

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

Week 2 Report

September 14 - September 22

Team MembersKristina Robinson — *Project Lead*Sara Mace — *Meeting Scribe*Andrew Knaack — *Lead Designer*Derek Clayton — *Report Manager*Ryan Baker — *Architect*Lucas Golinghorst — *Test Engineer***Summary of Progress this Report**

The client tasked us with conducting more extensive research on current studies and solutions regarding the detection of texting while driving. Our research falls under two tracks: studies/applications, technology/techniques. We researched current studies, including their detection rates and false positive rates, as well as applications currently available in the market. Analyzing their techniques, we worked on research for developing viable solutions. Research conducted on technology included available sensors on android smartphones. We also began work on our project plan.

Pending Issues

The client has expressed an interest in us creating power point presentations for each track of research: academic studies and Testing technology/techniques.

The project plan still requires more work, will need to assign individuals to specific sections of the plan.

Plans for Upcoming Reporting Period

Assign individuals particular sections of the project plan.

Conduct more extensive research on academic studies and technologies for developing solutions.

Each member should contribute to the client meeting power point.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Kristina Robinson	Prepared meeting agenda. Researched sensors in smartphones that we could use to detect texting while driving. Contributed to our list of possible solutions with the research I did. Researched a product that allows police to be able to collect data from a phone after a crash which brought concerns of data privacy to our discussion. Worked on project plan and came up with questions to address with our client regarding the project.	7	13

Sara Mace	I worked on researching different sensors in the android phones. I also did research on the different available functions for the different APK levels of software. Using this research I contributed to the project plan through helping to determine our criteria for our application. I also helped think of questions to ask the client which have helped to clarify our understanding of our task that we need to develop.	7	13
Andrew Knaack	Fixed/determined headings, spacing, sections, and table of contents for project plan; wrote title page and various other sections in project plan; reviewed and organized every research source collected thus far.	6	12
Derek Clayton	Conducted research on current academic studies that explore methods of detecting texting while driving. Found ways of performing vertical acceleration tests, centripetal acceleration tests, and GPS position tests. Also worked on various parts of the project plan, heavily on technical considerations.	6	12
Ryan Baker	Researched different ways to detect if someone is texting while driving. I found an partial paper that was very successful doing what we did and found 3 very unique ways to go about testing for this. I also worked on the project plan quite a bit and the usual weekly work.	7	13
Lucas Golinghorst	Researched existing texting while driving detection/prevention projects to learn about what kinds of methods have been used and the results that have come from them. Began the cooperative effort to complete the first draft of the project plan. Took part in weekly team and client meetings. Researching the testing methods of existing projects and thinking about how that might fit into our project design. Uploaded project description to the project website.	8	14
		Total Group Hours:	77

Gitlab Activity Summary

Nothing to report.
