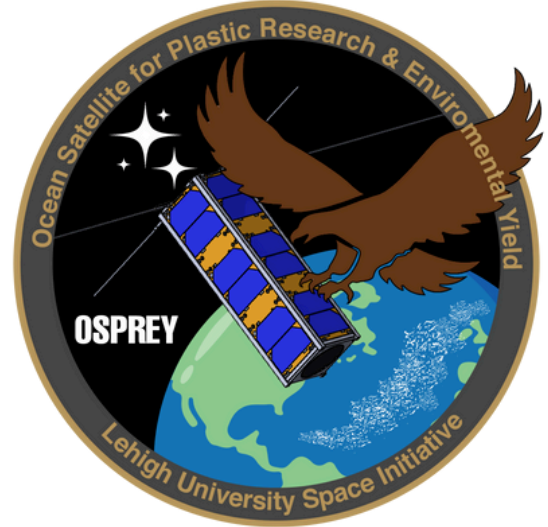
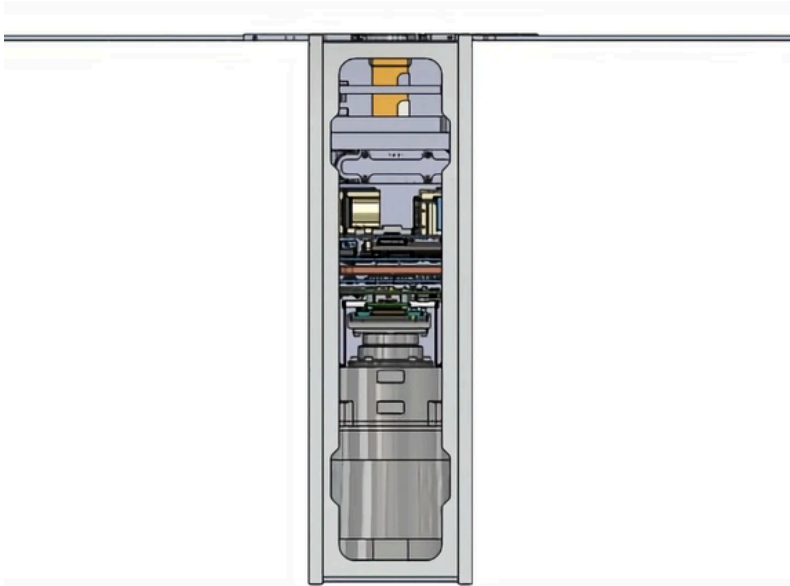


OSPREY CUBESAT - LEHIGH UNIVERSITY'S FIRST NANOSATELLITE



What?

- Designed and led the development of **Lehigh University's first CubeSat**, OSPREY, a 3U satellite using a VS/SWIR camera system to detect ocean plastic within a 1-square-meter area for ocean trash monitoring.

How?

- Lead CAD modelling in SolidWorks**, optimizing the center of mass and moments of inertia.
- Used GD&T principles**, applied material selection, mass budgeting, to ensure tolerance and compliance with NASA standards.
- Managed a team** of 6 students and **coordinated with other sub-teams** to integrate deployable solar cells and antenna systems

Results

- Raised \$150,000** in funding from Lehigh alumni and sponsors.
- Optimized the mass budget** by 23% and **increased payload volume** by 33%.
- Successfully submitted a proposal** for NASA's 2024 CubeSat Student Launch Initiative.

