

# PYXIS

AxelLiner serves as a compass to navigate the path of future businesses with satellites.



PYXIS is the 10th microsatellite that Axelspace developed since its establishment and is the demonstration satellite of AxelLiner, a new service announced in April 2022. Named after the Pyxis constellation, which symbolizes the compass used in navigation, PYXIS hopes to serve as a guide for future companies to start their businesses with satellites.

## Missions of PYXIS

1. Demonstration of the versatile satellite bus system for AxelLiner
2. Demonstration of the sensors for the next-generation AxelGlobe satellites (GRUS)
3. Demonstration of a satellite radio experiment system by SONY Group

Traditional satellite development, reliant on single-piece production, entails prolonged delivery times and significant expenses.

PYXIS will showcase AxelLiner's newly developed versatile satellite bus system and will be used as a blueprint for future development, aiming to extend the system's applicability to future satellites. AxelLiner aims to shorten the traditional satellite development cycle from three years to one through the standardization of fundamental components of satellites and the establishment of the mass production system. This approach facilitates concurrent development of multiple satellites, rendering microsatellites more cost-effective. As a result, users will experience a significant reduction in challenges associated with satellite utilization, meeting the escalating demand for microsatellites promptly and efficiently. Additionally, AxelLiner intends to innovate user experience by offering a comprehensive, one-stop delivery solution. This entails streamlining the intricate and extensive satellite project processes—from conducting feasibility verification as a business to manufacturing, launch and in-orbit operations of satellites as well as their disposal after missions.

## Commitment to Sustainability

### Green Spacecraft Standard

Axelspace proactively takes actions to tackle environmental issues in space. Axelspace has established its own rules for sustainability that encompass the entire satellite lifecycle, from development to in-orbit operation and disposal, together with members of the Spacecraft Manufacturing Alliance.

- Sustainability for Earth: Sustainability of the global environment in the satellite designing and manufacturing processes
- Sustainability for Space: Sustainability of the in-orbit environment, including measures against space debris



### D-SAIL

D-SAIL shortens the time required for a satellite to leave orbit and enter the atmosphere after termination of its in-orbit operation. When activated, it deploys a large membrane, creating drag resistance in Low Earth Orbit's thin atmosphere that acts as a brake to the satellite's orbital motion. This will lower the satellite's orbital altitude and shorten the time until the satellite enters the atmosphere after the termination of satellite operations.



For more information, visit the AxelLiner page via QR code.



Client : Axelspace Corporation  
Sony Group Corporation  
Dimensions : 1250mm × 1000mm × 750mm  
Mass : 145kg  
Orbit : Sun-Synchronous Orbit, 500~600 km  
Altitude  
Launch Date : March 5, 2024 7:05am (JST)  
Launch Vehicle: Falcon 9 (Transporter-10)  
Current State : Operational

Corporate Outline

# AXELSPACE

Axelspace Corporation

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