# Engineering Log

**Team Member Name: Ali Saad**

Date: 3/24/2020

- Going through youtube videos and various articles trying to find out how to minimize FreeRTOS to get it working on the Arduino UNO
- As of right now when I verify/upload in Arduino IDE, it gives an error saying that 140% of dynamic memory is being used.

Date: 3/26/2020

- Able to get a blinking LED working on FreeRTOS by forking Phillip Stevens open source Arduino_FreeRTOS_Library Github Repository
- https://github.com/feilipu/Arduino_FreeRTOS_Library
- Able to get it working on Arduino IDE, and accomplished getting LED to blink on UNO via FreeRTOS
- 17% of dynamic memory is being used

Date: 3/27/2020

- Installed a Oracle VirtualBox(VM) with Ubuntu as the OS
- Cloned Repository https://github.com/alisaad3/Arduino_FreeRTOS_Library
- Having problems figuring out how to run the code because with the IDE you just verify and upload the software and it gets the LED to blink but that's not how it works with linux
- Team Meeting with Tom

Date: 3/29/2020

- Team meeting with Andrew discussing outcome of project with everything being remote; Outcome will be announced Friday(April 3rd) for which direction our project will be headed
- Able to get FreeRTOS library successfully into linux, blocked on how to run the code

Date: 3/31/2020

- Team meeting every Tuesday/Thursday
- Cleaned up Github, placed proposal and schedules into folder
- Uploaded Arduino FreeRTOS Library to GitHub
- Created Engineering Log

- Created Milestone Log so we can hold each other accountable to meet our goals weekly/biweekly
- Worked on getting LED Blink in linux, blocked on whether or not a Makefile is needed
- Went through ReadME and read the FreeRTOS start guide
- https://www.freertos.org/FreeRTOS-quick-start-guide.html

Date: 4/3/2020-4/5/2020

- Re-Finalize Project Proposal and Schedule
- Testing Plan
- Questions for Joe

**Team Member Name: Jonathan Christian**

Date: 3/23/2020

- Research SD card formatting
- Format SD card to FAT32
- Run System Check Code
- Re-run Motor, SD card and RTC Arduino Code

Date: 3/25/2020

- Update System Check Code
- Monitor Serial Monitor for output
- Log Button Presses on SD Card

Date: 3/29/2020

- Research RTC library

Date: 3/31/2020

- Uploaded Arduino Code to Github
- Revised Pin Layout Diagram
- Updated Meeting Calendar
- Set RTC to correct time and date (Temporary)
- Researched Waveshare Barcode Scanner Operation

Date: 4/3/2020-4/5/2020

- Revise System Check to display current time/date
- Re-Finalize Project Proposal and Schedule
- Test Plan
- Questions for Joe
- Edit System Check with Date/Time Pull
- Update Github

**Team Member Name: Jiaqi Liu**

Date:3/31/2020

- Run Arduino code and get RTC show up in monitor
- Try to get connect the scanner to the shield without the wire provided
- Pin Layout Diagram

Date: 4/3/2020-4/5/2020

- Re-Finalize Project Proposal and Schedule
- Testing Plan
- Questions for Joe

**Team Member Name: Nick Long**

Date: 3/31/2020

- Installed Unbuntu on local machine
- Created a basic blink program in C
- Downloaded AVRDUDE and began to try to upload code on to the Uno

Date: 4/2/2020

- Successful uploaded the C code for blink on the the Uno using AVRDUDE
- Created documentation for the team to copy my results on uploading blink
- Worked on reducing the size of the FreeRTOS file to share with the team
- Worked on getting FreeRTOS to compile for the Uno

Date: 4/3/2020-4/5/2020

- Re-Finalize Project Proposal and Schedule
- Testing Plan
- Questions for Joe