

EE CprE 491 – Fall 2019

MicroCART Senior Design Team

BiWeekly Report 15

Mar 12th - April 2nd

Faculty Advisors: Phillip Jones, Matt Cauwels, James Talbert

Team Members:

Evan Blough -- Technical Team Lead, Embedded Software Lead

Kynara Fernandes -- Ground Control Station Lead

Aaron Szeto -- Controls Lead

Joe Gamble -- Embedded Hardware Lead

Shubham Sharma -- Crazy Fly Implementation Lead, Website Manager

Jacob Brown -- Physical Hardware Lead

Summary for Progress

We made a widget for the Ground Control Station. We tested multiple drones flying. We worked on assignments for the class.

Past Week Accomplishments

- Able to connect multiple drones to GCS at once, but flight accuracy is lost (Evan)
 - Ran a test
 - Would debug or attempt to fix this issue, but the
- Added functionality and documentation to the datalog widget
 - Works with old and new log files
 - Can select multiple plots, extend bounds, select log files from file browser, and select graphed parameters from a dropdown menu
 - Video of usage in Appendix
 - Doxygen documentation in Appendix
- Full design and print of single axis stand

Pending Issues

- Moving to online instruction has impeded progress from being made on our existing deliverables
- Adapting to a remote work environment

Individual Contributions

Team Member	Contribution	Bi-Weekly Hours	Total Hours
Evan Blough	<ul style="list-style-type: none">● Added functionality and documentation to the datalog widget● Able to connect multiple drones to GCS at once, but flight accuracy is lost (Evan)	12	62

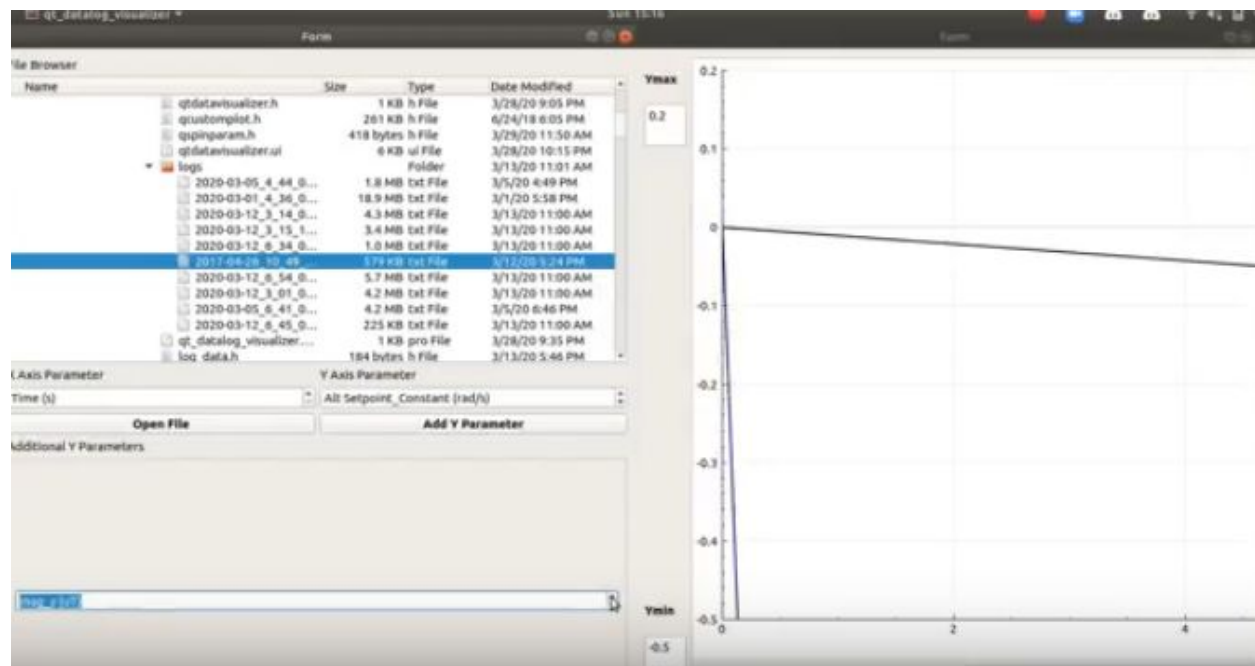
Kynara Fernandes	<ul style="list-style-type: none"> Added new GUI functionality and easier UI usability. Planning and setting up for installing linux of second core of the quads 	8	45
Joe Gamble	Single axis (yaw) stand for miniquads	6	48
Jacob Brown	Team power point and testing platform development	8	50
Aaron Szeto	Help with team powerpoint. Wrote questions for the peer evaluation	4	45
Shubham Sharma	Worked on the team presentation. Documented old code and cleaning up semester's progress in the repository	6	46

Plans for Coming Week

- Adapting project milestones to consider not having lab access.
- Make a GCS adapter to communicate with MAVProxy open source python project

Appendix:

- Datalog Visualizer Videos
 - https://drive.google.com/file/d/1AfeYb8h9Y2rjrpF8_eZAI82RYKu6UDa/view
 - https://drive.google.com/open?id=1fbKWRa3uLtTV5ZYtONf_US8mHvT_DBgH
- Datalog Visualizer Screenshot



- Datalog Visualizer Git URL
 - https://github.com/evanblough/qt_data_vis_MicroCART
- Datalog Visualizer Doxygen Files

- <https://drive.google.com/drive/folders/19IA6MEITtKladG401nycsaMJRD3Ugkwh?usp=sharing>