sdmay18-17: MicroCart (Microprocessor Controlled Aerial Robotics Team)
Week 1 Report
August 28 - September 11

Team Members
Blake Pries — *Communications Lead*
Dane Larson — *Ground Station Lead*
Matthew Kelly — *Documentation Lead and Webmaster*
Tyler Imboden — *Quad Software Lead*
Jakub Hladik — *Test Lead*
Kyle Trost — *Team Lead*
Peter Thedens — *Repository Lead*
Austin Rohlfing — *Controls Lead*

Summary of Progress this Report
-Learned how to run autonomous quad demo.
-Learned how to use current Matlab tools to analyze flight data.
-Prepared for lightning pitches that will be giving in class 9/12/17.
-Demoed last year's platform for the Scholars' Fair on 9/7/17.
-Worked with previous Microcart members to get knowledge of progress made over the past year.
-Started analyzing focus areas of code including quad software, controls, continuous integration and ground station.
-Created teams to analyze focus areas in depth, findings will be presented to larger group.
-Discussed and documented recent issues that occurred during the many test flights.

Pending Issues
-Overall lack of understanding underlying code that runs the quad in the VRPN (IR camera tracking system) and while using Optical Flow.
-Lack of knowledge for running the Optical Flow demo.
-Lack of controls knowledge required for more advanced autonomous maneuvers (such as flips).

Plans for Upcoming Reporting Period
-Become familiar with assigned focus areas.
-Look over Gitlab issues from previous team.
-Start experimenting with Optical Flow demo.
-Look into streaming flight data to ground station during flight.
-Identify areas of needed improvement for the ground station GUI.
-Improve documentation of both code and system.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Blake Pries	Setup team slack, attended team meetings, started to review code from the previous team	3	3
Dane Larson	Learned how to run. Helped at scholars fair. Met with past members.	6	6
Matthew Kelly	Learned general system characteristics and prepared for Scholars' Fair.	7	7
Tyler Imboden	Worked with current and past team to learn and demo at Scholars' fair	7	7
Jakub Hladik	Learned how to run. Helped at scholars fair. Met with past members.	6	6
Kyle Trost	-Looked at previous code to get simple understanding. -Organized meeting times with Dr. Jones.	6	6
Peter Thedens	Worked on pitch; learned how to demo system; reviewed past team's documents	5	5
Austin Rohlfing	Learned system basics; worked on pitch	3	3