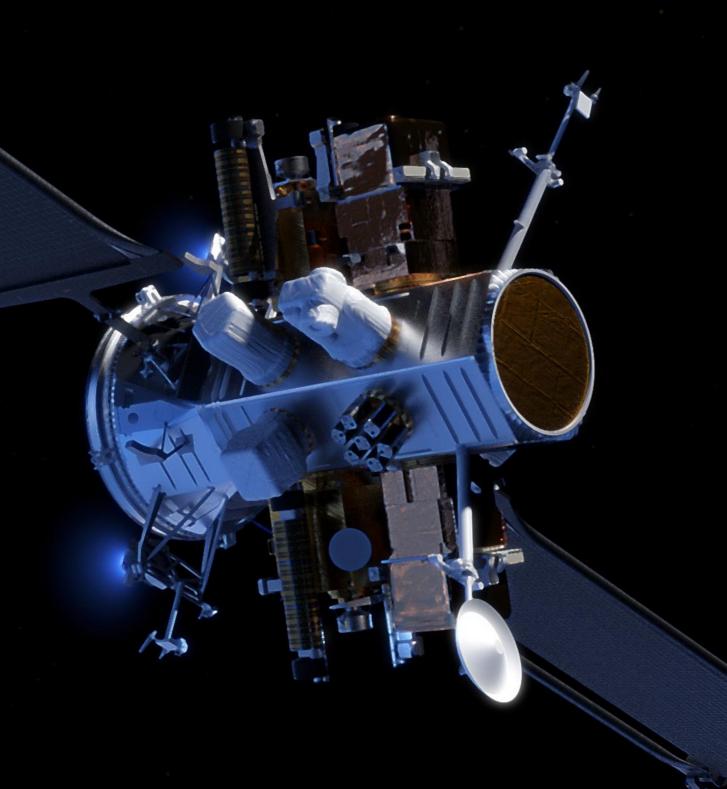
## BLUERRIG UNIVERSITY PROJECT

**MARCH 2024** 

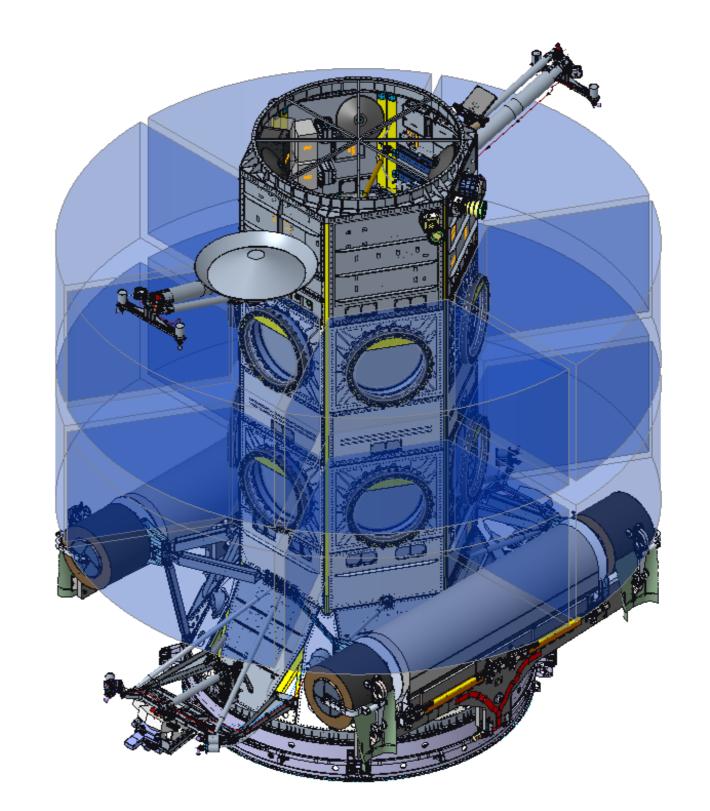


## Blue Ring Overview and Assumptions

Blue Ring is a highly maneuverable, multi-orbit, multi-mission spacecraft platform that provides reliable payload hosting and transport to many corners of space. For your scenario, assume the following study parameters.

## **UNIVERSITY PROJECT STUDY PARAMETERS**

- Up to twelve (12) ESPA-class payloads (up to 500 kg each) on 24" radial ports
- One (1) medium class payload (up to 2,500 kg) on Forward port
- Total payload mass: up to 3,000 kg
- Total max wet mass: 8,000 kg
- Propulsion Systems: Chemical & Electric (up to 3,000m/s dV)
- 20kW Spacecraft power available (while not thrusting)
- X-Band and S-Band to ground networks



**Deploy or host** payloads for unique mission requirements

Compatible with various launch vehicles

Disclaimer: The data provided here is for educational use only. Actual performance and capabilities of Blue Ring might vary.



## Blue Ring Student Project Prompt

Your objective is to design a 3-year to 5-year mission that can use any combination of deployed and/or hosted capabilities.

- Select the mission type(s) and destination(s) intended for the mission.
- Identify the customer(s), objectives of the mission and payloads necessary to support them.
- Indicate required data rates for the mission.
- Identify which payloads are deployed and which are hosted.
- Develop a conceptual flight path and concept of operations for the mission.

