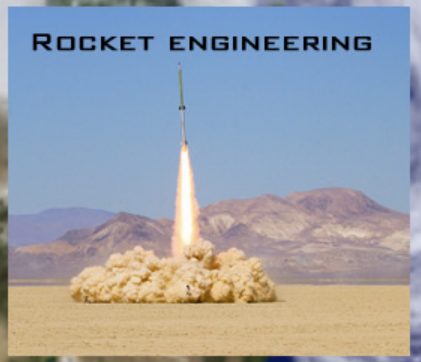
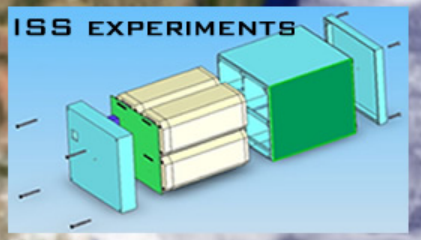
VALLEY CHRISTIAN SCHOOLS™
AMSE INSTITUTE

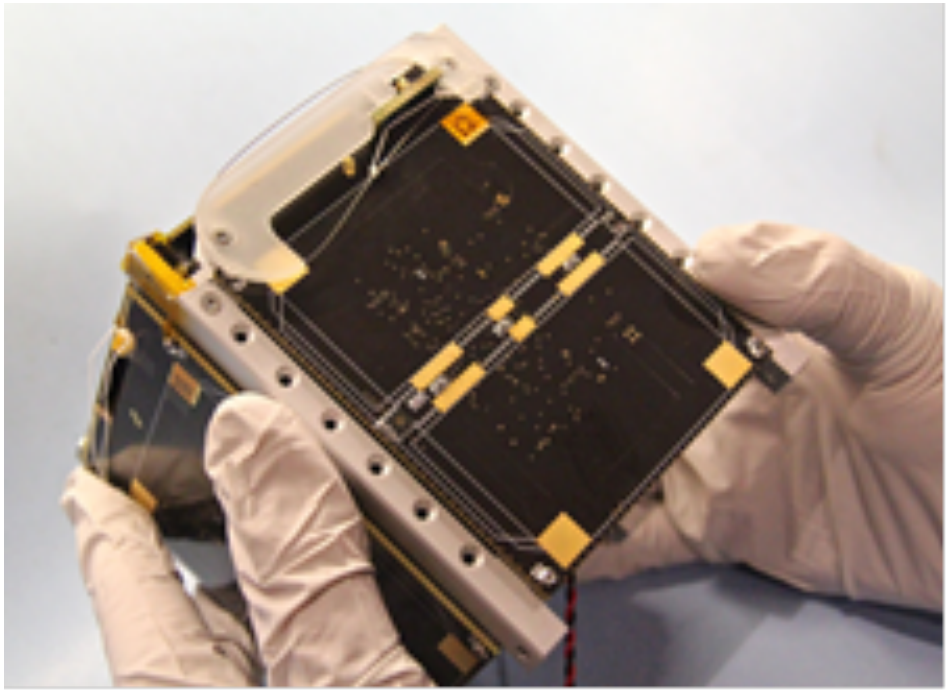
Applied Math • Science • Engineering

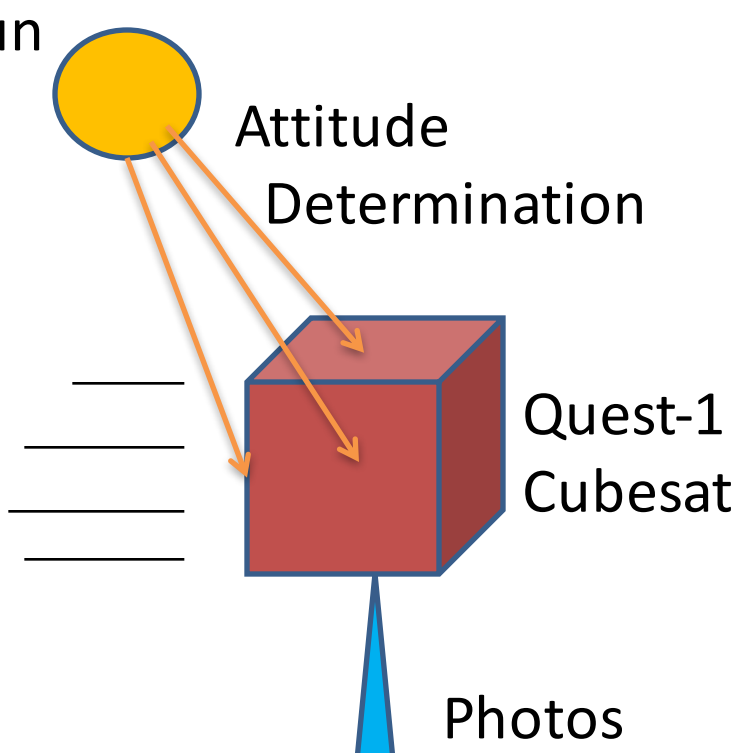
SPACE PROGRAMS



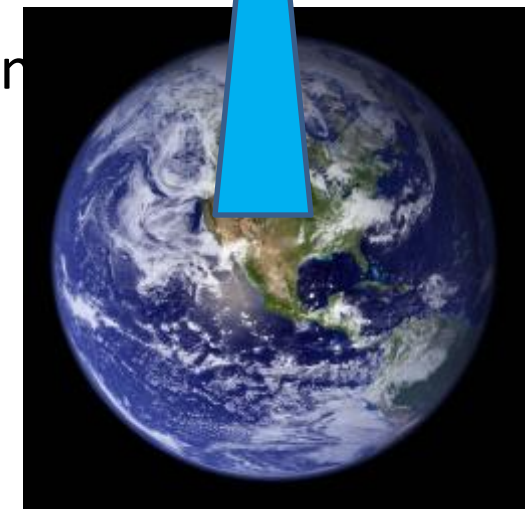


Quest-1 Cubesat

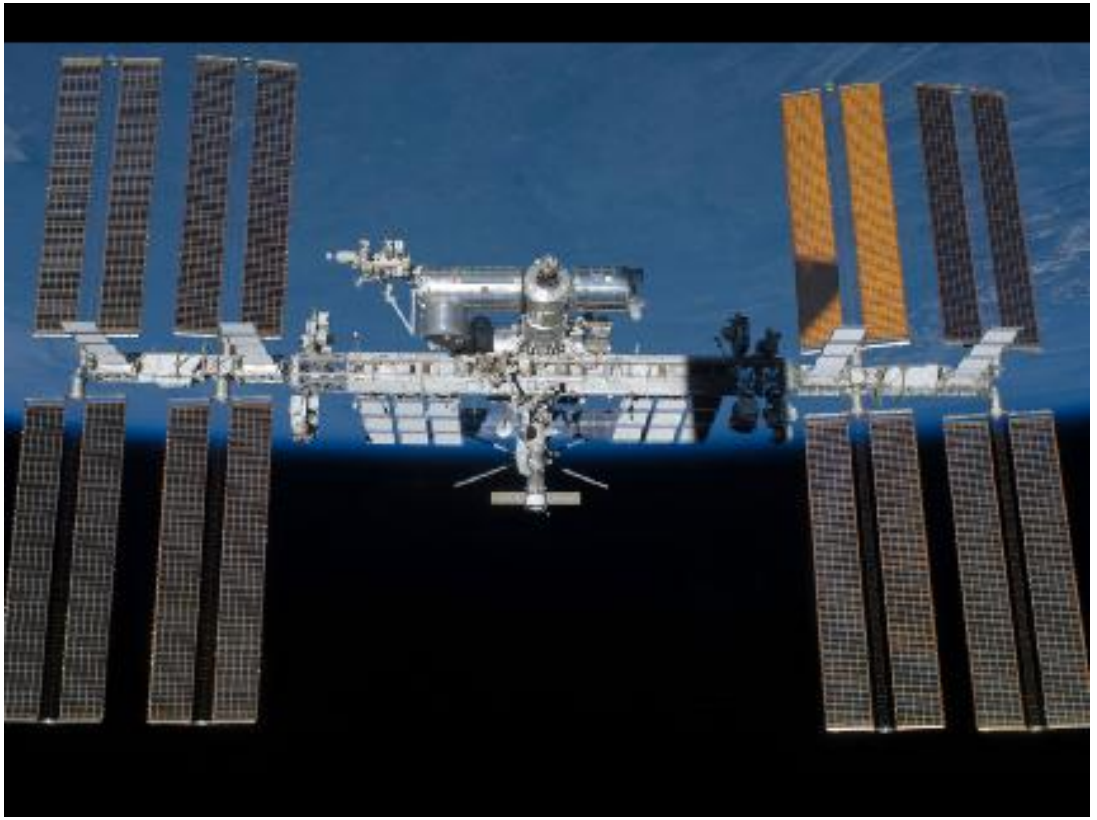




- Modified Tyvak System LLC Cubesat
- Passive Attitude Control & On-Orbit Simulation
- Five Sun Sensors for Attitude Determination
- Five Digital Cameras Photograph the Earth
- 3D Printed Composite Antenna Deployment System – Student Science Fair Award Winner
- Thirteen Selectable RF Downlink Modulation Modes to Validate Student RF Link Analyses

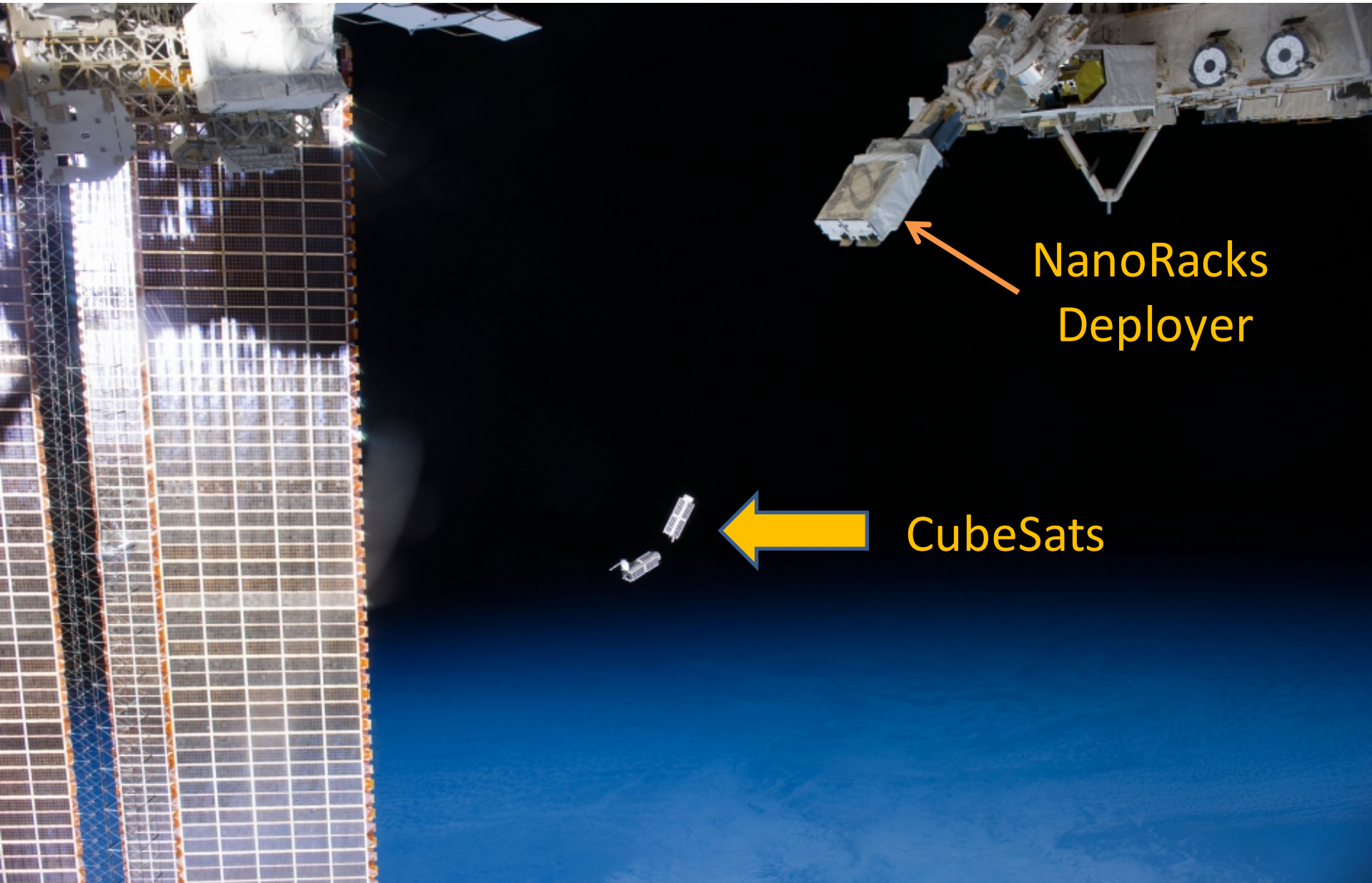


SpaceX-5 Dragon Rendezvous with ISS



SpaceX-5 Falcon 9 Launch Dec. 2014

Quest-1 to Be Deployed From ISS Dec. 2014

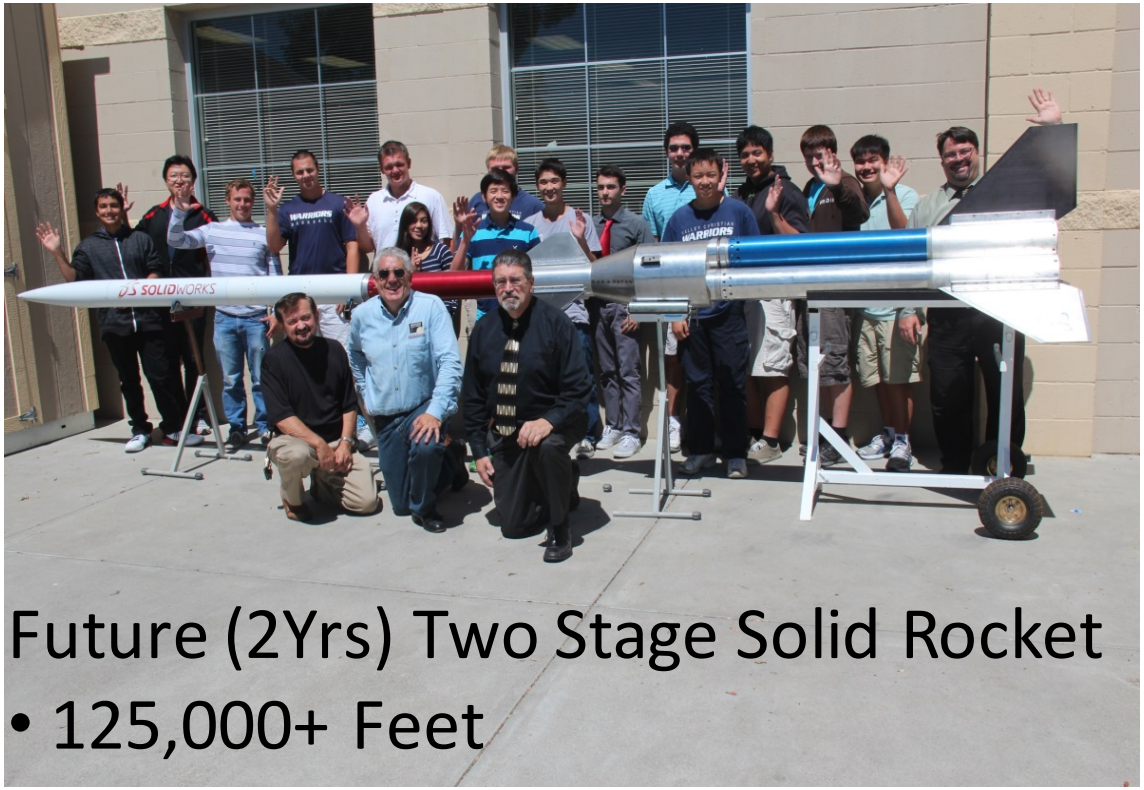


Valley Christian High School
High Gain VHF and UHF
Satellite Tracking Antennas

Valley Christian
High School
Satellite Control
Ground Station

Solid Rocket Program

- Joint Effort with Rocket Mavericks
- Wound Fiberglass Body
- UHF Transceiver
- 3U GoPro Camera Payload
  - Parachute Recovery
- 1U GoPro Camera Payload
  - Stays in Nose Cone



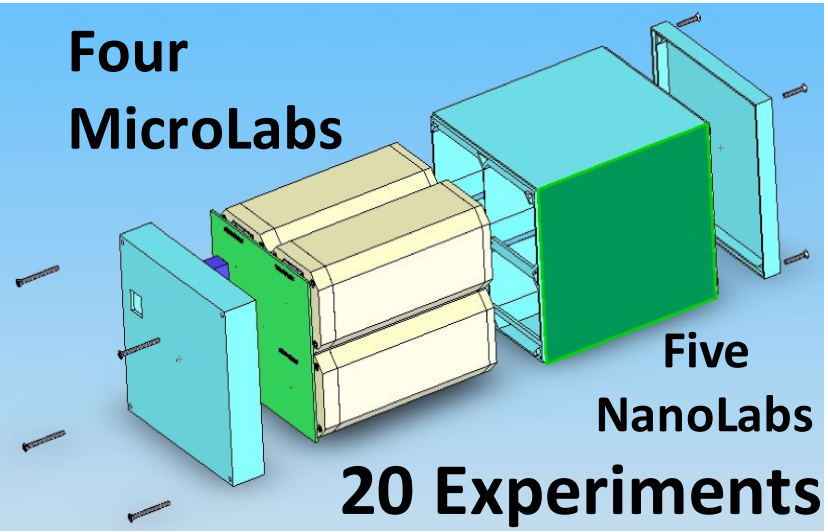
Future (2Yrs) Two Stage Solid Rocket

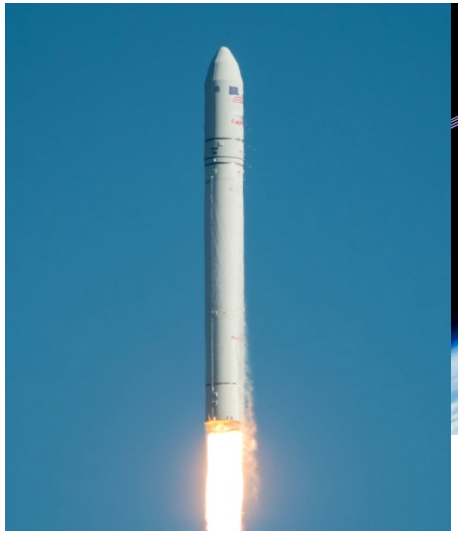
- 125,000+ Feet

To Space and Back in 9 Months

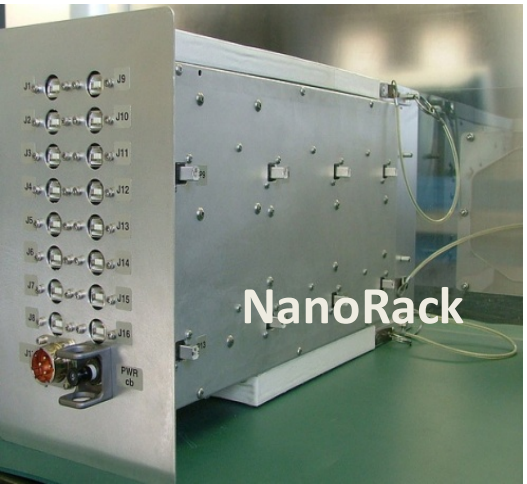
Orbital Sciences Cygnus ISS Resupply Vehicle to be Launched May 18, 2014

NanoLab Exploded View



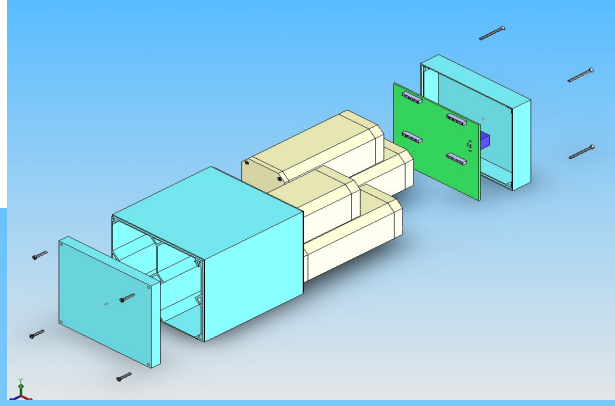


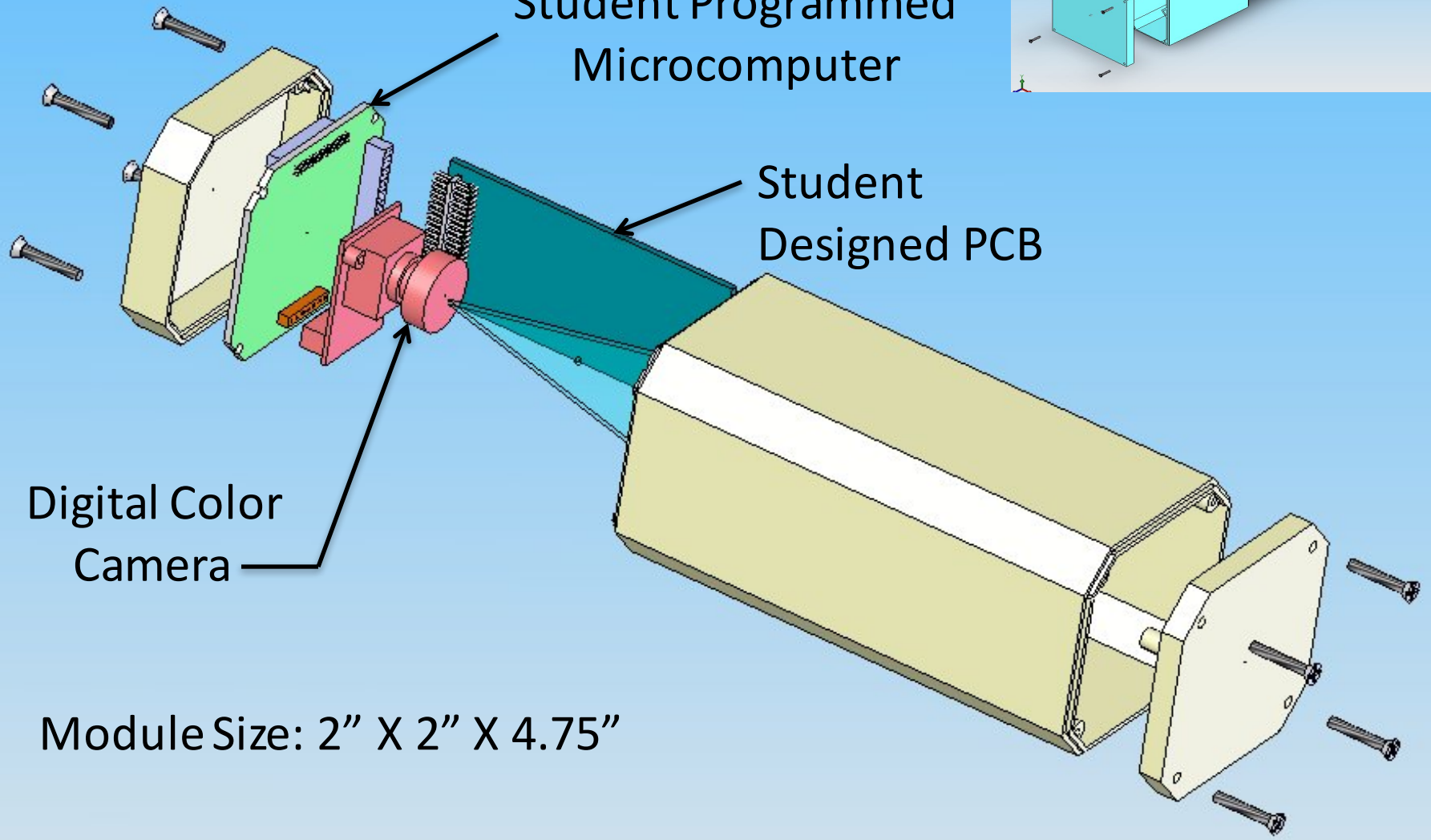
NanoLabs Returned on SpaceX-4 Dragon



Data

Student Experiments Housed in MicroLab





Module Size: 2” X 2” X 4.75”

Our ISS Science Partners

McMinnville, Oregon
- Beetle Growth

Three Northern California Schools
- Bacteria Kanamycin Resistance
- Ant Behavior

Four Southern California Schools
- Background Radiation
- Bacteria UV Resistance

Girl Scouts of Hawaii
- Plant Growth

Espoo, Finland
Fungus Growth

Minneapolis
- Fluid Flow Efficiency

Wheaton, Illinois
- Resurrection Plant Growth

NANORACKS Economical Space Research

NASA