

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

Week 11 Report

March 16 - March 31 [Spring Break]

**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**

The goal of this report was to start integration and UI testing using exresso framework. Though another framework will be needed to test integration. The centripetal module was also a focus, as its errors were finally resolved and methods to collect data were implemented. Testing involving location services will be necessary.

**Pending Issues**

- The UI must be tested.
- Integration testing must be conducted.
- Field data on centripetal acceleration must be accomplished.
- Further resting on Location Services is necessary.

**Plans for Upcoming Reporting Period**

Kristina - Continue to work on UI and integration testing for the application.

Andrew - Test the Location Services on foot and in moving vehicles to find the accuracy of the speed calculation, with and without Internet access

Sara - Talk with group and figure out where they would like me to focus my time

Lucas - Collect field data in order to classify what making a turn looks like.

Ryan - Collect data to see what a turn with look like with the angular acceleration plotted on a graph

Derek – Commence with field testing to collect turn data and develop thresholds for our 3 parameters.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Kristina Robinson	Researched android frameworks to test proprietary texting application and integration with texting speed module.	6	59

	Started setting up espresso framework for UI testing and still looking into tools for integration testing.		
Andrew Knaack	Made a speed calculation comparing distances with Location Services after figuring out which permissions needed to be accessed to make the functions work.	8	64
Sara Mace	Researched into the texting speed module to see if I could come up with any ideas that Andrew had not already tried. Could not find any ideas that we had not already tried and am suggesting to the group we drop this module.	6	62
Lucas Golinghorst	Found the bug in the centripetal acceleration application that was causing it to crash. Replaced bug with new program that displays the data readings from the accelerometer, magnetometer, and gyroscope. Completed the write-up with Ryan in order to document the work done on the image processing module.	10	66
Ryan Baker	Completed the camera application summary write-up with Lucas. This documented everything we did with the image processing module over the first and second semester.	6	59
Derek Clayton	Created methods within the centripetal acceleration module to enable data collection and exportation. Gyroscope, magnetometer, and accelerometer data can be exported as csv files.	8	60.5
		Total Group Hours:	370.5

### Gitlab Activity Summary

Andrew determined permissions for location services [4 changed files, 189 adds, 8 dels](3/26/19).

Lucas fixed centripetal module crash [2 changed files, 110 adds, 158 dels](3/27/19).

Kristina began setting up the espresso framework [5 changed files, 26 adds, 111 dels](3/29/19).

Andrew found location serves promising, needs further tests [3 changed files, 59 adds, 4 dels](3/30/19).

Derek added data collection to all sensors in centripetal module [1 changed file, 71 adds, 2 dels](3/31/19).