

Senior Design May 22, 43

MicroCART Senior Design Team

Week 16 Report

February 15 - February 21

Faculty Advisor: Philip Jones

Members:

Ryan - System architect

Zach - Groundstation lead, co system architect

Reid - GUI team lead, 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

- Wrote lab doc ver2 - Ryan, Colton
 -  Lab Doc Ver2
- "Test stand data" is now streaming into ground station - Zach
- Get and set param commands are fixed so it can be used to fine tune pid constants for first part of lab - Zach
- Fixed function conflict between new student controller files and existing controllers. - Colton

Pending Issues

- -----DR. JONES ATTENTION REQUIRED-----
 No longer need temp_crazyflie_repo (<https://git.ece.iastate.edu/danc/temp-crazyflie-repo>), but don't have permission to delete it. Jones needs to delete it, settings > general > advanced > delete. I created this repo while troubleshooting.

 MicroCART_Crazyflie_Firmware repo can also be deleted (https://git.ece.iastate.edu/danc/MicroCART_Crazyflie_Firmware), this was a pre-existing repo that was blank and unused, currently only has a copy of the stock Crazyflie firmware and will not be used - Colton

Individual Contributions

Team Member	Contributions	Hours	Total Hours
Brandon Cortez	- Made corrections to drone mount sizing to allow better fit - Troubleshooted Trinket M0 issues - Began designing housing for PCB	6	95
Reid Schneyer	- Tested new controller - Redesigned PCB - Troubleshooted Trinket M0 issues	6	90
Colton Glick	- Ran into issues where the student attitude and student PID functions were conflicting with the standard controllers, renamed functions to fix - Experimented with the VM to write the lab instructions. Students will need to set up file sharing between windows and the VM or use git to export there work - Assisted with Scholars Fair demo - Worked with Ryan to write lab doc v2	9	118
Ellissa Peterson	Created screen sketches Working on GUI	6	71
Ryan Hunt	- Finished writing lab doc ver 2	7	84
Carter Irlmeier	Uploading YouTube videos and restructuring	3	57

	channel		
Zachary Eisele	-Set up reading data from test stand into ground station -Fixed get and set param commands so they work with all data types -Started work on making logging more customizable without rebuilding program	12	131

Comments and Extended Discussion

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Plans for coming Week

- Remake BOM for arduino nano control board - Reid
- Make housing for control PCB - Brandon
- Get more feedback on lab doc ver 2 - Ryan
- Create git branches and tags for students to pull during lab setup - Colton
- Setup modified VM - Colton