

sddec18-10: Holiday Reverse Programmable Light Strings

Week 2 Report

February 11 - February 18

Team MembersMir Aamid Ahbab — *Electrical Engineer/Microcontroller*Rajiv Bhoopala — *Web App*Justin Falat — *Microcontroller Team*Aaron Hudson — *Android Dev*Michael Scholl — *Android Dev*Robert Tynismaa — *Web Dev/Android Dev***Summary of Progress this Report**

Lights and power supply ordered by Daniels. Familiarized ourselves with the documentation for the lights with Daniels. Figured out how to send PWM waves for the lights as they are not individually addressable. Determined that we will need a 3.3 to 5V for the output of the Raspberry Pi.

Acquired a tree to test with.

Worked on slides for Lightning Talk on Tuesday.

Pending Issues

Don't currently have a controller, but will get one this week.

Plans for Upcoming Reporting Period

Get lights strung together and hooked up to the power supply, as well as hooking something with a 5V output (e.g. Arduino, Raspberry Pi with 3.3V to 5V) to ensure lights work correctly, begin working on Android application to detect LEDs.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Mir Aamid Ahbab	Researched what microcontrollers to use and how they would be hooked up to the lights.	2	6
Rajiv Bhoopala	Researched how to run a web app on a Raspberry Pi	3.5	7.5
Justin Falat	Researched different Microcontrollers to use (Raspberry Pis, Arduino), settled for Pi Model 3. Found 3.3 to 5V level converter.	3	7
Aaron Hudson	Assisted Michael in researching using OpenCV with an Android application to detect LED	3	7

	lights as well as making sure OpenCV was there when cloning the repository.		
Michael Scholl	Imported OpenCV into android studio and pushed to Gitlab, as well as research pertaining to finding LED lights with an Android application.	4	8
Robert Tynismaa	Worked with Rajiv on figuring out how to run a web app on a Raspberry Pi, as well as checking to make sure OpenCV showed up when cloning the repository.	5	9