

EE CprE 491 – May 20 - 49

CySat Senior Design Team

Week 30 Report

March 12, 2020 – March 18, 2020

Faculty Advisors: Phillip Jones

Team Members:

Bryan Friestad — *Team Lead / EPS Lead / OBC Lead*

Ryan Hansen — *SDR Lead*

Chase Kirchner — *Ground Station Lead*

Kyle Muehlenthaler — *UHF Lead / Ground Station Secondary*

Talon Stromgren — *Boost Board Lead / SDR Secondary*

Xiangzhu Yan — *ADCS Lead*

Past Week's Accomplishments

- OBC:
- ADCS:
- SDR:
- EPS: Begin basic work on implementing capacity tracking functionality. Improved formula for energy dissipation that won't have overflow issues [Bryan].
- Ground Station: Continued beacon detection and radio communication. [Ryan]
- UHF:
- Analog Components:

Pending Issues

- Still no round trip data radio communication
- Still don't understand what I'm seeing on the solar arrays
- Classes are all online now

Individual Time Contributions

Team Member	In lab hours	Outside lab hours	Total Weekly Hours	Last Week Hours	Total Project Hours	Attend Gen. Meeting?
Bryan Friestad	3.5	2	5.5	22.5	210	NA
Ryan Hansen	2		2	17	180	NA
Chase Kirchner				8	126	NA
Kyle Muehlenthaler				14	149	NA
Talon Stromgren		1	1	9	144	NA
Xiangzhu Yan				14	149	NA

Description of Work contributed

Team Member	Contribution
Bryan Friestad	Had telecom with EnduroSat. Tested UHF I2C commands. Started considering options for flight time extensible code and bootloaders. Worked on basic health checks. Worked on battery capacity calculations, simplifying the formula to reduce computations. Started reading up on bootloaders a bit.
Ryan Hansen	Worked on the ground station with radio beacon detection and bug fixes.
Chase Kirchner	
Kyle Muehlenthaler	
Talon Stromgren	Started working on new boost board, intended to work more on it toward the end of the week
Xiangzhu Yan	

Plans for Coming Week

- Bryan Friestad: Read new EPS documentation from EnduroSat. Get a hold of one of the dev boards and start working on bootloaders.
- Ryan Hansen:
- Chase Kirchner:
- Kyle Muehlenthaler:
- Talon Stromgren:
- Xiangzhu Yan: