

May14-10 Weekly Report

MicroCART 2013-2014

Week 17: January 27-Feb 02, 2013

Advisors: Nicola Elia & Phillip Jones

Name	Weekly Hours	Running Hourly Total
Kevin Engel	5	99
Nathan Ferris	4	78
William Franey	4	95
Michael Johnson	4	97
Kelsey Moore	8	111
Lucas Mulkey	6	110
Aaron Peterson	5	84

Weekly objectives

Completed Objectives:

Next Week Goals:

Issues/Concerns

- Need a more elegant solution for wiring the LABET board to the GU-344. Perhaps some M2F jumpers from the parts shop.
- It seems the GU344 takes power from the receiver module? True?
- need some help choosing Kalman filter Q and R covariance matrices

Tasks

PWM Integration (Luke, Kelsey, Nate)

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CLI(Kevin, Nate, Kelsey, Mike)

Sensor Data -> CLI (Kelsey, Mike, Luke)

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Kalman Filter(Bill, Nate, Mike)

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CLI -> qtGUI (Mike, Kelsey)

-

Research(Aaron, Kelsey)

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Individual Accomplishments

Kevin Engel:

- Messed around with bluetooth communication (CLI to board)
 - Still reading strange camera data occasionally
 - Not sure if something to do with buffer on LABET
- Reading PID guides
 - Zigler
- Discussed with Elia and Matt about goals and PID tuning

Nathan Ferris:

- Worked with Bill to get measurements for CAD design, as of right now we will proceed with current legs.
- Took measurements of LABET board/battery mount with Bill, again for CAD. Thinking of making a new mount towards the end of senior design, next year's team would work with new model.
- Jotted down Zigler PID method, will research this week.
- *Laptop has not come yet, haven't been able to remote in yet, weekly hours are predicted to rise once laptop acquired.

William Franey:

- Made measurements of legs, battery cage, and bumpers for CAD designs.
- Got back up to speed with the team in Ames.
- Continued Kalman filter development.

Michael Johnson:

-

Kelsey Moore:

- Worked on PID functions
- Worked on PID code
- Continued finishing the website

Lucas Mulkey:

- Working to get reliable packet data from the CLI Basestation. Currently getting 9/10 packets successfully at 10 per second. Dropping to 5 per second seemed to make things worse.
- Need to figure out how target alt,coords,etc will be represented..

Aaron Peterson:

- Looking at PIDs online and past implementation.
- Bluetooth test with everybody