Group Member Names: Quinn, Grace, Julianna, Nicholas

Course and Quarter: ENG114 Summer 2017

Date:8/24/17

Revision Number:000001

Light Relay:

Problem Statement: In this lab we will use a MATLAB and Arduino code taken from GitHub and use it with our hardware to open and close a relay.

Our group was tasked with better understanding what is required for our project, we learned what it will take to communicate with a relay using both an Redboard and MATLAB. This will allow us to upload information to ThinkSpeak and wirelessly upload or download information to affect our relay.

Bill of Materials:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Component | Vendor | Item Description | Item Number | Web Link |
| Redboard | SparkFun | Microcontroller | DEV-13975 | https://www.sparkfun.com/products/13975 |
| Jumper wires x3 | SparkFun | Wires | PRT-10897 | https://www.sparkfun.com/products/10897 |
| USB cable | SparkFun | Connecting device | CAB-11301 | https://www.sparkfun.com/products/11301 |
| Beefcake Relay | SparkFun | Relay | KIT-13815 | https://www.sparkfun.com/products/13815 |
|  |  |  |  |  |

Results:

MATLAB plot:



Future Work:

Hardware and Arduino code will stay the same while we change MATLAB to do the heavy lifting for our final project.