

```

import network

import time

from machine import Pin

import dht

import ujson

from umqtt.simple import MQTTClient


# MQTT Server Parameters
MQTT_CLIENT_ID = "micropython-weather-demo"
MQTT_BROKER = "broker.mqttdashboard.com"
MQTT_USER = ""
MQTT_PASSWORD = ""
MQTT_TOPIC = "wokwi-weather"


sensor = dht.DHT22(Pin(15))


print("Connecting to WiFi", end="")

sta_if = network.WLAN(network.STA_IF)

sta_if.active(True)

sta_if.connect('Wokwi-GUEST', '')

while not sta_if.isconnected():

    print(".", end="")

    time.sleep(0.1)

print(" Connected!")


print("Connecting to MQTT server... ", end="")

client = MQTTClient(MQTT_CLIENT_ID, MQTT_BROKER, user=MQTT_USER,
password=MQTT_PASSWORD)

client.connect()

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```
print("Connected!")
```

```
prev_weather = ""
```

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while True:
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```
    print("Measuring weather conditions... ", end="")
```

```
    sensor.measure()
```

```
    message = ujson.dumps({
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```
        "temp": sensor.temperature(),
```

```
        "humidity": sensor.humidity(),
```

```
    })
```

```
    if message != prev_weather:
```

```
        print("Updated!")
```

```
        print("Reporting to MQTT topic {}: {}".format(MQTT_TOPIC, message))
```

```
        client.publish(MQTT_TOPIC, message)
```

```
        prev_weather = message
```

```
    else:
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```
        print("No change")
```

```
    time.sleep(1)
```