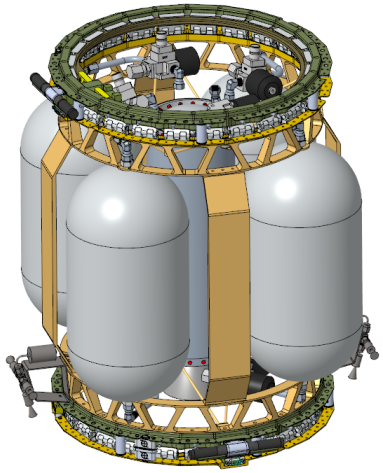
PARABILIS
SPACE TECHNOLOGIES

ROMBUS
Rapid Orbital Mobility Bus



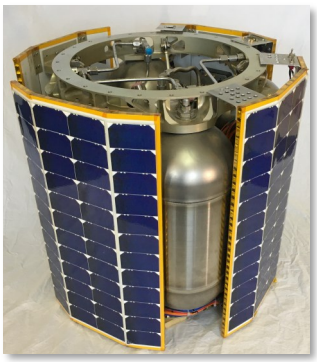
Affordable, Impulsive ΔV for Small Satellites

Parabilis' Rapid Orbital Mobility Bus (ROMBUS) propulsion module provides high-impulse thrust for satellite translational maneuvers, and can be used for initial orbit insertion, rapid orbit rephasing, threat/collision avoidance, and targeted re-entry at the satellite's mission end of life.

The low-cost ROMBUS design consists of a safe, green hybrid propulsion system utilizing rubber (HTPB) or acrylic (PMMA) for fuel, and nitrous oxide (N2O) as an oxidizer. The basic configuration is a single, centrally located motor nested within the oxidizer tanks. Two cold gas thruster triads use the N2O as propellant for low-thrust maneuvers and attitude control to augment reaction wheels or to dump momentum from reaction wheels.

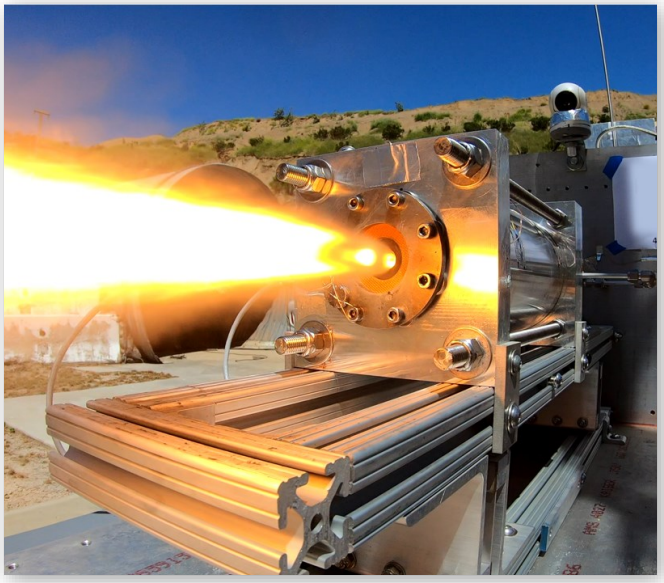
Features

- Compact module for high-thrust impulsive maneuvering
- Non-toxic, non-hazardous propellants
- Long-term storability, both ground and on-orbit
- Multiple re-start capability for multi-burn maneuvers
- Nitrous oxide propellant used in symbiotic RCS/ACS pods
- Self-pressurizing nitrous oxide, no pumps or press. system
- Simple, proven, and reliable design
- Significantly lower cost than competing solutions
- Adaptable configuration for custom missions and features



Design Heritage from Maneuvering and Orbital

Parameter	Specification
Fuel	PMMA or HTPB
Oxidizer	Nitrous Oxide (N_2O)
Isp, Vacuum	260s, Primary Hybrid Motor 65s, ACS/RCS Thrusters
Thrust	222 N (50lbf), throttleable
Total Impulse	44.6 kN-s
Dry Mass	33.7 kg
RCS & Residual	3.5 kg
Propellant Mass	15.2 kg
Volume	<21.5" dia x 18" height (without Lightband™ height)
Power	Input 28V ±4



Small-Scale Hybrid Motor Demonstration Test

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