Scheduled Dates for Ordering and Receiving Parts

Parts for the project will be sourced from different suppliers (Amazon, TI, Adafruit) and the dates for ordering parts will be spread out over approximately a week. The first set of parts will most likely occur the week after the term ends, which would be December 15th through the 21st. The parts that will be ordered during that week will include the RGB LEDs, infrared sensors, both the 595N and the CD4021B shift registers, the LEDs for the motion detector indicators, and the wall-wart for the shift registers as they will be sourcing the current to the LEDs.

Actual Dates for Ordering and Receiving Parts

Currently, only two ESP-32's has been ordered which occurred on November 1st and they arrived on November 5th. Along with the two ESP's, a router has been found to use in our project at no cost. All other parts received will be based on when they are ordered and their estimated delivery time.

Scheduled Dates for Testing Major Parts

As far as completed testing, the only parts that have been tested are the shift registers which occurred on November 2nd as we were able to borrow those from George Drouant. We tested the ESP-32 WiFi module on the 23rd of November which continued until the 1st of December. Testing the module with the infrared sensors will take place on January 6th through the 17th. The testing with the module for the RGB's and normal LEDs will occur through the 29th of December and the 4th of January.

Completion of each Schematic

Before we combine each module, we need to have a schematic completed. The shift register + LED schematic is already completed, so that is not a concern. When we move to integrate the PIR motion sensors with the shift registers and LED modules, we need to at least have a schematic in-progress or complete before we begin working so all group members are on the same page during development. This

schematic is scheduled to be worked on from the 29th of December to the 6th of January. After that, the next step is combining the previous modules with the localhost website module. This schematic is scheduled to be worked on from the 17th of January to the 4th of February.

Diagram for all Software and Hardware Modules

We will try to work on the software and hardware modules together at the same time if possible. However, due to potential part failures, parts being ordered at different times, and other circumstances, much of the coding might be worked separately. Integrating LED's and shift registers will be started on December 29th, 2019 and should be finished by January 4th, 2020. Integrating the LED and shift registers with the PIRs will begin on January 6th, 2020 and have it finished on January 17th, 2020. Lastly, integrating the LEDs, shift registers, and PIRs with the website will start around February 4th, 2020 and continue through February 14th, 2020. For the software, we are using Visio for creating UML documents and any other flowchart or diagram, some of which were finished during the design review presentation. Pseudocode will be done before we are coding as we are integrating the components for the RGB lighting and the motion sensor.

Schedule for Testing Individual Modules

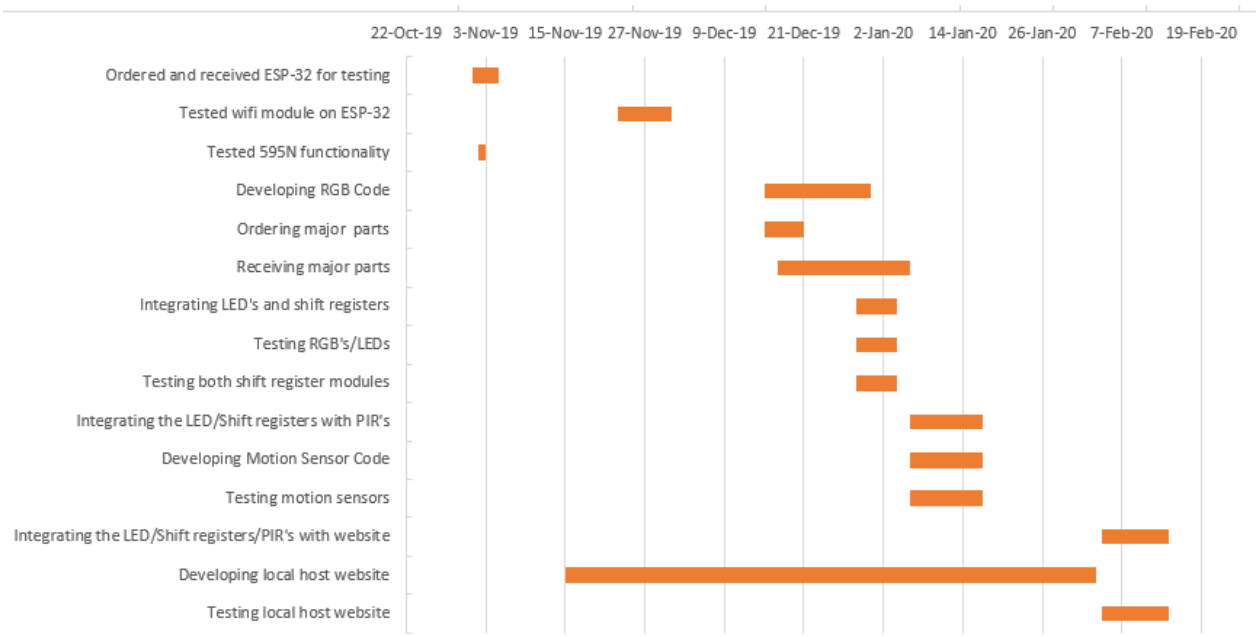
Since testing the modules occurs during the same time as testing the hardware components, most of the module testing dates are the same as the hardware testing dates. The RGB and single-colored LEDs module will be from December 29th through the 4th of January. Soon after the testing for the infrared sensors will occur from January 6th through the 17th. The other two modules, the localhost website, and the Wi-Fi module will be tested from February 4th through the 14th as they will be worked on for much of the upcoming semester.

Integration of all Modules

There will be three specific module integrations with the project. The first will be the integration of the RGB module into the shift registers which will occur in parallel with the testing of the infrared sensors from December 29th through January 4th. The second integration will be infrared sensors with their shift registers and the RGB modules, which will occur from January 6th through the 17th. The final integration will be the rest of the project and the website with the Wi-Fi module which will occur from February 4th through the 20th. With the final testing and verification of integration from February 23rd through March 8th.

Responsible Team Members

- Hayden
  - Ordering and receiving parts.
  - Tested 595N shift registers.
  - RGB state code.
  - LED and Shift register testing and implementation.
  - Interfacing the ESP-32 to the website.
  - Testing the ESP-32 and website interface.
  - Final implementation of all modules.
- Zak
  - Ordering parts.
  - Tested ESP-32 WiFi functionality.
  - Motion sensor coding and testing.
  - LED and Shift register testing and implementation.
  - Interfacing the ESP-32 to the website.
  - Testing the ESP-32 and website interface.
  - Final implementation of all modules.
- James
  - Developing localhost website to interface to the board.
  - Interfacing the ESP-32 to the localhost website.
  - Testing the ESP-32 and website interface.
  - Final project implementation.
- Beto
  - RGB state code.
  - Motion sensor coding and testing.
  - Final project implementation.


22-Oct-19
3-Nov-19
15-Nov-19
27-Nov-19
9-Dec-19
21-Dec-19
2-Jan-20
14-Jan-20
26-Jan-20
7-Feb-20
19-Feb-20
Ordered and received ESP-32 for testing
Tested wifi module on ESP-32
Tested 595N functionality
Developing RGB Code
Ordering major parts
Receiving major parts
Integrating LED's and shift registers
Testing RGB's/LEDs
Testing both shift register modules
Integrating the LED/Shift registers with PIR's
Developing Motion Sensor Code
Testing motion sensors
Integrating the LED/Shift registers/PIR's with website
Developing local host website
Testing local host website