sddec18-10: Holiday Reverse Programmable Light Strings
Week 8 Report
April 9 - April 16

Team Members
Mir Aamid Ahbab — *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
Continuing to looking at implementing a YUV to RGB algorithm within the android app for photo manipulation and light identification. Worked on getting the Raspberry Pi set up on the ISU network, got a static IP address set up. We were given an IP address for the Pi but it was not obtaining it correctly so the IP will be static. Continued to work on writing PHP scripts for the server so that it can interact with the web application. Also decided that the best way of storing the byte stream is going to be in a text file in a temp file system.

Pending Issues
There could be issues that arise with the level shifter not working properly, as well as issues with PHP code written on the web server to save/load the byte stream. Another issue could be that OpenCV does not work well with the android app implementation.

Plans for Upcoming Reporting Period
Mir - Test shifter, clean up solder work, place fuses within the circuit.
Rajiv - Write PHP code to transfer a byte stream from the Android application to the server.
Justin - Continuing research on image subtraction, as well as working with team members to solidify connection from the app to the Pi.
Aaron - Continuing to write scripts for the server, as well as looking into the code for the PWM controller.
Michael - Need to implement the OpenCv software into the camera application. Try and implement an output from the application that shows the diagnosis of the image.
Robert - Still working on implementing the freezing of the camera settings, as well as implementing the YUV to RGB translation

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Mir Aamid Ahbab	Learned to Solder circuit components. Finished Soldering Level shifter circuit	3	21.5
Rajiv Bhoopala	Continued to test an android VM that could transfer any sort of data to the Raspberry Pi	3	31

Justin Falat	Continued to communicate with Robert and our client about different means of image subtraction as well as communicating with the Pi from the app.	2.5	28.5
Aaron Hudson	Solidified plan for saving the byte stream to the Pi in a temp file system as well as still writing scripts for the server.	3	28
Michael Scholl	Worked on addressing the pi and connection issues.	3	30.5
Robert Tyynismaa	Created new branch for the Android camera2 test app and looked at function calls needed to get camera settings and set them, as well as stopping	2.5	33