sdmay19-16: Smartphone App to Detect TwD (Texting while Driving)
Week 3 Report
Jan. 14 - Jan. 27

Team Members

Kristina Robinson - *Project Lead*
Andrew Knaack - *Lead Designer*
Sara Mace - *Meeting Scribe*
Lucas Golinghorst - *Test Engineer*
Ryan Baker - *Architect*
Derek Clayton - *Report Manager*

Summary of Progress this Report

Our objective this reporting period was to get reacquainted with our project after the long break. Everyone looked at where they left off in their modules and worked on creating an initial presentation for the client. The client meeting right after this reporting period will guide our efforts from our initial start this semester.

Pending Issues

- Centripetal Accelerometer must be implemented.
- Image capture software must be developed using Tensorflow.
- Speedometer module must be completed.
- Alternative spell-checking method must be found.
- Preliminary work on texting application necessary for further progress.

Plans for Upcoming Reporting Period

Kristina - begin looking into development of proprietary texting application
Andrew - find new spell checking method; create speedometer if that doesn't pan out
Sara - Will start working on the texting application to better be able to ensure that our application will be able to test
Lucas - start development on image capture module using tensorflow software
Ryan - Start the development of the image capture software module using Tensorflow
Derek - Will continue work on centripetal accelerometer module. Will determine how to display accelerometer data on application.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Kristina Robinson	Collected and analyzed data from the magnetic sensor to determine phone handling viability.	6	6

Andrew Knaack	Gave one last go-around at the built-in Android Spell Checker Session; decided it wasn't going to work; and moved on. Fixed texting speed module so that it would be more accurate.	8	8
Sara Mace	Changed the phone handling module to use the magnetic sensor instead of the gyroscope sensor that we had been using last semester. Tested the magnetic sensor to gather raw data. Analyzed the data that was gathered about the magnetic sensor for the phone handling module. Organized part of the client meeting presentation.	8	8
Lucas Golinghorst	Worked with Ryan to decide on Tensorflow for the camera detection module. Worked through some design details for this module and did some experimenting with Tensorflow to become more familiar with the syntax and capabilities.	6	6
Ryan Baker	Decided on using Tensorflow for the camera detection module. Also reviewed Tensorflow resources to refresh my understanding of Tensorflow. Me and Lucas will now be working on the module together.	6	6
Derek Clayton	Began coding centripetal acceleration module with a focus on reading in accelerometer data. Reviewed prior progress on the module, including data collected from experiments and derived conclusions. Contributed to client meeting presentation.	6	6
		Total Group Hours:	40

Gitlab Activity Summary

Andrew tried and failed to implement spell checker [2 files changed, 34 adds, 4 dels] (1/17)
Andrew made the speed tracking more accurate [1 file changed, 49 adds, 39 dels] (1/18)
Derek began local branch work on acceleration module.
Andrew added modes to application [2 files changed, 86 adds, 100 dels] (1/22)
Sarah updated app to use the magnetic sensor rather than gyroscope [6 files changed, 12 adds, 26 dels] (1/24)