

Bifröst

High Performance Cryogenic Lunar Lander

Key benefits

The Bifröst Lander's high-performance Mjölnir engine enables the soft landing of large payloads (hundreds of kg) on the lunar surface due to both the performance of its pump-fed engine and the high bulk density of its LOX/LNG propellants. This level of performance and dense propellants allow delivery of a reliable, long-life, light-weight, and low-cost lunar lander with key performance metrics:

- Powered by a high performance full-flow staged combustion engine
- Access to all lunar regions (e.g., poles, back side)
- Potential for sample return

Applications

NASA

Affordable and rapidly produced Bifröst landers can deliver near term missions to the Moon in support of Artemis, to include:

- Pre-arrival landing site survey
- Complementary data collection
- Complementary sample return

Commercial

- Less than a week from launch to landing
- Heavier payloads to the surface than competitors
- Potential for commercial product return

