EE CprE 491 – May 20 - 49
CySat Senior Design Team
Week 16 Report

December 7 – December 13
Faculty Advisors: Phillip Jones

Team Members:

Bryan Friestad — *Team Lead / EPS Lead / OBC Lead*
Ryan Hansen — *SDR Lead*
Chase Kirchner — *Ground Station Lead / CI Testing Lead / UHF Secondary*
Kyle Muehlenthaler — *UHF Lead / Ground Station Secondary*
Talon Stromgren — *GitLab Master / Boost Board Lead / SDR Secondary*
Xiangzhu Yan — *ADCS Lead*

Past Week Accomplishments

- OBC: Wrote a UART Receive function for the development board [Bryan & Chase]. Tested echoing back messages from Putty [Bryan].
- ADCS: Debug on c functions for ADCS.
- SDR:
- EPS: None
- Ground Station: Finished up serial receive UART function. Made progress on interface GUI
- UHF: Added functions for testing on the new KISS (keep it stupid simple) protocol. Didn't get time to test it out yet as setup didn't happen until wednesday.
- Boost Board: NA
- Carrier Board: Done, ready to be ordered

Pending Issues

- What each of the UART lines on PC-104 is actually connected to (looking into)
- Serial Receive on Python program
- SDR python port
- Waiting on Boost board still
- Bryan is still confused on how to send messages through the antenna from the OBC

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours	Attend Gen. Meeting?
Bryan Friestad	Helped Chase on ground station. Fixed some issues with the UART receive function on the OBC dev board. Met with the team to get status updates and plan for the next couple of weeks.	8	73	yes
Ryan Hansen			59	
Chase Kirchner	Worked with Bryan to finish serial receive UART function. Made progress on Ground Station interface. Tested serial receive from simple python script	10	55	No
Kyle Muehlenthaler	Uhf commands for eol and attempted frequency calculations	9	55	yes
Talon Stromgren	Finished carrier board	5	59	No
Xiangzhu Yan	Debug on c functions for ADCS	4	57	No

Plans for Coming Week

- Bryan Friestad: Work with Talon to test the EPS/OBC communication with the actual components. Write additional EPS functions for I2C. Continue helping Chase with Ground Station work.
- Ryan Hansen:
- Chase Kirchner: Further progress on interface. Resolve bug accepting port/baud from user input in the ground station interface
- Kyle Muehlenthaler: test protocol and use with transceiver to see the data moving from one to another.
- Talon Stromgren: Test boost board, test EPS
- Xiangzhu Yan: Go further into the ADCS High-Level Task List.