Senior Design May 22, 43

MicroCART Senior Design Team

Week 21 Report

March 28 - April 04

Faculty Advisor: Philip Jones

Members:

Ryan - System architect

Zach - Groundstation lead, co system architect

Reid - Test station sub-team

Ellissa - GUI sub-team

Colton - Git manager, Firmware lead

Carter - Web Master, OptiTrack Lead

Brandon - Project Lead, Test Station lead

Links

- [Shared Google drive folder](#)
- [Order list](#)
- [Crazyflie inventory](#)

Summary of Progress this Week

- Improved live plotting performance - Colton
- All components printed and tested for the lab- Brandon
- Remaining PCBs soldered / breadboard circuits made - Brandon & Reid
- Introduced lab to 488 students - Colton, Zach, Ryan, Reid

Pending Issues

- Need to finish writing the ground station code before we can load the VM image onto the lab computers.

- Potential control board driver issue on 2041 workstations? CH340 driver not installed?

Individual Contributions

Team Member	Contributions	Hours	Total Hours
Brandon Cortez	- Completed the printing and testing of all 3D designed components for the lab - Finished soldering the remaining PCBs and nanos - Constructed backup PCB circuits on breadboards	14	137
Reid Schneyer	Added rate mode to control board firmware Attended both 488 lab sessions Began work on test stand control board redesign	14	126
Colton Glick	- Rewrote live graphing to improve performance, most of the time spent is during replotting the graph - More ground station and gui debugging with zach - Went to beginning of Thursday and all of Friday lab session, introduced students to lab, assisted with issues found along the way - Looking into getting new BetaFPV controllers to work with linux	15	204
Ellissa Peterson	- Start poster	3	81
Ryan Hunt	- added finishing touches to lab - attended lab sessions	14	141
Carter Irlmeier	Getting caught back up, setting up lighthouse system on tripods, working on python script	3	73
Zachary Eisele	-Created first version of logging with ryan -worked out various ground station and gui bugs -Went to both lab sessions to help out -worked out a better system to communicate between gui and backend for logging info so desyncing happens less often	15	203

Comments and Extended Discussion

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Plans for coming Week

- Team regroup on Ellissa's progress on the poster to plan the distribution of team resources going forward during the second week of the lab.

- Add option to disable graph y axis auto scaling to GUI - Colton

- Work on gui improvements - Ryan