May14-10 Weekly Report

MicroCART 2013-2014
Week 1: September 2 - 8, 2013
Advisors: Nicola Elia & Phillip Jones

Name	Weekly Hours	Running Hourly Total
Kevin Engel	6	6
Nathan Ferris	4	4
William Franey	5	5
Michael Johnson	4	4
Kelsey Moore	4	4
Lucas Mulkey	4	4
Aaron Peterson	4	4

Weekly objectives

Completed Objectives:
- Met as a group with advisors
- Learned about the FPGA we will be using
- Started flight training
- Overview of the project
- Learned about the hardware interface
- Talked about creating new FPGA board
- Set up weekly meeting times

Next Week Goals:
- Meet with Matt to understand systematic overview of project and software tools
- Meet with James to learn code organization
- Identify how work can be divided intol groups
- Learning the software aspect of the project
- FPGA board design rough drafts
- 2 hours Flight training
- Understanding Kalman Filter
- Power draw from different parts

Individual Accomplishments

Kevin Engel:
- Began flight training (2 hours)
- Met with Matt to discuss system organization: current design and modifications
- Met with Alex to discuss current and new board design; also was introduced to software tools: Quartis, IR camera tool, GUI
- Began researching hardware on board
- Reviewing C language

Nathan Ferris:
- Read Chapters 1-3 in Kalman book, ran exercise code in Matlab with success
- Researched/Downloaded Eagle and began designing/practicing
- Researched parts of board and met with Alex(3hrs total) to learn about quad's stability and current state and necessary work, flew mini quad for a bit with kevin.

William Franey:
- Read first 4 chapters of Into to Kalman Filters
- Started flight training
- Board design
- Met multiple times with Alex

Michael Johnson:
- Started flight training (1-2 hours)
- Talked with Alex and James to understand board design, GUI design.

Kelsey Moore:
- Started to understand the hardware interface
- Understood how to use the lab
- Started flight training
- Looked through PMODS and Matlab code
- Reviewed C code and VHDL

Lucas Mulkey:
- Flight training
- Board design
- Got access to lab
- Worked with previous microCART students to get up to speed

Aaron Peterson:
- Went over system start-up with Alex
- Talked about how the current board is to be changed
- Began board design