

# EE CprE 492 – May 21 - 27

## MicroCART Senior Design Team

### Week 6 Report

March 1 - March 7

Faculty Advisors: Phillip Jones

#### Team Members:

Alex Bjerke — *Project Manager*

Amith Kopparapu Venkata Boja — *Embedded Software Lead*

Theodore Davis — *Embedded Hardware Lead | System integration*

Grayson Goss — *Technical Lead | CAD Design Lead*

Hannah Mohamad — *Team Webmaster*

Russ Paulsen — *Test Station Lead*

Alfonso Raymundo — *PCB Design Lead*

Trent Woodhouse — *High-Level Software Lead*

#### Past Week Accomplishments

- Theo - Testing Wifi airlift module
  - Cannot push custom code to device
  - Must use the spi interface to communicate with device
  - Recommend purchasing a esp feather rather than a wing
- Alex - Progress on Ground Control
- Fonzy - Fix the Breadboard drone Motors. & Layout Image v5.0 to show new Motor setup.

#### Pending Issues

- Decide whether we should buy a feather esp32 or try to figure out how to communicate with the airlift module.

#### Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Alex	Discussion with Amith about data formats, then implemented in the logging. Experimented with starting UI from C program.	5	92

Alfonso	Helped Hannah fix the Breadboard drone Motors. & fixed Pin Layout Image v5.0 Again to show new Motor setup.	1.5	102.0
Amith	Discussed with Alex on the final formats and contents of the data from the sensors. Tried to fix the fluctuating gyroscope data.	5	112
Grayson			100
Hannah	Worked on fixing the Breadboard drone motors.	4	60
Russ	Assisted grayson with getting files of test station to be modified.	5	72
Theodore Davis	Tried to run code of airlift wing. Picked up bread board with drone on it.	6	96
Trent	Added UI to display log files and their contents	2	64.5

### Plans for Coming Week

- Sensors data- Amith
  - Fix the fluctuation of the gyroscope data
  - Make the code to read both sensors' data consistently
  - Combine it with the UART library.
- Theo - integration
  - Fix wiring to motors on breadboard drone.
  - Work with Amith to work have our code run together.
  - Possibly work on SPI or start researching the PID algorithm.
- Fonzy - Prototype 1
  - Pick up parts
  - Build Prototype 1
  - Tell Grayson size of Prototype
- Hannah - Prototype 1
  - Build the Prototype 1
  - Look into PCB if needed
- Alex - finish C portion of ground control
- Trent
  - Finish UI for logging
  - Begin integration with C server