

## **sddec20-11: Dash Cam Defender (Working Title)**

Week 2 Report

February 3 - February 16

### **Team Members**

Evan Timmons — *Team Leader*

Ismael Duran — *Full Stack Developer*

Scott Vlasic — *Head Hardware Concept Engineer*

Cobi Mom — *Chief Mobile Engineer*

Danny Yip — *Head Test Engineer*

Durga Darba — *Head Data Architect*

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### **Summary of Progress this Report**

Dashcam Defender™ ETG Meeting - Scott & Durga

- Met with the ETG to discuss the process of ordering the camera and Nvidia Jetson

- Discussed the use of a database and creating a virtual machine through Iowa State

- Investigated the process of setting up the virtual machine for our requirements

- Discussed how to allocate funding for the parts

- Talked about how much storage we need to store videos on database

- Talked about how to setup tables and what they should look like.

Software Development Team - Ismael, Cobi, Danny

- Established a platform for development

- Discuss potential functionality for the project

- Mobile function design

- Refer to the existing mobile application that are similar to our ideas

- Draft a use case diagram that shows how the user interface with our system

- Investigate on the functionalities that we would need

DashCam Defender General Research - Evan

- Researched existing Automatic License Plate Reading (ALPR) technology

- Compared multiple existing paid and free technologies

- Began testing OpenALPR for project viability

- Investigated basic hardware requirements

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### **Pending Issues**

Project Feasibility - Whole Team

- Continue to work on gaining funding for project

- Investigate hardware limitations and components

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### **Plans for Upcoming Reporting Period**

Ordering Materials and VM Set up- Scott

- Confirm with our client and team members which parts we are ordering

- Contact the ETG to place the order

- Assist Durga with set up for the virtual machine

- Begin designing and drawing connections for the hardware parts

## Begin Testing of OpenALPR - Evan

- Download and test OpenALPR software
- Continue research on hardware requirements to run OpenALPR locally
- Compare limitations of paid vs free versions

## Software Development team - Ismael, Cobi, Danny

- Create an interface for a mobile application
- Research on what interface/functionalities we need
- Compare our functionalities with some existed similar application

## Database and table creation - Durga

- Create a basic database
- Look at security with username and password storage
- Look at storing videos

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**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Evan Timmons	Researched ALPR solution. Expiremented with existing ALPR software to test functionality and compatability with our software environment. Worked on administrative tasks and group organization.	13.5	25.5
Ismael Duran	Met with the software development group to discuss plan on build the application. Discuss the functionality fo the application. Researched for possible platform to work on.	14	26
Scott Vlasic	Met with durga to discuss setting up the virtual machine and ordering parts through the ETG. Discuss exactly what parts we want to order and how we want to set up the virtual machine	13	25
Cobi Mom	Met with the software development group to discuss initial outlines for our mobile application. Discussed requirements for what we are going for. Downloaded multiple possible frameworks for development.	14	26
Danny Yip	Research on functionalities and user interface for mobile application. Make a draft for our use case diagram. Research on similar existed mobile application.	13	25
Durga Darba	Met with ETG to get the Virtual Machine up	13	25

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	and running. Figured out funding with Scott and began talking to Zambreno about this. Started looking into how create the database on this.		
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