

C: > Users > Raj > smartwater.py

```
1  import paho.mqtt.client as mqtt
2  import random
3  import time
4
5  # Define MQTT broker and topic information
6  mqtt_broker = "your_mqtt_broker_url"
7  mqtt_port = 1883
8  mqtt_topic = "water_consumption"
9
10 # Function to simulate water consumption data (replace with actual sensor data)
11 def simulate_water_consumption():
12     return random.uniform(0.1, 2.0) # Simulated water consumption data in liters
13
14 # Callback when the client connects to the MQTT broker
15 def on_connect(client, userdata, flags, rc):
16     print("Connected with result code " + str(rc))
17     client.subscribe(mqtt_topic)
18
19 # Create an MQTT client instance
20 client = mqtt.Client()
21 client.on_connect = on_connect
22
23 # Connect to the MQTT broker
24 client.connect(mqtt_broker, mqtt_port, 60)
25
26 # Publish water consumption data at regular intervals
27 while True:
28     water_consumption = simulate_water_consumption()
29     client.publish(mqtt_topic, payload=f"Water consumption: {water_consumption} liters")
30     print(f"Published: Water consumption - {water_consumption} liters")
31     time.sleep(5) # Adjust the interval as needed
32
```

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32
33 # Keep the script running
34 client.loop_forever()
35
```