sddec18-10: Holiday Reverse Programmable Light Strings

Week 6 Report March 26 - April 1

Team Members

Mir Aamid Ahabab — Electrical Engineer/Microcontroller Rajiv Bhoopala — Web Application/Server Justin Falat — Android Dev Aaron Hudson — Web Server/IPC communication Michael Scholl — Android Dev/OpenCV Robert Tyynismaa — Android Dev

Summary of Progress this Report

Working on getting the components hooked up appropriately and testing to make sure they meet our requirements. Further work on the mobile app to have it ready for the communication with the web app.

Pending Issues

Some issues with having OpenCV working within Android Studio when pulling the Git repository.

Plans for Upcoming Reporting Period

Mir - Implementing shifter circuit, incorporating fuses possibly

Rajiv - Creating an Android Virtual Machine to test the web server side of things.

Justin - Integrating an image subtraction function within the Android app to help display where LEDs are.

Aaron - Getting byte stream to send from app to server

Michael - Integrating the OpenCv work into the android application

Robert - Implement the freezing of camera settings(e.g. exposure) doesn't change, have the app take a series of photos and save them, simulating making calls to the web server and waiting for them. Testing to ensure the camera settings do not change.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Mir Aamid Ahabab	Started learning about the level shifter circuit	2	16
Rajiv Bhoopala	Working with Aaron to setup the IPC communication.	3	24
Justin Falat	Learning about image subtraction in Java.	3	22
Aaron Hudson	Setting up linux web server and Android test communication	3	21
Michael Scholl	Testing and learning OpenCv	3	24

Robert Tyynismaa	Got test Android app working, displaying info from phone's camera in the app, as opposed to using an intent to open the phone's camera app. This allows the settings of the camera to be adjusted programmatically.	5	27.5