

# **Title:WEATHER MONITORING SYSTEM**

## **INTRODUCTION:**

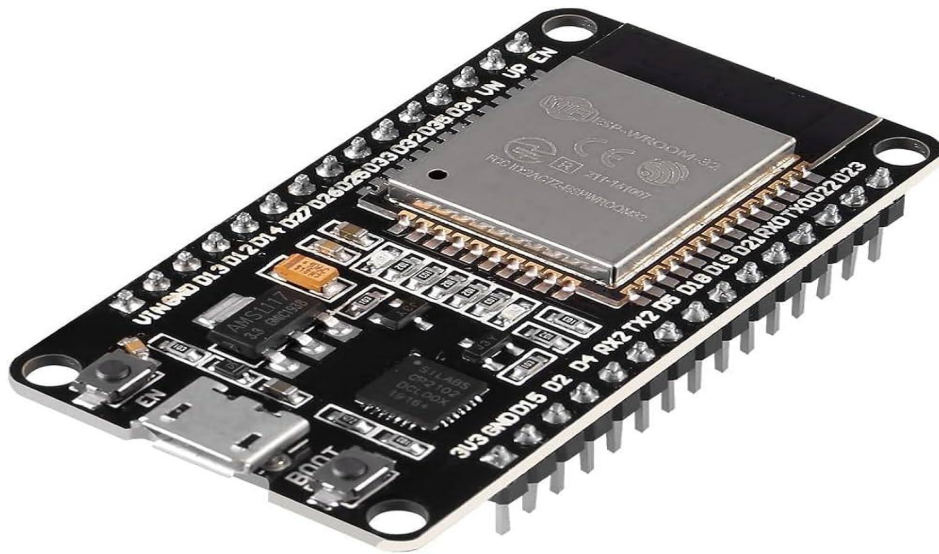
Weather Station using the ESP32 with 3 sensors that can measure and display live values including:

1. Temperature
2. Humidity
3. Barometric Pressure
4. UV Index
5. IR Radiation
6. Visible Light

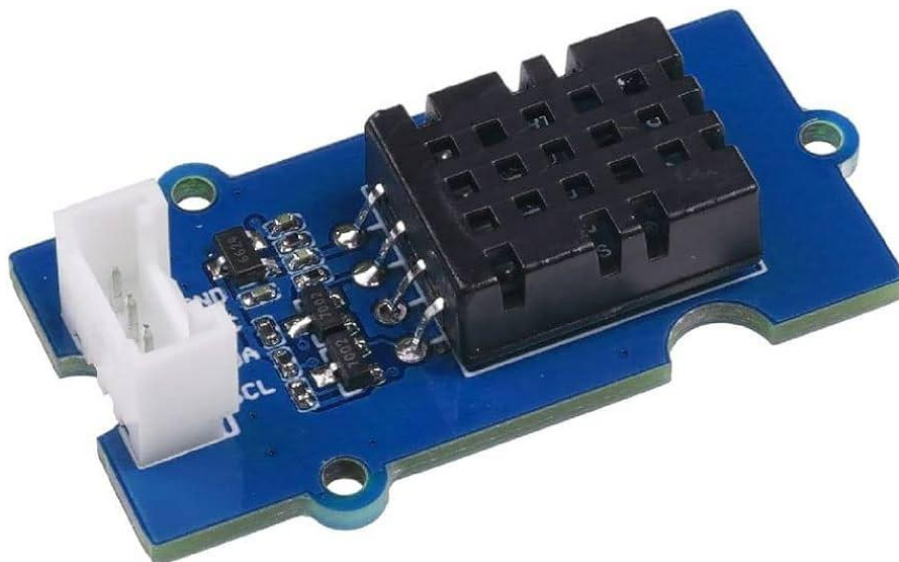
## **WHAT WE NEED:**

- ESP32 Development Board
- DHT11/21/22 Temperature & Humidity Sensor
- SI1145 Sunlight Sensor
- BMP180 Barometric Pressure Sensor
- Perfboard or Breadboard (to make connections)
- Male to Female Jumper Wires
- Grove Connector Cables
- Micro USB Cable

## ESP32 Development Board

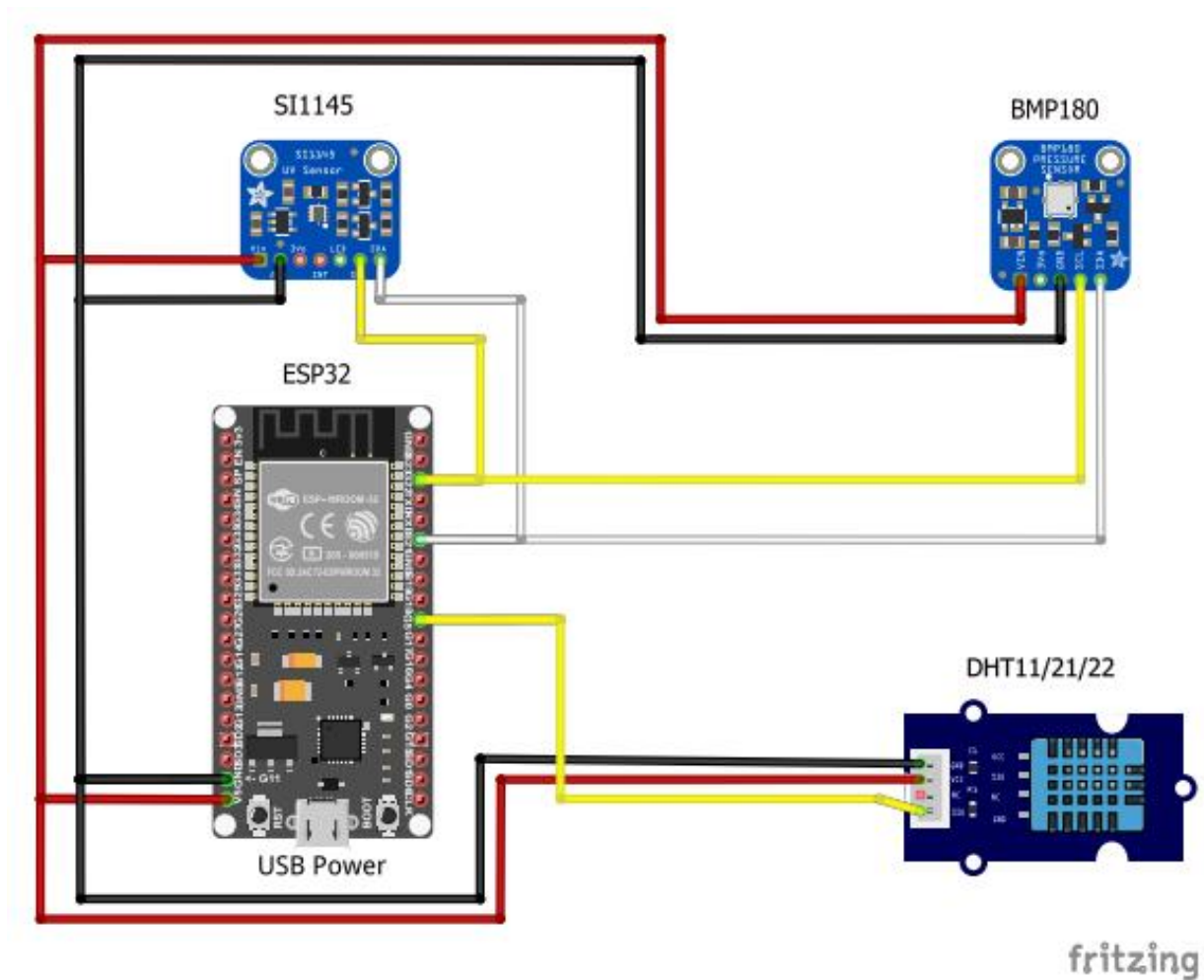


## DHT11/21/22 Temperature & Humidity Sensor





## CIRCUIT DIAGRAM:



## KEY FEATURES:

**Accurate Data:** Sensor networks gather precise weather data.

**Real-time Monitoring:** Data is instantly transmitted to a central platform, allowing continuous monitoring and updates.

**Remote Access:** Users can access weather data from anywhere, anytime, through a user-friendly interface on their smartphones or laptops.

## **CONCLUSION:**

Our IoT-powered weather monitoring system successfully delivers real-time weather data, empowering users with valuable insights.

This system has the potential to empower individuals with personalized weather information, improve agricultural practices, and aid in early weather system for extreme weather events.

## **REFERENCES:**

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