

How to flash the binaries of the ESP32 edition of TCode controller

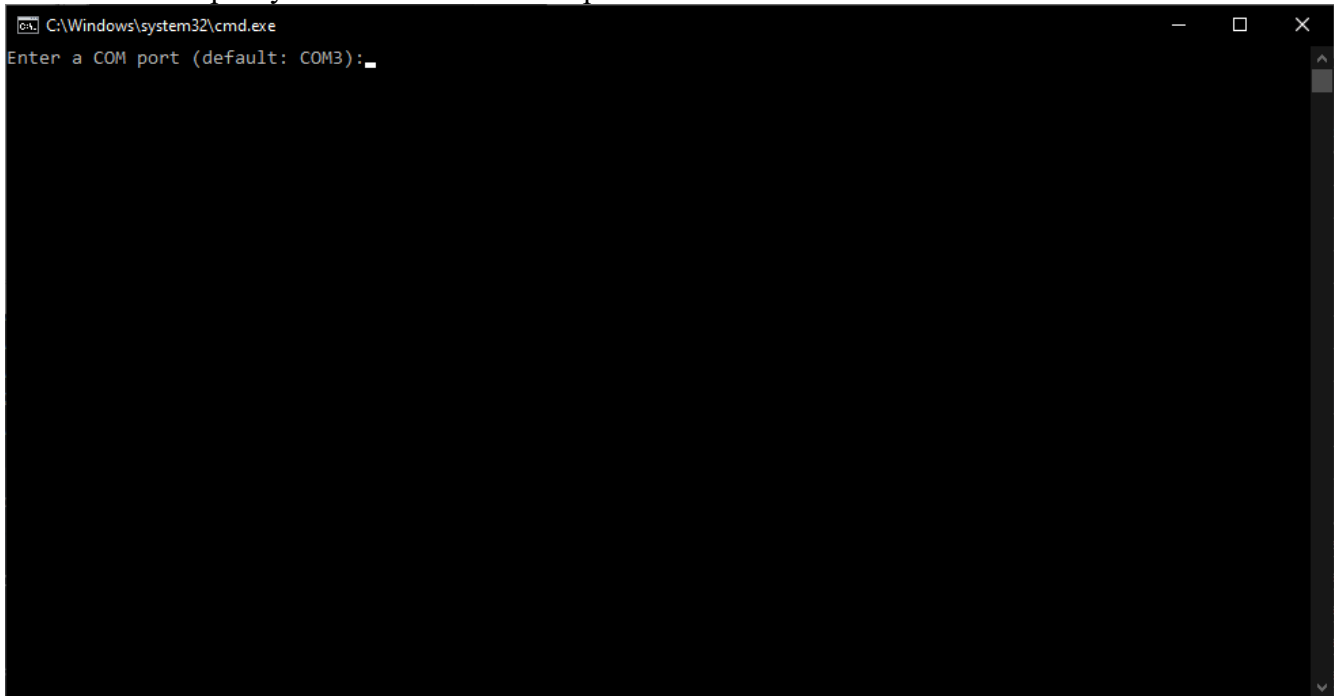
Extract the zip archive.

(Linux/Mac users [click here](#) viewing the the batch content should be simple enough to extract the command needed)

(Windows users)

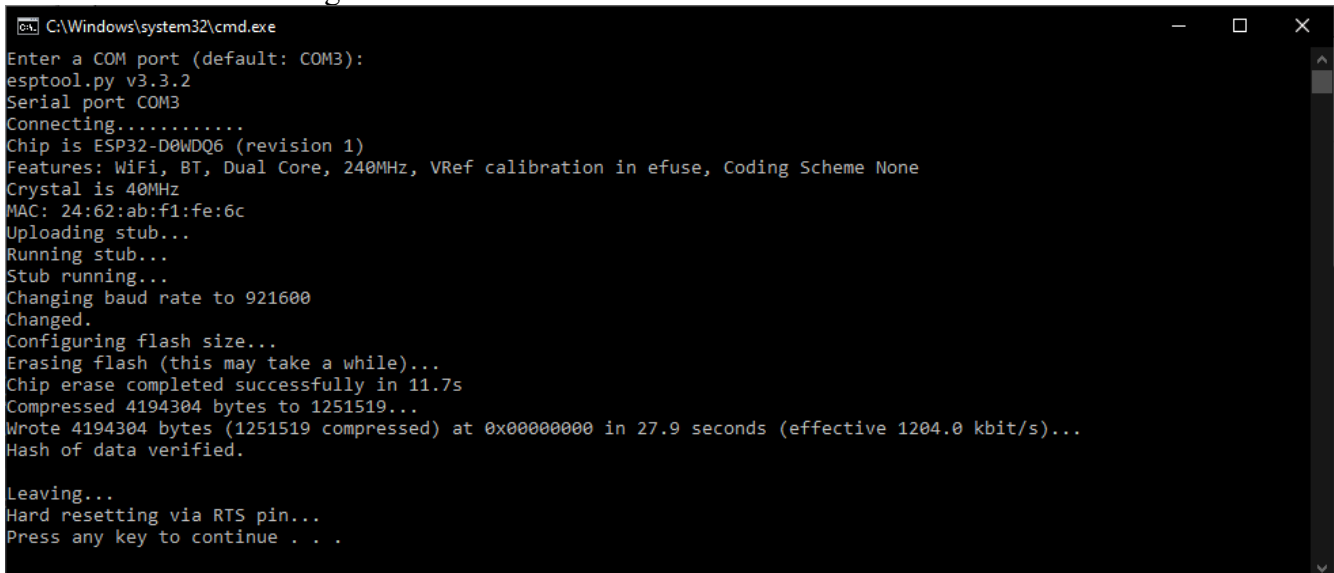
Run “flash.bat”

Enter the COM port your ESP32 is on. Example: COM12



```
C:\Windows\system32\cmd.exe
Enter a COM port (default: COM3):
```

You should see something like this in the terminal



```
C:\Windows\system32\cmd.exe
Enter a COM port (default: COM3):
esptool.py v3.3.2
Serial port COM3
Connecting.....
Chip is ESP32-D0WDQ6 (revision 1)
Features: WiFi, BT, Dual Core, 240MHz, VRef calibration in efuse, Coding Scheme None
Crystal is 40MHz
MAC: 24:62:ab:f1:fe:6c
Uploading stub...
Running stub...
Stub running...
Changing baud rate to 921600
Changed.
Configuring flash size...
Erasing flash (this may take a while)...
Chip erase completed successfully in 11.7s
Compressed 4194304 bytes to 1251519...
Wrote 4194304 bytes (1251519 compressed) at 0x00000000 in 27.9 seconds (effective 1204.0 kbit/s)...
Hash of data verified.

Leaving...
Hard resetting via RTS pin...
Press any key to continue . . .
```

If your ESP32 isn't recognized as a COM port you may need to install the drivers for your USB chip.

For micro USB Devkit <https://www.silabs.com/developers/usb-to-uart-bridge-vcp-drivers>

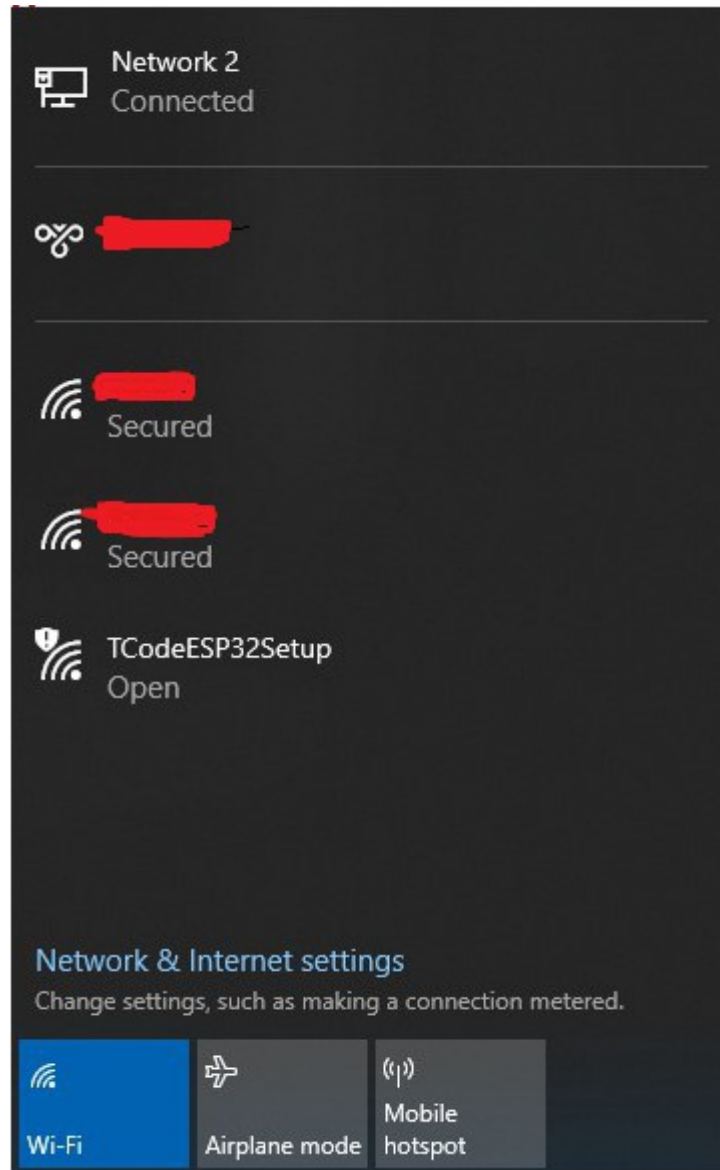
For USB-C Devkit (CH340) <https://learn.sparkfun.com/tutorials/how-to-install-ch340-drivers/all>

Now that your image is flashed time to configure the wifi if you wish to do so
IMPORTANT! The ESP32 we are using currently is ONLY compatible with 2.4ghz WiFi

You can either configure with the Android app or via the AP mode instructions below.

Reboot the ESP32

Check your available wifi networks



Connect to TcodeESP32Setup (leave connect automatically **unchecked**)

No password

Once connected (It can be slow be patient. About 30 secs or so)

Open your internet browser and navigate to 192.168.1.1



Device Settings

ESP32 v0.251b

Wireless

SSID (2.4ghz only)

Password

☐ Show Password

Static IP ☐

General

TCode version

SR6 mode ☒

Servo Frequency

Pitch Frequency is different ☐

Valve Frequency

Twist Frequency

Servo	PIN	ZERO
Right	<input type="text" value="13"/>	<input type="text" value="1500"/>
Left	<input type="text" value="15"/>	<input type="text" value="1500"/>
Pitch	<input type="text" value="4"/>	<input type="text" value="1500"/>
Valve	<input type="text" value="25"/>	<input type="text" value="1500"/>
Twist	<input type="text" value="27"/>	<input type="text" value="1500"/>
Vibe 0	<input type="text" value="18"/>	
Lube/Vibe 1	<input type="text" value="19"/>	
Manual lube	<input type="text" value="23"/>	

PWM available on: 2,4,5,12-19,21-23,25-27,32,33

Debug

Last reboot reason

SR6

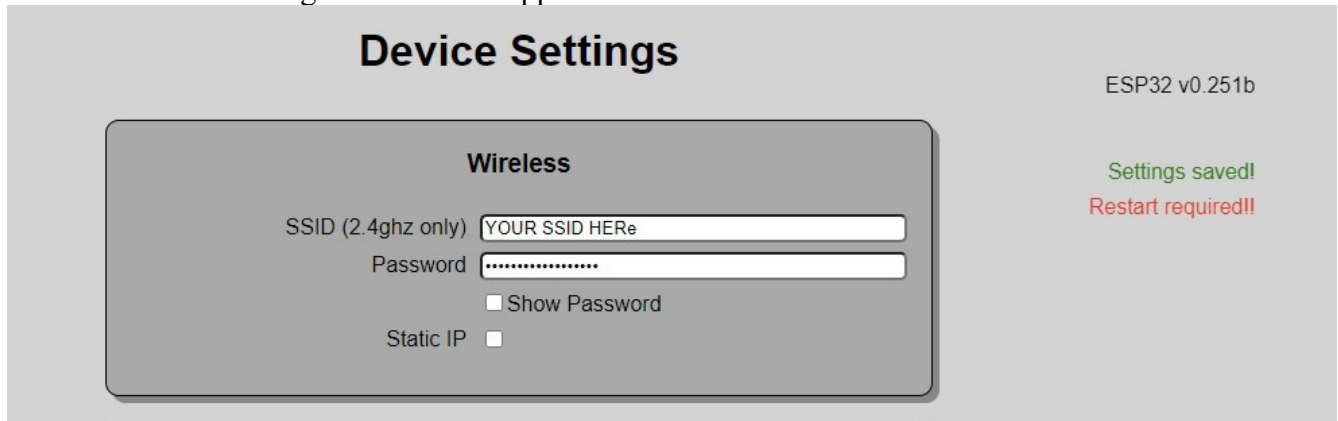
Servo	PIN	ZERO
Right upper	<input type="text" value="12"/>	<input type="text" value="1500"/>
Left upper	<input type="text" value="2"/>	<input type="text" value="1500"/>
Pitch right	<input type="text" value="14"/>	<input type="text" value="1500"/>

PWM available on: 2,4,5,12-19,21-23,25-27,32,33

Other

Enter your wifi ssid and password and change the network info if required

And wait for the Settings saved text to appear..



The image shows a web interface for an ESP32 device. At the top, the title "Device Settings" is centered. To the right, the text "ESP32 v0.251b" is displayed. Below the title, there is a section titled "Wireless" which contains two input fields: "SSID (2.4ghz only)" with the placeholder text "YOUR SSID HERE" and "Password" with a masked password ".....". Below these fields are two checkboxes: "Show Password" and "Static IP", both of which are currently unchecked. To the right of the "Wireless" section, the status "Settings saved!" is shown in green, and "Restart required!!" is shown in red.

Device Settings

ESP32 v0.251b

Wireless

SSID (2.4ghz only)

Password

☐ Show Password

Static IP ☐

Settings saved!
Restart required!!

Click restart device or unplug and re-plug the usb powering the ESP32.

Your device should reboot and connect to the network.

You can verify this by using serial monitor

```
PROBLEMS  OUTPUT  TERMINAL  GITLENS  DEBUG CONSOLE

SPI_FAST_FL
INFO: ESP32 Chip model = ESP32-D0WDQ6 Rev 1
INFO: This chip has 2 cores
INFO: Chip ID: 15859308
INFO: Read Settings: /userSettings.json
INFO: Last reset reason: Reset due to power-on event
INFO: Version: ESP32 v0.251b
INFO: Setting up wifi
INFO: Station Mode Started
INFO: Mac: 24:62:AB:F1:FE:6C
INFO: Establishing connection to hex
WARNING: Disconnected from station, attempting reconnection
INFO: Reason: 0
INFO: Unknown reason 0
INFO: Connected to 
INFO: IP Address: 192.168.0.95
.INFO: Connected IP: 192.168.0.95
INFO: Starting UDP
INFO: UDP Listening
INFO: Starting web server on port: 80
INFO: Setting up webSocket
hostName: tcode
friendlyName: ESP32 TCode
ESP32 v0.251b
TCode v0.3
Ready!
█
```

Or by logging into your router and looking for A Device named “TcodeESP32”

10	TCodeESP32		192.168.0.145
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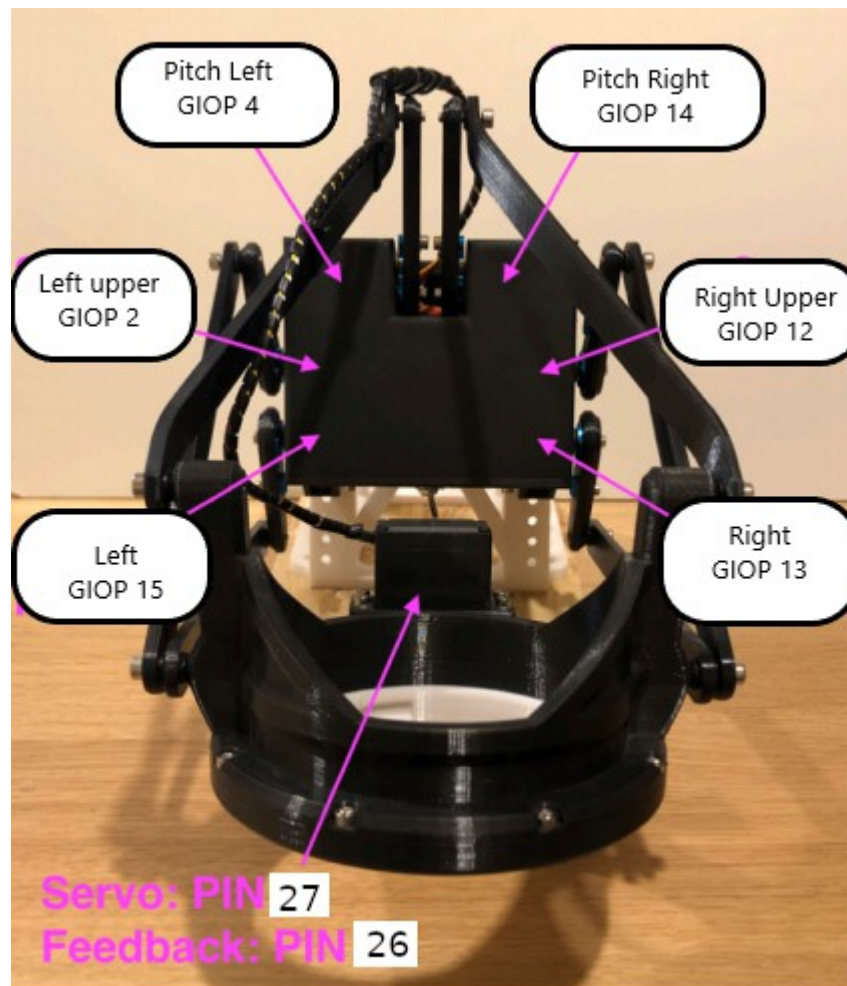
You should now be able to access the configuration page from or what ever you type into the Host

Manual lube speed (1-255)	<input type="text" value="255"/>
Udp port	<input type="text" value="8000"/>
Host name	<input type="text" value="tcode"/>
Friendly name	<input type="text" value="ESP32 TCode"/>

name field on the configuration.

Once you have this IP address you can get into your machine settings via the web browser.

From here you can view the default pin out and change them if you know what you are doing.



You can also set the default servo zeros.

If you are using this in an **OSR MAKE SURE YOU UNCHECK "SR6 Mode"**

Enjoy your wireless device!

PS.. this release is in its early stages with missing features and bugs. if you find any issues please report them on Github.