EE CprE 491 – May 20 - 49
CySat Senior Design Team
Week 33 Report

April 2, 2020 – April 8, 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: Getting Ryan up to speed on discovery board
- ADCS: none
- SDR: none
- EPS: none
- Ground Station:
- UHF: written documentation in code on functions. Worked on the endurosat packing function.
- Analog Components:

Pending Issues

- Still no round trip data radio communication
- Still don't understand what I'm seeing on the solar arrays
- Disco-board seems to not have a Flop unit? Datasheet says it should, but vsnprintf doesn't seem to fill in float format specifiers.
- Waiting on Remote System details

Individual Time Contributions

Team Member	Total Weekly Hours	Last Week Hours	Total Project Hours	Attend Gen. Meeting?
Bryan Friestad	3	6	226	no
Ryan Hansen	4	3	190	no
Chase Kirchner	3	4	137	no
Kyle Muehlenthaler	6	8	168	no
Talon Stromgren		5	152	no
Xiangzhu Yan	6	4	159	no

Description of Work contributed

Team Member	Contribution
Bryan Friestad	Met with Ryan to discuss in flight reprogramming and how to test it remotely. Held team meeting. Attended NASA call. Assisted Ryan in setting up development environment.
Ryan Hansen	Received Disco board from Dr. Jones. Set up the development environment. I worked with Bryan to come up with a few ideas for flight reprogramming and mitigation due to disco boards not having SD cards.
Chase Kirchner	Ground station manual documentation. Reached out for frontend feedback of ground station enhancements
Kyle Muehlenthaler	Worked on documentation of the functions in uhf.c as well as on the endurosat packing function.
Talon Stromgren	
Xiangzhu Yan	Read UHF code/documentation, have a preliminary understanding of the work of UHF.

Plans for Coming Week

- Bryan Friestad: Figure out why vsnprintf isn't working and what options we have. Make sure issues with boost board enable get sorted out. Clean up some documentation.
- Ryan Hansen: Work with Bryan
- Chase Kirchner: Refine front end mock up based on feedback. Progress on ground station manual
- Kyle Muehlenthaler: Work with the UHF team on plans for upcoming plans with testing and questions they may have on code.
- Talon Stromgren:
- Xiangzhu Yan: Assist the UHF team to take the next step and document the work of ADCS if necessary.