

IOT – Hands-On 4

מגישה

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Test 1:

The screenshot displays the MQTT Websocket Client interface and a Python script running in a terminal.

MQTT Websocket Client Interface:

- Connection:** Shows the client is connected to the MQTT broker.
- Publish:** The topic is set to `testtopic/1`. The QoS is set to 0. The message field is empty.
- Messages:** A list of received messages is shown, including temperature and humidity data.

Python Script (DHT.py):

```
11 import sys, random
12 from mqtt_init import *
13
14 #from PyQt5.QtCore import QTimer
15
16 # Creating Client name - should be unique
17 global clientname, CONNECTED
18 CONNECTED = False
19 r=random.randrange(1,100000000)
20 clientname="IDF-client-Id234-"+str(r)
21 DHT_topic = "pr/home/5976397/sts"
22 update_rate = 5000 # in msec
23
24 class Mqtt_client():
```

Terminal Output:


```
log: Sending CONNECT (u1, p1, w0, w0, c1, k0) client_id=b'
log: Received CONNACK (0, 0)
connected OK
Next update
log: Sending PUBLISH (d0, q0, r0, m1), 'b'pr/home/5976397/sts'', ... (32 bytes)
Next update
log: Sending PUBLISH (d0, q0, r0, m2), 'b'pr/home/5976397/sts'', ... (32 bytes)
Next update
log: Sending PUBLISH (d0, q0, r0, m3), 'b'pr/home/5976397/sts'', ... (32 bytes)
Next update
log: Sending PUBLISH (d0, q0, r0, m4), 'b'pr/home/5976397/sts'', ... (32 bytes)
```

Test 2:


MQTT Websocket Client

hivemq.com/demos/websocket-client/

New Chrome avail

 **HIVEMQ**

Websockets Client Showcase

 **HIVEMQ** CLOUD

Need a fully managed MQTT broker?
Get your own Cloud broker and connect up to 100 devices for free.

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Connection

connected

Publish

Topic: pr/home/8542547/sts

QoS: 0

Retain: ☐

Publish

Message: test

Subscriptions

Add New Topic Subscription

QoS: 2

pr/home/8542547/sts

Messages

2025-05-08 11:32:11	Topic: pr/home/8542547/sts	QoS: 0	test
2025-05-08 11:32:09	Topic: pr/home/8542547/sts	QoS: 0	test
2025-05-08 11:32:08	Topic: pr/home/8542547/sts	QoS: 0	test

RELAY

Connect

Turn On/Off

Sub topic: pr/home/8542547/sts

Status

mqtt_init.py

RELAY.py

on_message

1 import os

2 import sys

3 import PyQT5

4 import random

5 from PyQT5 import QtGui, QtCore, QtWidgets

6 from PyQT5.QtWidgets import *

7 from PyQT5.QtGui import *

8 from PyQT5.QtCore import *

log: Sending CONNECT (u1, p1, w0, w0, w0, c1, k0) client_id=b''

log: Sending SUBSCRIBE (d0, m1) [(b'pr/home/8542547/sts', 0)]

log: Received CONNACK (0, 0)

connected OK

log: Received SUBACK

log: Received PUBLISH (d0, q0, r0, m0), 'pr/home/8542547/sts', ... (4 bytes)

message from:pr/home/8542547/sts test

log: Received PUBLISH (d0, q0, r0, m0), 'pr/home/8542547/sts', ... (4 bytes)

message from:pr/home/8542547/sts test

log: Received PUBLISH (d0, q0, r0, m0), 'pr/home/8542547/sts', ... (4 bytes)

message from:pr/home/8542547/sts test

Ln 91, Col 58 Spaces:4 UTF-8 CRLF Python 3.12.4 64-bit Go Live

Test 3:

