

# Raspberry Pi DHT11 Sensor Setup Log

Generated on: 2025-05-01 19:09:11

## [1] Project Setup

```
cd ~/workspace/project
```

```
mkdir "delivery 2"
```

```
cd "delivery 2"
```

```
python3 -m venv venv
```

```
source venv/bin/activate
```

## [2] Install Python Libraries in the venv

```
pip install adafruit-circuitpython-dht
```

```
pip install lgpio
```

## [3] Install System Dependencies

```
sudo apt update
```

```
sudo apt install libgpiod2 python3-lgpio
```

## [4] Python Test Script (dht11\_test.py):

--> See script content below

## [5] Run the Script

```
sudo ./venv/bin/python3 dht11_test.py
```

## [6] If error: externally-managed-environment

```
sudo pip3 install adafruit-circuitpython-dht --break-system-packages
```

```
sudo pip3 install lgpio --break-system-packages
```

## [7] Wiring Recap

VCC (Red) -> 3.3V (Pin 1)

GND (Black) -> GND (Pin 6)

DATA (Yellow) -> GPIO4 (Pin 7)

## Python Script: dht11\_test.py

```
import time
import board
import adafruit_dht

dhtDevice = adafruit_dht.DHT11(board.D4)

try:
    while True:
        temperature = dhtDevice.temperature
        humidity = dhtDevice.humidity
        if temperature is not None and humidity is not None:
            print(f"Temp: {temperature}°C Humidity: {humidity}%")
        else:
            print("Sensor reading failed. Retrying...")
            time.sleep(2)
except KeyboardInterrupt:
    print("\nStopped by User")
except Exception as e:
    print(f"Error: {e}")
finally:
    dhtDevice.exit()
```