

IoT – Assignment – 4 (DHT11)

Code

```
import RPi.GPIO as GPIO
import dht11
import time

# initialize GPIO
GPIO.setwarnings(False)
GPIO.setmode(GPIO.BCM)
GPIO.cleanup()

try:
    while True:
        # read data using pin 16
        instance = dht11.DHT11(pin = 16)
        result = instance.read()

        if result.is_valid():
            print("Temperature: %-3.1f C" % result.temperature)
            print("Humidity: %-3.1f %" % result.humidity)
        else:
            print("Error: %d" % result.error_code)
            time.sleep(3)
except KeyboardInterrupt:
    print("Program stopped by user.")
    GPIO.cleanup()
```

Output

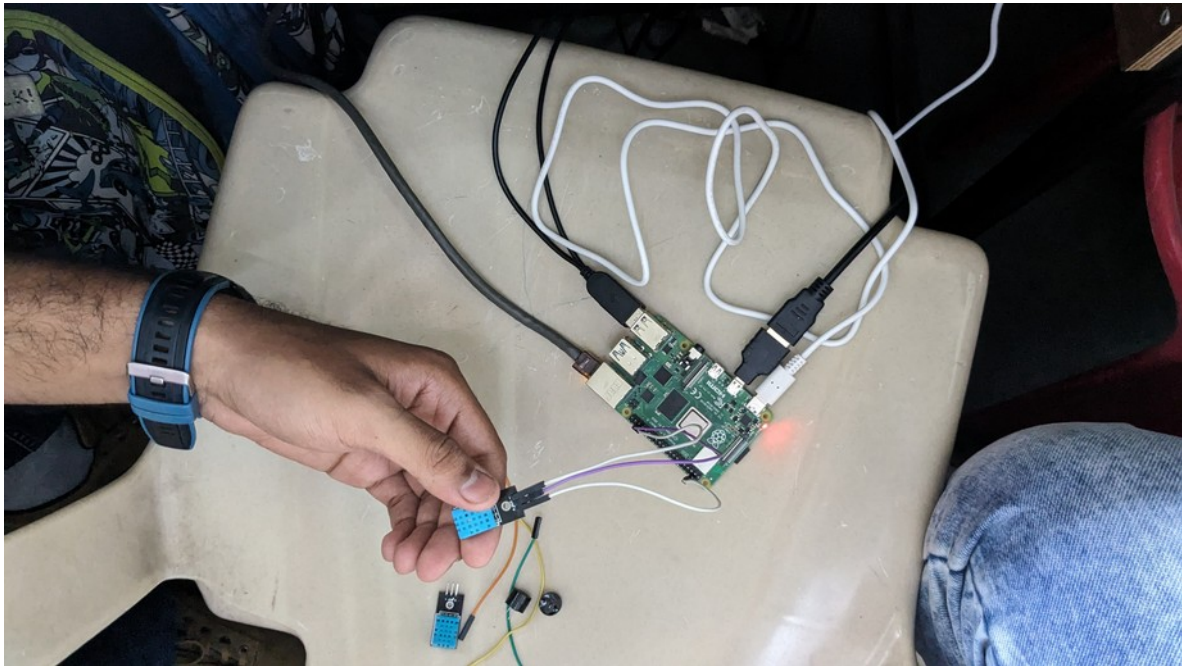


Figure 1: Top view (connections)

```
import RPi.GPIO as GPIO
import dht11
import time

# initialize GPIO
GPIO.setwarnings(False)
GPIO.setmode(GPIO.BCM)
GPIO.cleanup()

try:
    while True:
        # read data using dht11
        instance = dht11.DHT11()
        result = instance.get_data()

        if result.is_valid():
            print("Temperature: %s C" % result.temperature)
            print("Humidity: %s %" % result.humidity)
        else:
            print("Error: %d" % result.error)
            time.sleep(3)
except KeyboardInterrupt:
```

```
raspberrypi@raspberrypi: ~/Desktop/dht11-sensor
File Edit Tabs Help
(dht11-sensor) raspberrypi@raspberrypi:~/Desktop/dht11-sensor $ python c.py
Temperature: 22.2 C
Humidity: 50.0 %
Error: 2
Temperature: 22.2 C
Humidity: 50.0 %
```

Figure 2: Display output (code)

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