Weekly Report   **May15-27**   **S2 Week 5** (2/9/15 – 2/15/15)

Advisors: Dr. Jones, Dr. Elia

Team Members:

Alberto Di Martino * Team Co-Web *
Dylan Gransee * Webmaster *
Robert Larsen * Team Leader *
Ian McInerney * Team Key Concept Holder *
Aaron Pederson * Team Communications *
Rohit Zambre * Team Secretary *
Fengxing Zhu * Team Comm. Co-leader *

Weekly Summary

Two of the ESCs have been flashed and tested for consistency, as well as tested with the pendulum. The membrane sensor has been tested as well, and modifications have been made to the logging, mentioned below in Rohit's contribution.

Pending Issues:

- Not seeing how to create the project for compiling new bit files

Individual Contributions:

Aaron:

- Tested membrane potentiometer
- Worked more on MATLAB GUI

Alberto:

- Finished SPI sketch to communicate with rotary sensor
    - couldn't test resolution of the sensor, because the board we have on the lab doesn't get programmed

Dylan:

- Backed up the omnibot-linux2 computer
- Talked to ETG about copying the backup somewhere
    - They want the computer to do a direct backup – will discuss in meeting
- Worked on porting Eris – Got it to compile but have not ran it on Eris

Fengxing:

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Ian:

- Created new power cables to go from power supply to pendulum system
- Modified second ESC and verified the consistency of the motor control
- Researched brushless motors for gimbal joint

Robert:

- Began attempting to compile SoftDMC vhdl
- Got email from Josh, who had to contact Seth
  - Said he only recalls modifying pin mapping
  - Believes the project should be easy to recreate if we have base code
  - Remembers using XPS to compile

Rohit:

- Modified the parse_log function to parse new data format of the log file
  - # for configuration parameters
  - % for headers
  - & for units
- Modified the parse_log function to output data in the new structure.
- Modified the DataAnalysis script to accommodate new options such as the plotting style parameters
- Designed and modified plot_multi, plot_separate and plot_sub functions to use the modified data structure's options while allowing it to be used as a helper function

Next week goals:

Aaron:

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Alberto:

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Dylan:

- Test the newly compiled code (from porting)
- Continue porting to new PC

Fengxing:

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Ian:

- Modify the remaining two ESCs with new firmware
- Create concise document describing all findings during ESC testing
- Continue research on gimbal motors

Robert:

- Work more on compiling vhdl
- Tune PID values with flashed ESCs

Rohit

- Incorporate functionality in the plotting functions to set the background color of the plot based on the options set (for each header) in the data structure
- Complete documentation of the Data Analysis Tool's current state on Wiki
- Help with logging data functionality on Eris, when needed

Work Hour Totals:

Team Member	Weekly Hours	Running Total
Aaron	7.00	152.80
Alberto	4.00	134.50
Dylan	5.00	176.00
Fengxing	1.00	120.00
Ian	5.00	147.50
Robert	6.00	147.50
Rohit	4.50	130.50