Weekly Report May15-27 S2 Week 6 (2/16/15 – 2/22/15)

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

All four ESCs are flashed and tested. We have shown that Eris still controls the system using the new ESCs.

Pending Issues:

- Actuators for bottom of pendulum

Individual Contributions:

Aaron:

- Created Documentation and analysis of results from testing sensors.
- Worked on and completed GUI

Alberto:

- Documented sensor information

Dylan:

- Tested the "ported" code
    - The executable failed to run on Eris

Fengxing:

- Found out the mistake which failed the model and fixed the mistake. Tested the pendulum subsystem when the input force was zero and either initial phi or theta was zero. It passed the free fall test. I am planning to do testing with 1 degree of freedom today.

Ian:

- Modified the remaining two ESCs and tested them
- Emailed Lee with the gimbal motor to order so we can test it
- Edited wiki (added ESC physical modification instructions to it)

Robert:

- Tested some builds in ISE
    - Still do not have a working build
    - Seem to have some issues with I/O and ucf file, which I'm not very familiar with
- Shared zip file with Jones so he could take a look at things
- Did a tiny bit of PID tuning with new ESCs

Rohit:

- Working on documentation of the Data Analysis Tool
- Discussed things to be done next on the GUI tool

Next week goals:

Aaron:

- Test 2-d pendulum with old computer setup
- Adjust CAD models and print extra motor mounts

Alberto:

-

Dylan:

- Figure out why the newly ported code is failing to execute

Fengxing:

- Do more testing and compare my results with Paul's.
- Search for sensors.

Ian:

- Finish write-up describing testing results

Robert:

- Work with Rohit on incorporating logging into Eris
    - This is highest priority, as we have been meaning to do this for two weeks
- Document on wiki
- Continue with ISE build
    - Lowest priority for now, as we have the ability to control enough motors for the top and bottom if we don't drive Eris and the actuators on the bottom only require one PWM.

Rohit

- Help with data logging for Eris
- Help with debugging the Data Analysis GUI

Work Hour Totals:

Team Member	Weekly Hours	Running Total
Aaron	8.00	160.80
Alberto	8.50	148.00
Dylan	6.00	182.00
Fengxing	7.50	127.50
Ian	7.00	154.50
Robert	3.50	151.00
Rohit	9.00	139.50