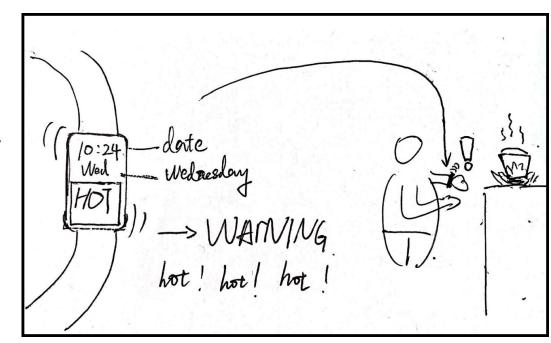
## HomeGuard Sensor System

#### Short Description of Devices:

The HomeGuard Sensor System is centered around the BME60 sensor, strategically placed in indoor spaces, specifically tailored for kitchen environments. The BME60 sensor excels in detecting humidity, temperature, and air pressure, providing a comprehensive monitoring solution for household kitchens. The system aims to prevent issues such as prolonged cooking times, excessively humid or dry air that may impact food storage.

Connected to a dedicated controller, the BME60 sensor collects and processes data. Utilizing Bluetooth and Wi-Fi connectivity, the system seamlessly transmits the gathered information to a sleek display device. This device, which can be worn as a wristband or pendant, features an OLED screen and an additional controller.

The display device serves as a convenient interface, presenting real-time monitoring parameters. Users can easily track temperature, humidity, and air pressure on the OLED screen. Additionally, a pointer display enhances the visual representation of the data. The HomeGuard Sensor System offers a practical and user-friendly solution for maintaining optimal conditions in kitchen spaces, ensuring a comfortable and safe environment for daily activities.



## **Sensor Device**

### **INPUT**





BME680





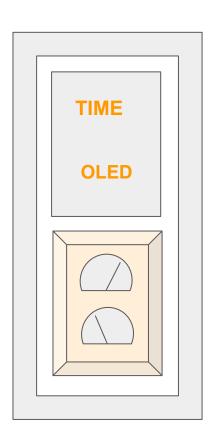






Air pressure temperature humidity

# **Display Device**



### **OUTPUT**



seeed studio xiao esp32s3





The display device serves as a convenient interface. presenting real-time monitoring parameters. Users can easily track temperature, humidity, and air pressure on the OLED screen. Additionally, a pointer display enhances the visual representation of the data.



**LIGHT** 



**OLED** 



SSD1306 OLED

**NEEDLE** 



## System Diagram

Processing

**Power Supply** 



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## **INPUT**





What constitutes a negative parameter and what constitutes a positive parameter remains to be further determined.

**BME680** 

### **OUTPUT**



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Negative

**LIGHT UP** 











**OLED** 





**NEEDLE**