

AFTER INSTALLATION

# App Setup Guide

Pair the app. Configure your bike. Calibrate motor and throttle. Ride-ready in about 5 minutes.

Screens below are live renders of the SMX Drives app. Red ● TAP markers show exactly where to tap.

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BEFORE YOU BEGIN

## Four things to confirm.

- 1 Controller is wired and mounted to your bike.
- 2 Battery is connected and fully charged.
- 3 Main power / key is ON (controller powered up).
- 4 Bike is on a stand — rear wheel must be lifted and free to spin.

 **Don't disconnect mid-setup.**

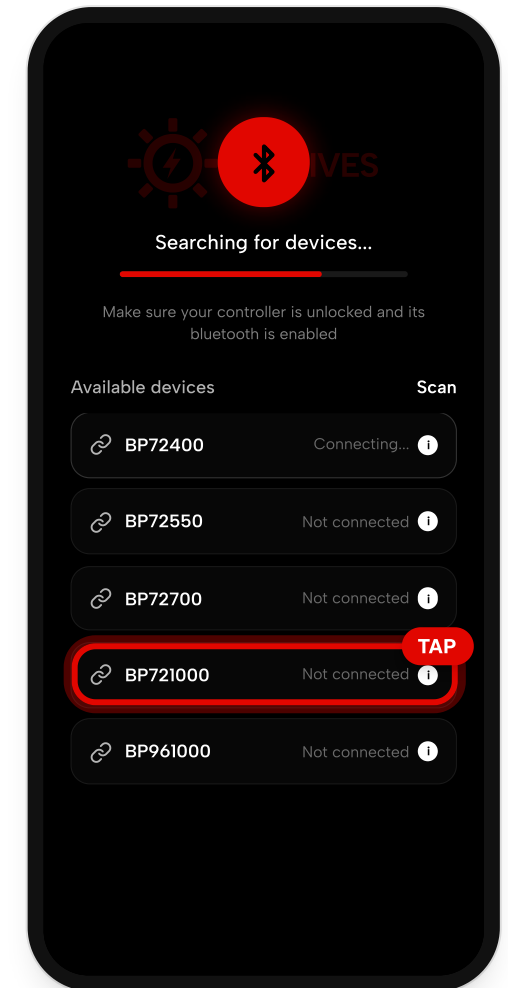
Killing Bluetooth or main power while parameters are being written can leave the controller in an inconsistent state. Stay connected until you see "Controller Setup Complete".

# 01

## ✳️ Connect via Bluetooth Required

~1 min

1. Open the **SMX Drives** app on your phone.
2. On the welcome screen, tap **Pair**.
3. Grant the three permissions when prompted — tap **Allow** for each:
  - Location
  - Bluetooth
  - Nearby Devices
4. The app searches for controllers. Yours appears as `BP721000` (your serial number will look similar).
5. Tap your controller in the list → tap **Connect**.
6. Once connected, tap **Continue** to reach the Home dashboard.



● Tap your controller

BP721000 (your serial will look similar).

# 02



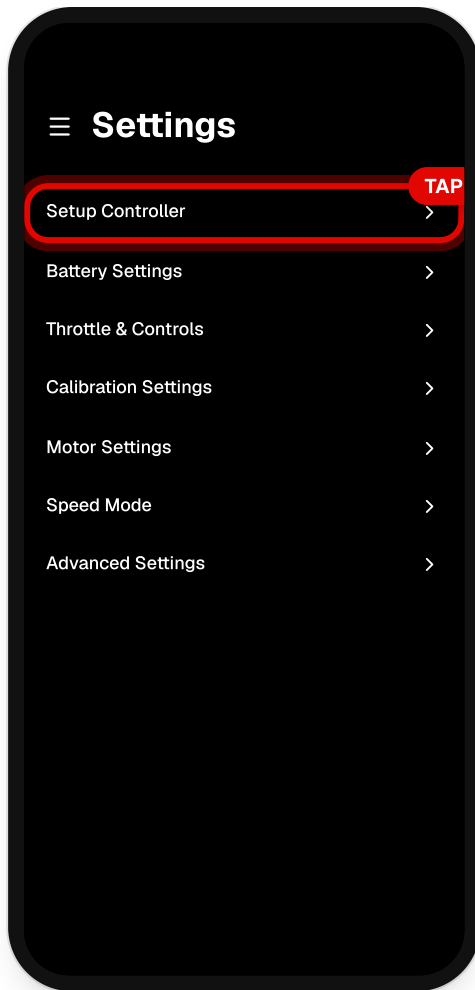
## Setup Controller

Required

~1 min

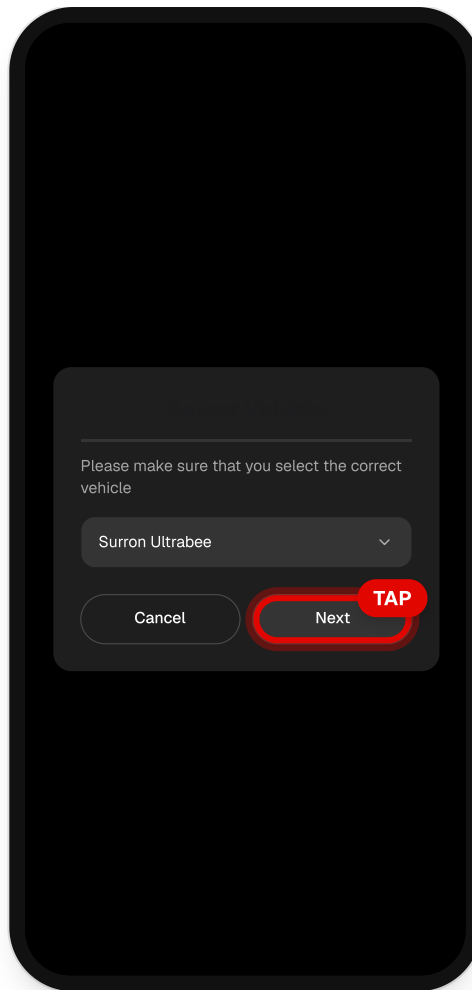
This writes your bike's vehicle profile, motor profile, and battery profile to the controller in one flow. Do this once.

1. From the Home dashboard, tap the **Settings** icon (bottom right).
2. Tap **Setup Controller** (top row of the Settings menu).
3. A safety modal appears — *"motor will spin and make some noises. Make sure the wheel is lifted in air and free to spin."* Confirm your rear wheel is free, then tap **OK**.
4. **Select Vehicle** — tap the dropdown, pick your bike (example: Surrón Ultrabee), then tap **Next**.
5. **Select Motor** — the motor is pre-filled from the vehicle. Confirm and tap **Next**.
6. **Select Battery** — the stock profile is pre-filled. Tap **Apply**. If you're running a custom battery pack, tap **Skip** and configure it later in Battery Settings.
7. Wait for the *"Applying Battery Settings..."* loader.
8. You'll see **"Controller Setup Complete"** — the app returns to Settings. Done.



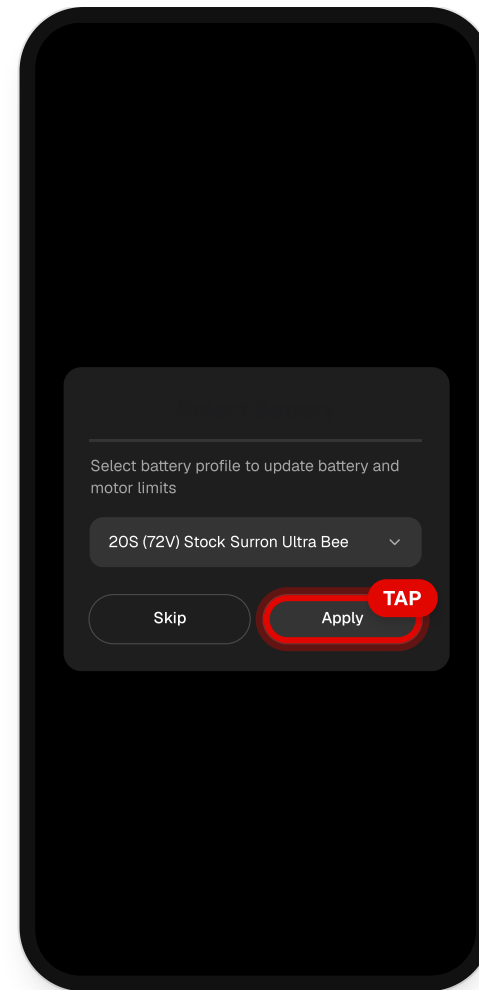
● **Tap Setup Controller**

The first row in the Settings menu.



● **Tap Next**

After picking your vehicle from the dropdown.



● **Tap Apply**

Stock battery profile. Tap Skip only for custom packs.

# 03



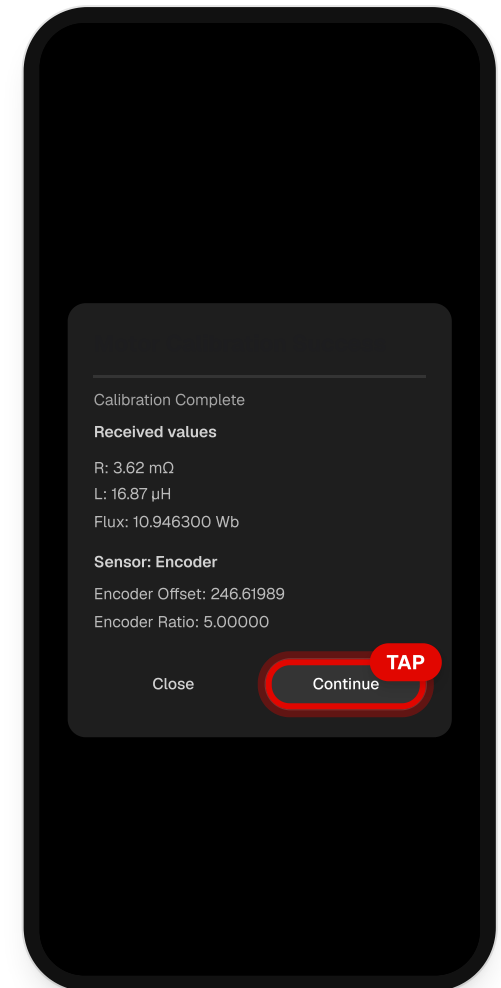
## Motor Calibration

Required

~30 sec

The controller measures your motor's actual electrical characteristics (resistance, inductance, flux, encoder offset). This is what makes throttle response smooth and accurate. Required once per motor.

1. From Settings, tap **Calibration Settings**.
2. Tap **Motor Calibration**.
3. The motor spins up and down on its own — **don't touch the wheel, don't brake, don't twist the throttle**.
4. When done, you'll see the **Motor Calibration Success** popup with measured values:
  - Resistance (R) in  $m\Omega$
  - Inductance (L) in  $\mu H$
  - Flux in Wb
  - Encoder Offset and Ratio
5. Tap **Continue** to save values.



● Tap Continue

Motor values have been measured and saved to the controller.

# 04



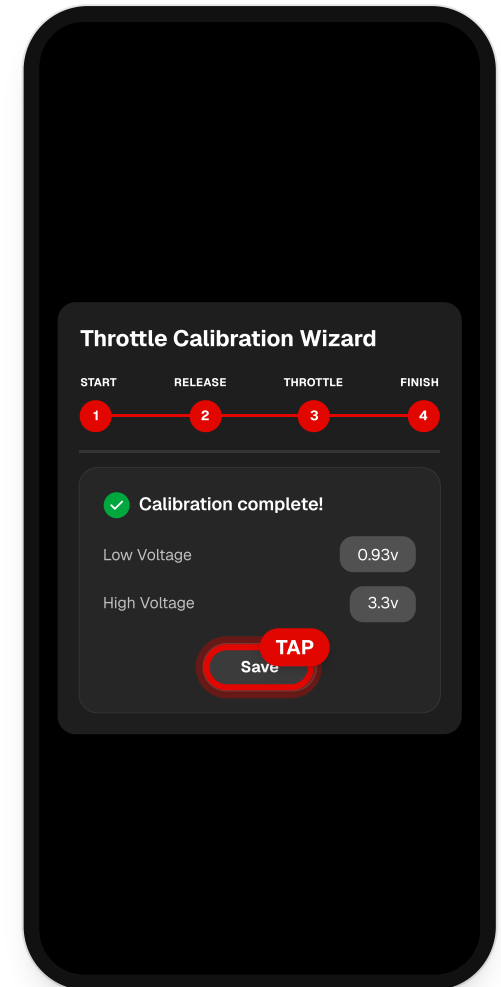
## Throttle Calibration

Required

~30 sec

Teaches the controller the exact voltage range of your throttle, so full release reads as 0% power and full twist reads as 100% power.

1. From Settings, tap **Throttle & Controls**.
2. Tap **Throttle Calibration Wizard** → **Start**.
3. **Release throttle fully**. Don't touch it. The system records the **Low Voltage** over 5 seconds.
4. **Twist throttle to maximum** and hold it there for 5 seconds. The system records the **High Voltage**.
5. Review the captured values:
  - Low Voltage  $\approx$  0 V (typically 0 – 0.5 V)
  - High Voltage  $\approx$  3 V (typically 2.5 – 5 V)
6. Tap **Save** to write throttle values to the controller.



● Tap Save

Throttle voltages written to controller. You're done.

# 05

## ⌚ **Speed Mode** anytime

Three ride modes ship pre-tuned for your bike. Switch between them from the Home screen any time. You can customise the current, power, RPM, and regen values for each mode.

### **M1 — Eco**

Gentle throttle, lower top speed. Use this for your first ride, learning students, or to maximise range.

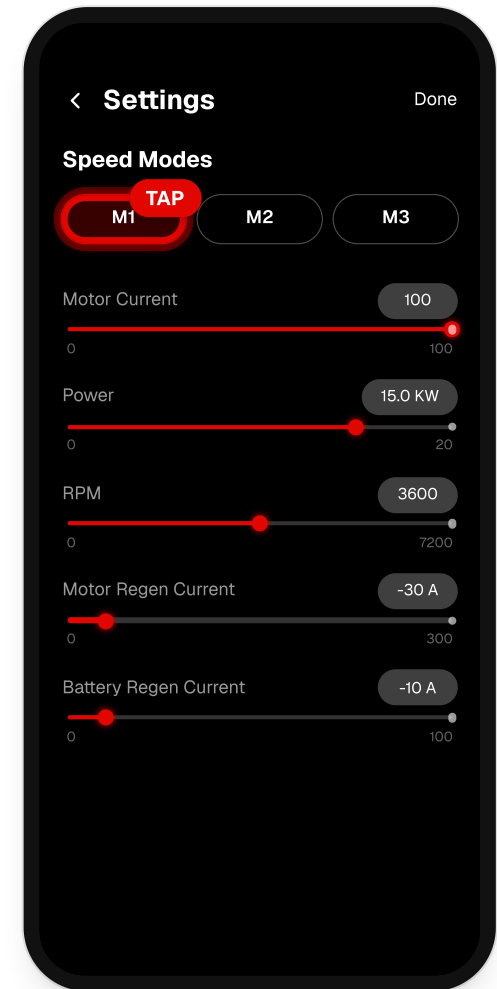
### **M2 — Sport**

Balanced. Daily-ride default. Good torque, comfortable top speed.

### **M3 — Race**

Maximum punch and top speed. For experienced riders in safe, open environments only.

1. From Settings, tap **Speed Mode**.
2. Tap the mode tab you want to edit: **M1**, **M2**, or **M3**.
3. Drag the sliders to change **Motor Current**, **Power**, **RPM**, **Motor Regen**, and **Battery Regen**.
4. Tap **Done** to save the mode.
5. From the Home dashboard you can switch between M1 / M2 / M3 on the fly — no need to reopen this screen.



### ● **Pick a mode, tune it**

M1 selected — good for first ride. Sliders adjust this mode's behaviour.

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YOU'RE READY

## **First ride tips.**

- 1 Select a Speed Mode from the Home screen — start in Eco (M1).
- 2 Test your brakes before you accelerate.
- 3 Ride in a safe, open area for the first few minutes.
- 4 Move to Sport (M2) or Race (M3) only once you're comfortable with throttle response.

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## Still stuck?

Our team replies within 24 hours. Message us on WhatsApp for the fastest response, or open a ticket via the contact form.

 [WhatsApp us](#)

 [Contact support](#)

 [support@smxdrives.com](mailto:support@smxdrives.com)