EE 491 Weekly Report   **May15-27**   **Week 3**

9/14/14 - 9/21/14

Advisors: Dr. Jones, Dr. Elia

Team Members:

Alberto Di Martino
Dylan Gransee * Webmaster *
Robert Larsen * Team Leader *
Ian McInerney * Team Key Concept Holder *
Aaron Pederson * Team Communications*
Rohit Zambre
Fengxing Zhu

Work Hour Totals:

Team Member	Weekly Hours	Running Total
Alberto	7	12
Dylan	7.5	20.5
Robert	4.5	17.5
Ian	4	16
Aaron	8	17
Rohit	7.5	16.5
Fengxing	6	15

Weekly Summary

- We Got the Omnibot communicating with the computer.
- The Git repo is up and running.
- We can now reliably run the quad copter demo without help from paul.
- Got a start on the block diagram for the functionality of the overall system.

Current Pending Issues Are:

1. - Getting Omnibot to run reliably.
2. - getting the Quad to track and follow the running Omnibot.
3. - Finding a way to view and analyze data real-time.
4. - Hour log is up and hours are being logged there.

Next week goals:

- Robert, Dylan, Ian: Continue getting Omnibot working and possibly working with Xbox controller.
- Aaron, Alberto: Complete block diagram of the Demo of system including cameras and Omnibot with code labeling and naming.

      o   Fengxing, Rohit: Find out how we can stream data to MATLAB and analyze it real-time.

Individual Contributions:

Dylan , Robert: 09/17/14 – Got eris communicating with computer

Alberto: 09/18/14 – started block diagram for Demo

Aaron: 09/16/14 – researched the source code for the demo and scoped out important things to include in block diagram

Meeting Notes:

09/16/14 – MicroCart Team Meeting

Duration: 1hr   **Members Present:** All Members

09/18/14 – Weekly Meeting with Advisors

Duration: 1hr   **Members Present:** All Members

Meeting Minutes:

Set up a git repo:

  - Dylan has set up the Git repo - He is also planning on sending a helpful reference PDF for how to use git
  - If you have not gotten an e-mail notifying that you have access, then ask us and we will get you added.

Debugger/data logger:
  - Don't build a complex graphical interface
  - Keep it as simple as possible while still getting the job done
  - Files should not be human readable - use a good file format and let matlab parse the data to make it readable
  - Should save data from cameras, FPGAs, and the computers - any data that may be usefull
  - Should save both inputs and outputs

Software search
  - Get familiar with software for cameras, omnibots, quadcopter, etc...
  - Find PC to FPGA communication module

Balance quadcopter with one axis movement
  - Upcoming task that we can begin once the step right above this is done

Look at 2 axis Gimbals to find one that works well
  - sensor + actuator for the base of the pole

Document every step used to make things work

- It may seem simple to you, but it isn't always that easy for everyone else

After every meeting, compile an email containing what we got out of the meeting
 - Then assign tasks/distribute workload

Build things for use in lab whenever needed

Tasks distribution from items discussed in this meeting:
 - Everyone is working on the software search in some way to get fully acclimated to the system
 - Robert, Ian, and Dylan are working towards getting a fully documented and fully backed up
   omnibot so the demo can be set up and completed by anyone.
 - Alberto is working on drawing a block diagram of the current quad-rotor system and of the software
of the system as well
 - Aaron and Feng are primarily searching for the PC to FPGA communication module
 - Rohit will look for current MATLAB scripts in the OldSVN
 - We will soon research about gimbals
 - The Data Analysis Subgroup is going to talk to the MicroCART team in order to make a plan for the
debugger/data logger
 - We are all going to be documenting all of our steps in order to easily be able to recreate lab results
 - Balance quadcopter with one axis of movement – TBD

Achievements:

- Established a task distribution for the team
- Exchanged information to different sub-teams

09/18/14 – Meeting during sister group meeting.

Duration: 1hr   **Members Present:** All Members