

Non-contact Temperature Scanner

ECE342-Sp21

By:
Nathan Raschkes
Greg Stapley
Yuhao Su
Yicheng Xiong

Our Team

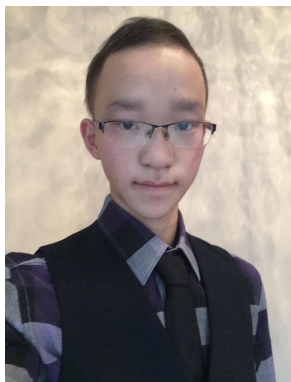
Yuhao Su: Focused on proximity sensor block and temperature sensor block.

Greg Stapley: Focused on saving data to the SD, programming and 3D modeling and printing.

Yicheng Xiong: Focused on OLED display and buzzer model.

Nathan Raschkes: Focused on power supply block and charge card model.

Yuhao



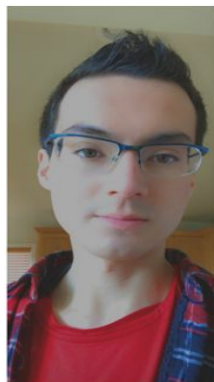
Greg



Yicheng



Nathan



ECE342 Final Project Timeline

COMPANY NAME	Oregon State University
DATE	5/28/21

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Customer Requirements

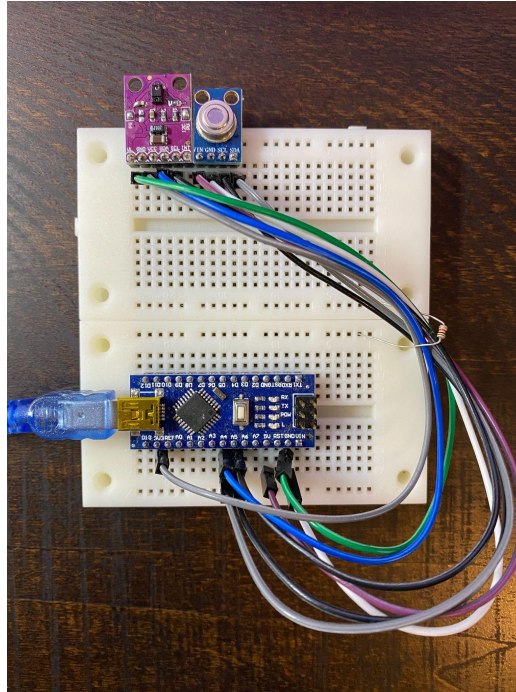
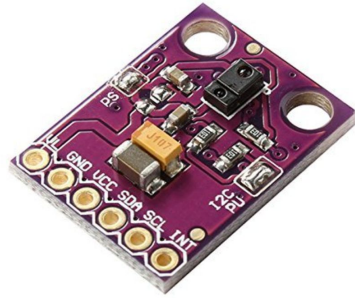
1. The system should be accurate.
2. The system should alert the user when they have a fever.
3. The system should require no contact to function.
4. The system should log user information.
5. The system should be intuitive.

Added Requirement:

The system should display the temperature in different units.

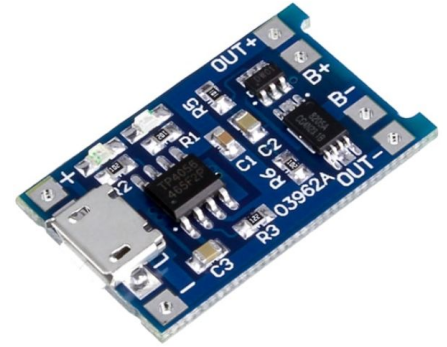


Proximity Sensor and Temperature Sensor

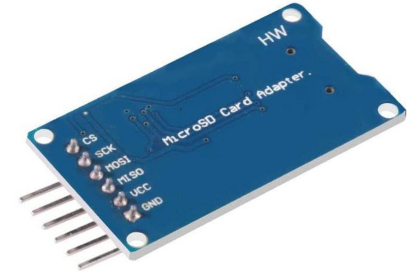


Power Supply and Charge Model

TP4056 Charging Module



AiTrip 3PCS Micro SD Card Module with chip level Conversion for Arduino, SDHC Card TF Card Adapter Reader



3.7 Volts Rechargeable Lithium Battery



USB cable



OLED and Buzzer Model

Active Piezo Buzzer Alarm 12mm Dia, DC 5V

Current: less than 25mA ; Frequency: 2300Hz(around)

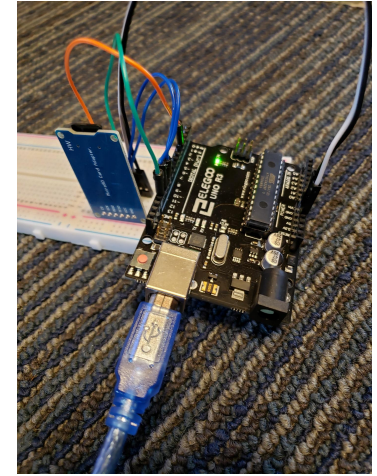
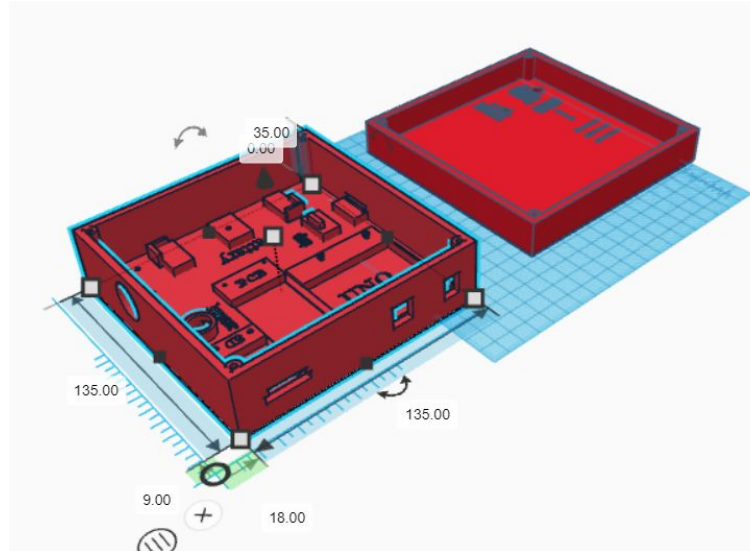
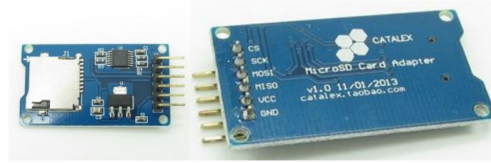
OLED Display SSD1306 Module 0.91 Inch I2C DC 3.3V~5V

3.35v Power; Operating temperature:-40 - 85 °C.

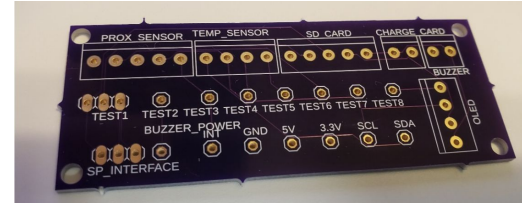
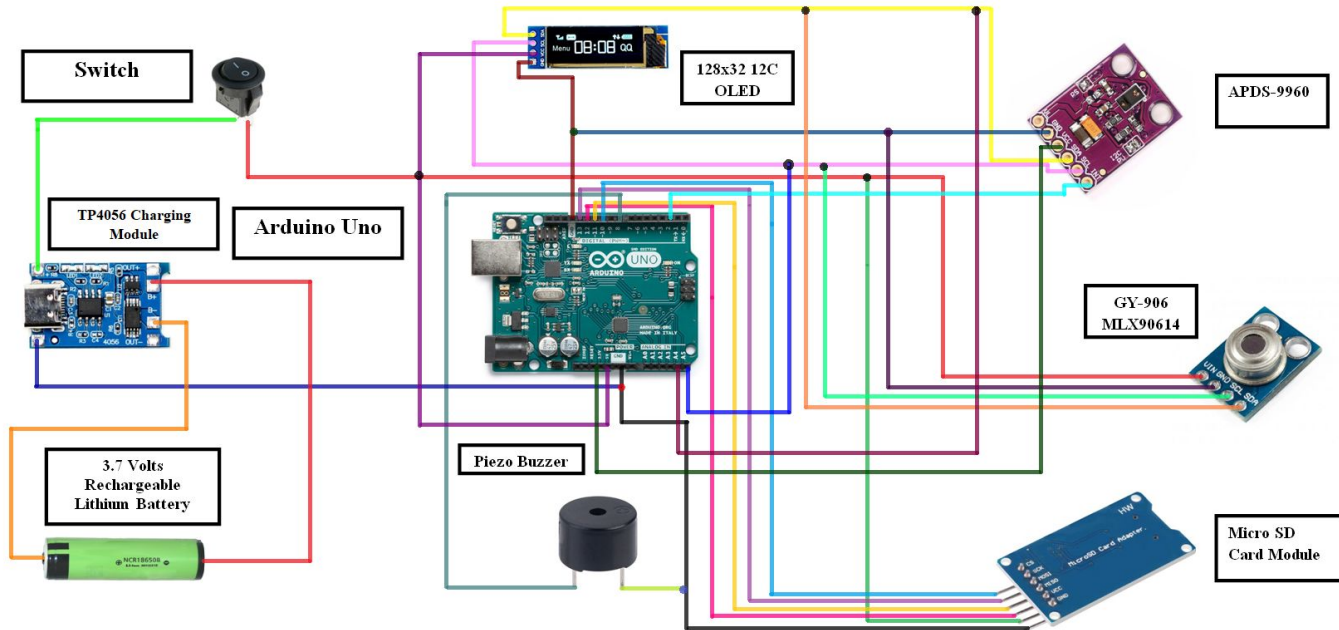


Saving Data to SD and 3D Printing

- SD card reader / Writer
- 3D Modeling
- 3D Printing



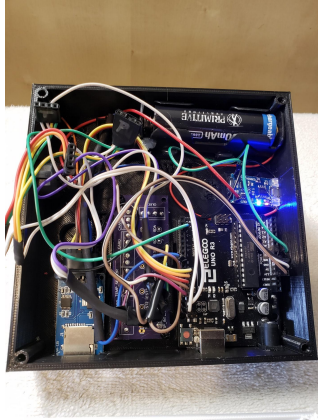
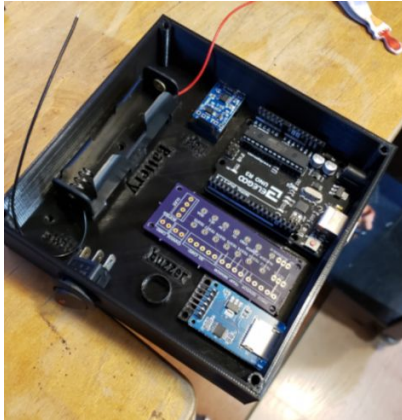
Wiring Diagram and PCB Board



Key Achievement

[Our Key Achievement Video](#)

Click the link to watch why we feel the case is one of our Key Achievements.



Future Improvements

- Minimizing the size of the system.
 - Reduces the cost
 - Makes it easier to store the product (Especially in bulk orders)
 - Makes the sanitization process quicker (Especially if you need to wipe down a lot of units)
- Adding a handle to the enclosure.
 - Makes it more convenient and efficient
 - Easier to obtain all the varying heights from all the users
- Battery Indicator / noise.
 - To show that the battery is low

