

# VESC SETUP

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## Flux AT2



V1.0

flux<sup>®</sup>  
motion

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## Intro

Awesome, you're investing time in going through this explanation! We've made an effort to compile all the necessary information about your VESC setup in this guide. Enjoy your ride and stay safe!

You didn't find an answer for your question? We're happy to help you! You can contact us at: [info@fluxmotion.eu](mailto:info@fluxmotion.eu)

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Be warned, incorrect ESC parameters can completely brick the board or lead to catastrophic consequences, including fatal outcomes. Setting faulty parameters can permanently destroy your battery, motorcontroller or motors!

*The product you bought is inherent dangerous, we're not responsible for any damaged caused by our products.*

# 01 Download VESC Tool

Be warned, incorrect ESC parameters can completely brick the board or lead to catastrophic consequences, including fatal outcomes. Setting faulty parameters can permanently destroy your battery, motor controller or motors!

Download VESC Tool from the Google Play or App store

[https://play.google.com/store/apps/details?id=vedder.vesctool&hl=en\\_US](https://play.google.com/store/apps/details?id=vedder.vesctool&hl=en_US)

<https://apps.apple.com/us/app/vesc-tool/id1605488891>



## VESC Tool

Benjamin Vedder

10K+  
Downloads

3  
PEGI 3 ⓘ

€4.39 Buy



## VESC Tool (4+)

Configure your VESC Ecosystem

Jeffrey Friesen

Designed for iPad

#87 in Utilities

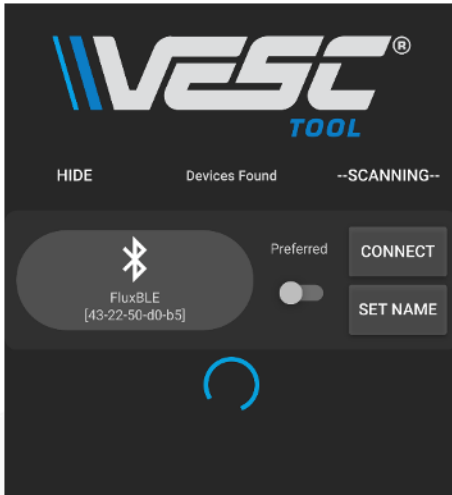
★★★★★ 4.1 • 14 Ratings

\$3.99

## 02 Connect to the VESC Tool

Activate both the board and the remote, and then proceed to launch the VESC Tool app.

1: Select the "Connect" option on the FluxBLE.

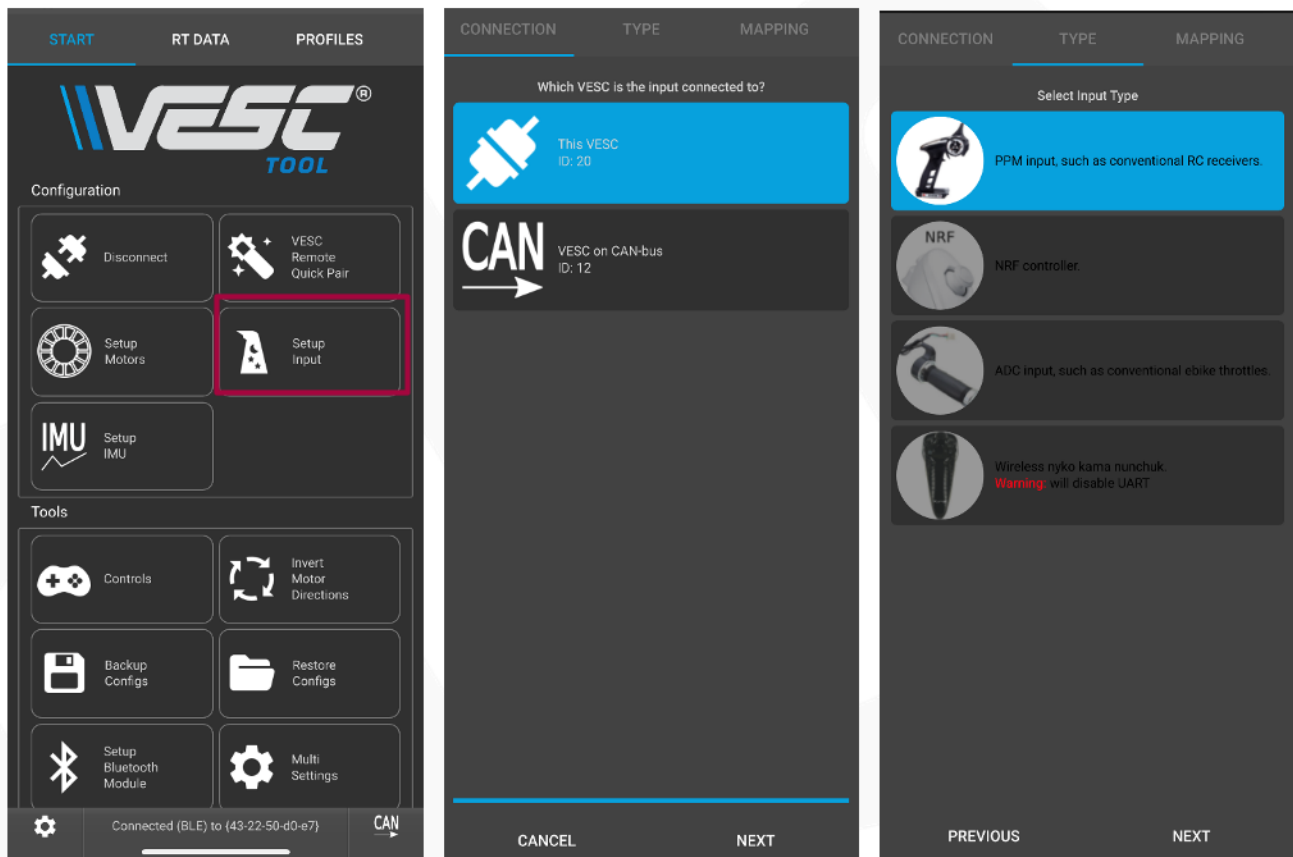


2: Once you see this screen, it means the connection was successful.

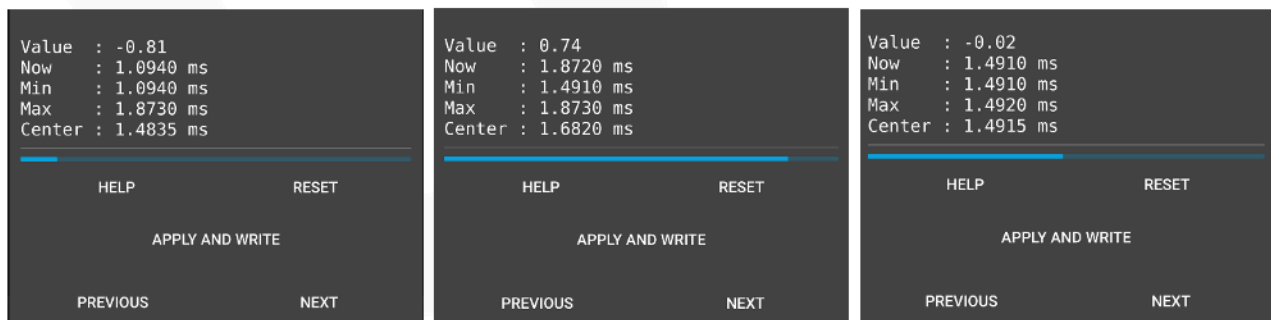


## 03 Setup Remote Configuration

- 1: To configure the remote or calibrate it, click on the "Setup Input" option.
- 2: Chose this VESC and click "NEXT"
- 3: Chose PPM input and click "NEXT"



- 4: Currently, you'll observe the real-time PPM value. Move the throttle from minimum to maximum, center it, and then click "NEXT".



5: Select the desired Control Type and then click on "FINISH".

#### STOCK:

For standard control chose for control type; Current No Reverse With Brake. (In this mode, the board moves forward only) [BOARD IS DELIVERED WITH THIS SETTING]

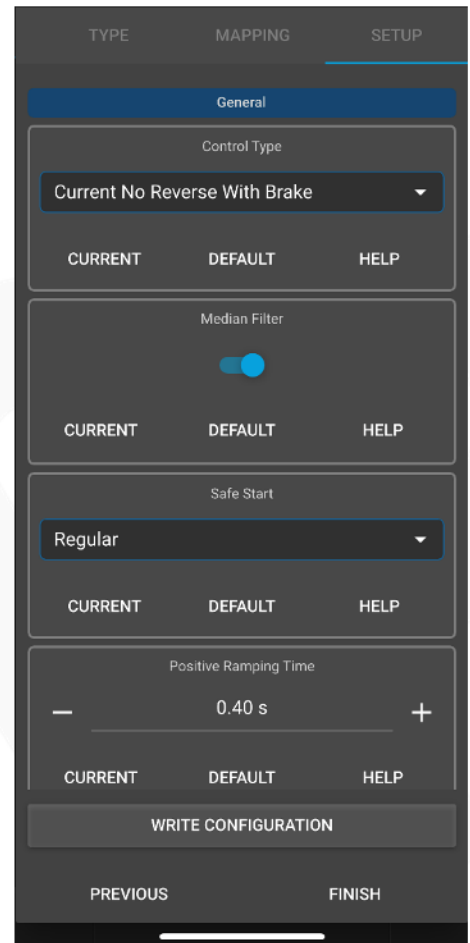
#### EXPERT;

If it is desired that the board also goes backwards please chose for control type: Smart Reverse. This means that after braking and standing still it is possible to goes backward. You can play with the smart reverse ramp time and smart reverse max duty cycle.

A ramp time of 5 seconds indicates that it requires 5 seconds for the motor to smoothly transition from a standstill to running at the maximum smart reverse duty cycle set by you. If you need to come to a complete stop while going downhill, a shorter ramp time, such as 1 second, can be particularly favourable.

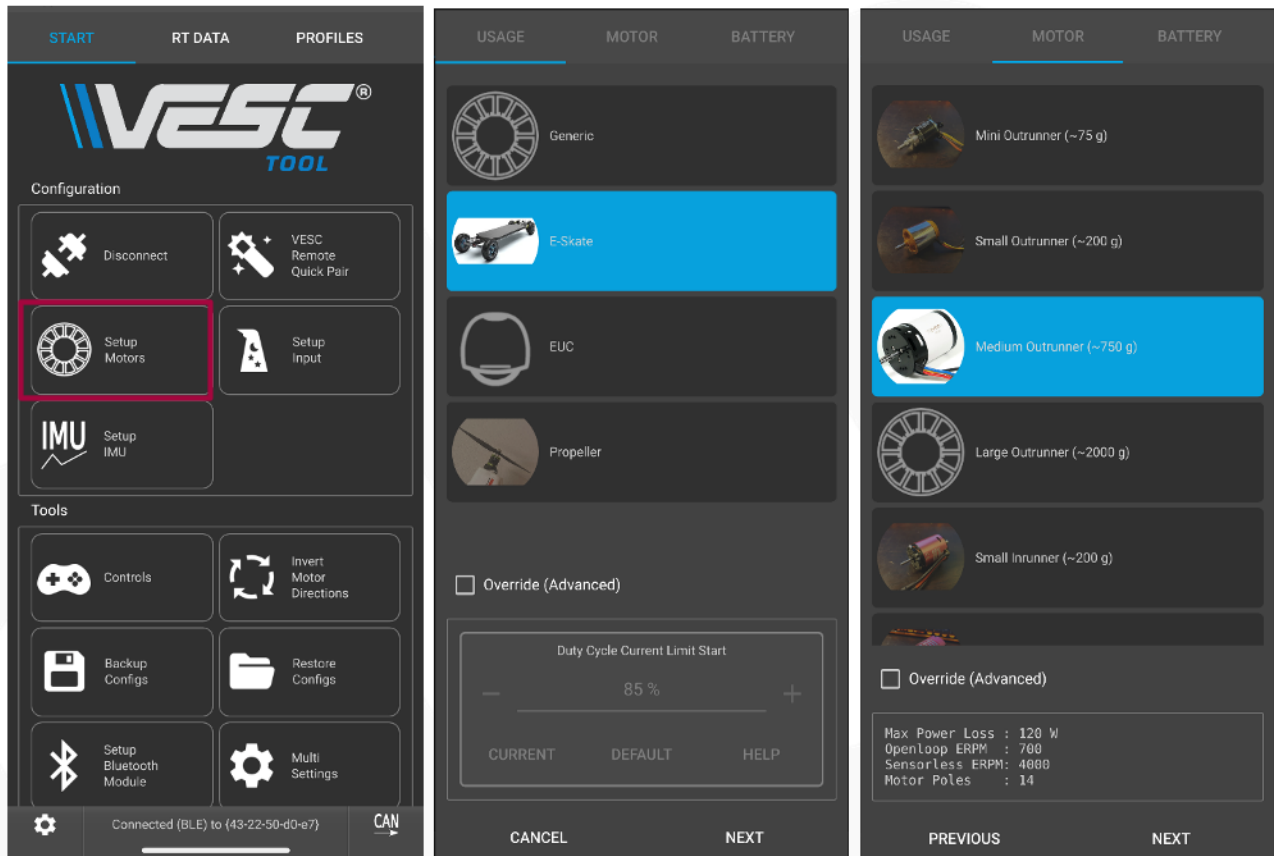
Be aware that a short ramp time results in an immediate shift to reverse motion once you come to a complete stop.

6: Before you go on a test ride, lift your board off the ground and let the motors rotate. Check that there are no unusual noises and check that the braking function works properly.

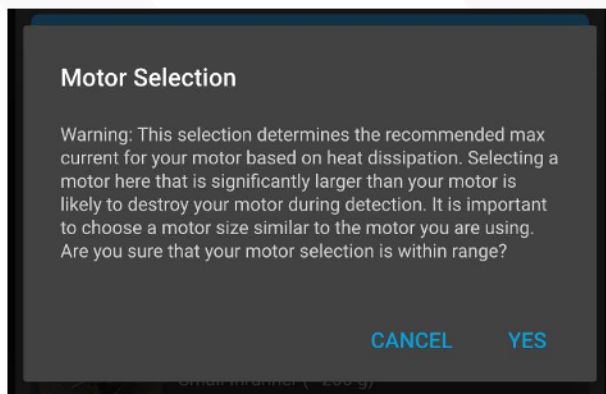


## 04 Setup Motor Configuration

- 1: To calibrate the motors, click on the "Setup Motor" option.
- 2: Chose "E-Skate" and click "NEXT"
- 3: Chose "Medium Outrunner" and click "NEXT"



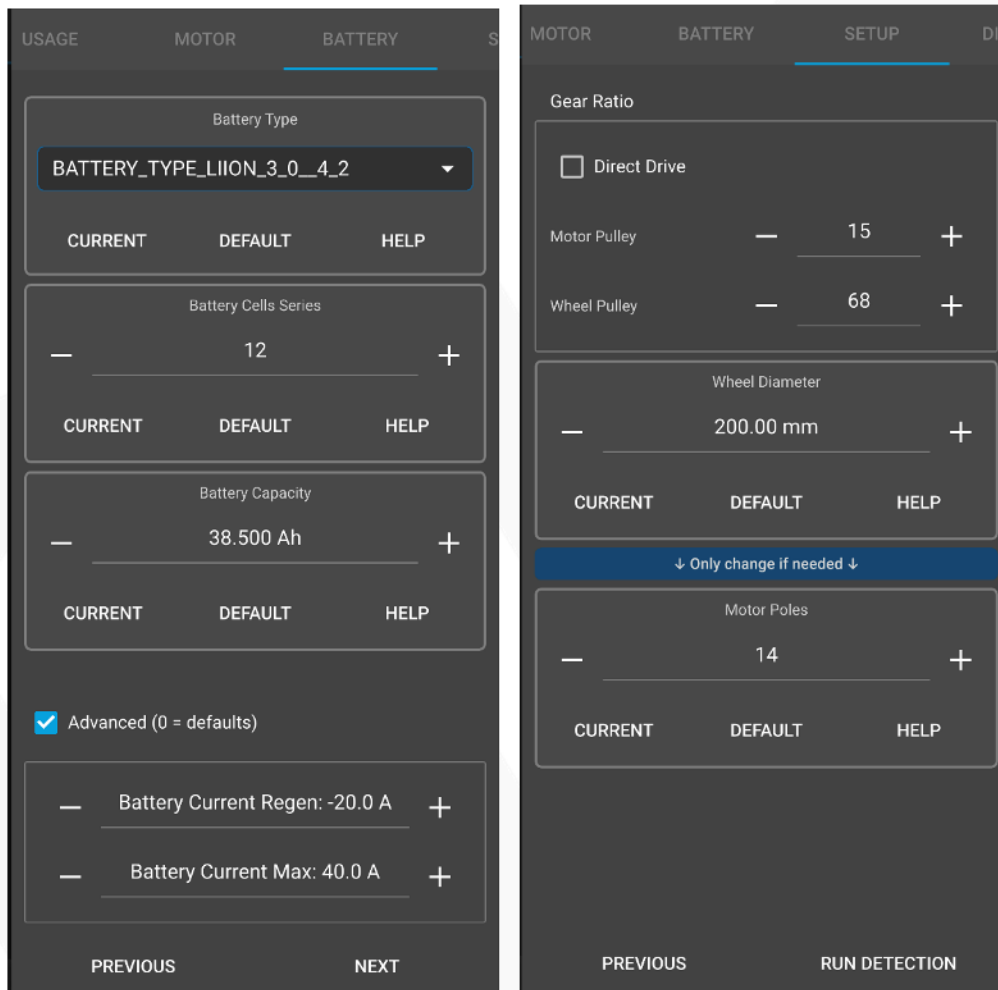
### 4: Accept the Motor Selection Warning



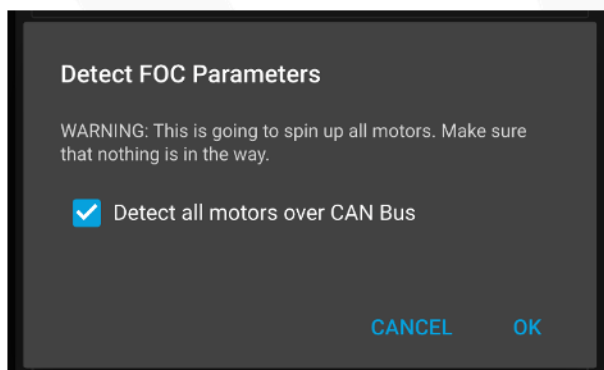
**5:** Configure the correct vesc setting; it is important to choose the settings below to protect the battery, speed controller and motors.

**6:** Configure the accurate Gear Ratio, Wheel Diameter, and Motor Poles.

**7:** Raise your board off the ground and click "RUN DETECTION". Detection can take up to 1 minute. Do not close the app and keep the phone near the board.



**8:** Click OK with the Detect FOC Parameters



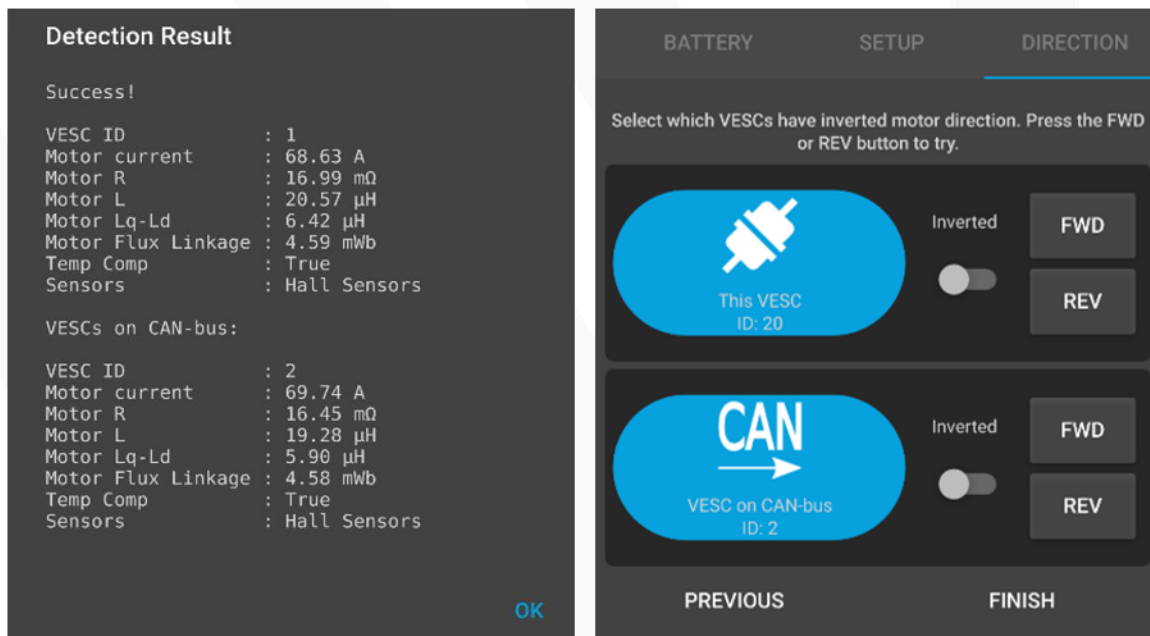


**9:** After successful detection, you will get the "Detection Result" screen. Check the following 3 points;

- ✓ If the VESC ID from both VESC are different.
- ✓ Motor Current should be close together.
- ✓ Check that the sensors are detected and displays "Hall Sensors".


If any of the 3 points are incorrect, run the whole detection process again (click "OK" and "FINISH". If it remains the same after 3 times, contact our support for a solution.

**10:** If the detection process was successful and the 3 instances above are fine, check that the motor direction of each motor is the same. If it is not or if the board is moving backwards, you can change the direction with the slider. You can test the forward direction by clicking "FWD". You can test the backward direction by clicking on "REV". If everything works well, you can exit motor detection by clicking FINISH.



**11:** Before you go on a test ride, lift your board off the ground and let the motors rotate. Check that there are no unusual noises and check that the braking function works properly.

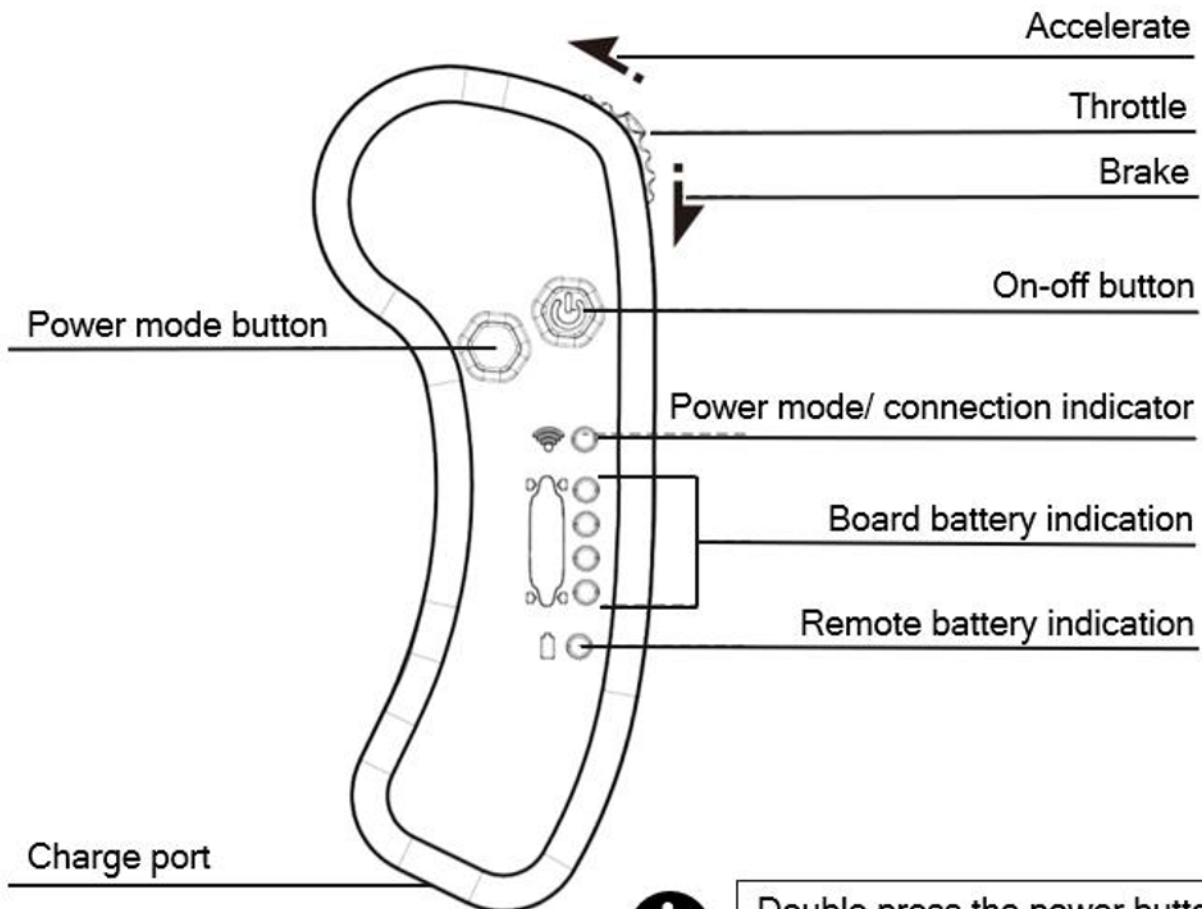
## ESC PARAMETERS

 Warranty is voided when changing the default parameters of your motorcontroller. Setting faulty parameters can permanently destroy your battery, motorcontroller or motors! Contact support before changing parameters.

### Parameters:

- Voltage cutoff start      36V
- Voltage cutoff end:      33V
- Battery current max:    80A (so 40A battery current per motor!)
- Battery regen max:    -40A(so -20A battery braking per motor!)
- Motor current max:      75A
- Motor brake max:      -60A

## 05 Remote information & Setup



Double press the power button to see the remotes battery level

### POWER MODE INDICATION

Press the power mode button to switch between different power modes.

- Red: 100% power
- Yellow: 80% power
- Green: 60% power



Power mode does not affect braking power

### BOARD BATTERY INDICATION

The number of LED's represent the battery level.

- 4 LED's: 100% charged
- 3 LED's: 75% charged
- 2 LED's: 50% charged
- 1 LED: 25% charged

### REMOTE BATTERY INDICATION

Double press the power button to see the remote's battery level.

- 4 LED's: 100% charged
- 3 LED's: 75% charged
- 2 LED's: 50% charged
- 1 LED: 25% charged (remote will start vibrating)

### PAIR REMOTE TO RECEIVER (TO CONNECT A NEW REMOTE)

1. Turn board and remote off
2. Turn remote on
3. Press power button and power mode button at the same time until the remote vibrates
4. Turn your board on
5. Remote and board are connected (set for 12s application, see below)

### SET BATTERY ON REMOTE

1. Press the power mode button for 2 seconds
2. Make sure 4 LED's are blinking (4 LED's = 12s batteries)
3. Press the power mode button for 2 seconds
4. Battery is set correctly



Lock your throttle (similar to cruise control) by shortly pressing the power button

## 06 Disclaimer and legal

The product you bought is inherent dangerous, we're not responsible for any damaged caused by our products.

Prior to using any of our products, we highly recommend that you research your local regulations and country specific laws. Ultimately, you are responsible for complying with all applicable laws and regulations and FluxMotion waives all liability relating to your use of our products.

No claims, representations or warranties, whether express or implied, are made by our company as to the safety, reliability, durability and performance of any of our products. Furthermore, our company accepts no liability whatsoever for the safety, reliability, durability and performance of any of our products. Our company accepts no liability for injuries or property damage caused by our products.