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MQTT-Enabled Scrolling Text with ATOM Matrix and MicroPython

Use your ATOM Matrix to receive text via MQTT and scroll it on the RGB LEDs.

🐾 Intermediate(/projects?difficulty=intermediate)   📑 Full instructions provided   🕐 1 hour   👁 3,645

Things used in this project

Hardware components

M5Stack ATOM Matrix ESP32 Development Kit	× 1	/buy/70056?s=BAhJIhMzMjQ2MTQsUHJvamVjdAY6BkVG%0A)

Software apps and online services

MicroPython Firmware for ESP32 v1.14 Download esp32-idf3-20210202-v1.14.bin from the download page.	(https://micropython.org/download#esp32)
MQTT Client Use the MQTT client to send messages to your device from a web browser.	(http://www.hivemq.com/demos/websocket-client/)

Story

For Windows:

1. Install Python, Esptool and Ampy

If you have no Python 3 installation on your computer please download the installer from https://www.python.org/downloads/ (https://www.python.org/downloads/)and execute it. Then install Esptool and Ampy with

```
> pip3 install esptool

> pip3 install adafruit-ampy
```

on the command line.

2. Download and Install Firmware

Download https://micropython.org/resources/firmware/esp32-idf3-20210202-

Code

main.py Python

Fill in your WLAN credentials in line 21, a user name in line 19 and a MQTT topic name in line 49.

/432189/download) ↓ (/code_files

```python
import uos
from cooperative_multitasking import Tasks
from network import WLAN, AP_IF
from mqtt_client import MQTTClient
from machine import Pin
from neopixel import NeoPixel
from font5 import Font5
from neopixel_scroller import NeopixelScroller

tasks = Tasks()

ap = WLAN(AP_IF)
ap.active(False)
ap = None

client = MQTTClient(tasks,
                    hostname = 'broker.mqttdashboard.com',
                    client_id = '',
                    user_name = '...',
                    password = '')
client.activate_wlan([('...', '...')])
client.start()
```

Credits

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I love mathematics and computer science. I work for an international consulting company.

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