EE / CprE / SE 491 – sdmay19-01

Athlete Motion Tracking

Week 10 Report

4/18/19 – 4/24/19
Client: Nathan Johnson
Faculty Advisor: Phillip Jones

Team Members:

Nathan Mazarelo —— *Weekly Reporter/Software Developer*
Monte Friestad —— *Spokesperson/Software Developer*
Madeline Rogers —— *Meeting Facilitator/Hardware* Maintainer
Ryan Hansen – *Scribe/Hardware Maintainer*

Weekly Summary

This week our team finished up our final poster and started working on the final presentation and report. The PCB circuit was finalized, and the order was placed by the client. Graphs for the pressure sensor data were created. The equation used in the graphs was integrated into the Arduino code. In the data analysis program, code was cleaned up and made more readable. Test cases were written for the range of data scaling to the graph size. In the web app, video playback was completed.

Past Week Accomplishments

- PCB Circuit, Graph for pressure data, Final presentation- Ryan
  - PCB Circuit
    - Finalized everything with the circuit and Nathan placed the order on Monday
  - Graph for pressure data
    - Worked on gathering test data for the pressure sensors and created a plot to visualize what voltages are expected from each force
    - The equation from this was integrated into the Arduino code for the pressure sensors
  - Worked on final presentation

- Outline for presentation, Final poster, Final report – Maddie
  - Outline and formatting
    - Worked on outline for presentation and formatting
    - Then filled in additional parts based upon area of work

- o Final poster
  - ▪ Worked on poster as well
- o Final report
  - ▪ Began writing for the final report

- Continued work on data analysis program, Final poster, Final report- Nathan
  - o Final Poster
    - ▪ Used data gathered from previous recording session with analysis program and gathered screenshots of the output for final poster
  - o Code Cleanup and Testing
    - ▪ Spent time cleaning up the code and improving readability
    - ▪ Wrote some test cases to make sure that range of data would scale properly with graph
  - o Final presentation and report
    - ▪ Started working on final presentation and report.

- Continued work on the web application, Final poster, Final report- Monte
  - o Video integration on web app
    - ▪ I figured out how to get video to be played from the web app
  - o Final poster
    - ▪ I finished the project poster which was due for Monday
  - o Final presentation and report
    - ▪ I worked on the presentation and the final report

Team Member	Contribution	Weekly Hours	Total Hours
Ryan Hansen	Finalized the PCB circuit. Created graphs for the pressure sensor data. Implemented graph equation into Arduino. Worked on the final presentation.	8	138
Madeline Rogers	Created the outline for the final presentation and started filling in the details. Finished the final poster. Started working on the final report.	8	135
Nathan Mazarelo	Gathered screenshots of analysis' output for poster. Cleaned up code and wrote test cases for data ranges. Began work on final presentation and report.	8	144

Monte Friestad	Figured out how to play videos on the web app. Worked on the final poster, presentation, and report.	8	139

Plans for Coming Week

- Team
    - Finish the final presentation and report. Practice for the final presentation and demo