

EE CprE SE 492 – MAY15-28

MicroCART Senior Design Team

Final Report

April 27 – May 3

Faculty Advisers

Phillip Jones

Nicola Elia

Member	Position	Weekly Hours	Total Hours
Paul Gerver	Key Concept	13.5	258.5
Tyler Kurtz	Key Concept	0.5	206
Ravi Nagaraju	Webmaster	3.5	138.5
Adam Campbell	Webmaster	4.5	141
Joe Boldrey	Communications	9.5	276.25
Jacob Rigdon	Communications	7	143
Matt Vitale	Team Lead	0.5	162.25
Matt Post	Key Concept	8	85.5

## Progress

- 1) Gave presentation of entire project before industry professionals and ISU faculty
- 2) Gave live demonstrations for ISU students, ISU faculty and industry professionals. Demonstrations included manually piloted quadcopter flights, data analysis tools, explanations of the flight data capture/transfer and high-speed camera system.
- 3) Finished and submitted Final Project Report
- 4) Finalized website

## Contributions

Paul – 13.5 Hours, 258.5 Total

- Edited and polished final report - 10
- Edited presentation slides - 2
- IRP presentation - 0.5
- Live project demonstrations - 1

Tyler – 0.5 Hours, 206 Total

- IRP presentation - 0.5

Matt V. – 0.5 Hours, 162.25 Total

- IRP presentation - 0.5

Ravi – 3.5 Hours, 138.5 Total

- Meeting w/client - 1
- IRP presentation - 0.5
- Updated website with new descriptions, links, and latest documents - 2

Adam – 4.5 Hours, 141 Total

- How-to guide and code commenting for the ground station system – 1
- Final presentation prep – 1
- IRP presentation - 0.5
- Live project demonstrations - 2

Matt P. – 8 Hours, 85.5 Total

- Final presentation prep – 2.5
- IRP presentation - 0.5
- Live project demonstrations - 4
- Final project report - 1

Joe – 9.5 Hours, 276.25 Total

- Flight practice – 1.5
- Preparation for IRP and live project demonstrations – 3
- Live project demonstrations – 2
- IRP Presentation - 0.5
- Weekly meeting – 1.0
- Compiling weekly reports – 1.5

Jacob – 7 Hours, 143 Total

- Attended client meeting - 0.5
- Presentation prep - 1
- IRP Presentation - 0.5
- Website work - 2
- Live project demonstrations - 3

Meeting Minutes

1) Project poster

- Printed out and laminated
- Needs to be mounted to backing board

2) Final design document due 04/28/15

- Complete except a few final touches
- Need all team member's contributions by tonight

3) Website

- Going through minor format changes and updating with latest documents

- 4) IRP presentation
  - PowerPoint is finalized
  - Team will meet Wednesday to review and practice
- 5) Camera data
  - All components and system profiles are in place and ready to implement X, Y and Z position data for flight analysis and computer controlled flight
- 6) Manual flight tuning is complete and considered a finalized task
- 7) Zybo battery regulator v2.0
  - Built and tested
  - Output is incorrect voltage
  - Low battery indicator not working
  - At the time of the meeting, the cause of these issues has not been determined
- 8) GUI
  - Adam recommended building new version from scratch because system from last year has may extra components that need to be removed
- 9) YouTube video channel
  - Play lists are ready
  - Some videos need descriptions