
sdmay19-16: Smartphone App to Detect TwD (Texting while Driving)

Week 7 Report

Feb. 18 - Feb. 24

Team MembersKristina 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

The focus of this reporting period was to fix errors in the proprietary texting application as well as enhance current modules. The acceleration module was given access to the gyroscope and magnetometer sensors for the purpose of computing centripetal acceleration. Some of our members are looking at implementing OpenCV in Android Studio.

Pending Issues

- Formatting issues in the texting application must be resolved.
- Centripetal acceleration calculations must be implemented into the module.
- Outdated TensorFlow software requirements must be resolved.
- Must complete calibrations on the speedometer module.

Plans for Upcoming Reporting Period

Kristina - Work on formatting the text in the proprietary texting application as well as any other bugs that arise

Andrew - Stabilize speedometer readings; test speedometer in moving vehicles

Sara - Fix bugs in the proprietary texting application, specifically get the messages to show on the correct side of the screen.

Lucas - Discuss with team to find a new module to begin working on. Work on new module.

Ryan - Decide on the future of the Camera application as a group, it is probable it is getting scrapped so I cannot say what will be happening

Derek - Implement real time centripetal acceleration calculating in acceleration module.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Kristina Robinson	Fixed the text box that we type into to the bottom of the screen without covering up the displayed text. Worked on figuring out why the displayed text is not formatted as we	6	33

	have specified but have not found a solution yet.		
Andrew Knaack	Applied conversions to speedometer data; began programming calibrations to adjust for the effects of gravity on sensors and create a more stable readout	8	40
Sara Mace	Fixed a crash in the proprietary texting application and attempted and eliminated solution ideas on how to get the messages to be visible and on the correct side of the screen	9	37
Lucas Golvinghorst	Downloaded OpenCV software and set it up to use in Android Studio. Programmed an application that used OpenCV for image processing to see if there was any parts of OpenCV that would be useful to our project.	9	36
Ryan Baker	Attempted to get a class trained in Tensorflow. Required half a dozen download and the fixing of over a dozen bugs. Got an ssl bug and was unable to fix. This is probably due to the outdated software required to do this not playing nice.	8	35
Derek Clayton	Added gyroscope and magnetometer functionality to centripetal acceleration module. Updated the UI appropriately to display values. Decided to use the gyroscope and magnetometer method of calculating centripetal acceleration.	8	34.5
		Total Group Hours:	215.5

Gitlab Activity Summary

Lucas created a new activity for camera imaging [12 change files, 69 adds, 33 dels](2/18)

Sara got messages to pop up on left side of the screen[3 changed files, 39 adds, 14 dels](2/19)

Lucas imported opencv module[334 changed files, 164246 adds, 5 dels](2/23)

Lucas added a new activity and cleaned dependency errors[4 changed files, 444 adds, 0 dels](2/23)

Derek added magnetometer to acceleration module. Updated UI. [5 changed files, 112 adds, 14 dels](2/24)

Derek added gyroscope to acceleration module. Updated UI. [4 changed files, 84 adds, 4 dels](2/24)

Kristina fixed edit text to bottom of screen, worked on other formatting [3 changed files, 13 adds, 9 dels](2/24)