

EE/CprE/SE 491 - WEEKLY REPORT 8

November 1st- November 7th

Group number: may25-32

Project title: MicroCART mini: Microprocessor Controlled Aerial Robotics Team

Client &/Advisor: Dr. Phillip Jones

Team Members/Role:

- Daniel Zaucha: Client interaction, Communications Lead
- Jonah Upah: Team Secretary, Meeting Organizer
- Ryan Lowe: Software Lead
- Yi Hang Ang: Hardware Design Lead

Weekly Summary

Our lightning talk presentation went pretty well, save for a small part of the demonstration where we had an issue with the radio dongle being recognized by the virtual machine, despite performing a successful live test 30 minutes prior, although we did run a little long. Most of the comments giving critique for improvement mentioned stating scope more clearly at the beginning, avoiding repetition, making sure to have a backup demo in case the live demo does not go well, and to provide some descriptions/explanations of some of the less common project-specific vocabulary such as BitCraze, P.I.D., radio dongle, and we suspect even PCB, which is used in many more fields than just computer engineering.

Aside from our lightning talk, this week we also began sorting through the quite large code repository to make sure that the issues that we are working on have not been solved already and have just been sorted to wrong locations, which we are considering to be something that has been occurring.

Past week accomplishments

- Daniel Zaucha
 - Participated in Lightning Talk Presentation
 - Worked on class assignments
 - Went to Lab on Thursday, Sunday, Tuesday
 - Began looking at backend code / Watched previous year's specific videos
 - Guided advisory meeting
 - Began Vocabulary sheet, ReadMe docs for AIOF (All In One Folder)
- Jonah Upah
 - Participated in Lightning Talk Presentation
 - Worked on class assignments
 - Backend code
 - Main loop
- Ryan Lowe
 - Participated in Lightning Talk Presentation
 - Worked on class assignments
 - Took Meeting Notes
 - Watched videos on the Microcart Youtube channel to understand what issues they faced during their projects and what ideas they had for future teams.
- Yi Hang Ang
 - Participated in Lightning Talk Presentation
 - Worked on class assignments
 - Went to Lab on Saturday
 - Looked at Backend code
 - Watched sdmay-23 and sdmay-24's videos

Pending Issues/tasks

- Upload lightning talks to group website as presentation files
- Contact Past CPR E 488 TA (Gregory) about questions that we have

Individual contributions

NAME	Individual Contributions	Hours this week	HOURS cumulative
Daniel Zaucha	<ul style="list-style-type: none"> • Lab 4 Improvement • Download folder update • Documenting bugs and solutions found 	3 + 2(R12-2) + 1.5(R3:30-5) + 1.5(T3:15-5:15) = 8	47
Jonah Upah	<ul style="list-style-type: none"> • Code • presentation 	3+4	33
Ryan Lowe	<ul style="list-style-type: none"> • Went through previous teams videos • Started going through backend/groundstation code 	6	32
Yi Hang Ang	<ul style="list-style-type: none"> • Watched sdmay23, sdmay24 videos • Went through the backend code 	3.5+2+1	38

Comments and extended discussion

- We are now going through our currently burgeoning code repository and will begin recording and separating code that the project currently makes use of versus old code which will later be put inside of a Legacy Code folder after we are certain that it is not being used.

Plans for the upcoming week

- Daniel
 - Documentation:
 - MP4 Document that shows where students can find what is needed.
 - GitLab issues
- Yi
 - Have GitLab issues set up for everyone
 - Testing all CrazyFlies' health status
 - Debug CF Adapter / CF Groundstation Python code
 - Figure out where the issue is for time traveling packets
- Ryan
 - Need to continue going through backend and figure out what things we need to improve upon based on last teams suggestions.
- Jonah
 - Backend
 - GUI
- Group Plan:
 - Complete Tasks/issues that we are assigning and claiming on the git
 - Update Quadcopter Health spreadsheet
 - PCB Needs document

Summary of weekly advisor meeting

Need to update the QuadCopter health spreadsheet. Gregory (former TA) is a good contact for debugging and the video, the person to bring in for reviews is general. Except for MP4, most of the labs are one-stop-shops, so the files that should be available should be the more obscure and difficult to find (thinking about a document sheet with video links). Need to switch to tasking and doing stuff instead of explore/research. - If running MP4 and seeing time for updates, can add code for measuring times between code connections since there are many links that the code is connecting with.