

```
# Install the MQTT Publisher  
# sudo pip3 install paho-mqtt
```

```
# open the MQTT browser client in web browser  
# http://www.hivemq.com/demos/websocket-client/
```

```
import os  
import sys  
import time  
import board  
import adafruit_dht  
import paho.mqtt.client as mqtt  
import json
```

```
# Initial the dht device, with data pin connected to:  
dhtDevice = adafruit_dht.DHT11(board.D19, use_pulseio=False)
```

```
sensor_data = {'temperature': 0, 'humidity': 0}
```

```
MQTTServer = 'broker.mqttdashboard.com'
```

```
client = mqtt.Client()
```

```
client.connect(MQTTServer, 1883, 8000)
```

```
client.loop_start()
```

```
if __name__ == '__main__':  
    while True:  
        try:
```

```

# Print the values to the serial port

temperature = dhtDevice.temperature

humidity = dhtDevice.humidity

print("Temp: {:.1f} C   Humidity: {}% ".format( temperature, humidity))

time.sleep(2.0)

sensor_data['temperature'] = temperature

sensor_data['humidity'] = humidity


# Sending humidity and temperature data to HIVEMQ

client.publish('RPI4_MQTT', json.dumps(sensor_data), 1)


time.sleep(5)


except RuntimeError as error:

    # Errors happen fairly often, DHT's are hard to read, just keep going
    print(error.args[0])
    time.sleep(2.0)
    continue


except KeyboardInterrupt:

    client.loop_stop()

    client.disconnect()

    print ('Exiting Program')

    exit()

```