

EE/CprE/SE 492 BIWEEKLY REPORT 2

9/11 - 9/24

Group number: 10

Project title: Holiday Arboreal Light Project

Client &/Advisor: Tom Daniels x 2

Team Members/Role:

Aaron - Raspberry Pi and Inter-process Communications

Rob - Android Developer

Rajiv - Web App Dev/Android Dev

Justin - Web App Dev/Android Dev

Michael - Image processing/data storage

Weekly Summary:

Past Week Accomplishments:

The python library has been installed on the RPi, illuminating the lights works however not in the proper patterns.

Pending Issues (if applicable):

Lights do not illuminate in the proper pattern. Need to look at the object of the lights to ensure that we are using the right one. Android application is working to install OpenCV within android studio but the reason for needing it might be removed and past unto the Pi. Analysis of the tree location on the phone might need to be done on the Pi so that the data points are always correct.

Individual Contributions (optional but must include hours worked):

Name	Individual Contributions	Hours this week	Cumulative hours
Aaron	Installed PWM library onto RPi, worked on a test script in Python to illuminate lights, troubleshooting display issues	7	13
Rob	Worked on converting the image on the Android Device to grayscale and looked into adding an overlay for the user for the placement of the tree	7	13.5
Rajiv	Working on sending an image from the Android application to the web server	6	12
Justin	Worked on building web pages on the web server.	6	12
Michael	Worked on the circuit building with Aaron initially	7	15

	<p>to get the light patterns so that I could have video to test. After gathering more data changed the method of processing the data by trying to eliminate background noise. Also spoke with Joshua Peschel in the Agricultural and Biosystems Engineering department about how to go about analysing the tree and some of the challengings that we are facing. He gave good ideas and helped me work through some of the issues I was having.</p>		
--	---	--	--

Comments and Extended Discussion (optional):

Plans for Upcoming Week:

Name	Plan for the week
Aaron	Figure out how to get the lights onto the string properly (possible circuit issue), create more patterns for Android/Web app testing
Rob	Continue to work on and optimize converting the image into grayscale and adding the overlay functionality to the android application.
Rajiv	Continue to work on android app to web server communication
Justin	Continue to work on building web pages for the web server.
Michael	Work to find an optimal solution to drawing the triangle over the tree so that upon analysing the imagery there is little background noise. From that possibly work more on the actual light detection software.

Summary of Weekly Advisor Meeting:

Troubleshooting installing python library for the PWM controller and the lights illuminating improperly. Allowing for the lights to have a set pattern that can be recorded for testing purposes.