

# Distance Alert System

## Progress Report

Ming Ma

Zhe Lu

### Items Finished

Ming Ma: For my part, I have written the code for distance sensor and LCD display. Also, I test the distance sensor with Raspberry Pi and I solder the LCD display connections.

Zhe Lu: I have wrote the code for the camera already to take a photo and send it to the firebase.

### Items need to be finished

Ming Ma: I don't test the LCD display in Raspberry Pi. After I test this, I will connect distance sensor to LCD display. After the connection works, I will add firebase to the distance sensor part to send an enable signal to app. Then, my part is finished.

Zhe Lu: I haven't test it yet, if it can send the photo successfully, I will write the code for the phone App that allows user select to take the photo or not.

### Problems and Solutions

Ming Ma: The output of distance sensor is not very stable. The measured distance will keep measuring and the result will fluctuate in some ranges when the distance sensor receives lots of reflected signals. I search online and I get the result is that it's a normal result when the distance sensor receives lots of reflected signal because JAVA code is not so good for this distance sensor implement. The Python is a normal language used to do this. For the LCD part, I use a library called Pi4J to implement the connection between pins of LCD and pins of Raspberry Pi. I am not sure if it works properly. I will test that and see the result.

Zhe Lu: The problem is connect the firebase storage. Because some reasons I didn't know that when I first time connect my project to the firebase storage, it didn't works. After that, I research the solution online and finally make it correctly.

### Results:

We think we are on schedule. We will try to finish our project as soon as possible. So, we may add some additional functions to our app or prepare for the final presentation.

## **Schedule**

Ming Ma:

12.1 - 12.2: Test the LCD display, connect LCD to distance sensor and add firebase to distance sensor part.

12.3: Clean up my codes. Write presentation document together.

12.5: Prepare for presentation.

Zhe Lu:

12.1 Test the camera.

12.2 - 12.4 write the code for User App and test it.

12.5 Prepare for presentation.