

sddec20-11: Dash Cam Defender (Working Title)

Week 5 Report

March 23 - April 12

Team Members

Evan Timmons — *Team Leader*

Ismael Duran — *Full Stack Developer*

Danny Yip — *Head Test Engineer*

Cobi Mom — *Chief Mobile Engineer*

Durga Darba — *Head Data Engineer*

Scott Vlastic — *Head Hardware Concept Engineer*

Summary of Progress this Report

Dashcam Defender™ Presentation - Evan

- Presented existing concept for project
- Provided flow diagram and concept art
- Stimulated group discussion and incorporated new design ideas

Dashcam Defender™ research - Ismael

- Studied and learned if machine learning Licence plate reader was capable for our team project
- Gave input for project ideas and plan out the project

Dashcam Defender™ Software ideas - Danny Yip

- Discuss about the software ideas like mobile application
- Talk about user interface for the applications
- Discuss briefly about the application's use cases

Dashcam Defender™ Hardware Ideas - Scott

- Proposed the use of a Raspberry Pi as functionality for the mini computer component
- Discussed whether the use of mobile phones would be a good use of hardware
- Discussed briefly how the components would connect in a top down manner

Dashcam Defender™ - Design

- Discussed using AWS
- Understood design of database
- Understood how to send information using AWS api

Dashcam Defender™ Mobile Application Ideas - Cobi Mom

- Researched the Pros and Cons of using Flutter vs. React Native
- Discussed requirements needed for a barebones application

Pending Issues

Project Feasibility - Whole Team

- Work to figure out which components will be sourced and which will be created
- Communicate with the ETG to access financial funding

- Create purchase plan for viable components

Plans for Upcoming Reporting Period

Investigate Existing Software - Evan

- Research existing Automatic License Plate Reading (ALPR) technology
- Compare paid vs open source software
- Search for existing dash camera test footage

Investigate Hardware - Scott

- Research which Raspberry Pi version would be best for our project
- Contact ETG to see if they have the correct model or if we would need to order it through them
- Research and compare other hardware like the Nvidia Jeston and see if they apply to our idea better

Investigate Software for mobile application- Danny Yip

- Research on the functionalities and the user interface for the mobile application
- Research on the use cases that the application should have.
- Search and refer to similar applications that already exist.

Investigate Software for web/mobile application - Ismael Duran, Cobi Mom

- Come up with the structure for our mobile application
- Define requirements for our mobile application
- Discuss interaction between our web application and our physical Dashcam Defender™

Investigate creating database - Durga

- Find out how to get funding for AWS
- Update architecture diagram for video storage.
- Find out how to store ai data.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Evan Timmons	Researched and began working on a web application with Scott. Comparing technologies to be used for development. Researched flutter and angular and with the latter. Created a basic webapp and began planning how it will be linked to the database.	18	70
Ismael Duran	Worked with the software development team to to actively work on the mobile application. The application feature were were combine to work together.	18	67
Danny Yip	add a feature that loginpage can login and signup with facebook account. integrate the pages that Ismael and Cobi have done. Do	19	70

	some simple cleaning and try to organize them well into packages, to make it easy for us to modify it next time.		
Cobi Mom	Cleaned up the repository and got rid of some unnecessary junk. Still need to clean out more. Tweaked the mode selection screen to look more appealing. Discussed next steps of integrating the mobile app with the database.	18	69
Durga Darba	Worked with Evan and Scott on hardware. Talked about pivoting the hardware team to a front facing web app team. Made a new repo to reflect these changes. Worked on polishing the backend. Created a public ish facing backend. Configured api to get user information.	18.5	68.5
Scott Vlastic	Pivoted from working on the hardware to developing a web application for our product with Evan. Began researching into Flutter for web app development. Determined that Angular would be more suited for our needs and spoke with Durga on how we could connect it to the database.	18	69

Gitlab Activity Summary

Additions and Deletions per week

