

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

Head to <https://www.espressif.com/en/products/socs/esp32/resources>

Navigate to Tools and download “Flash download tools”



APKs



Documentation



Tools



Found 4 results

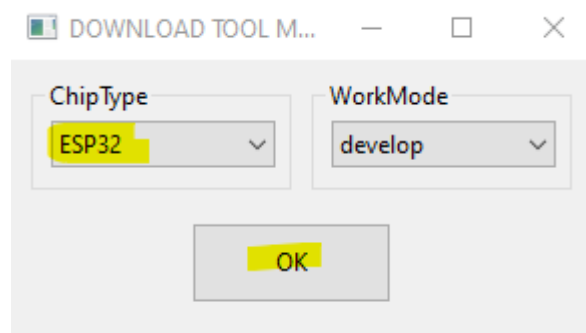
Expand all +

Collapse all -

Title	Platform	Version	Release Date	Download
+ Flash Download Tools	Windows PC	V3.8.7	2021.04.29	
+ ESP8266&ESP32 WFA Certification and Test Guide	Windows PC	v1.1	2020.08.05	
+ ESP32&ESP8266&ESP32S2 RF Performance Test Demonstration	ZIP	V2.5	2020.07.15	
+ ESP-Tuning Tool for TouchSensor	ZIP	V1.0	2018.09.21	

Extract “flash\_download\_tool\_v3.8.7.zip” and start flash\_download\_tool\_3.8.7.exe

Select ESP32 and click ok



Browse to the ESP32 files selecting each one as in the image below.  
Enter the hex values to the right as in the image below  
Check each checkbox next to the file path.  
Select your COM port your ESP32 is on at the bottom of the window  
Click start

The screenshot shows the 'ESP32 DOWNLOAD TOOL V3.8.5' window with the 'SPIDownload' tab selected. The interface includes a list of files to be downloaded, each with a checkbox, a file path, a browse button, and a hex value field. Below this is the 'SpiFlashConfig' section with options for SPI speed, mode, flash size, and lock settings. A 'DETECTED INFO' box shows the detected flash vendor, device ID, and crystal frequency. At the bottom, there is a 'Download Panel 1' with a 'FINISH' button and a status area showing AP, STA, BT, and Ethernet addresses. The 'COM' port is set to 'COM13' and the 'BAUD' rate is '921600'.

Checkbox	File Path	Browse	Hex Value
<input checked="" type="checkbox"/>	C:\Users\...Git\TCodeESP32\ESP32\bin\Release\a_0x1000.bin	...	0x1000
<input checked="" type="checkbox"/>	C:\Users\...Git\TCodeESP32\ESP32\bin\Release\b_0x8000.bin	...	0x8000
<input checked="" type="checkbox"/>	C:\Users\...Git\TCodeESP32\ESP32\bin\Release\c_0x10000.bin	...	0x10000
<input checked="" type="checkbox"/>	C:\Users\...Git\TCodeESP32\ESP32\bin\Release\d_0xe000.bin	...	0xe000
<input checked="" type="checkbox"/>	C:\Users\...Git\TCodeESP32\ESP32\bin\Release\e_0x003d0000.bi	...	0x003d0000
<input type="checkbox"/>		...	
<input type="checkbox"/>		...	
<input type="checkbox"/>		...	

**SpiFlashConfig**

**SPI SPEED**

- ☒ 40MHz
- ☐ 26.7MHz
- ☐ 20MHz
- ☐ 80MHz

**CombineBin**

☐ Default

**SPI MODE**

- ☐ QIO
- ☐ QOUT
- ☒ DIO
- ☐ DOUT
- ☐ FASTRD

**FLASH SIZE**

- ☐ 8Mbit
- ☐ 16Mbit
- ☒ 32Mbit
- ☐ 64Mbit
- ☐ 128Mbit

☐ SpiAutoSet

☐ DoNotChgBin

☐ LOCK SETTINGS

**DETECTED INFO**

flash vendor:  
5Eh : N/A  
flash devID:  
4016h  
QUAD;32Mbit  
crystal:  
40 Mhz

**Download Panel 1**

**FINISH**  
完成

AP: 2462ABF29A81 STA: 2462ABF29A80  
BT: 2462ABF29A82 ETHERNET: 2462ABF29A83

**START** **STOP** **ERASE**

COM: **COM13**

BAUD: 921600

You should see something like this in the terminal

```
C:\Users\ [redacted] \Downloads\flash_download_tool_v3.8.7\flash_download_tool_3.8.7.exe
test offset : 4096 0x1000
case ok
test offset : 32768 0x8000
case ok
test offset : 65536 0x10000
case ok
test offset : 57344 0xe000
case ok
test offset : 3997696 0x3d0000
case ok
C:\Users\ [redacted] \AppData\Local\Temp\_MEI24~1\download_panel_info.py:499: wxPyDeprecationWarning: Call to deprecated item B
itmapFromImage. Use :class:`wx.Bitmap` instead
C:\Users\ [redacted] \AppData\Local\Temp\_MEI24~1\download_panel_info.py:480: wxPyDeprecationWarning: Call to deprecated item B
itmapFromImage. Use :class:`wx.Bitmap` instead
=====
CONNECT BAUD: 115200
=====
. Uploading stub...
Running stub...
Stub running...
Changing baud rate to 921600
Changed.
('FLASH_CRYPT_CNT', 0)
('ABS_DONE_0', False)
Compressed 17104 bytes to 11191...
Compressed 3072 bytes to 129...
Compressed 8192 bytes to 47...
Compressed 1110416 bytes to 645812...
Compressed 196608 bytes to 45554...

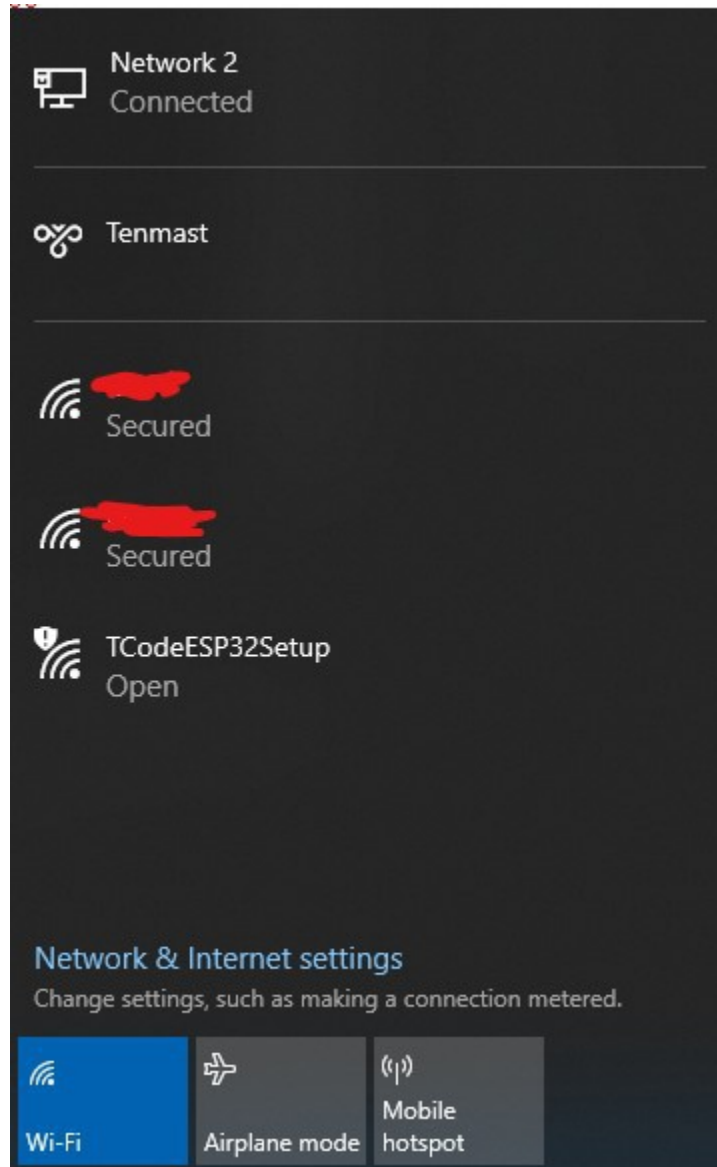
is stub and send flash finish
```

Now that your image is flashed time to configure the 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



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

## Device Settings

### General Settings

Servo Frequency	50
Auto T-Valve	<input type="checkbox"/>
Inverse T-Valve	<input type="checkbox"/>
RightServo PIN/ZERO	13 1500
LeftServo PIN/ZERO	15 1500
PitchLeftServo PIN/ZERO	4 1500
ValveServo PIN/ZERO	25 1500
TwistServo PIN/ZERO	27 1500
TwistFeedBack PIN	26
Continuous twist	<input type="checkbox"/>
Vibe0 PIN	18
Vibe1/Lube PIN	19
Manual lube PIN	23
Manual lube speed (1-255)	255
Udp port	8000
Host name	tcode
Friendly name	ESP32 TCode

### Display Settings

Display enabled	<input checked="" type="checkbox"/>
I2C address	0x3c
Display rst PIN	-1
Screen width	128
Screen height	64
Sleeve temperature enabled	<input type="checkbox"/>
Temp_PIN	5
Temperature control enabled	<input type="checkbox"/>
Heater_PIN	33
Target Temperature	40

### SR6 (Only) Settings

SR6 mode	<input checked="" type="checkbox"/>
Right Upper Servo PIN/ZERO	12 1500
LeftUpper Servo PIN/ZERO	2 1500
Pitch Right Servo PIN/ZERO	14 1500

### Wireless Settings

SSID	YOUR SSID HERE
Password	••••••••
	<input type="checkbox"/> Show Password
Static IP	<input checked="" type="checkbox"/>
IP	192.168.0.150
Gateway	192.168.0.1
Subnet	255.255.255.0
DNS 1	8.8.8.8
DNS 2	8.8.4.4

And wait for the Settings saved text to appear..

### SR6 (Only) Settings

SR6 mode	<input checked="" type="checkbox"/>
er Servo PIN/ZERO	12 1500
er Servo PIN/ZERO	2 1500
nt Servo PIN/ZERO	14 1500

### Wireless Settings

SSID	YOUR SSID HERE
Password	••••••••
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Subnet	255.255.255.0
DNS 1	8.8.8.8
DNS 2	8.8.4.4

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 either using serial monitor

```
Establishing connection to ..Connected: IP: 192.168.0.145
UDP Listening
Bluetooth started
TCode v0.2
Ready!
█
```

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

Manual lube speed (1-255)

Udp port

Host name

Friendly name

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

10	TCodeESP32	192.168.0.145
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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.

### General Settings

Servo Frequency

Auto T-Valve ☐

Inverse T-Valve ☐

RightServo PIN/ZERO

LeftServo PIN/ZERO

PitchLeftServo PIN/ZERO

ValveServo PIN/ZERO

TwistServo PIN/ZERO

TwistFeedBack PIN

Continuous twist ☐

Vibe0 PIN

Vibe1/Lube PIN

Manual lube PIN

Manual lube speed (1-255)

Udp port

Host name

Friendly name

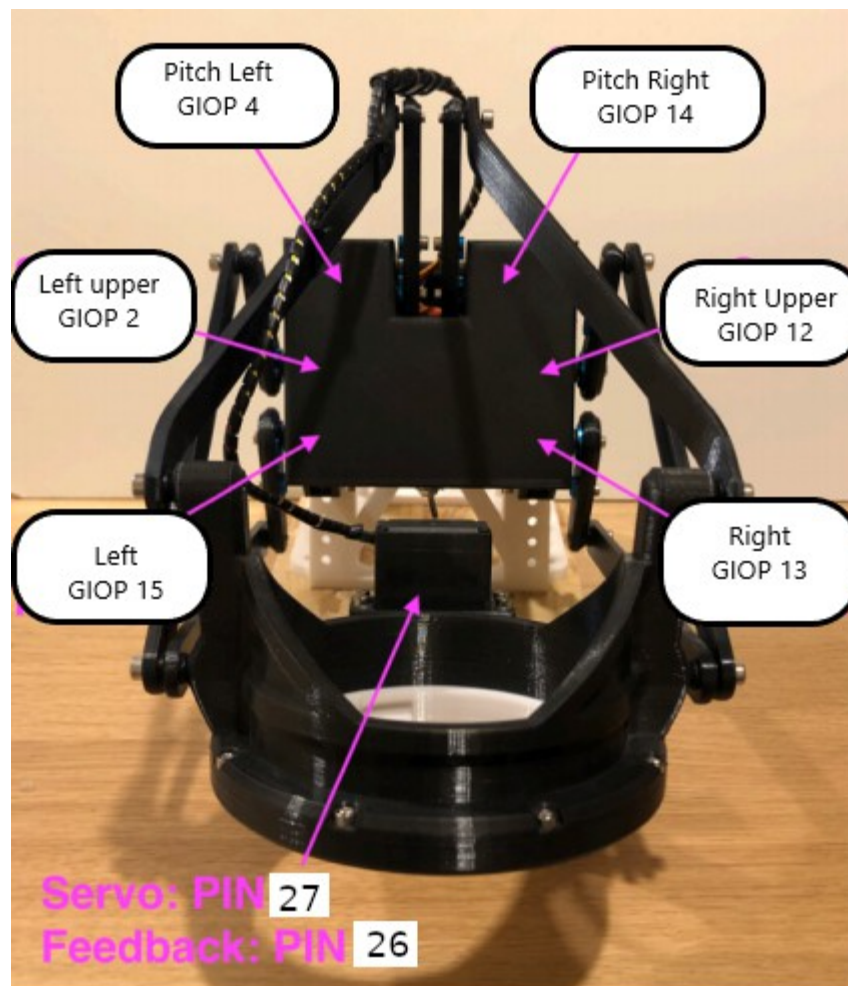
### SR6 (Only) Settings

SR6 mode ☒

Right Upper Servo PIN/ZERO

LeftUpper Servo PIN/ZERO

Pitch Right Servo PIN/ZERO



You can also set the default servo zeros.

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

The ranges are only for receiving data in json format.

The only thing that does this at the time of this writing is Tcode Remote Gamepad output over the network. This was done so the OSR user has control over the range and speed for safety concerns.

The screenshot shows a web interface titled "TCode Settings" on a light gray background. At the top center is a button labeled "Restart device". Below the title, a red text label "Restart required!!" is visible on the right. A small note "(only affects json input)" is centered below the title. There are four sliders with white circular handles. The first three sliders are dark blue and labeled "X Range 99%", "Y Roll Range 99%", and "X Roll Range 99%". The fourth slider is white and labeled "Speed 1000ms". At the bottom center is a button labeled "Reset ALL settings".

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.