

HYBRID ROCKET MOTOR

P08105

PROJECT METEOR 2007-2008

PROJECT OVERVIEW

The central focus of the program is the launching of a series of small payloads into low-Earth orbit, the re-launch and control of these payloads toward the moon or near-Earth asteroids, the landing of these payloads on the surfaces and the data acquisition and remote control of these payloads during the scientific research phase of each mission.

DESIGN REQUIREMENTS

- Deliver Hybrid Rocket Motor to support a launch ready test flight
- Provide a Specific Impulse of 220 seconds
- Reduce overall weight while improving efficiency
- Integrate with team P08106 (Flying Rocket Body)

INJECTOR IMPROVEMENTS

- Reduce pressure loss across injector plate
- Maximize efficiency of combustion
- Streamline testing process
- Flow Visualization

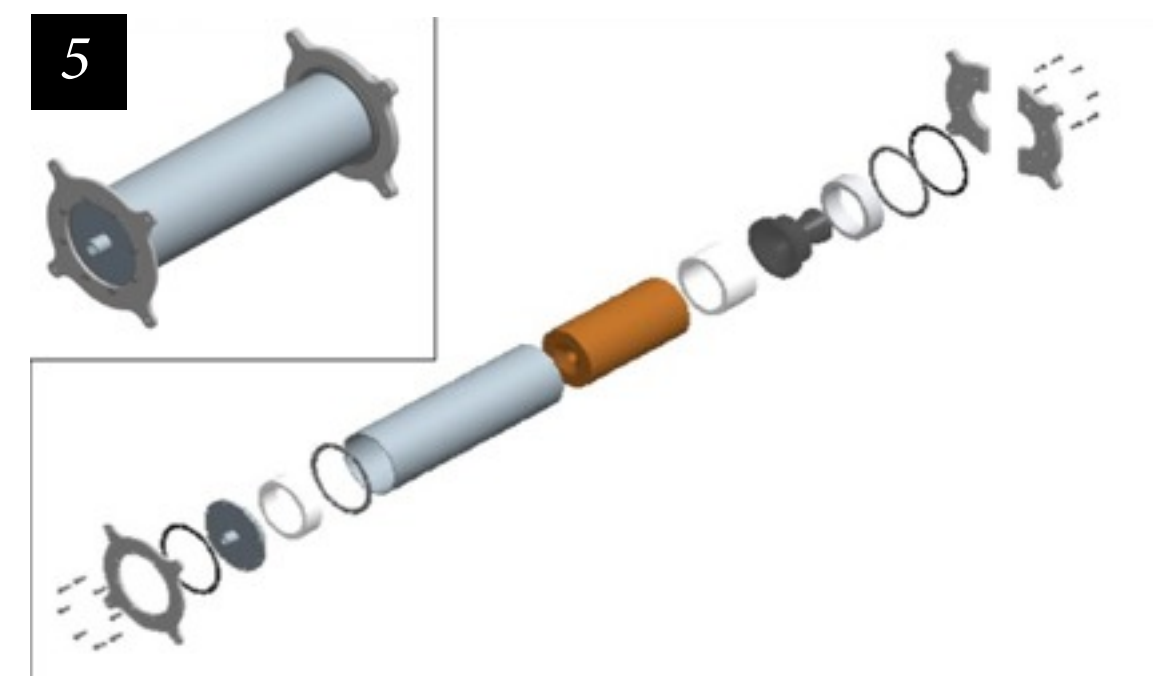
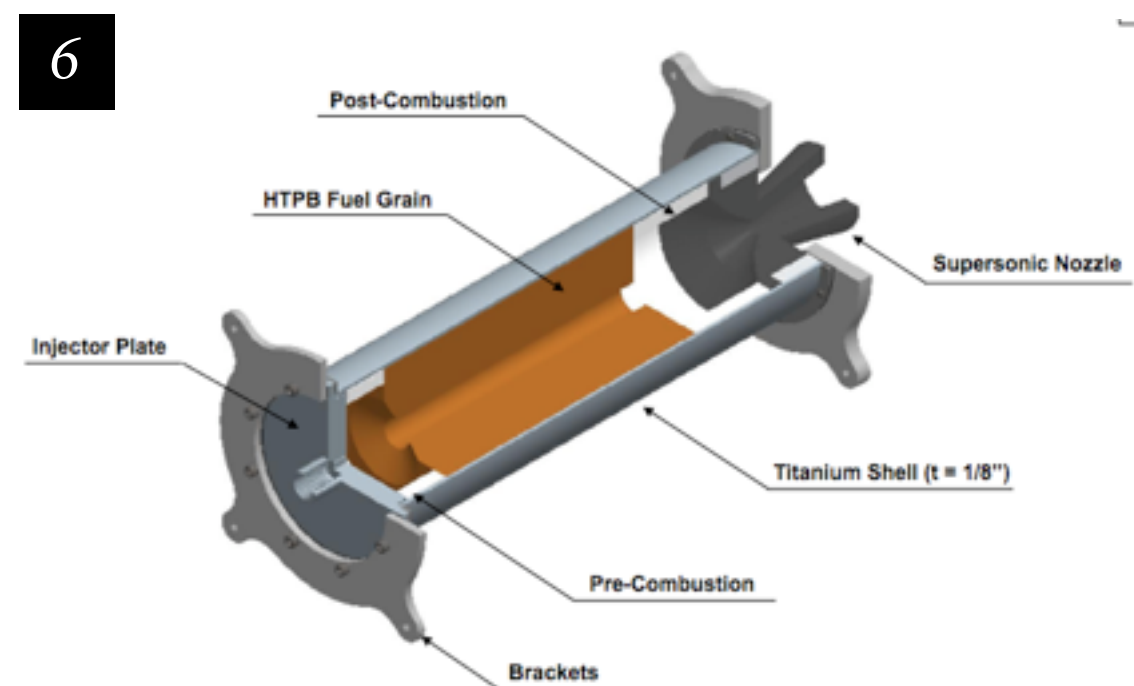
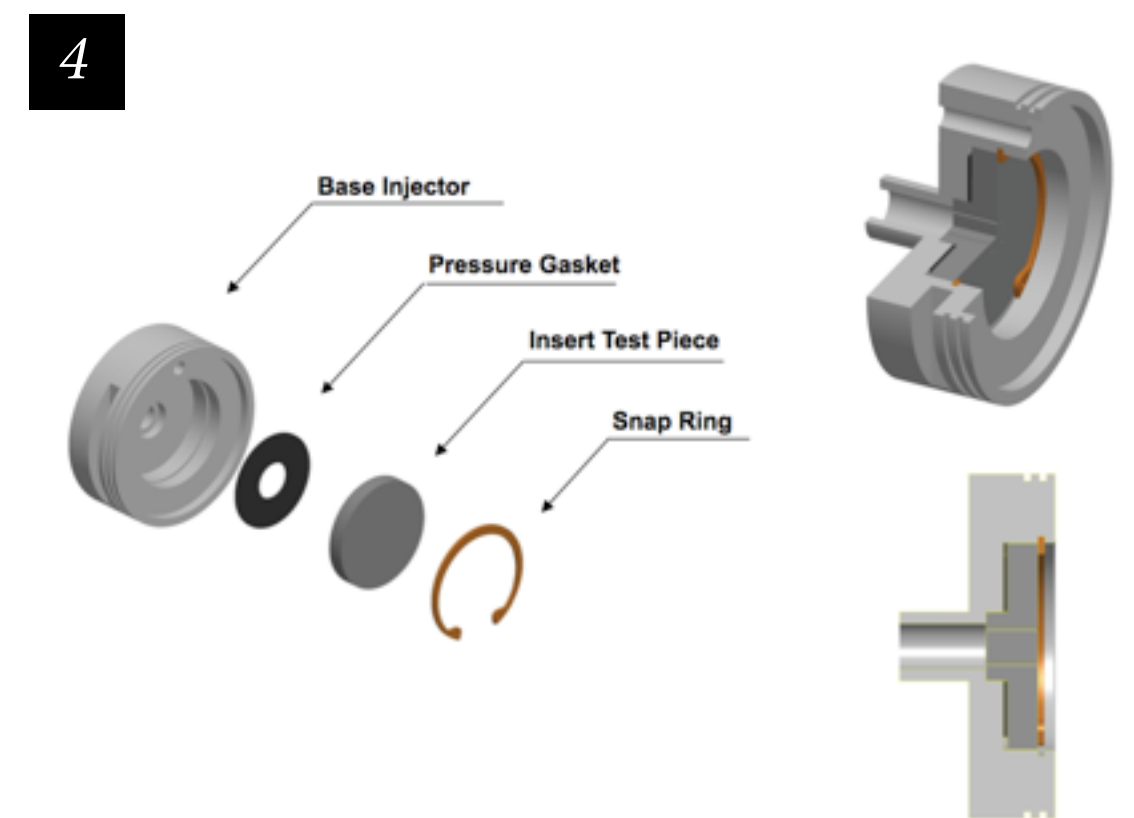
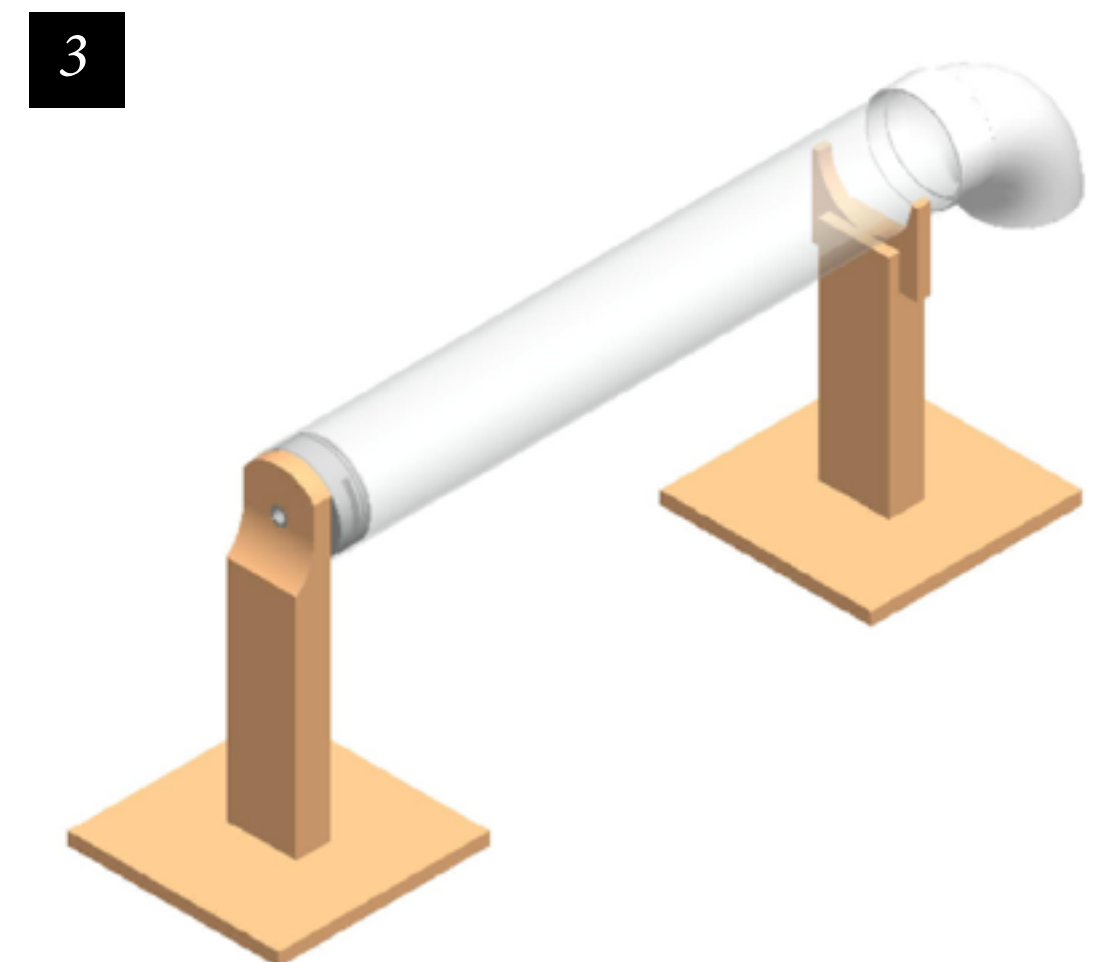
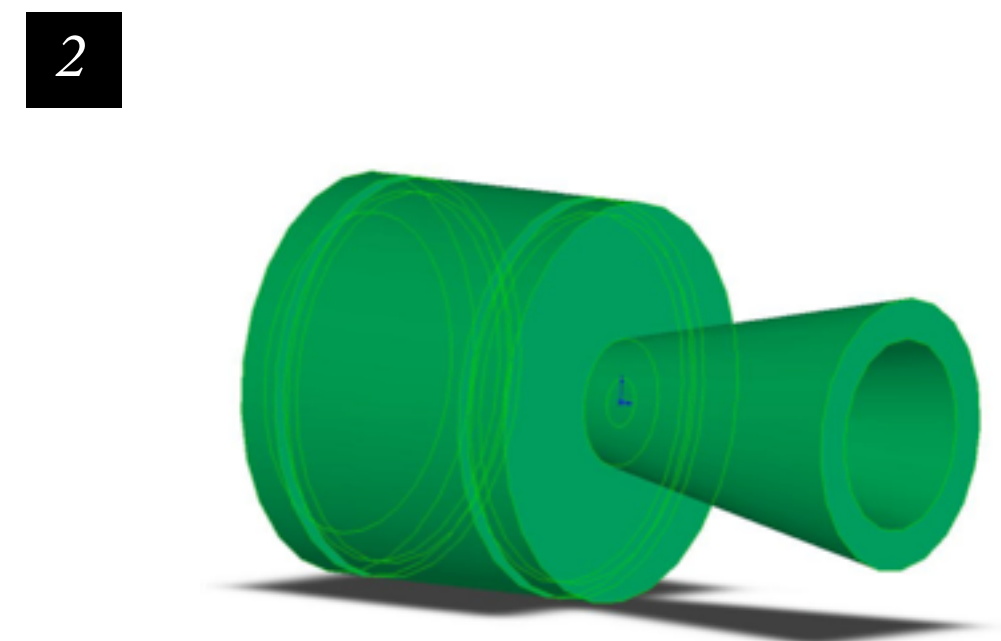
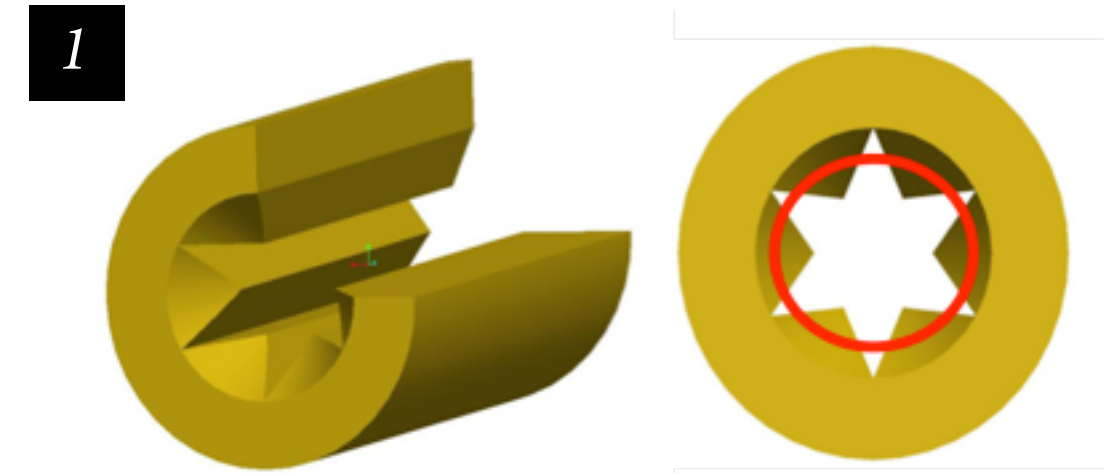


fig 1 FUEL GRAIN GEOMETRY | fig 2 SUPERSONIC NOZZLE | fig 3 INJECTOR TEST FIXTURE | fig 4 EXPLODED INJECTOR VIEW | fig 5 EXPLODED MOTOR VIEW | fig 6 CUTAWAY MOTOR VIEW

SPONSORS



PROJECT GUIDES

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