MicroPython on ESP32

Download Firmware

https://micropython.org/download/

https://micropython.org/download/?port=esp32

ESP32 / WROOM: https://micropython.org/download/ESP32_GENERIC/

Download latest release .bin, e.g.: **ESP32_GENERIC-20230426-v1.20.0.bin**

Virtual Environment

```
python3 -m venv esp_venv

cd esp_venv

source bin/activate

pip install esptool
```

Installation

Plug in the esp32 board.

Check /dev and confirm device is dev/ttyUSB0. If not, adjust instructions accordingly.

If you are putting MicroPython on your board for the first time then you should first erase the entire flash using:

```
esptool.py --chip esp32 --port /dev/ttyUSB0 erase_flash
```

From then on program the firmware starting at address 0x1000:

```
esptool.py --chip esp32 --port /dev/ttyUSB0 --baud 460800 write_flash -z
0x1000 esp32-20190125-v1.10.bin
```

Port Error

If you see this when running esptool.py:

```
A fatal error occurred: Could not open /dev/ttyUSB0, the port doesn't exist
```

You may need to add yourself to the dialout group:

```
sudo adduser <username> dialout
```

And maybe also this:

```
sudo chmod a+rw /dev/ttyUSB0
```

Access REPL

Install picocom:

```
sudo apt install picocom
```

Connect:

```
picocom /dev/ttyUSB0 -b115200
```

Hit enter a couple of times, and you'll see the »> prompt.

Test:

```
>>> import machine
>>> pin = machine.Pin(2, machine.Pin.OUT)
>>> pin.on()
>>> pin.off()
```

[embedded and iot](), [python]()

From:
https://kbase.devtoprd.com/ - **Knowledge Base**

Permanent link:
https://kbase.devtoprd.com/doku.php?id=micropython_on_esp32

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