

# May14-10 Weekly Report

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MicroCART 2013-2014

Week 3: September 16 - 22, 2013

Advisors: Nicola Elia & Phillip Jones

Name	Weekly Hours	Running Hourly Total
Kevin Engel	8	22
Nathan Ferris	7	21
William Franey	5	19
Michael Johnson	8	20
Kelsey Moore	8	21
Lucas Mulkey	6	18
Aaron Peterson	6	17

## Weekly objectives

Completed Objectives:

- Brainstormed project todo list
- checked out SVN to co3050-09 and personal computers
- met with james
- began researching arducopter code

Next Week Goals:

- Further base station code/ arducopter code/ filter/ pid understanding
- Research datasheets of quad's hardware
- Meet with James: teach us details of base station code
- Meet with Alex: status update regarding variable PWM code, help us get last year's system operational
- Review documents from 491 class with Dr. Jones and Dr. Elia to fine the tune Project Charter
- Practice using software tools: Quartis, IR camera
- Finish setting up new basestation computer

## Individual Accomplishments

Kevin Engel:

- Set up SVN on laptop
- Explored last year's code
- Explored past year's wiki pages
- Fine tuned quad's triggers

Nathan Ferris:

- Flight training on both mini and large quad
- Looked at PID simulation in Matlab
- Kalman filter in Matlab

William Franey:

- implemented more complex Kalman filters.
- glanced at last year's code.

Michael Johnson:

- Setup new base station computer with QT Creator and QT libraries, still needs some newer libraries
- Flight training

Kelsey Moore:

- SVN on new computer
- Research C code from last year
- Review Quartus tutorial
- Began looking through Arducopter code

Lucas Mulkey:

- Created project to-do list
- Began digging through Arducopter code
- Learned how to use Quartus
- Practiced manually flying the quad
- reset the range on all four ESCs

Aaron Peterson:

- Began Kalman System parameters reading
- Flight training
- Went over sensor possibilities

## Issues/Concerns

The mini copter is having issues flying. It has a hard moter and it receives data from the transmitter but doesn't move the motors accordingly.

The new computer has the QT libraries and creator, but obtaining some of the other libraries needed is a hassle. Downgrading to QT 4 may resolve the issue.

Seemed to have issues with the remote login, but two people have been able to use it now, so this may be a moot point.