

sddec18-10: Holiday Reverse Programmable Light Strings

Week 1 Report

January 11 - February 11

Team Members

Aaron Hudson — *TBD*

Robert Tynismaa — *TBD*

Rajiv Bhoopala — *TBD*

Michael Scholl — *TBD*

Mir Ahbab — *TBD*

Justin Falat — *TBD*

Summary of Progress this Report

We have done research regarding the project including what hardware and software we need to use (Raspberry Pi, RGB light strings, PWM controller) for our specific implementation of programmable lights. The biggest focus for our progress so far has been on getting a better understanding of the scope of our project and what it entails. We have also looked at the math required for detecting the individual lights and how to send a buffer through the RGB lights (which works like a shift register) to light each individual light in a preset pattern.

Pending Issues

We have not formed specific sub-teams for the project (i.e. webserver/controller, math, web/mobile app). We also need to look more into color detection via a smartphone camera so that we can actually detect the individual lights on the string, which included making our own coordinate system to map the lights on an image. Finding a solid meeting time that everyone is available during has also been challenging.

Plans for Upcoming Reporting Period

Our first plan is to order materials and formulate the sub-teams, as well as setting up the webserver and a base outline of the mobile app.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Aaron Hudson	Discussion and research	4	4
Robert Tynismaa	Discussion and research	4	4
Rajiv Bhoopala	Discussion and research	4	4
Michael Scholl	Discussion and research	4	4
Mir Ahbab	Discussion and research	4	4
Justin Falat	Discussion and research	4	4