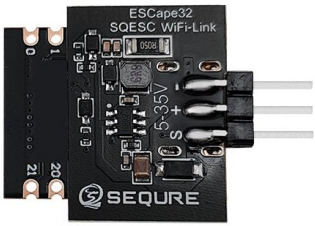
WiFi-Link

Wireless configurator for ESCape32 ESCs
Wi-Fi 2.4 GHz · ESP32-C3 · power supply 5–35 V



The configurator can spin the motor – remove the propeller and secure the model before connecting the ESC (chapter 1.2). WiFi-Link is intended only for ESCs running ESCape32 firmware.

Manual based on the ESCape32 project documentation and manufacturer data · Rotorama, s.r.o. · www.rotorama.com

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1. Safety instructions

1.1 Before you start

- Read this manual completely before first use and keep it. Always pass it on together with the product.
- The product is intended for persons aged 14 and over. It is not a toy.
- WiFi-Link is intended solely for configuring and updating the firmware of electronic speed controllers (ESC) running **ESCape32** firmware. It is not intended for ESCs with AM32 or BLHeli_32 firmware.
- Do not use a module that is mechanically damaged, wet or shows signs of overheating. Do not modify the module.

1.2 Motor and ESC

- The configurator can spin the motor (slider on the *Settings* tab, chapter 5.1). Before connecting the ESC, **remove the propeller**; on a car or boat, lift the wheels or propeller clear and secure the model.
- When working with an ESC connected to a battery, keep hands, hair, loose clothing and tools away from the motor and moving parts of the model.
- Parameter changes take effect in real time. Unsuitable values may overheat or damage the motor and ESC – change only parameters whose meaning you understand (chapter 5.1).
- Do not disconnect the ESC from its power supply or from the module while firmware is being written. An interruption may render the ESC inoperable.
- Disconnect the module after configuration. It is not intended for permanent installation or for use while the model is in operation.

1.3 Power supply and wiring

- The voltage applied to the + pin of the module connector must be within **5–35 V** (as marked on the board).
- Connect the connector only according to the −, + and S markings and observe correct polarity. Do not short-circuit the connector pins.
- Change the wiring only with the ESC and the module disconnected from power.
- Protect the module from contact with conductive objects, carbon frames and moisture.

1.4 Wi-Fi network

- The module creates an **open Wi-Fi network without a password**. Anyone within range can connect to it; only one device can be connected at a time. Power the module only while configuring.
- Do not use the module where the operation of radio equipment is prohibited or restricted (e.g. on board an aircraft, in medical facilities).

2. Product description

SEQURE WiFi-Link is a wireless configurator for electronic speed controllers running the open-source **ESCape32** firmware. The ESP32-C3 based module creates its own Wi-Fi network to which a phone, tablet or laptop connects. The ESC is then configured in a web browser – without computer software and without a USB-TTL adapter. The configurator offers:

- real time configuration of ESC parameters,
- ESC firmware updates,
- upload of a melody; RTTTL music is transparently converted to the native firmware format.

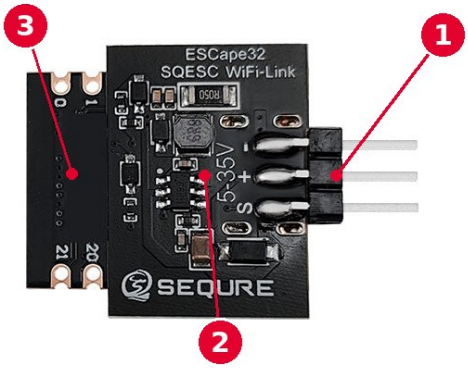
The module uses the open-source configurator *ESCape32 Wi-Fi Link* (github.com/neoxic/ESCape32-WiFi-Link).

2.1 Package contents

- 1× WiFi-Link

※ A USB-C cable and a cable to connect the ESC are not included.

2.2 Parts description

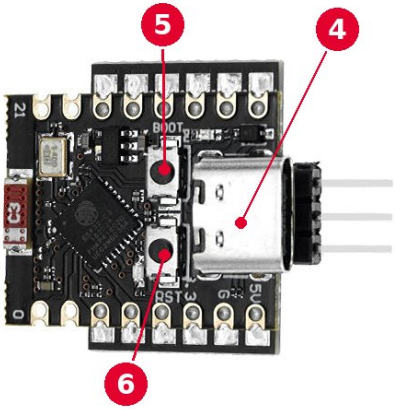


Top side of the module

① ESC connector – pins − (ground), + (power) and S (signal)

② Input voltage marking 5–35 V

③ ESP32-C3 module (beneath the carrier board)



Bottom side of the module

④ USB-C connector (connection to a computer for module firmware update, chapter 6)

⑤ BOOT button

⑥ RST button

2.3 Technical data

Product	SEQURE WiFi-Link (on the board: ESCape32 SQESC WiFi-Link)
Purpose	configuration and firmware update of ESCs running ESCape32 firmware
Chip	ESP32-C3
Radio interface	Wi-Fi 2.4 GHz, access point (network ESCape32-WiFi-Link, no password)
Configuration page	escape32.local or 192.168.4.1
Connected devices	1
Power supply	5–35 V DC via the + pin of connector ①
Connectors	3-pin connector (−, +, S); USB-C
Dimensions	22 × 23 mm
Weight	1.3 g

2.4 Manufacturer

Guangdong SEQURE Technology Co., Ltd., 9th Floor, Songhu Zhichuang, No. 11 Minfu Road, Liaobu, Dongguan, Guangdong Province, 523423, China · info@sequremall.com · www.sequremall.com

3. Legal requirements in CZ and the EU

3.1 The law of the country of operation applies

Radio equipment is governed throughout the European Union by Directive 2014/53/EU, but national regulations differ from country to country – in particular the permitted frequency bands and maximum transmit power. The information in this chapter describes the situation in the Czech Republic. If you operate the product in another country, you must comply with the regulations of the country in which you operate it.

3.2 Radio frequencies and transmit power

The module transmits in the **2.4 GHz** band (Wi-Fi). The manufacturer does not publish the maximum transmitted power on its website. It is part of the EU declaration of conformity, which is available from the importer (chapter 8.2).

In the Czech Republic, operation of wideband data transmission equipment (Wi-Fi) in the 2400–2483.5 MHz band is governed by a general authorisation of the Czech Telecommunication Office (www.ctu.cz):

Band	Type of equipment	Regulation
2400–2483.5 MHz	wideband data transmission, max. 100 mW e.i.r.p.	VO-R/12/11.2021-11

- Equipment operated under a general authorisation is not entitled to protection against interference and must not cause interference to other equipment.
- Use only the built-in antenna of the module. Do not modify the module or connect amplifiers to it.

4. Connection and start-up

4.1 What else you need

- **An ESC running ESCape32 firmware** – for example Sequre SQESC ESCs in the ESCape32 firmware version.
- Power supply for the ESC according to its manual (battery).
- A phone, tablet or laptop with Wi-Fi and a web browser.
- To update the firmware of the module itself, a computer and a **USB-C data cable** (chapter 6).

4.2 Connecting to the ESC

The configurator communicates with the ESC over its signal wire. Connect the ESC wires to connector ① as marked on the board:

Pin	Connect
S	ESC signal wire
+	module power supply 5–35 V
–	ESC ground (GND)

Before connecting, remove the propeller or secure the model (chapter 1.2). Check the polarity – the + pin must not be connected to ground or to the signal.

4.3 Connecting the phone to the Wi-Fi network

① Switch on the power supply. The module acts as a Wi-Fi access point named **ESCape32-WiFi-Link**.

② Connect your phone, tablet or laptop to this network. The network has no password.

③ A configuration window usually pops up automatically. If it doesn't or is limited in functionality, open a web browser and navigate to **escape32.local** or **192.168.4.1**.

※ Only one device can be connected at a time. The network has no internet access – if the phone offers to disconnect, stay connected.

4.4 ESC configuration mode

An ESC running ESCape32 firmware enters configuration mode if its signal line is held high for 2 seconds on startup (ESCape32 documentation). The module must therefore be connected and powered when you switch the ESC on.

Until the ESC connection is established, the page shows *Loading settings...* or *Connecting...*. If the message persists, check the wiring and power cycle the ESC (chapter 7.2).

5. Configuration page

The configuration page has three tabs: *Settings*, *Music* and *Firmware*. The interface language can be selected in the page header. The figures in this chapter are illustrative – depending on the firmware version of the configurator and the ESC, the number and names of items may differ.

5.1 Settings tab



Settings tab (illustrative)

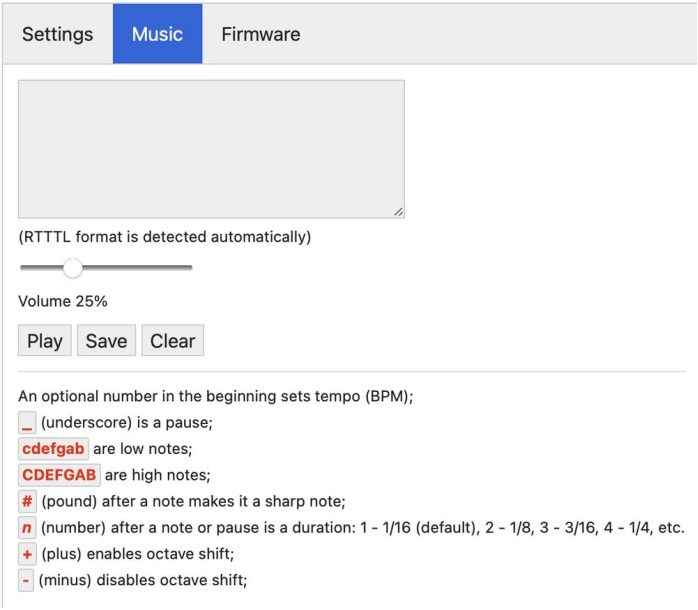
- Each ESC parameter has its own row; a short description is shown next to the value. A new value is sent to the ESC immediately after it is entered.
- **Save** – saves the settings to the ESC memory. Unsaved changes are lost when the ESC is switched off.
- **Reset** – restores default settings. The button must be **held** (message *Hold to reset!*).
- The ESC status is shown below the buttons – firmware, temperature, voltage, current, consumed capacity and speed (ERPM).

- The slider below the status is used to test the motor: slide it right and left to arm the ESC (Arm); moving it to the right again **spins the motor**.

The slider on the Settings tab really spins the motor. The propeller must be removed and the model secured.

The meaning and ranges of the individual parameters are described in the ESCape32 firmware documentation at github.com/neoxic/ESCape32/wiki/Settings. Some settings (e.g. *brushed*) take effect only after the ESC is power cycled.

5.2 Music tab



Music tab (illustrative)

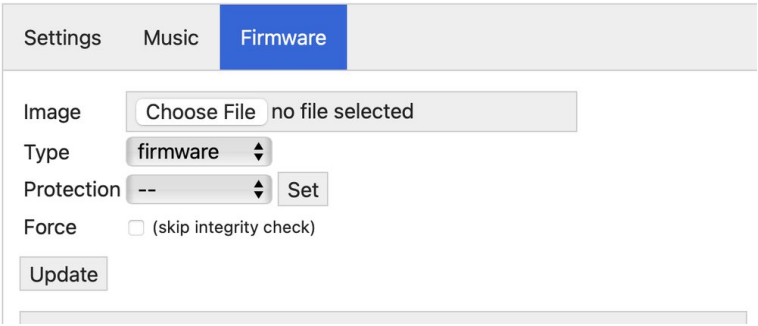
Enter a melody in the text field. RTTTL format is detected automatically and converted to the native firmware format. Set the volume with the slider.

- **Play** – plays the melody through the motor.
- **Save** – saves the melody and volume to the ESC.
- **Clear** – clears the text field and sets the volume to its default value.

▶ **Native melody notation**

Character	Meaning
number at the beginning	tempo (BPM), optional
_	pause
cdefgab	low notes
CDEFGAB	high notes
#	after a note: makes it a sharp note
n	number after a note or pause: duration – 1 = 1/16 (default), 2 = 1/8, 3 = 3/16, 4 = 1/4, etc.
+	enables octave shift
-	disables octave shift

5.3 Firmware tab – ESC firmware update



Firmware tab (illustrative)

After opening the tab, the message *Probing bootloader...* appears with the prompt *power cycle the ESC now!* – switch the ESC off and on again. The tab then shows the bootloader and firmware revision of the ESC, including the target designation in square brackets.

Item	Meaning
Image	selection of the firmware file (.bin)
Type	*firmware* – ESC firmware; *bootloader* – bootloader
Protection	memory write protection: *off*, *bootloader*, *full*; applied with the **Set** button
Force	skips the file check (skip integrity check)
Update	starts writing; progress is shown by the bar below the button

① Download the ESCape32 firmware file from the official project page (github.com/neoxic/ESCape32, *Releases* section). Choose the file with the same target designation that the tab shows for your ESC.

② Select the file under *Image*; leave *Type* set to *firmware*.

③ Click **Update** and wait for the message *Update successful*. Do not disconnect anything during the update.

Use the Force option only if you know for certain that the file is valid for the ESC. Writing firmware for a different target or an interrupted update may render the ESC inoperable.

※ The author of the configurator recommends updating the bootloader to the latest revision and enabling bootloader write protection (*Protection: bootloader*) before updating the ESC firmware.

6. WiFi-Link module firmware update

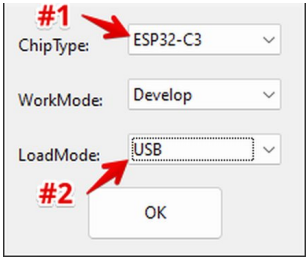
The firmware of the module itself (the ESCape32 Wi-Fi Link configurator) is flashed from a computer via the USB-C connector ④. The procedure is based on the ESCape32 project documentation.

① Download the latest pre-built *combined image* for the **ESP32-C3** chip from github.com/neoxic/ESCape32-WiFi-Link, *Releases* section.

② Disconnect the module from the ESC and connect it to a computer using a **USB data cable** (a USB charging cable will not work).

③ Flash the image at offset **0x0** using *ESP Flash Tool* (Espressif) or the web tool *Adafruit WebSerial ESPTool*.

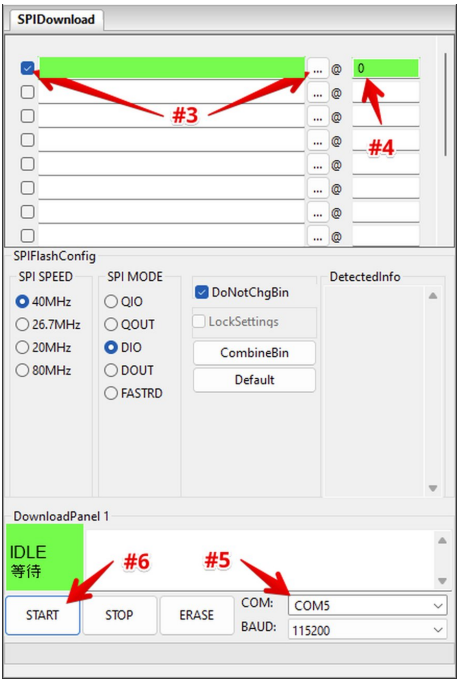
▶ **ESP Flash Tool step-by-step instructions**



Chip type and load mode selection

#1 Select *ChipType ESP32-C3*.

#2 Select *LoadMode USB* and confirm with *OK*.



Image, offset and port selection and start

#3 Select and check the downloaded image in the first row.

#4 Set offset to **0**.

#5 Select the corresponding COM port.

#6 Click *START* and wait until flashing is finished.

7. Maintenance and troubleshooting

7.1 Maintenance and storage

- Keep the module dry and clean. Remove dirt with a dry soft brush; do not use solvents.
- Store it in an antistatic bag, away from moisture, heat and conductive objects.
- Do not bend the connector pins. When carrying the module in a bag, protect it from pressure and impacts.

7.2 Troubleshooting

Problem	Possible cause and solution
The ESCape32-WiFi-Link network does not appear	The module is not powered. Check the wiring of the + and − pins and the 5–35 V voltage (chapter 4.2).
The configuration page does not open	Enter 192.168.4.1 or escape32.local in the browser. Make sure that only one device is connected to the module and that the phone has stayed connected to the module network.
Loading settings... keeps showing	The ESC has not entered configuration mode. Check the wiring of the S and − pins and switch the ESC off and on again with the module connected (chapter 4.4). Make sure the ESC runs ESCape32 firmware.
The Firmware tab waits for the bootloader	Switch the ESC off and on again (chapter 5.3).
Message *Target mismatch!*	The firmware file is intended for a different target. Download the file with the same target designation as the ESC.
Message *Flash error (disable protection)*	The ESC memory is write-protected. Change the *Protection* option (chapter 5.3).
The computer does not recognise the module (chapter 6)	Use a USB data cable, not a charging-only cable.

8. Information for the EU and Czech Market

8.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

8.2 Product conformity

CE

- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorama.cz.
- **Product identification:** the type designation (ESCape32 SQESC WiFi-Link) is printed on the product board; the configurator firmware version is shown in the footer of the configuration page.

8.3 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

9. Warranty and rights arising from defective performance

Rights of the buyer under Czech law

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 8.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.