How to flash the binaries of the ESP32 edition of TCode controller
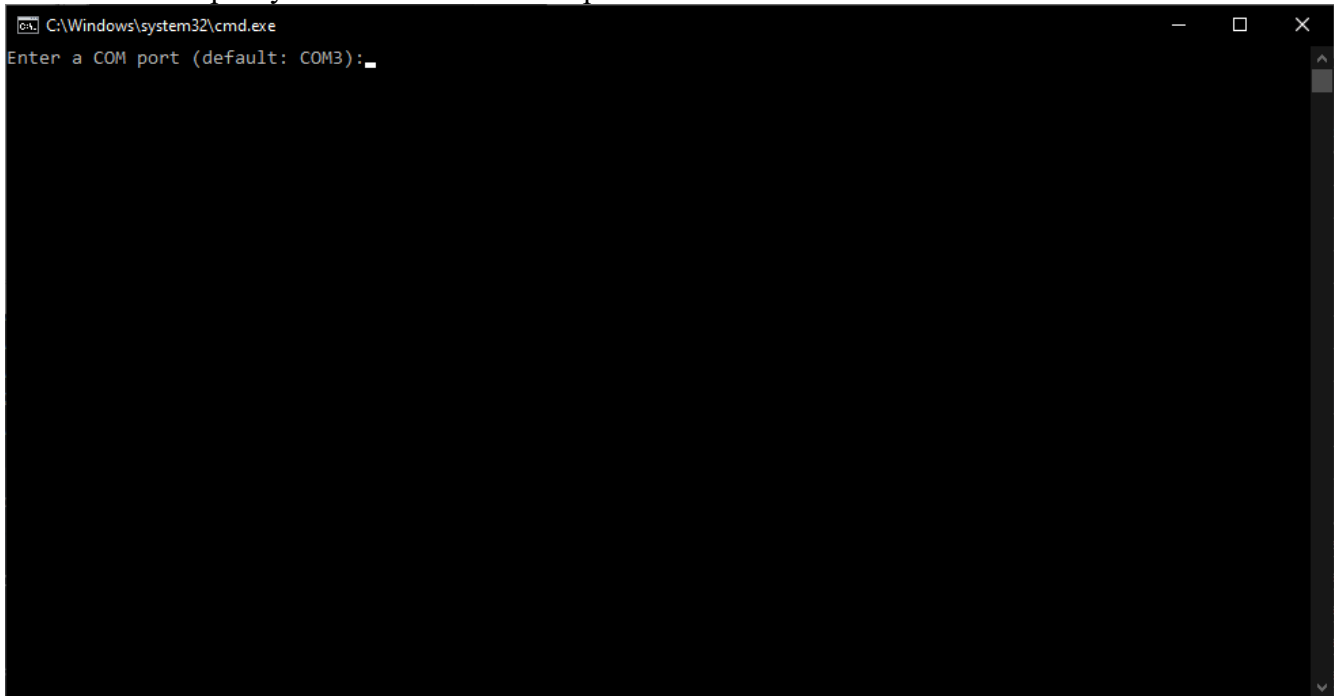
Extract the zip archive.
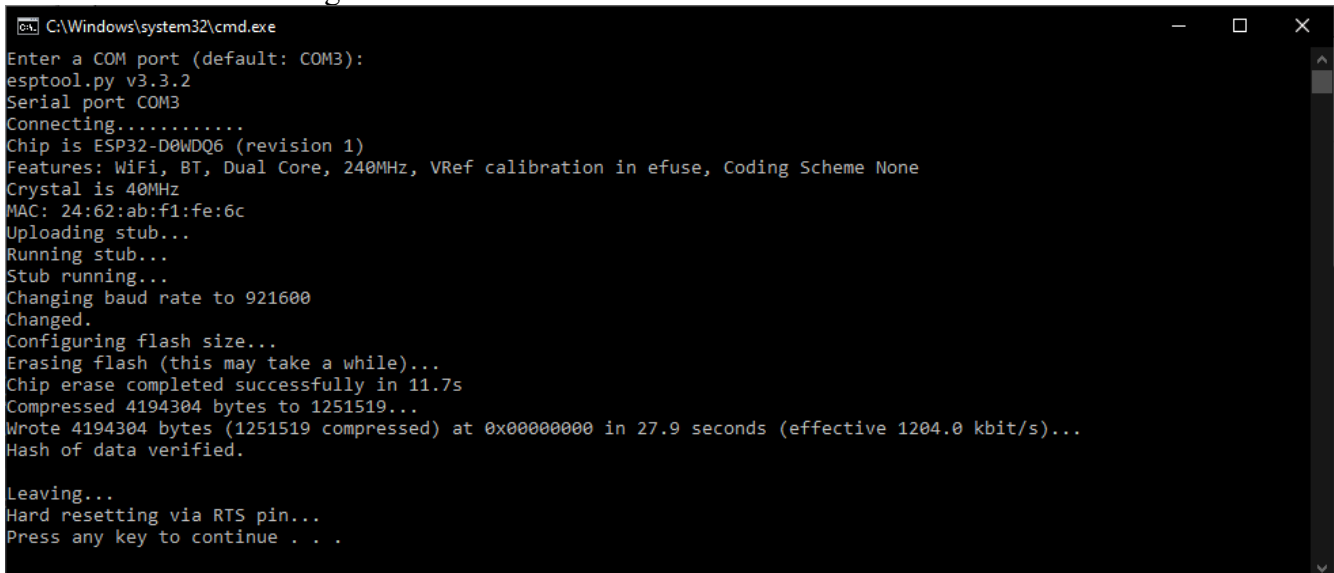*(Linux/Mac users click here viewing the the batch content should be simple enough to extract the command needed)*

(Windows users)
Run "flash.bat"
Enter the COM port your ESP32 is on. Example: COM12

You should see something like this in the terminal

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
<mark>IMPORTANT! The ESP32 we are using currently is ONLY compatible with 2.4ghz WiFi</mark>

You can either configure with the Command line or via the AP mode instructions below.

Reboot the ESP32
Check your available wifi networks
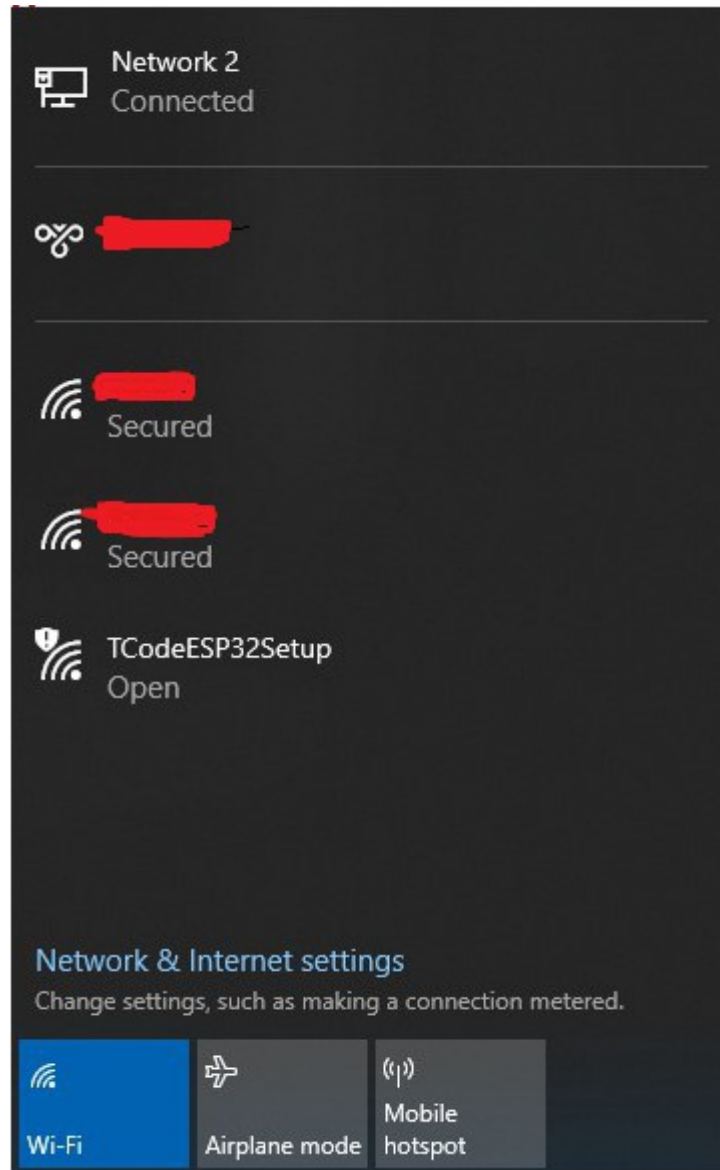
Connect to TcodeESP32Setup (leave connect automatically **unchecked**)
No password
Once connected (It can be slow be patient. About 30 secs or so)

Open your internet browser and navigate to 192.168.1.1
Enter your wifi ssid and password and change the network info if required

Device Settings

Menu

Wireless

SSID (2.4ghz only) `YOUR SSID HERE`
Password `••••••••••••••••••`
☐ Show Password
Static IP ☐

General

TCode version `v0.3`
SR6 mode ☑
Servo Frequency (hz) `50`
Pitch Frequency is different ☐
Valve Frequency (hz) `50`
Twist Frequency (hz) `50`
Squeeze Frequency (hz) `50`
Set (µ) for 270 degree servos ☐
Micro seconds per radian (µ) `637`

Servo	PIN	ZERO (µ)
Right	13	1500
Left	15	1500
Pitch	4	1500
Valve	25	1500
Squeeze	17	1500
Twist	27	1500

Disable PIN validation ☐

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

SR6

Servo	PIN	ZERO (µ)
Right upper	12	1500
Left upper	2	1500
Pitch right	14	1500

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

Other

Inverse T-Valve ☐
T-Valve 90 degree servo ☐
Inverse Stroke ☐
Feedback twist ☐
Vibe 1 `18`
Lube/Vibe 2 `19`
Vibe 3 `23`
Vibe 4 `32`
Lube enabled on V2 ☑
Lube button PIN `35`
Manual lube speed (1-255) `255`
Udp port `8000`
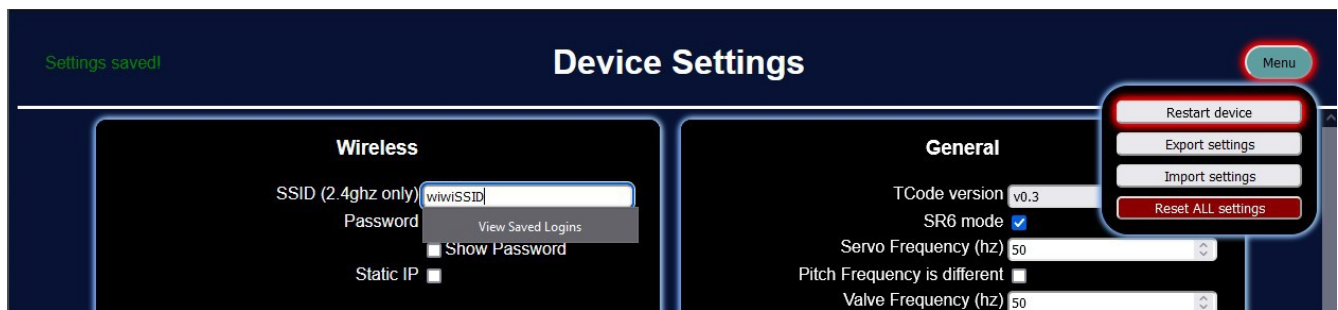Web port `80`
Host name `tcode`
Friendly name `ESP32 TCode`

Battery

Enabled ☐

Motion generator

Start

And wait for the Settings saved text to appear and the Menu/Restart device buttons will flash..

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

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

10	TCodeESP32	☑	192.168.0.145

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

|	
Manual lube speed (1-255)	255
Udp port	8000
Host name	tcode
Friendly name	ESP32 TCode

name field on the configuration.

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

## Configure via Serial monitor.

If you can connect to the APMode method above for some reason you can configure some device settings over serial communications including the wifi router login settings.

Connect to the esp32 via Serial monitor in Arduino ide or your app of choice.
Enter the command $help to see a list of available commands.
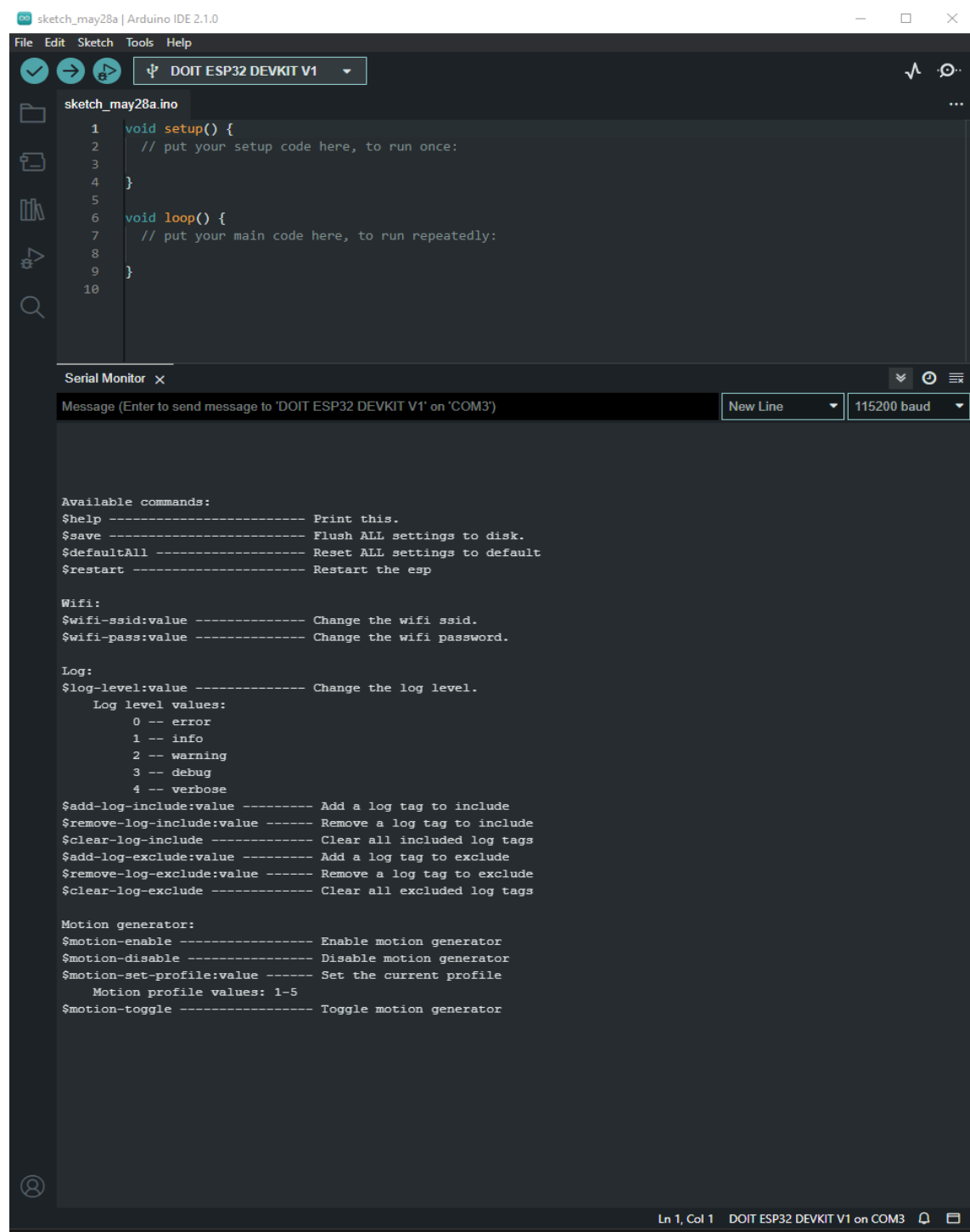
From here you can view the default pin out and change them if you know what you are doing.
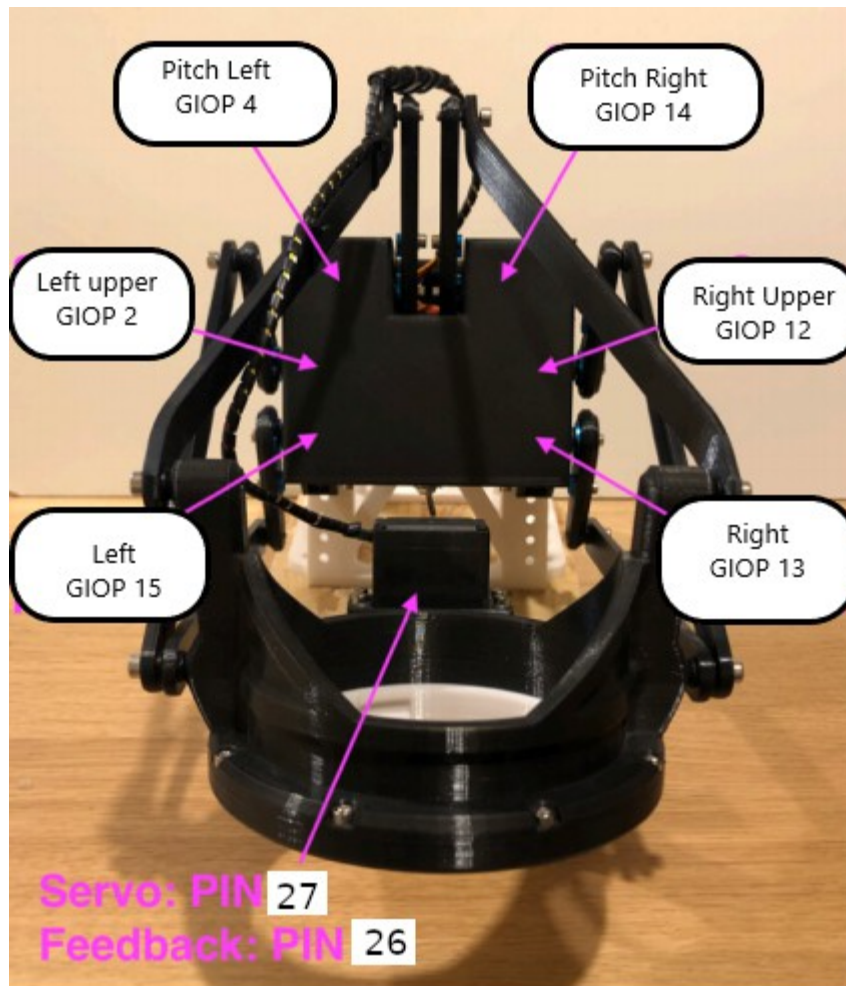
You can also set the default servo zeros.
If you are using this in an OSR MAKE SURE YOU UNCHECK "SR6 Mode"

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.