

## **MEMORANDUM**

**To:** Jennifer Winikus

**From:** Islam Azamov

**Date:** November, 23<sup>rd</sup>, 2020

**Subject:** Revision Memo for Project 3

### **Summary**

For this project, I'm building a system that would help visually impaired individuals by alerting them when an obstacle or barrier is detected. The system detects obstacles or barriers using an ultra sonic transducer. When the ultra sonic detects high frequency sounds, it triggers the buzzer and warns the individual using the system.

### **Progress**

I received all the peripherals that I need for the project. Currently, I'm still doing research to configure the peripherals that I am using. With couple more examples, I should be ready to configure the peripherals and see some actual progress.

### **Analysis Plan**

Since we have an example for the buzzer, I mostly focused my research on using the ultra sonic transducer. There are barely any examples on the website that I bought the peripherals from, but I found some useful information online. For instance, I know that in order to initialize the ultra sonic, I have to set the working voltage to DC 5V, working current to 15mA, working frequency to 40Hz, measuring angle to 15 degrees, Trigger input signal 10us and Echo output signal proportional to the input. In addition, the videos from lecture will be helpful to implement inputs and outputs.

### **Identified Concerns**

The only concern I have is configuring the peripherals. Since we don't have that many examples, it'll be hard to put all the pieces together.

### **Next Steps**

The next step will be testing the peripherals again and again. I will also watch the previous lectures to better understand frequency. In addition, I'll go through the NUCLEO manual to find more helpful information.