

Dziky Flash KIT

I know that some of you are less familiar with programming and flashing topic so I decided to make it a little easier for you.

This is a complete set of tools and programs running on Windows OS for flashing ESP modules. Everyone can handle it by following the instructions and does not require any additional knowledge.

!!! Warning

Devices like **Sonoff** or **Shelly** have their own power supply on board.

DO NOT USE THIS POWER SUPPLY WHEN FLASHING!

ALWAYS disconnect them from external power!
Mains Voltage is dangerous for you and your computer!

USB Flashing

Some of the boards come with build-in USB port and **CH340** or **CP2xxx** chip used to provide USB connectivity. Those are recommended for beginners.

For example You can use **Wemos D1 mini** or **NodeMCU** without UART cables. It's very easy to flash and manage such boards, just use regular microUSB cable.



Remember: Install property drivers before connecting device to USB port in Your computer. You'll find most popular in Drivers folder in Flash KIT.

Finally, at the end of the document I'll publish links to all tools and drivers for download from manufacturers' websites.

UART Flashing

If You want to flash board without USB You have to use **USB-to-TTL Converter UART**.

To flash Sonoff or Shelly You have to buy one.

It's a small device that connects Your computer USB to device serial port. I recommend not to buying cheapest because they can cause many problems. Try not to use those with **FTDI232** chip.



USB-UART Converters **FT232R** (FTDI red), **CP2102** (blue), **CH340** (black)

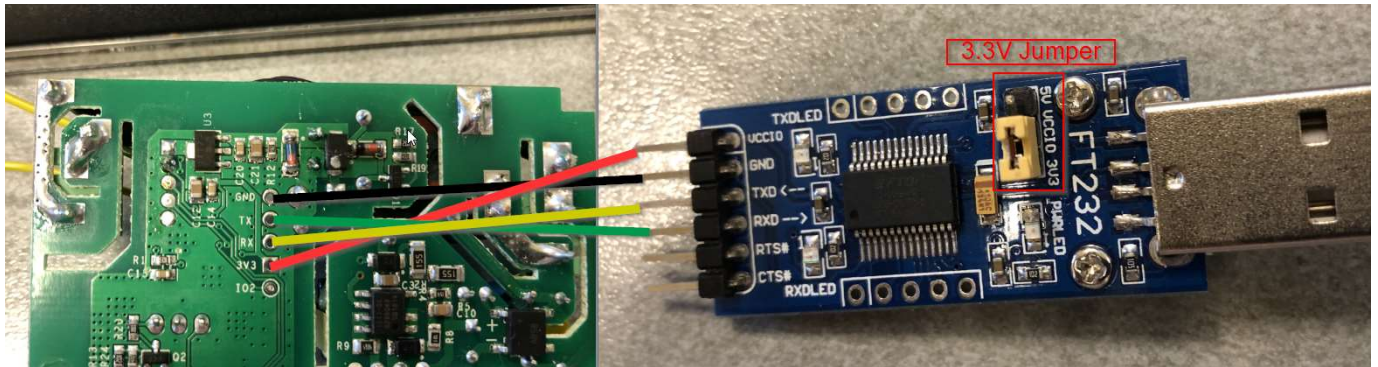
Colour may be difference. You can identify by reading the marking on the chip.

UART connection diagram with examples

To connect converter to board use 4 wires RX, TX, GND and VCC. Remember to set 3.3V on Your converter otherwise you may damage the device!!

Watch out for powering wires. Don't swap it! It can kill Your chip.

Converter	Board
GND	GND
RXD	TX
TXD	RX
VCC	VCC

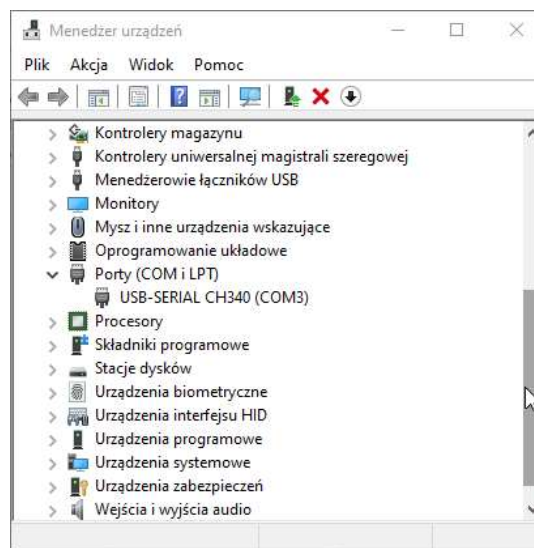


Serial COM port

After succesful driver installation connect You ESP device to Your computer.

All used tools will automaticly try to find You chip but it's better to know on witch port device will be aviable. Before You start flashing go to **Computer > Device Manager** and look for PORTS section.

You can use command to access device manager in Widnows **devmgmt.msc**



Look for PORTS on the list (COM and LTP) and You should see similar view to image above.

Write down Your COM, on my laptop it's COM3 and You're ready to go.

Remember: Windows program for **flashing** or **monitoring** are locking COM port so don't use both in same time! After succesful flash close ESP Flasher and if You want to flash chip close iTerminate monitor.

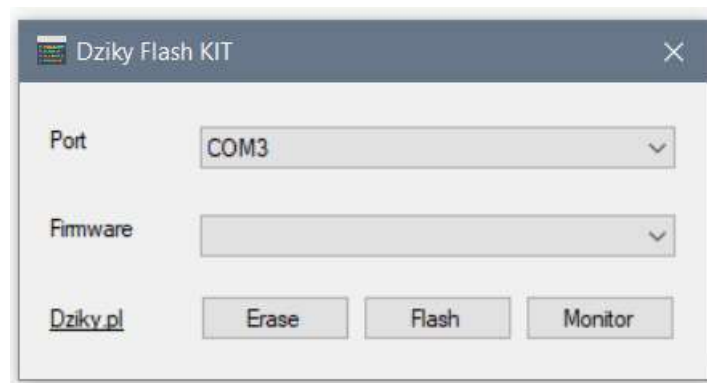
Flash

Run program **Dziky flasher.exe** located in main folder



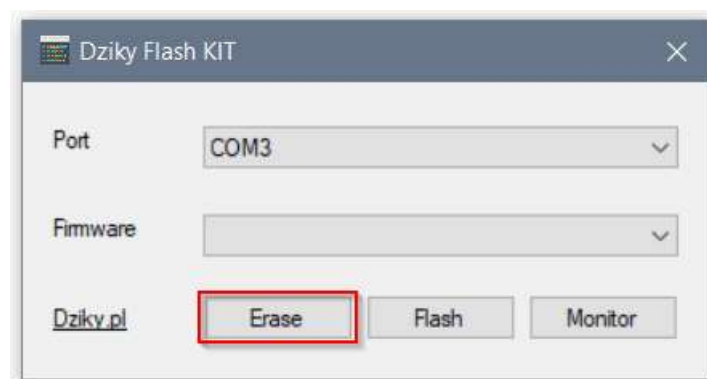
See if correct **COM-Port** is selected (Dziky flasher will try to pick it automatically)

If You don't see any COM's on the list it's mean that You don't have property drivers installed or Chip is disconnected from Your PC. (Or damage of course)

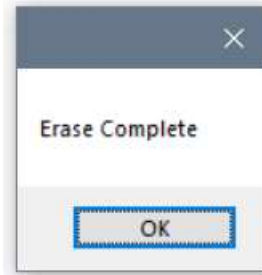


Firmware: Pick up from firmware list software that You want to upload to You ESP Chip.

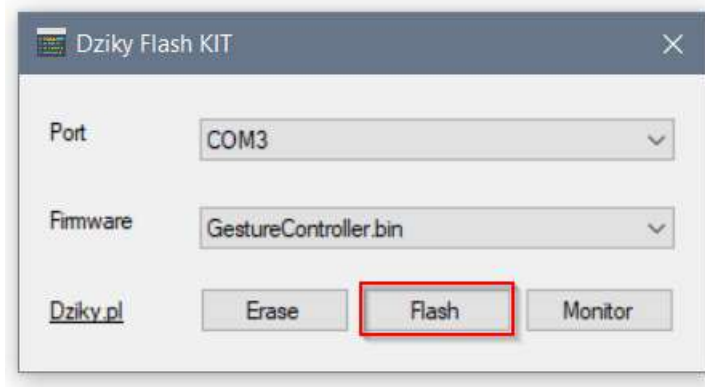
Before flashing erase memory. To do that use **Erase** button and wait for "Erase Complete" message.



```
esptool.py v2.3.1
Connecting...
Detecting chip type... ESP8266
Chip is ESP8266EX
Features: WiFi
Uploading stub...
Running stub...
Stub running...
Erasing flash (this may take a while)...
```



If all is setup and chip is erased click **Flash** button



Flashing can take some time You will see progress **XX%** on command line window

```
esptool.py v2.3.1
Connecting...
Detecting chip type... ESP8266
Chip is ESP8266EX
Features: WiFi
Uploading stub...
Running stub...
Stub running...
Configuring flash size...
Auto-detected Flash size: 4MB
Flash params set to 0x0040
Compressed 464260 bytes to 325282...
Writing at 0x00008000... (15 %)
```

DONE: After success flashing You will see "Flash complete" message

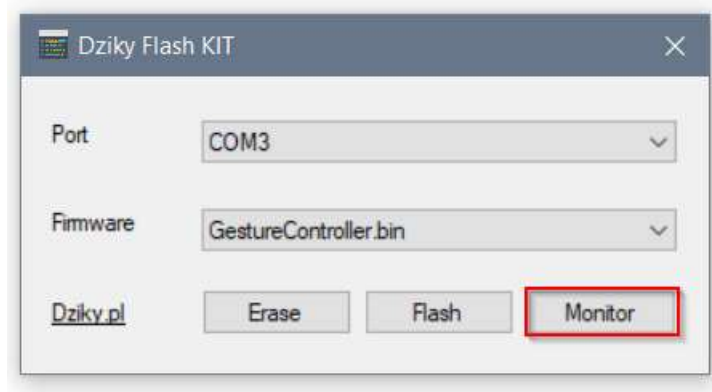


Monitor

After successfully flashing your new firmware is ready to use. Now you have to go to configure and pair your new device.

To access **wePanel** you need to get an IP address assigned to the ESP device. You can get it from the DHCP lease table or from the terminal.

Use **Monitor** button to run the terminal:



In the terminal, you will see a lot of useful information for debugging and help you to understand what is doing your ESP 😊. For example, you can get the IP of your ESP chip.

```
o|o=clpp_task_hdl : 3fff0020, prio:14, stack:512
pm_task_hdl : 3ffef910, prio:1, stack:176
frc2_timer_task_hdl:0x3fff5a58, prio:12, stack:200

ESP-Open-SDK ver: 0.0.1 compiled @ Nov  8 2019 08:46:57
phy ver: 273, pp ver: 8.3

>>> wifi_config: Initializing WiFi config
>>> wifi_config: wifi_config_station_connect: No configuration found
>>> wifi_config: Starting AP mode
>>> wifi_config: wifi_config_softap_start: Starting AP SSID=Dzikiy-5F4007
>>> wifi_config: Starting DHCP server
mode : sta(dc:4f:22:5f:40:07) + softAP(de:4f:22:5f:40:07)
add if0
add if1
bcn 100
>>> wifi_config: Starting WiFi scan
>>> wifi_config: Starting DNS server
>>> wifi_config: Starting HTTP server
scandone
scandone
reconnect
scandone
add 0
aid 2
cnt

connected with Wild, channel 2
dhcp client start...
ip:10.10.19.122,mask:255.255.255.0,gw:10.10.19.249
```

IP configuration