#### **Executive Summary**

# **Original Engineering Problem**

The original engineering problem was to create a non-contact thermometer. More specifically, the product was required to be accurate, intuitive, contactless, and be able to log and notify user temperature.

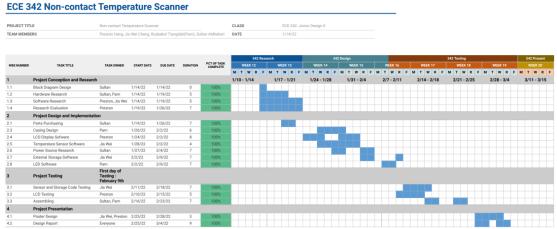
## **Development Phase**

The development phase is software implementation and testing, and hardware implementation and testing. The first 6 weeks were the software development phase, in particular, we designed and implemented the sensor module, LCD module, notification module, and logging system module. Then the next 3 weeks were the testing phase, we implemented several tests to ensure each of the software modules were working as intended.

#### **Design Evaluation and Revision**

Some of our modules went to a couple iteration and revision before they were presented in the final product. In particular, we tested several different versions of the calibration equation for the sensor module; it seems like the sensor was heavily influenced by the temperature of the environment, so it took a couple revisions for the final product to be accurate. The other thing would be the casing of our product. Throughout the project, we've changed the components we're using and interface design a couple of times; so it took some revision before we could achieve a casing that we're satisfied with.

# **Project Timeline**



## **Key Lessons Learned**

Some of the key lessons are definitely spent more time in the design phase and trying out more different ideas. In particular, some of our design choices were decided too early on, and they could've become better if we tested around with other ideas.