

STARPATH

Universe Source Book

Synopsis

The starship Pioneer, a prototype deep-range exploration cruiser of the Interstellar Survey Authority, is humanity's first ship equipped with the revolutionary starpath drive, capable of reaching beyond the Milky Way. Tasked with a mission decades in the making, Pioneer embarks on an unprecedented journey to the Andromeda Galaxy in the name of discovery.

World

The United Worlds was founded in 3324 and comprises hundreds of member worlds settled by nine of the known twelve space-faring races as well as the worlds of the two known non-space-faring sentient species.

Organizations

Interstellar Survey Authority, The Starpath Initiative, Pioneer Directorate, Frontier Operations Command (FrontOps). United Worlds

Propulsion Technology

The Starpath Drive is an experimental propulsion system capable of allowing a starship to traverse the vast distances between galaxies. Unlike conventional lightslip drives, which operate within the Milky Way, the Starpath Drive taps into gravitationally stabilized null-space fields connecting galaxies. Its activation allows near-instantaneous transit across millions of light-years, making it the only known method of intergalactic travel.

The team that produced the prototype that powers the Pioneer's ability to traverse galaxies penned this warning:

"The drive's use comes presents several practical, as well as moral, implications. Firstly the starpath drive's cavitator utilizes a lattice of the ultra-rare corvium (atomic number 212) to produce the desired null-space resonance. The material, for which there is no currently known means of synthesis, is irreplaceable and insufficient quantities exist to create additional cavitator units.

Secondly only a select handful of stars within the Milky Way galaxy possess the correct alignment of null-space gravitational properties to serve as launch points for intergalactic transits via the starpath drive.

Lastly upon activation the drive momentarily consumes amounts of local-space energy equivalent to that of the output of average G-type main sequence stars, resulting in the near-certain destruction of the origin star. The moral implications of this effect cannot be overstated, as any biosphere in orbit of such a star would be rendered uninhabitable upon the host star's demise. Even the willful destruction of a star system without any native biology presents certain ethical dilemmas.

It is the recommendation of the Starpath Initiative Research and Development team that such a drive as the one created for the ISAS Pioneer not be replicated without serious and intense public debate about its sustainability and ethical issues as well as legislation to protect its design from unauthorized copy and use.

– Kenji Saito, chief of design and production, Starpath Initiative”

Lightslip Drive is the United Worlds' standard faster-than-light propulsion system, allowing ships to traverse the Milky Way by accessing gravitic transit tunnels connecting the gravity wells of stars. Unlike conventional drives, Lightslip technology does not move a ship through normal space but “slips” it along the hidden contours of spacetime, enabling near-instantaneous travel between systems.

Every jump requires precise calculations and knowledge of the transit network, and not all stars are connected — only about one in thirty possesses the mass and alignment necessary to sustain a tunnel. Larger or more advanced ships carry integrated drives, while smaller craft rely on fixed transit points. Lightslip travel is not instantaneous; plotting safe routes and waiting for tunnel alignments can take time, making navigation both a science and an art.

Power Production Technology

The **Null Core** is the heart of United Worlds advanced energy systems, enabling ships, installations, and devices to draw power directly from the zero-point energy of space itself. By tapping into the “nothingness” between atoms, the core generates vast amounts of energy without traditional fuel sources.

Efficiency is the core's only limiting factor. Early generations required long periods to accumulate usable power, but incremental improvements have allowed modern cores to produce more energy in shorter intervals. Despite these advances, the Null Core is not limitless — careful management remains essential, especially for sustained operations or high-energy applications.

Defense & Weapons Technology



Refractive Shielding creates energy-deflection plasma-magnetic fields that curve and diffuse incoming directed-energy attacks away from the hull. Power and cooling demands escalate with sustained fire; overheated emitters force partial shutdowns. Strongest on forward arcs and less effective against slow neutral-matter impacts or kinetic saturation. Vulnerable to continuous beam pressure and multi-vector assaults. Shield survival depends on managing heat before the lattice collapses.

Reactive Armor is a system of programmable material armor that instantly shifts structure on impact—hardening against kinetic strikes and routing heat into sinks and vents for energy hits. Provides secondary protection when shields fail. Performance depends on accurate threat detection, and rapid repeated impacts can exceed reshaping speed. Specialized nano-forge repair required after fatigue or corrosive/phase-shift damage. Buys critical survival time but can be overwhelmed.

The **Relativistic Plasma Lance** (a.k.a. **Arc Cannon**) forms a magnetically confined plasma corridor between the firing ship and its target, then accelerates a concentrated burst of charged particles through the channel at near-light velocities. In vacuum, the beam maintains exceptional focus and range, striking with enough internal thermal and kinetic shock to rupture starship armor from within. The weapon demands a large initial energy surge to stabilize the plasma filament, thus weapon banks must be equipped with capacitors capable of producing that charge on demand. These weapons are typically fired in millisecond bursts but can also be fired in longer beam-style bursts when allowed by relative motion.

A **Null-Charge Torpedo** carries a dormant miniaturized null core inside the warhead. When it impacts (or reaches a programmed proximity), the torpedo forces the core into catastrophic overdraw: The containment field spikes and destabilizes creating a tiny pocket

of null-space vacuum that collapses into realspace. Zero-point energy and gravitic distortion fields slam outward in a violent release.

A **Pulse Torpedo** is a disposable high-density energy capacitor housed within a hardened projectile body. Prior to launch, the torpedo is rapidly charged from the ship's null-core power grid, storing a massive electrical potential with near-zero bleed. Upon detonation, the containment fails by design, releasing the charge as a violent plasma-electric arc that seeks the nearest conductive surface. This discharge can overload shields, burn through hull layers via electrical conduction, and permanently destroy critical systems by inducing immense current spikes. The warhead provides "stored power" firepower without relying on volatile matter/antimatter payloads, though its destructive effect diminishes rapidly with distance from the target, favoring close-range detonation profiles.

Conflicts

- an alien species has been eyeing one of the worlds owned by a primitive sentient species, as it lies perilously close to their border with the U.W.
- Various conflicts with indigenous species in the Andromeda galaxy as the Pioneer explores

ISAS Pioneer



ISA Deep Range Exploration Cruiser
Registry – X01 (Starpath Prototype)

Mission Profile

Long-duration independent exploration beyond established transit tunnel networks. Capable of first-contact, planetary survey, and deep-space scientific research. Equipped with Starpath Drive for extragalactic travel.

Dimensions & Structure

- Length: 217 meters (hull), 255 m including forward sensor array
- Beam (widest point): 155 m
- Decks: 12
- Displacement: ~250,000 metric tons
- Hull Composition:
 - Triple-layer reactive plating
 - Refractive shield field lattice running under hull
- Interior Gravity: 0.97g baseline (Earth-standard bias)

Crew & Capacity

- Standard complement: 160
- Max personnel (transport/emergency): 300
- Multi-species accommodations across 6 environmental variants
- Food & life support for 5+ years before resupply

Propulsion Systems

- Primary: Dual null-core powered Lightslip Drives
 - Can access intra-galactic transit tunnels for FTL travel
- Secondary: Gravitic maneuvering field generators (combat & fine control)
- Tertiary: Thermal pulse engines (old-school chemical/ion hybrids for emergencies)

Experimental System

- Starpath Drive (Prototype)
 - Element-212 “corvium” gravitic cavitator
 - Enables intergalactic travel
 - Consumes entire output of origin star during activation

Power Systems

- Triple redundant Null-Core reactors
- Ship-wide capacitor network supports heavy weapons / shields surge demand
- Emergency micro-reactor array sustaining life-support for 18 days in emergencies

Defensive Systems

- Refractive Shields – scalable energy dispersal field
- Reactive Hull Plating – paints away explosions outward instead of inward

Offensive Systems

- Torpedo Launchers (2 fore, 1 aft)
- Relativistic Plasma Lances (x4)
- Arc cannons (x12)

Navigation & Science Systems

- Gravitic Tunneling Cartography Suite (maps transit network)
- Universal science lab complex
- Autonomous survey drones & atmospheric landers
- Long-range quantum communication array (requires alignment to hub stars)

Auxiliary Craft

- 3 short-range shuttles (Horizon, Odyssey, Atlas)
- 24 micro-probes
- 4 heavy construction/repair drones

Computing & AI

- “MIRA” Integrated Systems Intelligence
- Manages: navigation, shield modulation, damage control, lab automation
- Not permitted full tactical autonomy

Notable Weaknesses / Plot-Friendly Limitations

- No abundance of Heleos in Andromeda
- Only one known potential extragalactic jump-off star nearby... with people orbiting it
- Long-range communication highly limited this far from United Worlds infrastructure
- Shields must share power with science systems → tension in crisis
- Crew must operate without hope of fast rescue

Crew

Captain Maxwell Hayes – the calm and calculating leader with a heart of gold



Commander Claire Beaumont – the young and confident XO who’s willing to challenge her captain



Gideon Granger – anthropologist and life sciences with diplomatic training. honorary rank of Lt. Commander. Was supposed to be the ship's science officer but he dies on first mission.



Lieutenant Dex – cometeer navigator



Lieutenant Commander Kenji Saito – chief engineer with multiple doctorates in astrophysics, stellar dynamics, systems engineering and applied physics, material sciences, and computer science. He also holds masters degrees in xenolinguistics, cryptography and cartography. He is roped into being the science officer after Gideon Granger is killed in the line of duty. He is autistic, but brilliant. He has issues with emotional regulation and interpersonal relationships. He also tends to get side-tracked on projects and ideas. He was the project lead for the starpath drive.



Lieutenant Aya Saito – sister to Kenji, expert in applied planetary sciences with minors in anthropology, biology and history. She was second in command of the science labs after Gideon Granger. She and Kenji have a complex relationship. Despite being the young sister she watches over Kenji but he resents her protectiveness. She is grounded and practical, empathetic, and calm under pressure. She took over the day-to-day lead of the science labs after Granger's death.



Lieutenant Diego Vargas – the ship's helmsman



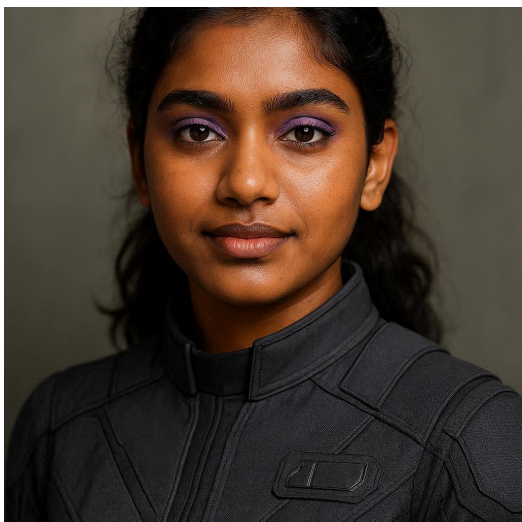
Doctor Liora – member of a species with both feline and canine attributes. Holds the rank of Lieutenant Commander.



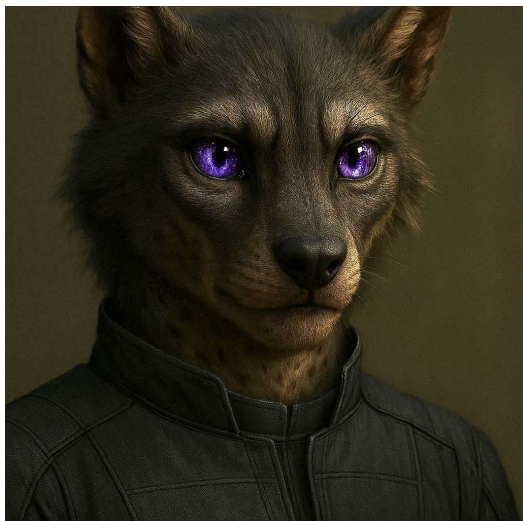
Lieutenant Commander Heidrich Fromm – second in command of engineering. Took over after Kenji was moved over to science officer. He at first butted heads with Saito but after an intervention from Commander Beaumont a detente was reached. Kenji tries to remain out of engineering unless the problem at hand involves the starpath drive. Over time Fromm learns to collaborate with Saito when necessary.



Ensign Priyanka Rao – operations & communications officer



Lieutenant Kael – chief of security. Lyran male.



Ships

Species

Lyrans

Wolflike anthropomorphic alien species. Member of the United Worlds. Flatter, more angular skull than a wolf. High cheekbones and a slightly elongated forehead. Very bushy tail with color gradation (tips darker/lighter, faint stripes, or spots). Fur patterning beyond Earth wolves. Faint spots on necks and bellies, faint stripes on shoulders or forearms. Subtle contrasting facial markings around eyes or muzzle. Ears pointed but larger or slightly flared. Digitigrade legs. Wide paws with retractable claws, semi-retractable and slightly thicker than human nails. Eyes larger than humans, slightly slitted pupils. Eye colors unusual for mammals: amber, teal, gold, violet, with bioluminescent specks. Neck and shoulder anatomy: Slightly longer, more flexible neck for enhanced peripheral vision. Muzzle flatter and shorter than a wolf's, with slightly wider nostrils. Small horn-like ridges along the brow or jawline. Tiny vestigial frills along forearms and spine.

Religion

Timeline

22nd–24th century:

Humanity becomes a true interplanetary species. Mars and the outer worlds are industrialized. Fusion and solar megastructures power everything. First fails-and-tries at near-light propulsion.

25th–27th century:

Interstellar colonization spreads through the local neighborhood — maybe dozens to hundreds of systems. AI-augmented engineering, cryogenic or relativistic sleeper ships. Scientific religion of Expansion is born.

28th–31st century:

Humanity solves the interstellar bottlenecks — reliable faster-than-light or at least wormhole-adjacent shortcuts within the Milky Way. Galactic culture begins: shared law, shared myths, and shared friction.

32nd–35th century:

The Milky Way feels smaller — thousands of star systems become connected. The outer spiral becomes a playground for ambition.

36th–38th century:

Humanity begins real galactic engineering. Dyson swarms around multiple suns. Strange energy experiments.

Civilization is stable... but getting restless.

Scientists propose the first “intergalactic vector engines.” Governments laugh — then fund them.

39th century:

The experimental drive is built. Maybe it bends dark matter into a tunnel. Maybe it borrows energy from the cosmic microwave background. Maybe it entangles endpoints across millions of light-years.

It's untested, terrifying, and irresistible.

3900s–4000s:

After a century of arguing, simulations, and smaller-scale tests (like hitting dwarf galaxies or the Large Magellanic Cloud), one ship becomes the spearhead — crewed by the bold, the brilliant, and the fools.

Launch: around the year 4100

Destination: M31, Andromeda.

Arrival: who knows... time dilation and exotic physics might scramble dates like egg whites.