Plasma Drive

Designed in [YE 31](#) the Inline Aether to Plasma Drive is a method of utilizing Aether power to create an effectively 'fuelless' STL drive, as well as retain its role as power generation for other systems, first designed by [Origin Industries](#). Unlike the SAoY's [Turbo Aether Plasma Drive](#), IAPDs do not count as weapons, and don't leave as heavy of a trail, but aren't quite as fast when used on high-mass vehicles such as those made from Zesuaum or Nerimium. It is, however, a very useful engine and generator system for lower-mass vehicles.



How it works

The IAPD has five main parts which allow it to function in several ways, from the basic power generator of the ship to the high-powered thrusters.



Aether Generator

The heart of the system is a compact Aether generator, designed specifically for the function of this drive. It is comprised of a box (White), which contains the Aether generator itself and all the necessary components and connections that allow it to be used as an energy generator, and to feed into the Aether-matter converter.

Aether-Energy

Two rectangular components (Red) on either side of the Aether generator, the Aether-energy converters use the power drawn from the Aether to be converted into useable energy, which it then routed to power other parts of the ship, such as its electronics, controls, computer, life support, and weaponry if present. Waste heat from this process is fed into the Bypass system, and from there into the thruster assembly, where it may be used to augment the thruster's function.

Aether-Matter

Directly connected to the Aether generator, in the center of the system, The Aether to matter converter

(Blue) uses Aether to create matter, which is further refined into a high-energy fuel for the thruster assembly to burn directly. This fuel requires no atmosphere to work, making it useful for space, yet still effective when atmosphere is present. Normally, fuel is made at the same rate as it is consumed, but fuel may be stored in the bypass system to either be added as a sort of afterburner or as a backup fuel source in case the generator is shut down.

Bypass

The Bypass system (Yellow) is a multi-function system which has several uses, such as collecting and moving waste heat, storing extra fuel, and being used as an air intake within an atmosphere. The bypass system is comprised of several sections, and has the redundancy of four complete systems. It feeds directly into the thruster assembly, and can deliver fuel or waste heat into it to augment its function, or to fuel the thruster itself when other means of gaining fuel are not present. The Intake system is used for cooling the Aether generator in Atmosphere, as well as helping slow the craft down to a safe speed where friction with the air will not cause it to burn up. In space, the Intakes close and all waste head is vented into the thruster system.

Thruster Assembly

The Thruster Assembly (Green) is the largest single part of the system. It converts the fuel created by the matter converter into plasma, which it then shoots out the back, thrusting the assembly (and whatever it is attached to) at high velocities. The thruster has a small turbine, which allows it to generate energy as a backup source if the main energy source dies, as well as to provide energy to start the Aether Generator. This thruster assembly consumes fuel at a fairly high rate, but makes up for it with speed and acceleration. On some designs, fuel is also siphoned to miniature versions of this same thruster system which are placed around the ship, providing high rates of maneuverability, as well. These smaller thruster assemblies vary by the design they are placed on, or may even not be present in some craft.

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