# FURITEK LIZARD 20A/40A BRUSHED/BRUSHLESS ESC FOR AXIAL SCX24 WITH FOC TECHNOLOGY

## Features:

- Support sensorless brushless DC and brushed DC motor (config via app, default is brushless)
- FOC (Field-oriented control) technology
- Designed for AXIAL SCX24 crawlers.
- 5.5V-1.5A Built-in BEC
- Mini size and light weight
- Super easy programming via App on BOTH Android and IOS
- Firmware update available (bluetooth module required)
- Real-time telemetry up to 10Hz
- Support AAA batteries and 2s liPo battieres with automatic battery type recognition capability
- Ability to run with stock TX/RX or any other TX/RX

## Specifications:

- Dimension (mm): 24(L)x12.4(W)
- Weight: about 2.1g
- Battery types: 4 AAA NiMH/2s liPo/ 2s LiOn
- Motor type: Sensored/Sensorless Brushless DC / Brushed DC
- BEC output: 5.5V/1.5A
- Constant Current : 20A
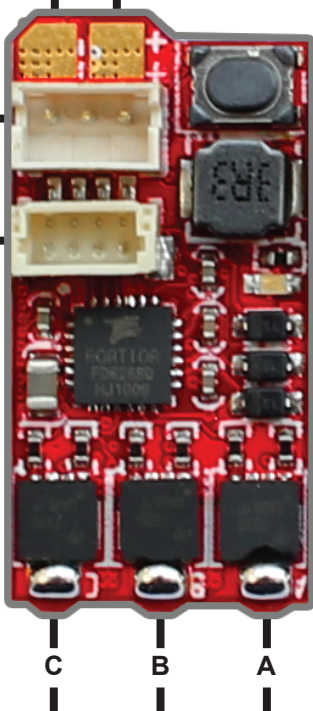- Burst Current : 40A
- Waterproof : NO

## Pinout:



**Battery input:**
**Support AAA/2s liPo batteries**

**Bat-** **Bat+**

**ESC Signal**
**(configure page 3)**

**Bluetooth**
**(configure page 4)**

**Start/Stop button**
**(configure page 3)**

C  B  A

**Motor output: Default (Brushless motor)**
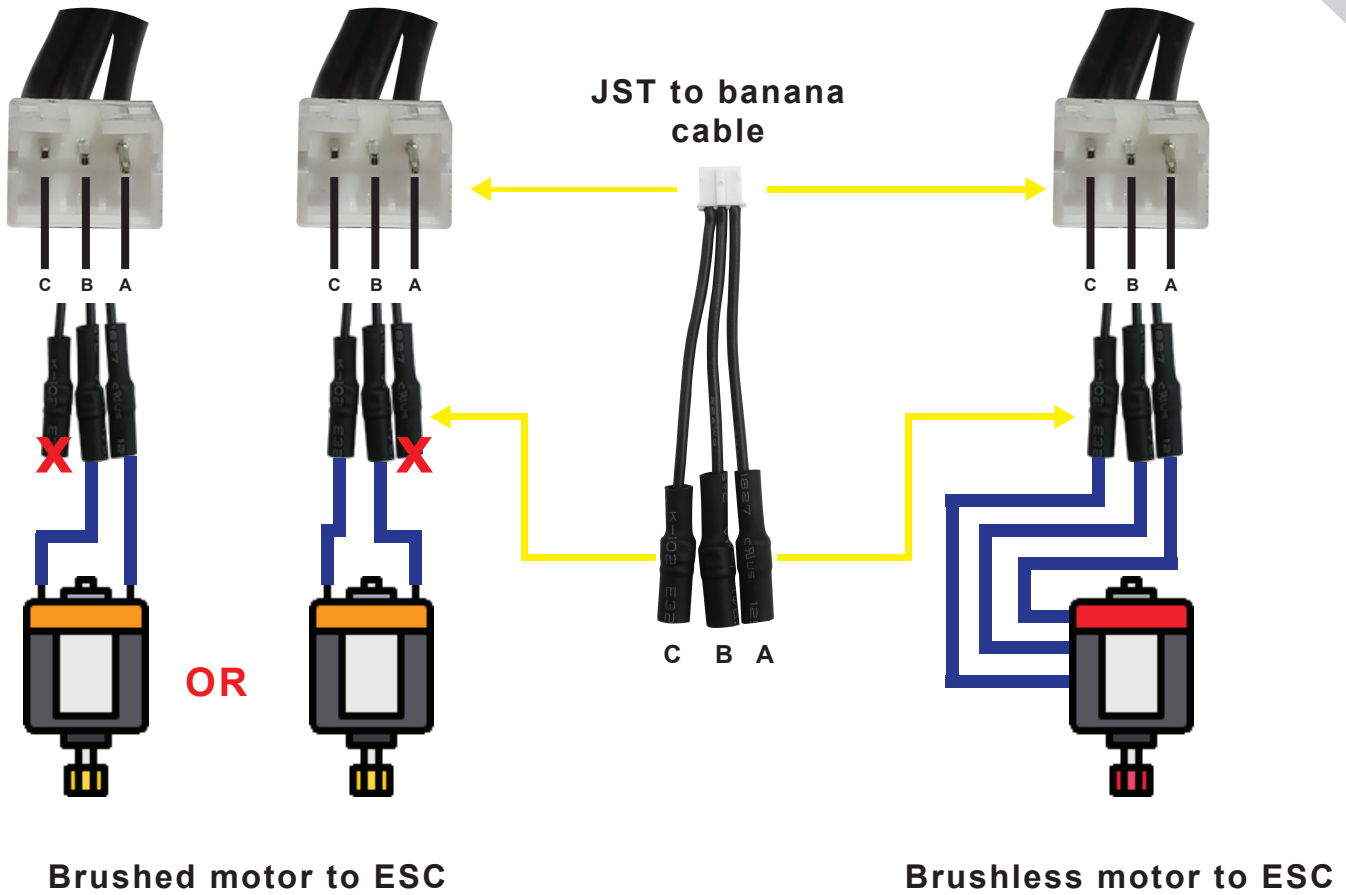**Brushless or brushed  motor (configure page 2)**
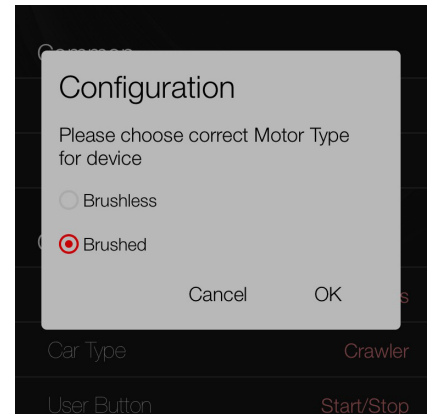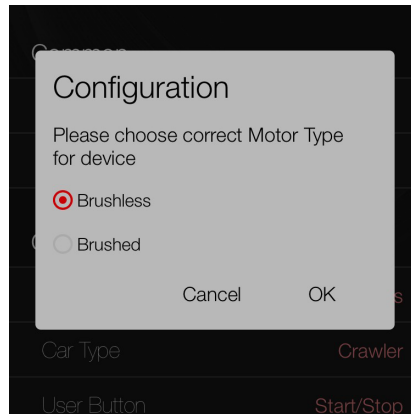
**FURICAR**



SCAN ME ON APP

## Connect Brushed/Brushless motor to ESC:



**JST to banana cable**

C   B   A

**Brushed motor to ESC**

OR

X    X

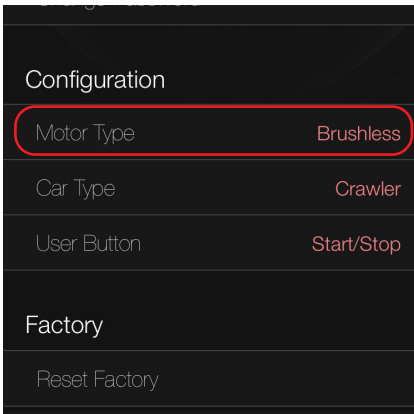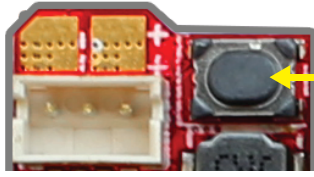**Brushless motor to ESC**

**\*DEFAULT configuration is Brushless motor, if you use BRUSHED motor, please configure it as below:**

**- Step 1:** Please make sure to plug your battery to esc and open FURICAR app on android or IOS device

**- Step 2:** Please Click the Setting icon (see picture)



**- Step 3:** Please click "**Motor Type**" menu, a new window pops up, select "**Brushless**" or "**Brushed**" and then click "**OK**"



### Configuration

| Motor Type | Brushless |
| Car Type | Crawler |
| User Button | Start/Stop |

### Factory

Reset Factory

### Configuration

Please choose correct Motor Type for device

◉ Brushless
◯ Brushed

Cancel          OK

### Configuration

Please choose correct Motor Type for device

◯ Brushless
◉ Brushed

Cancel          OK
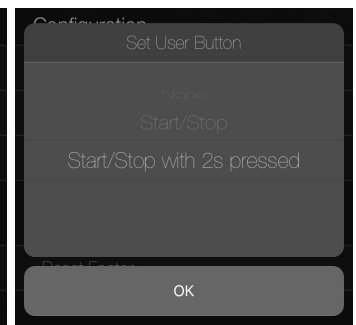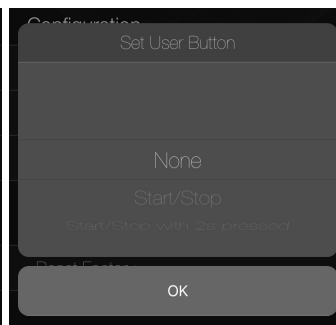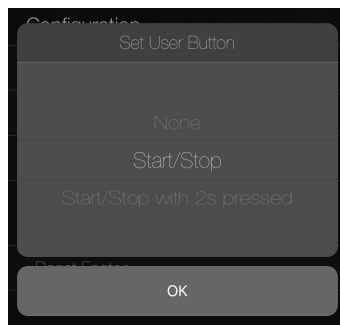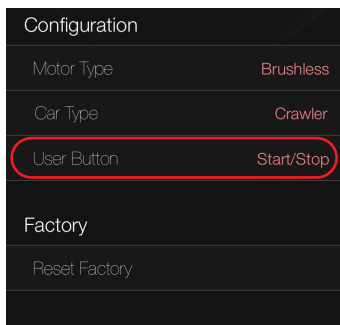
## Start/Stop button:

- Press the button to turn on the power for "**motor, external receiver, bluetooth**" and press again to turn off the power.

→ **Start/Stop Button**

## *User button default is Start/Stop, if you change, please configure it at below:

- **Step 1:** Please make sure to plug your battery to esc and open FURICAR app on android or IOS device

- **Step 2:** Please Click the Setting icon (see picture)

- **Step 3:** Please Click "**User Button**" menu, a new window pops up, select "**None**","**Start/Stop**" or "**Start/Stop with 2s pressed**" and then click "**OK**"

| Configuration | |
|---|---|
| Motor Type | Brushless |
| Car Type | Crawler |
| User Button | Start/Stop |
| **Factory** | |
| Reset Factory | |

Set User Button
None
**Start/Stop**
Start/Stop with 2s pressed
OK

Set User Button
**None**
Start/Stop
Start/Stop with 2s pressed
OK

Set User Button
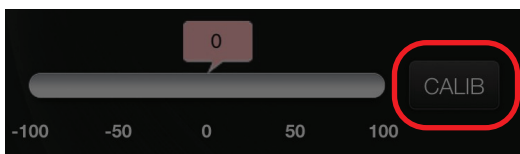None
Start/Stop
**Start/Stop with 2s pressed**
OK

## Esc Manual calibration:

### A.Calibration on ESC Mainboard:

- **Step 1:** Please make sure to plug the battery to your esc
- **Step 2:** Press and hold the button of ESC (wait for 6 secs and the ESC LED indicator will start blinking followed by a motor beeping sound)
- **Step 3:** Set to 0% Throttle or lowest speed (please make sure that your radio throttle stick at NEUTRAL POSITION, press the ESC button, ESC LED indicator will blink 1 time and motor will beep 1 time)
- **Step 4:** Set to 100% Throttle or Maximum speed (move your radio throttle stick FORWARD and press the ESC button, ESC LED indicator will blink 2 times and motor will beep 2 times)
- **Step 5:** Setting up of your BRAKE (move the radio throttle stick BACKWARD and press the ESC button, ESC LED indicator will blink 3 times and motor will beep 3 times)
- **Step 6:** When your ESC show 4 blinking LED light and your motor beep 4 times mean you successfully CALIBRATED your Furitek ESC

### B.Calibrattion via App: (Your esc need a Bluetooth to communicate with app)

- **Step 1:** Please make sure to plug your battery to esc and open FURICAR app on android or IOS device
- **Step 2:** Please click "**MENU**" ☰ and click "**THROTTLE**"
- **Step 3:** Please click "**CALIB**" and then click "**YES**"

Throttle

0
CALIB
-100   -50   0   50   100

Neutral Forward      Normal ▼
**Calib Throttle**
Do you want to start Calib?
No        Yes

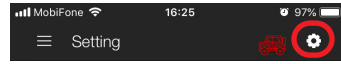*Follow intructions on the app screen till fishnish calibration

## Bluetooth:
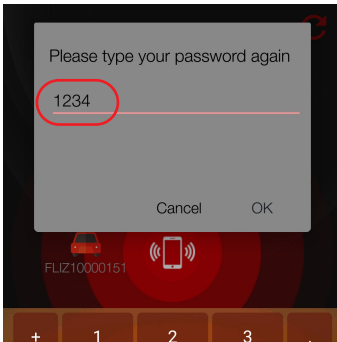- Default password to connect via Bluetooth "**1234**"

## *Change password:

- **Step 1:** Please make sure to plug your battery to esc and open FURICAR app on android or IOS device
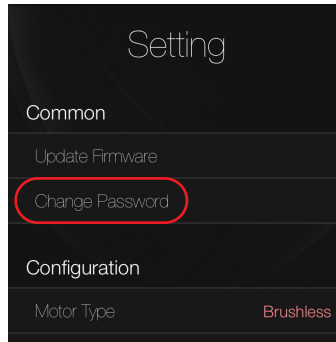
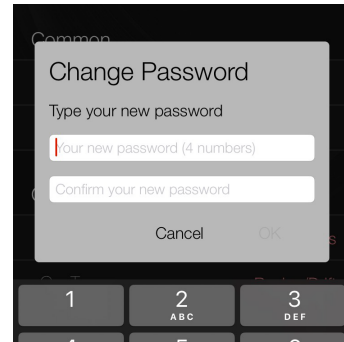- **Step 2:** Please Click the Setting icon (see picture)

- **Step 3:** Please Click "**Change Password**" menu, a new window pops up, type your new password and then click "**OK**"
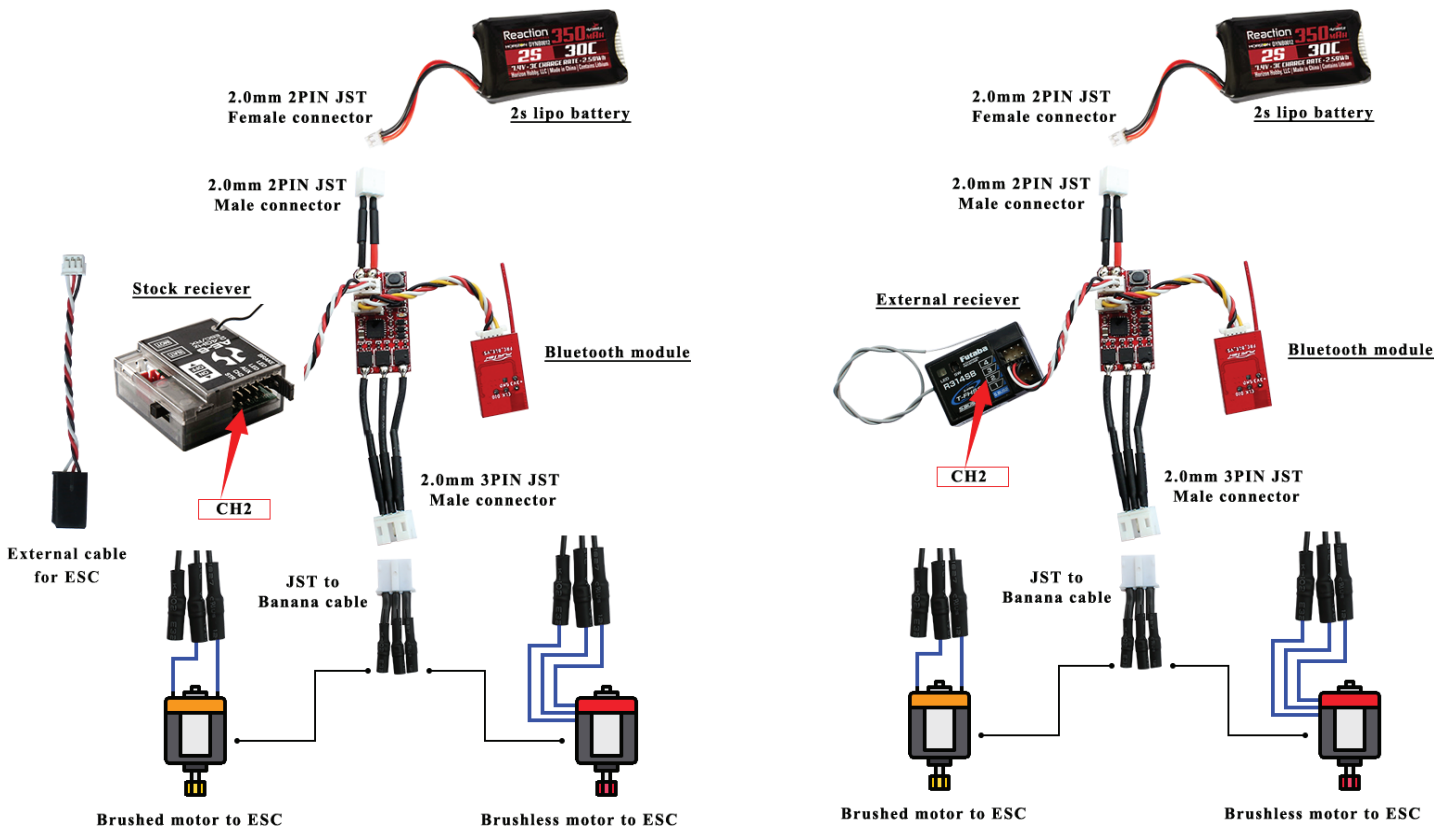


**Default password:**
**1234**



**Change password**

## Choose Channel2 to connect Receiver to ESC main board:



**Connection Diagram for stock receiver/radio**



**Connection Diagram for external receiver**