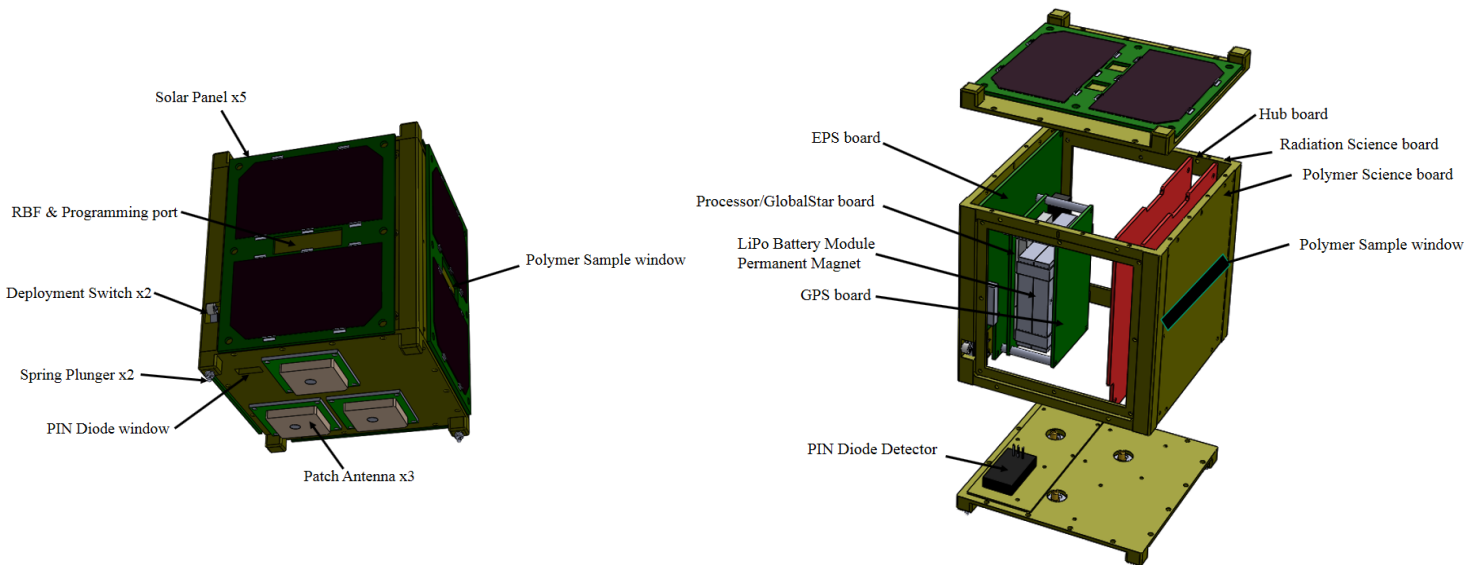


MakerSat-0 – Northwest Nazarene University – 1U



MakerSat-0 will study the viability of various 3D printed polymers for in-space manufacturing of spacecraft structures. It will also demonstrate a multi-user architecture for sharing the satellite core systems among several science team payloads.

Upon deployment from the P-POD, MakerSat will power up and start a 45 minute time after which its GlobalStar radio will be activated. Health beacon data will be transmitted every 30 minutes and science payload tests will be run round robin on a 50 minute cycle.

The CubeSat structure is made of Aluminum 6061-T6. It contains all standard commercial off the shelf (COTS) materials, electrical components, PCBs and solar cells. The GlobalStar radio uses ceramic patch antennas. Four half gram samples of ABS, Nylon, PLA, and ULTEM plastic are inside one science experiment.

There are no pressure vessels, hazardous or exotic materials.

The electrical power storage system consists of common lithium-polymer batteries with over-charge/current protection circuitry. The lithium polymer batteries and circuitry are from Tenenergy 3.7V 2200mAh (925050) Battery - UL Listed.