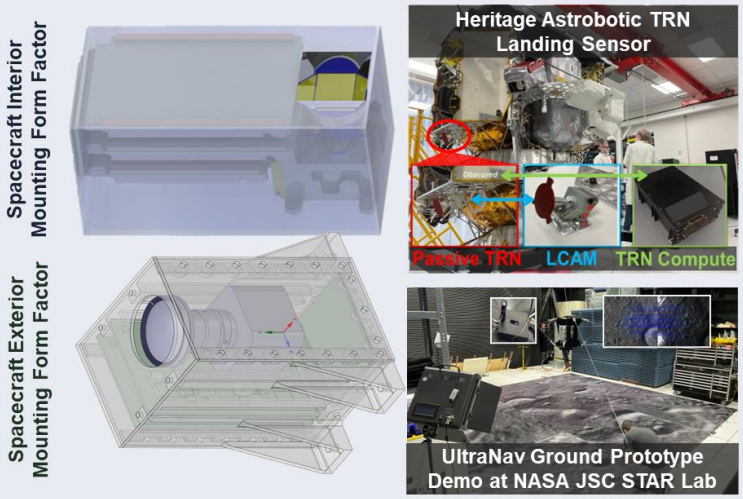
ULTRANAV VISUAL COMPUTE SYSTEM

ASTROBOTIC

FLIGHT-TESTED NAVIGATION AND AWARENESS SOLUTION

Astrobotic's UltraNav visual compute solution integrates flight-proven optics with on-module compute, allowing for mission data processing and machine vision performed on-orbit, all in a low-SWaP package.

This integrated solution is enabled by FPGA hardware acceleration and machine learning, and can be customized for various mission applications (e.g., Terrain Relative Navigation, celestial/limb navigation, RPOD, ISAM, SDA, ISR). The UltraNav solution leverages software and hardware heritage from multiple TRN systems with NASA IV&V and HWIL testing.



Modular: Small, modular form factor uses standard interfaces

Onboard Processing: Onboard computing with FPGA acceleration

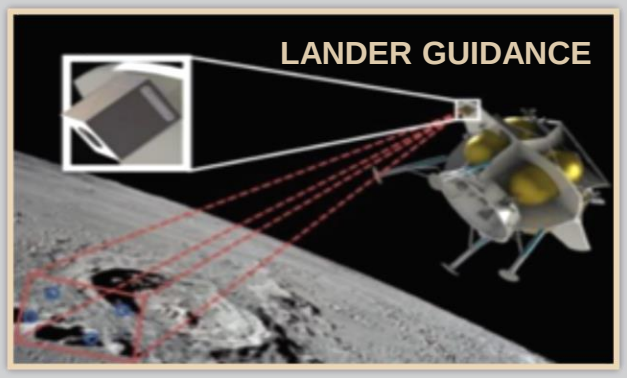
SPECIFICATIONS

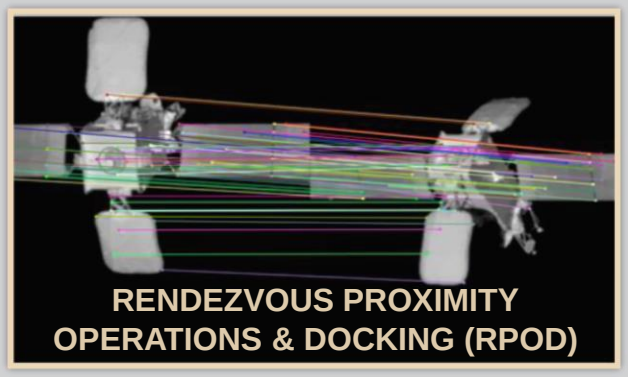
Size	1.5 U (10x10x15 cm)
Weight	<3 kg
Power	• *Consumption:* Starting at <5 W, increasing with level of on-module data processing • *Voltage Input:* 28 V ± 30%

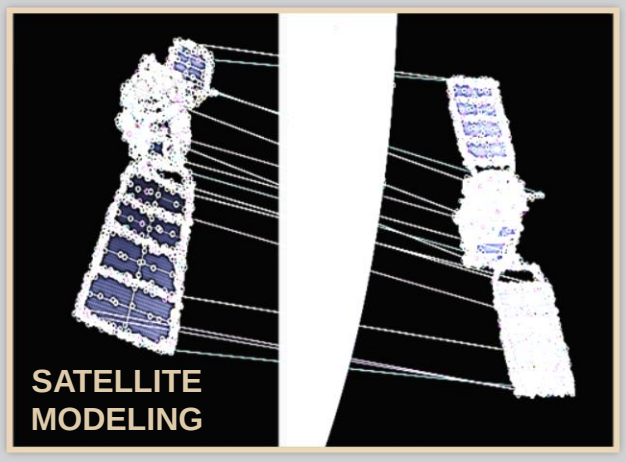
INTERFACES & COMMUNICATIONS

Command and Telemetry Interfaces	1.5 U (10x10x15 cm)
Data Transfer Interface	SpaceWire
SpaceWire Data Rate	66 Mbps (max)
RS-422 Data Rate	115.2 Kbps (max)
Optics	*Multiple Options*
Compute	*Multiple Options*

APPLICATIONS







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