

## ***EE/CprE/SE 491 - WEEKLY REPORT 7***

***October 25th- October 31st***

***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

### **o Weekly Summary**

This week, on October 31st, is when we will be giving our first group presentation (Lightning Talk 5: Detailed Design) in a public setting. During this week, we have started to work towards the actual project itself instead of solely the review and lecture material. Since some of us who have not dealt with sockets in a while, or at all, have worked on some short mini practice projects that have allowed us to learn/review client-server interactions which will be useful in the upcoming weeks for the coding that we will have to partake in. With the ever-expanding nature of this project, we have decided to start a folder that will later be obtainable as a ClassDownloadFolder.zip file for future students and project groups to be able to peruse and quickly acquire all of the downloads in one location. It is offline for now due to worries about google drive storage space. This will not include certain large files, such as the Virtual Machine, but rather is intended for something more along the lines of any lecture slides or other documents that will be related to this project.

o **Past week accomplishments**

- Daniel Zaucha
  - Went to Lab on Thursday, Saturday, Tuesday
  - Took advisory meeting notes
  - Began making folder a 'one-stop' download with all downloads for this project that are helpful
  - Worked on class assignments
- Jonah Upah
  - Worked on networking background
    - Echo server
  - Backend code
  - Prepare for lightning talk
    - Slides
- Ryan Lowe
  - Had a bit of a rough week, and wasn't able to work on the project much.
  - Planned on being in the lab Saturday with the team to work on MP4 but had a family emergency that forced me to go home Thursday and was there until Monday.
- Yi Hang Ang
  - Went to Lab on Saturday
    - Finished up Part 1 of MP4 with Daniel
  - Worked on class assignments
  - Looked at Backend code

o **Pending Issues/tasks**

- MicroCART Mini Bootcamp - Weeks 4-5 - Project introduction document started by previous years' groups
- Lab 4 completion
- Upload lightning talks to group website as presentation files

o **Individual contributions**

<b><u>NAME</u></b>	<b><u>Individual Contributions</u></b>	<b><u>Hours this week</u></b>	<b><u>HOURS cumulative</u></b>
Daniel Zaucha	<ul style="list-style-type: none"> <li>• Lab 4 Progress</li> <li>• Download folder creation</li> <li>• Socket self-learning (server-client)</li> </ul>	10	39
Jonah Upah	<ul style="list-style-type: none"> <li>• Backend exploration</li> <li>• Networking background</li> </ul>	5	26
Ryan Lowe	<ul style="list-style-type: none"> <li>• Rough week. Not able to work on what I was planning on.</li> </ul>	1	26
Yi Hang Ang	<ul style="list-style-type: none"> <li>• Lab 4 Progress</li> <li>• Backend code</li> </ul>	5	31.5

o **Comments and extended discussion**

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o **Plans for the upcoming week**

- Daniel
  - Documentation:
    - Include helpful links and fixes for MP4 in the form of a new and updated MP4 lab document which includes youtube tutorial links, FAQs, and more
- Yi
  - Start working on Backend portion of the project
    - Backend code
    - Test stand code
- Ryan
  - Continue working on updating the group website
  - Finish up MP4
- Jonah
  - Backend
  - Presentation prep
- Group Plan:
  - Begin working on logistics for CPR E 488 class materials
  - PCB research/development for battery holding machine parts

o **Summary of weekly advisor meeting**

This week, we have come to the conclusion that we have finished with Lab MP4 from the learning perspective of students, or what we would refer to as the solely research stage, and have now begun to look at the more intricate details that we will be going over in this lab project. With most of our group up to date in terms of knowledge we have now begun to switch into sub-teams, and have begun to work on deciphering issues that arose whilst working on the lab as well as some other potential issues that we have encountered. (Example of such a problem is “time-traveling packets”, which could have a number of possible causes and solutions) Aside from this, we will also be working on the logistics for next year’s lab which includes repair parts/accessories for the crazyflies, such as batteries and battery holders.