Senior Design May22, 43

MicroCART Senior Design Team

Week 4 Report

October 13 - 19

Faculty Advisor : Philip Jones

Members:

Brandon Cortez - Team Lead

Reid Schneyer - Test Station Lead

Colton Glick - Git Wrangler

Ellissa Peterson - Tech Lead

Ryan Hunt - Firmware

Carter Irlmeier - Web Master

Zachary Eisele - TBD

Summary of Progress this Week

This week the team completed two presentation assignments, the design assignment and the testing assignment. The design assignment went over different design aspects of our project including the goals, previous work, technical complexity (three main parts of the project), design exploration, and current proposed design. The testing assignment covered topics such as unit testing, integration testing, system testing, and acceptance testing. All of these we plan to implement into the project in some form.

Additionally this week, progress has been made to clean up the Gitlab repository and get it ready for full development. Large files were removed to reduce cloning size, and a project board with labels was created to organize issues.

The website was updated with the group's current information, and the documents thus far have been uploaded.

Past Week Accomplishments

- Removed large files from git repo, reducing clone size from 3.5 GB to 288 MB - Colton

- Created and recorded design lightning talk - Colton, Carter, Ryan, Ellissa
- Created project board and labels on repo - Ellissa

Pending Issues

- Finish testing assignment document - All Members

Individual Contributions

Team Member	Contributions	Weekly Hours	Total Hours
Brandon Cortez	Continued work on the 3D design of the test stand	3	19
Reid Schneyer	Testing assignment, began work on test stand electronics	4	20
Colton Glick	- Removed large files from git repo history - Created and recorded presentation for design lightning talk	5	23
Ellissa Peterson	-Created and recorded presentation for design lightning talk -Created project board and labels on GitLab	4	17
Ryan Hunt	worked on testing and design assignments. Looked into adapter code to see how we could use it. Tried flashing code to crazyflie to make it move.	4	18
Carter Irlmeier	Design assignment and lightning talk, uploaded group information/documents to website, and cleaned up old website structure	4	17
Zachary Eisele	Continued work on testing crazyflie high level commander and how to strip control logic	3	18

Plans for coming Week

- Start to design CLI for crazyflie - Zach

- Start with firmware - Ryan, Colton

- Get connected with department media person for YouTube channel, make website look better, and integrate it with GIT - Carter

- Get test stand printed - Brandon and Reid

Summary of Weekly Advisor Meeting

10-13-21 Meeting with Jones

Jones likes the status report organization, "pretty impressive"

Jones feels iffy about the Matlab to C generator - EE 476 students should be able to write C code

Each box of the flowchart on the "Quadcopter SW Flow" slide should be its own module

More than skeleton prototype of modularization from old team, email Jones so he can check, might be on repo (colton did during meeting)

Old microcart should have CLI/GUI examples on the repo, one team had a good final report detailing it

small to large drone adapter, check "adapter" folder somewhere in repo

youtube channel, research youtube's multi channel management feature to existing department channel

   - web master (carter) did some research already

   - Jones will get web master (carter) in contact with department media person

Will git wrangler need more permissions to do his job?

   - Doesn't have direct access to master, but may not need it

   - CI/CD is still active, haven't looked further (may or may not need higher privileges)

   - See if gitlab has ability to force required MR reviews, should be a group policy either way

Look into making Fusion 360 team more accessible/public?

   - Jones has been added

Jones has resource for picking up EE 224 material in a practical manner

Jones will bring in mini projector so sub-teams can explain to whole team

Jones would like the microcart repo to be a well documented example, use wiki page

"Planning stage is looking pretty good"