May14-10 Weekly Report

MicroCART 2013-2014
Week 20: Feb 17 - Feb 23, 2013
Advisors: Nicola Elia & Phillip Jones

Name	Weekly Hours	Running Hourly Total
Kevin Engel	5	128
Nathan Ferris		90
William Franey		106
Michael Johnson	4	124
Kelsey Moore	9	125
Lucas Mulkey	4	128
Aaron Peterson	4	102

Weekly objectives
Completed Objectives:

       Created a semi working PID on the FPGA board

Working Objectives:
- Testing if the PID works correctly with the Psuedo GPS
- Finding why sometimes it outputs a NA
- Integrating PWMs to the system
- Working on integrating GPS and Sonar Sensors

Issues/Concerns
-

Tasks
PWM Integration (Luke, Kelsey, Nate)
-

CLI(Kevin, Nate, Kelsey, Mike)

Sensor Data -> CLI (Kelsey, Mike, Luke)
-
Kalman Filter(Bill, Nate, Mike)
-
CLI -> qtGUI (Mike, Kelsey)
-
Research(Aaron, Kelsey)
-

<u>Individual Accomplishments</u>

Kevin Engel:
- Learning how to use the GPS - user guide, UCenter program, NMEA protocol

Nathan Ferris:

William Franey:

Michael Johnson:
- Compared PWM, tested PID code that was in the Nios project. I tested the PID with an oscilloscope and the base station sending commands, it seems that the PID works for a while, but then starts giving errors (like NaN). We still need to carefully look at this.

Kelsey Moore:
- Started PID testing
- Looked into why the system was sometimes giving an NaN instead of expected values
- Started looking into PWM integration with PID controller
- Recovered from Pneumonia

Lucas Mulkey:
- Compared the PWMs, all looks good. However, we need to discuss using the board as a receiver, as it may be simpler to skip directly to using it for control.

Aaron Peterson:
- Worked with others to get Bluetooth/PWM going.
- Went over PID in PWM module with Luke.