

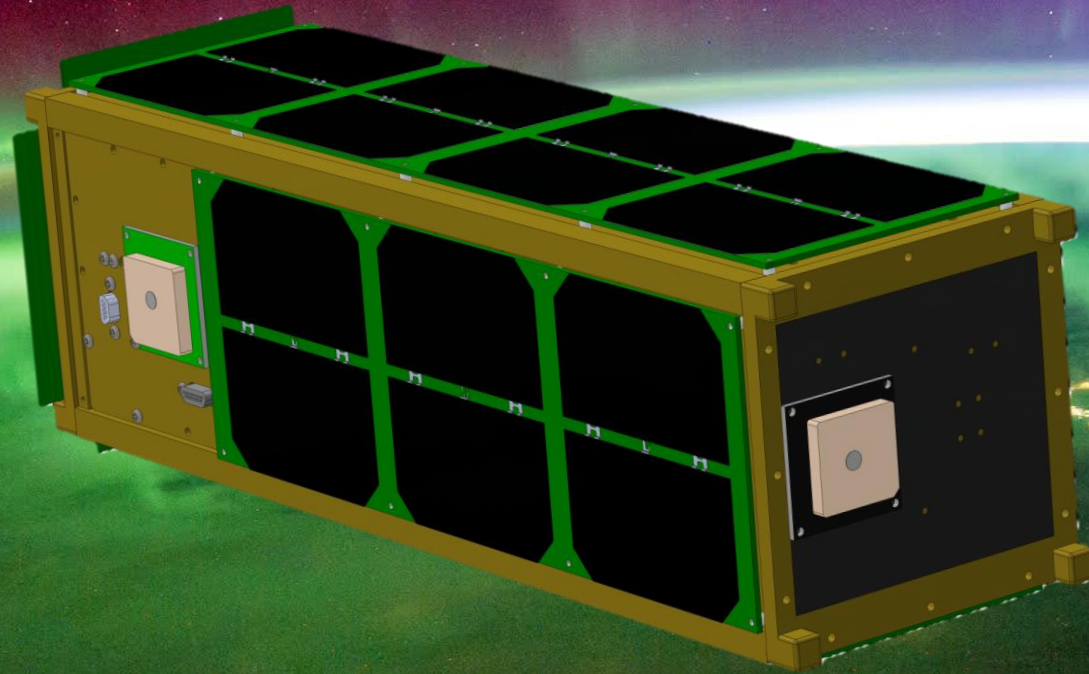
**UNITE, USIP's FIRST CUBESAT: WHAT WENT RIGHT, WHAT WENT WRONG**

**Glen J. Kissel, University of Southern Indiana**





# Undergraduate Nano Ionospheric Temperature Explorer





# University of Southern Indiana UNITE Team, Fall 2017

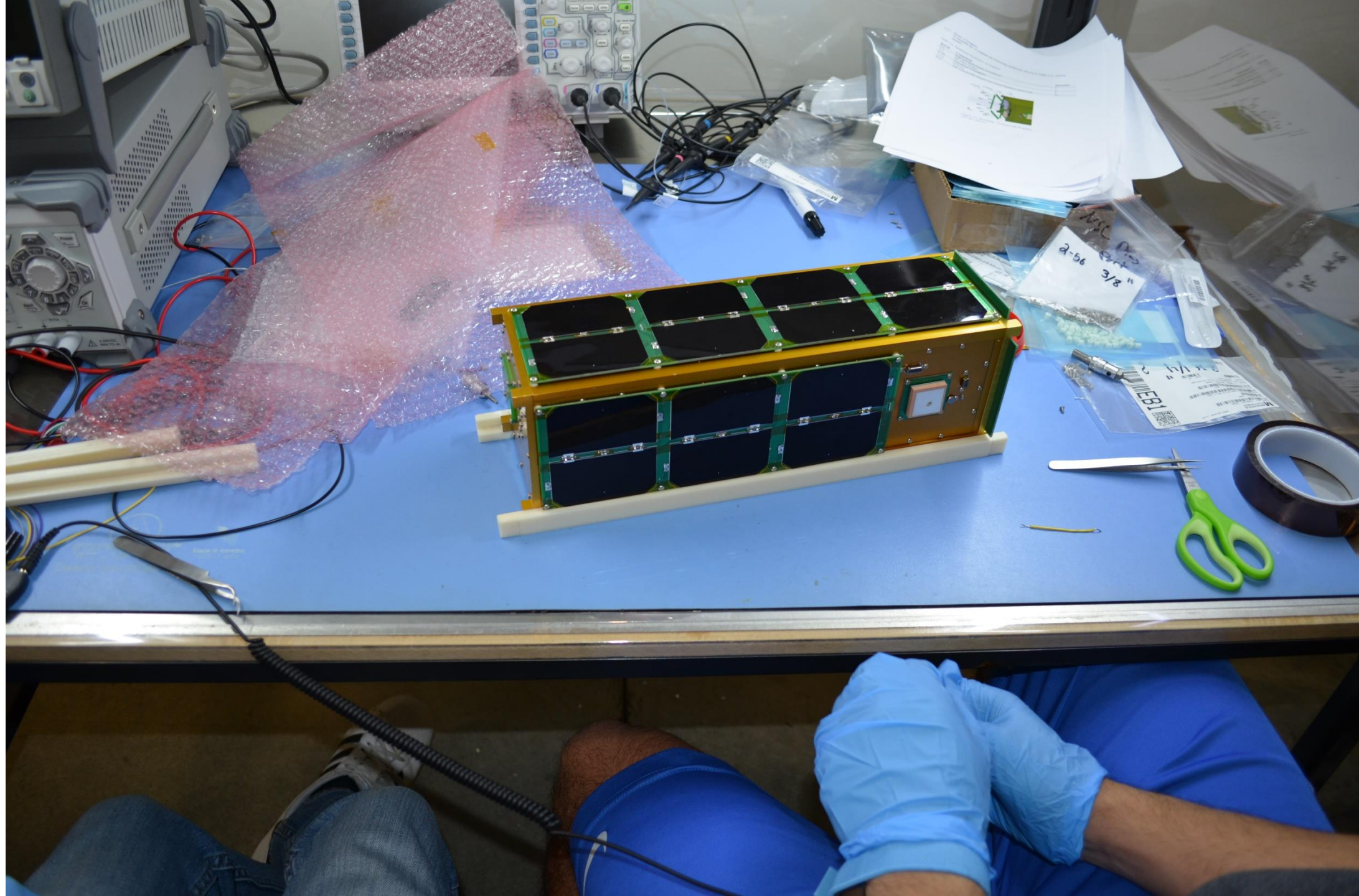




# University of Southern Indiana UNITE Team, Fall 2018



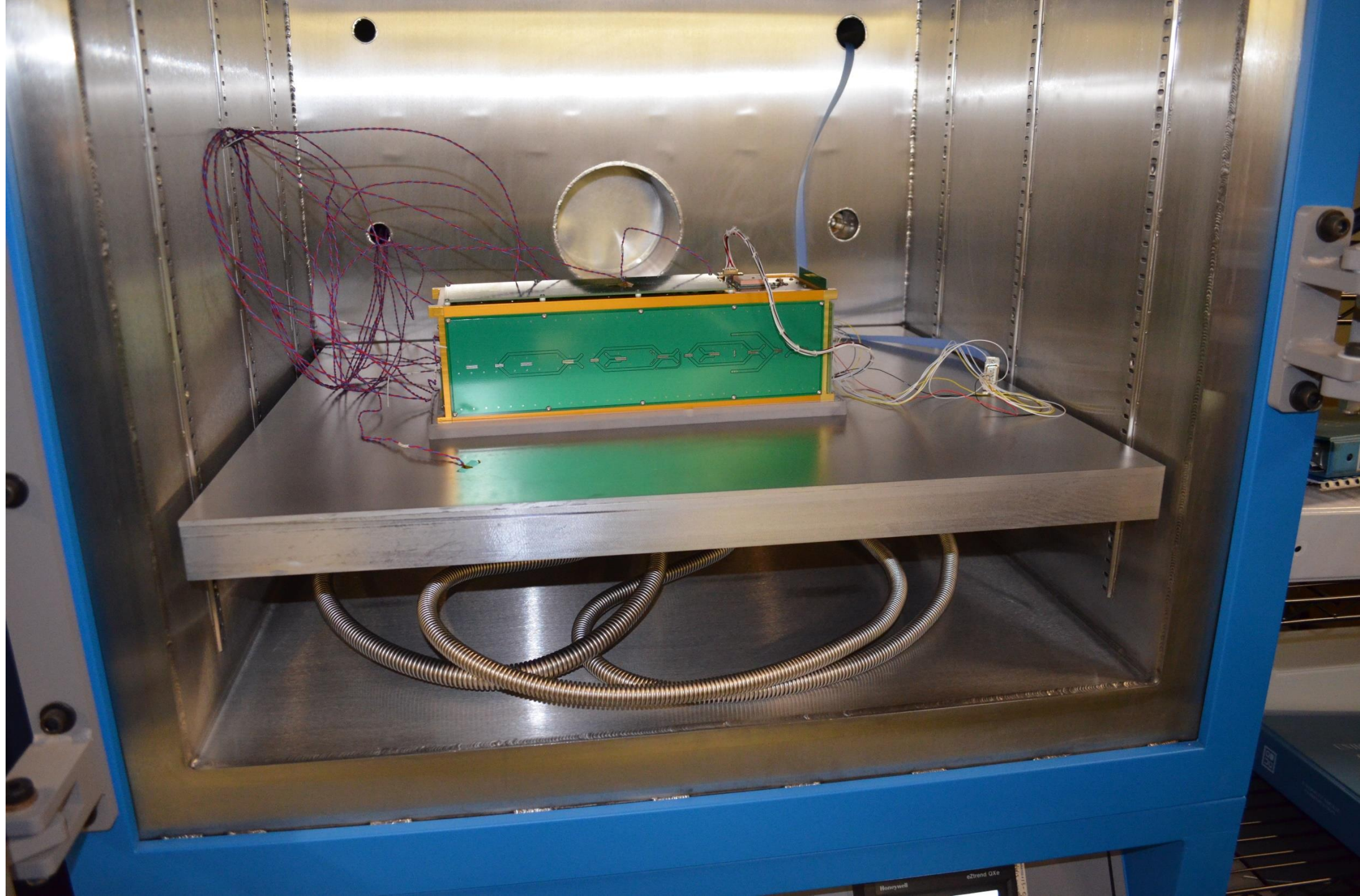




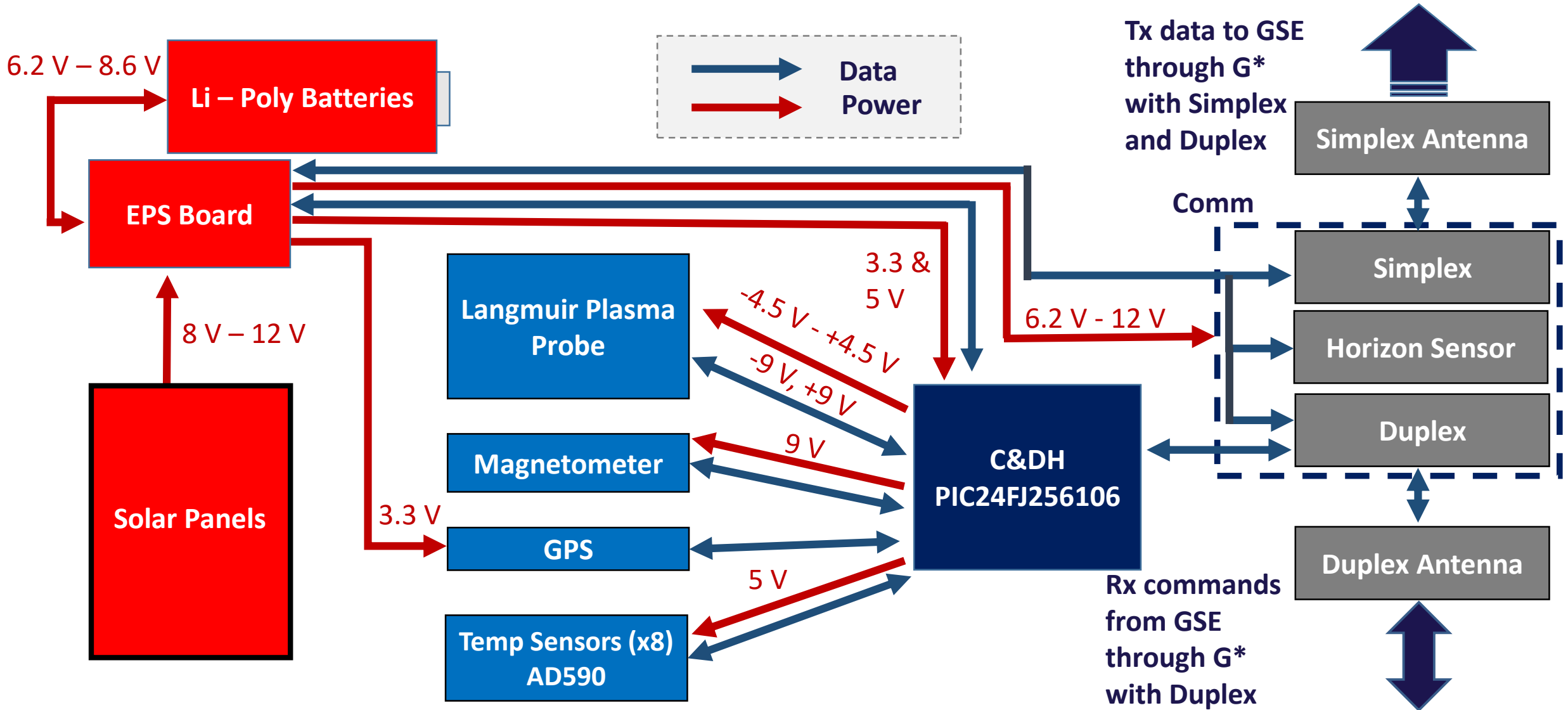






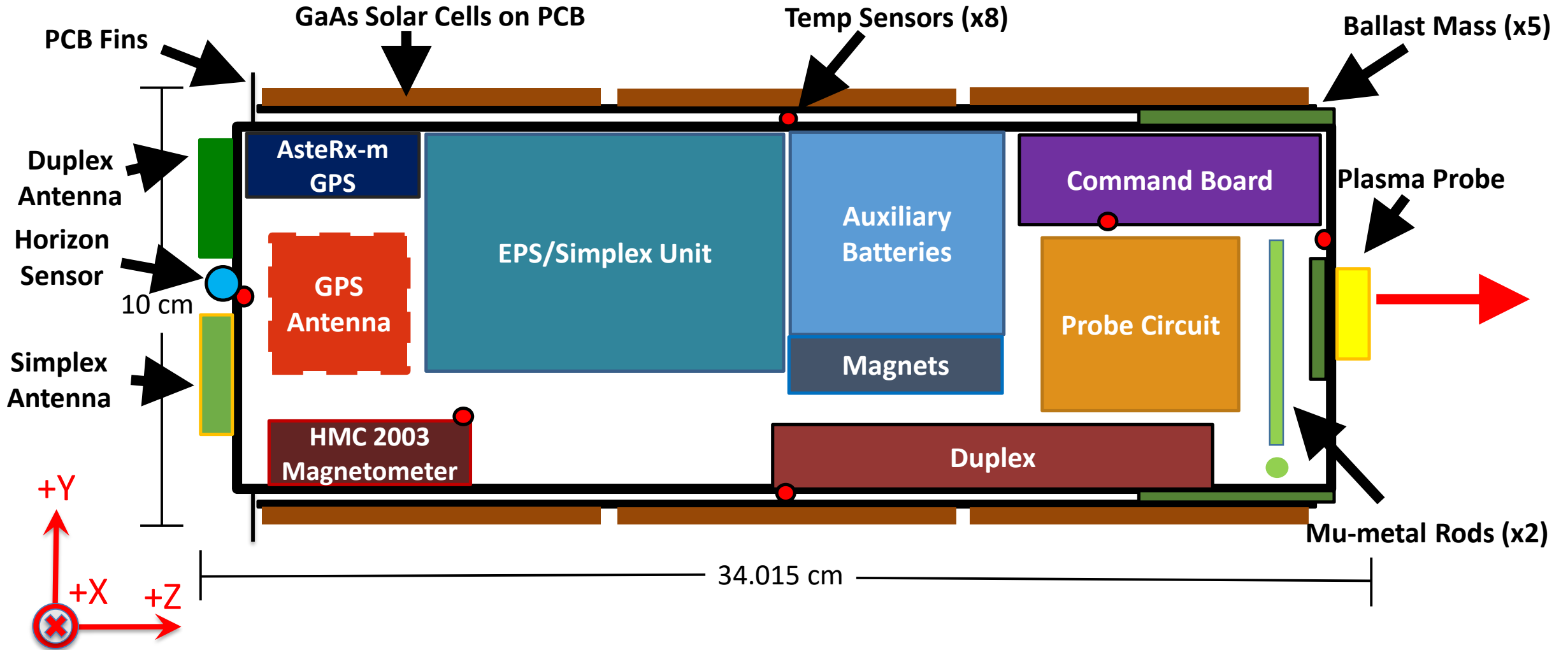


# FUNCTIONAL BLOCK DIAGRAM

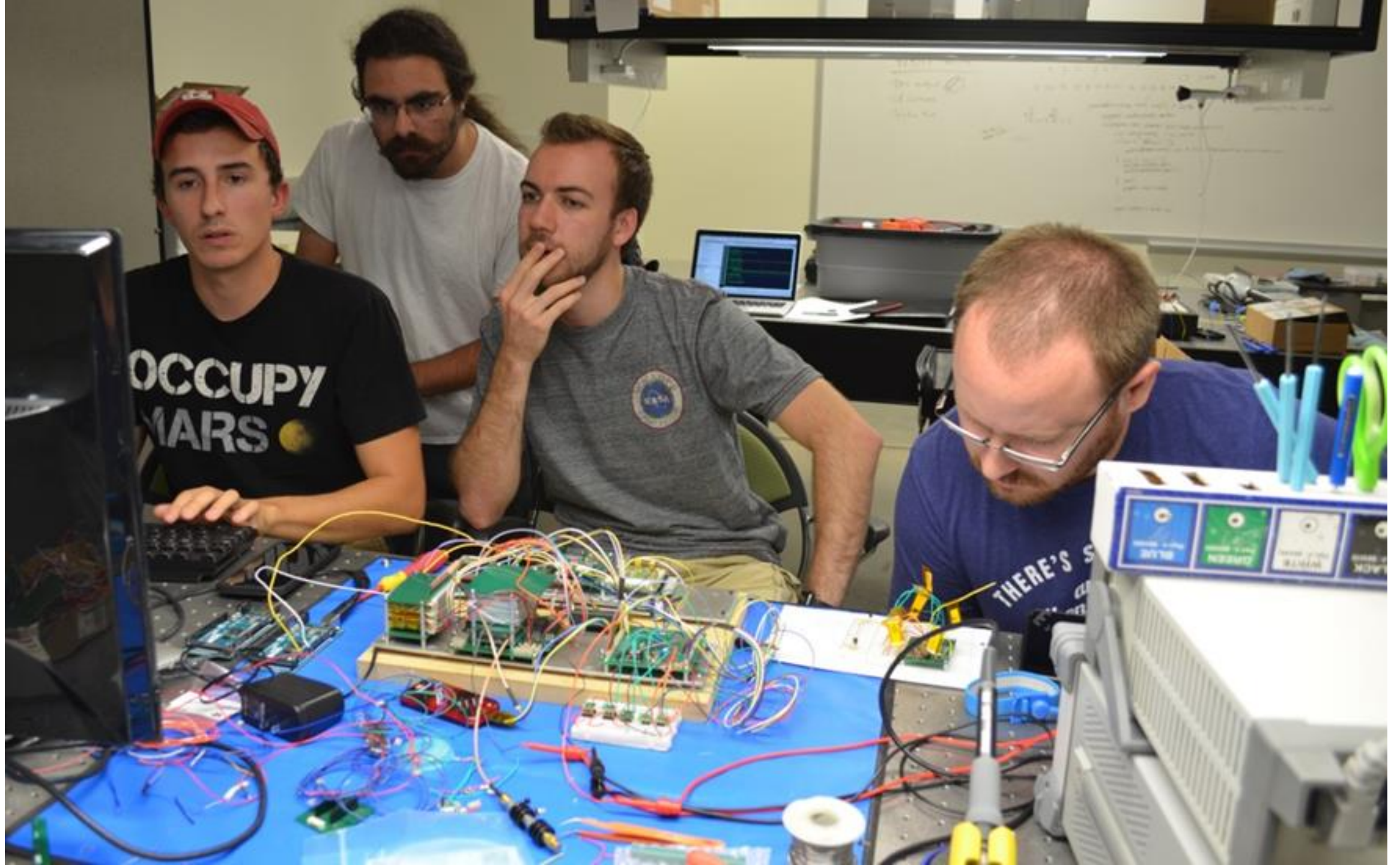




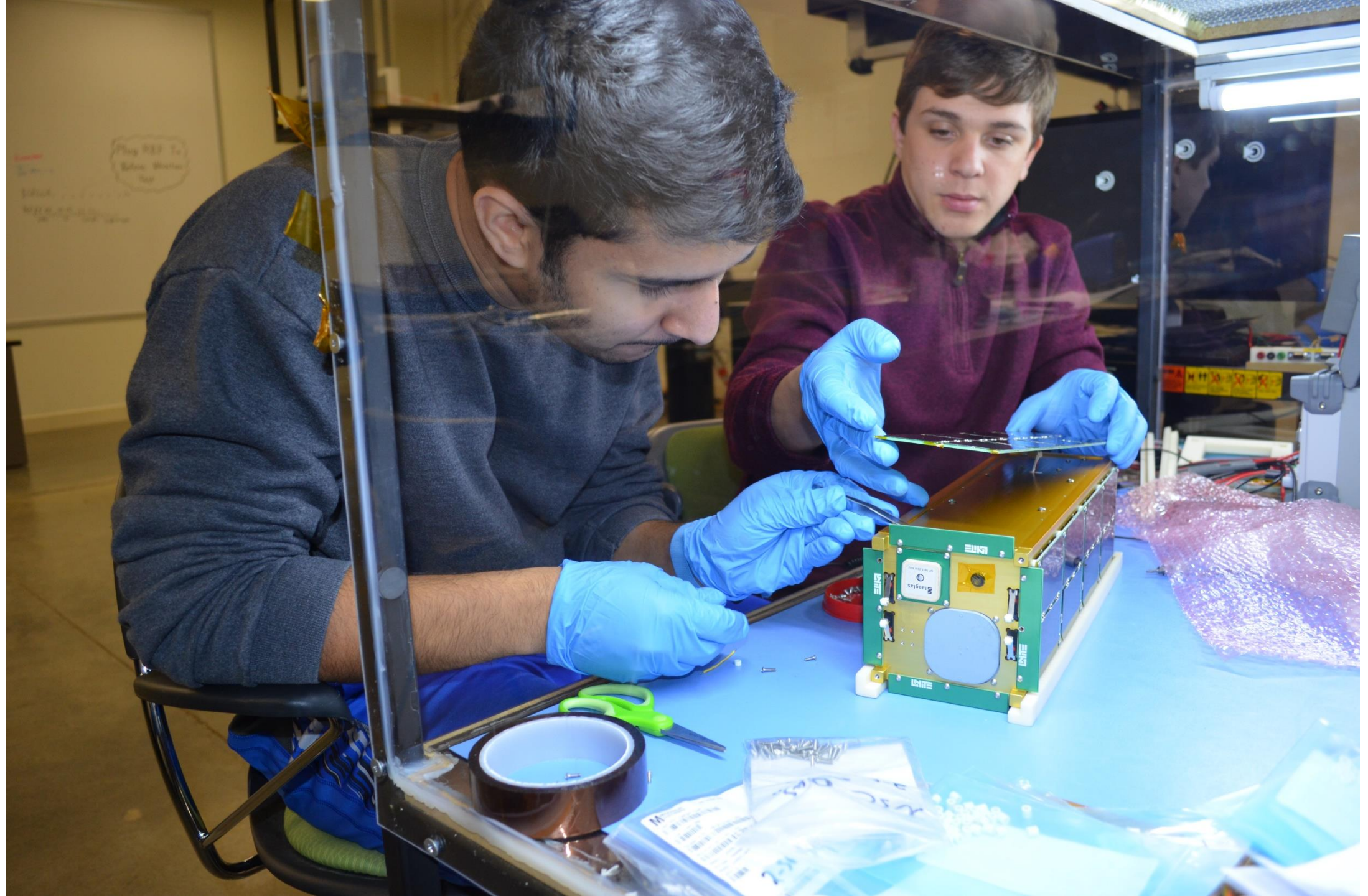
# MECHANICAL BLOCK DIAGRAM



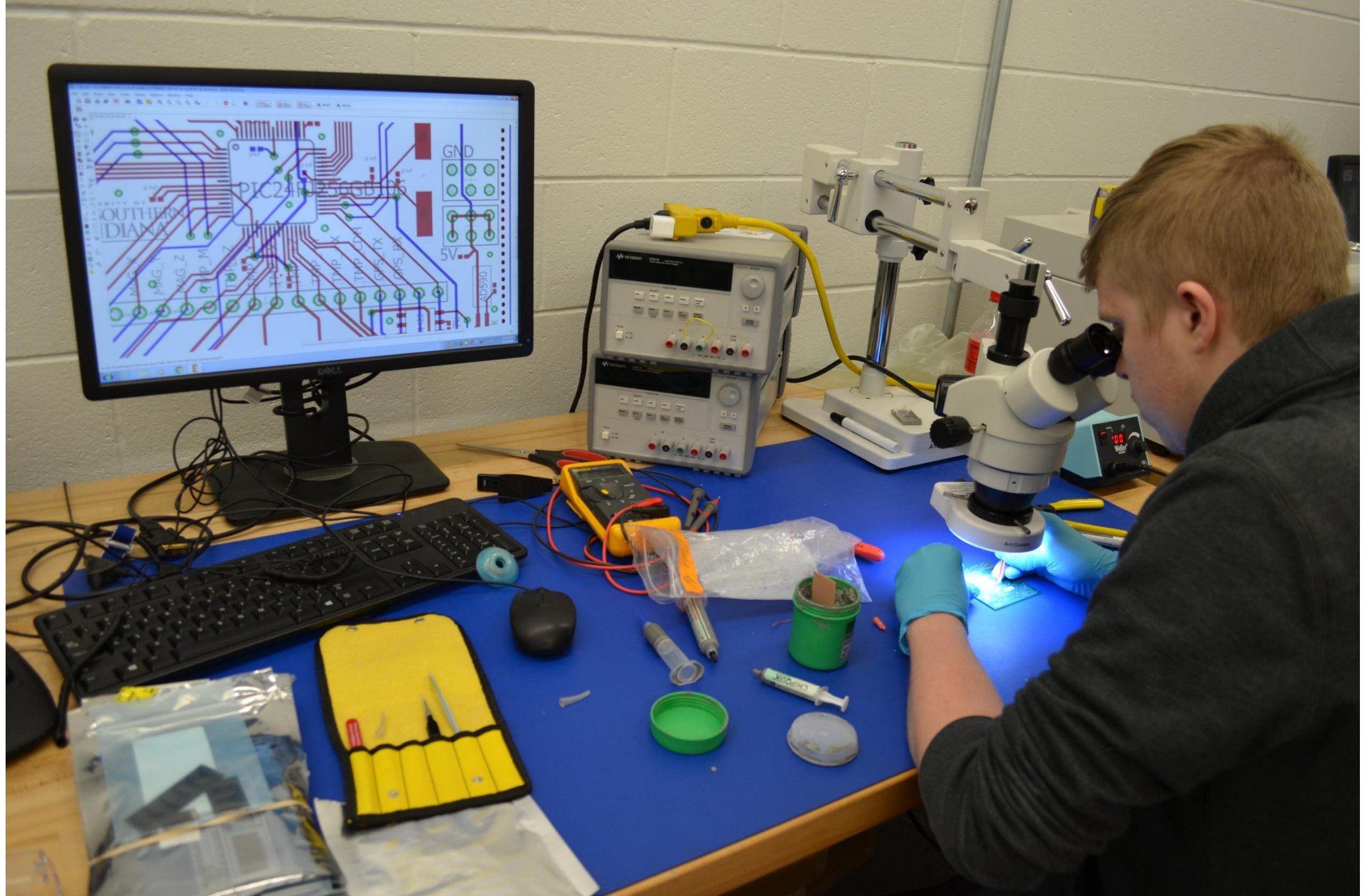




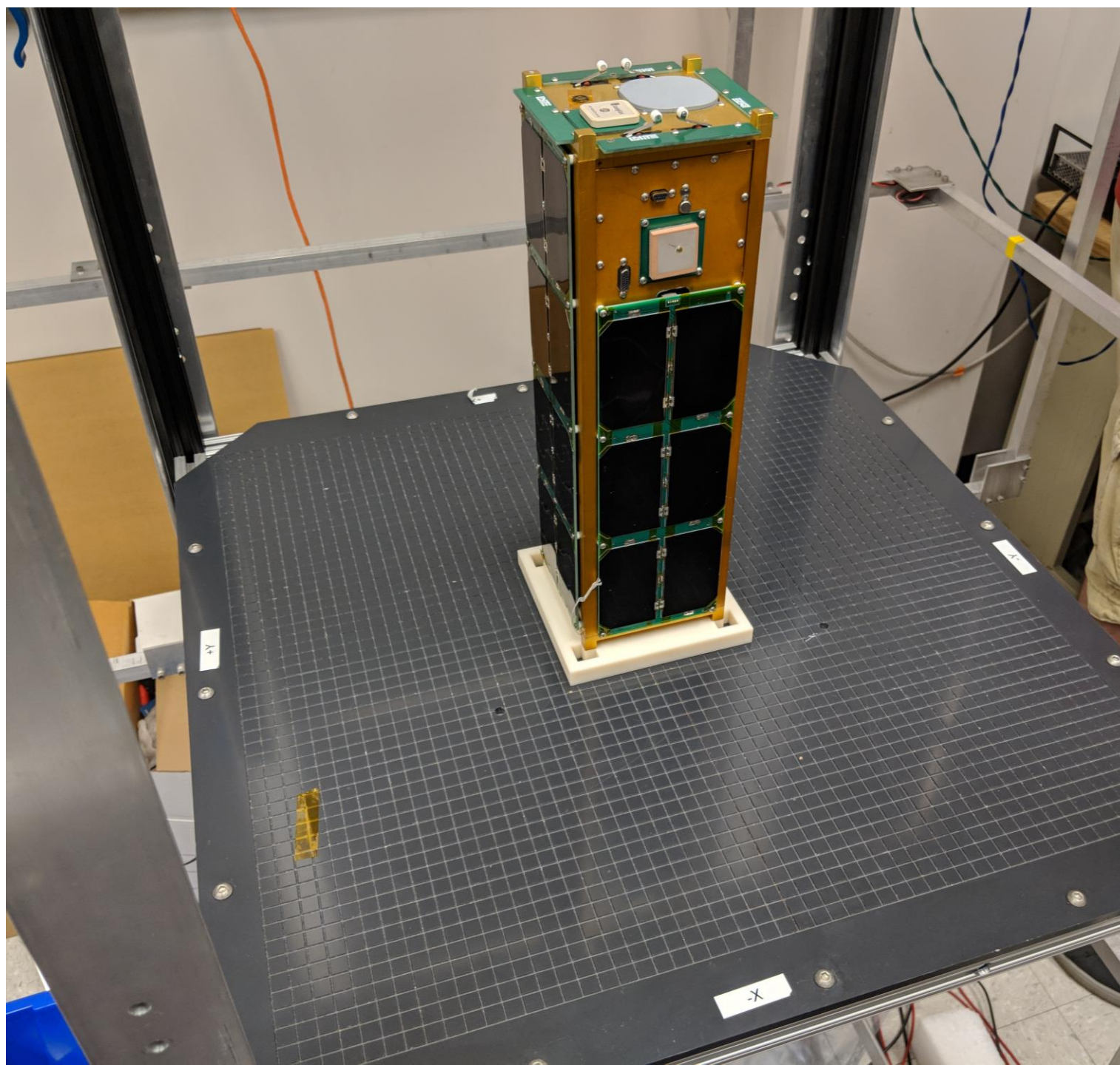


















# UNITE Distinctives

- University of Southern Indiana's first spacecraft
- First spacecraft by a public institution in Indiana
- First NASA-USIP CubeSat deployed in orbit



# References

G. Kissel, R. Loehrlein, N. Kalsch, W. Helms, Z. Snyder, S. Kaphle, UNITE CubeSat: From Inception to Early Orbital Operations, SSC19-WKI-08, AIAA/USU Conference on Small Satellites, Logan, UT, 2019, 3 – 8 August.

Ryan Loehrlein, Nathan Kalsch. 2019. "Lessons Learned from an Undergraduate University's First CubeSat," Proceedings of the International Astronautical Congress, Educational Pico and Nano Satellites, IAC-19. E2.4.3x51495.