Senior Design May 22, 43

MicroCART Senior Design Team

Week 17 Report

February 22 - February 28

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

- New test stand with weight compensation designed and printed. 3D designs finalized and prep started for mass printing. - Brandon

- Updated lab document, I think this is very close to the final product - Ryan, Colton
  - 📄 Lab Doc Ver2

- Made logging far easier and more reasonable for the ground station -Zach

Pending Issues

- Dr. Jones, during the PID tuning section of the lab, should the integration limit be provided for each PID controller or should the students be required to find it themselves? - Colton

- ==========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	- Designed and printed new test stand with counterweight implemented - Began prep for printing all required components for the lab	5	100
Reid Schneyer	Helped with design of new test stand	4	94
Colton Glick	- Revised lab doc twice - Created new git branches for different parts of lab that students will use to flash the crazyflie or modify code	8	126
Ellissa Peterson	-Some progress on GUI -Currently busy with some personal health issues	2	73
Ryan Hunt	- Received more feedback on lab doc and made suggested revisions	6	90
Carter Irlmeier	Web work, researching light house system	2	59
Zachary Eisele	-Fixed logging issue for good -Can now create logging blocks from txt file -Set up commands on ground station for creating, pausing/unpausing, and deleting log blocks	10	141

Comments and Extended Discussion

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Plans for coming Week

- Begin mass printing of lab components - Brandon

- Work on getting firmware prepped for students to write code - Colton

- Work on improving lab document - Colton, Ryan