electroruta

USER MANUAL

RANGE ON ROUTE, STEP BY STEP

How to know whether your battery lasts to the end of the route: draw the trip or upload your track, adjust your bike's data and read the result.



FIRST THINGS FIRST

Two ways to calculate your range

At the very top you choose the mode: they are two paths to the same result.

I PLAN A ROUTE

You draw the trip on the map

You type an origin and a destination (and optionally stops); we calculate the real route along road or track and its elevation gain. This is the mode for when you are still planning the ride.

I UPLOAD MY TRACK

You use a GPX or TCX you already have

If you already have the track of a route, you upload it as it is and we calculate with the exact elevation gain of that file. It is the most precise mode, because it does not depend on any route estimate. Your track is not modified: we only check whether your battery lasts.

"I PLAN A ROUTE" MODE

From the origin to the result

1

Type the origin and the destination

Type the name of the place (the more specific, the better: "Plaza España, Zaragoza" rather than just "Zaragoza") and press **Search**. It will be marked on the map. Do the same with the destination.



2

Circular route or out and back?

If you leave and come back to the same place without repeating the way, turn on **Circular route** (you will need to add at least one stop so that we know where the circle closes). If you go to a place and come back the same way, leave **Out and back** on: that way we also count the km and the elevation gain of the return.

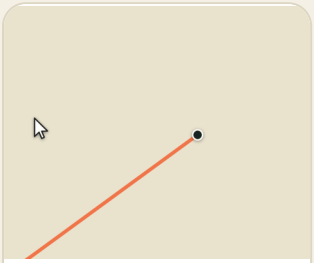


And if you already have a track: choose **I upload my track (GPX/TCX)**, select the file and go on to your bike's data (page 4). The file is read in your browser and is not uploaded anywhere. If you doubt its altitude, tick **Recalculate the altitude with the map**: we calculate the elevation gain with the map (the km may vary slightly) and show you the one from your file for comparison; if the track has no altitude, this is done automatically. To change a track, do it first in your app.

THE HARDEST PART

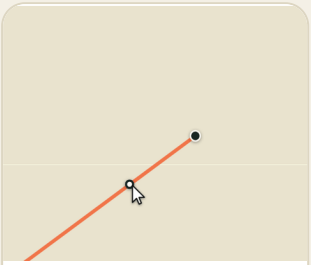
Moving and adding points on the map

This is only for the "I plan a route" mode. Once the route is calculated, an orange line appears on the map: that is where everything is adjusted.



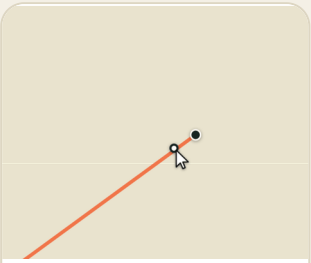
1 · AIM

Cursor over the orange line, where you want the route to pass. The line is highlighted and the cursor changes to a hand.



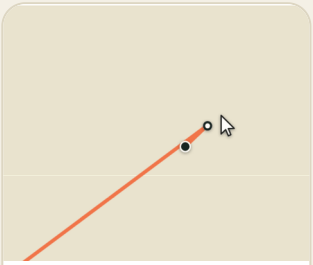
2 · PRESS

Left-click and hold on the line, without releasing.



3 · DRAG

To the place you want to pass through, without releasing the button. You have to move the mouse a little: a single click creates nothing.



4 · RELEASE

A new stop is created and the route is recalculated through that point.

The map in these images is a simplified version so that the gesture is clear: in the real calculator you will see the road map in the background. The cursor movement is exactly the same.

Once the point is created, you can drag it again to adjust it more precisely, or remove it with the × of its stop.

To avoid creating points by accident. A single click or a very small drag creates nothing. If you press a little away from the line and drag, what moves is the map. And if you start dragging and change your mind, press **Esc** before releasing and it is cancelled.

On a phone or tablet. First press the **✎ Edit route** button (below the map) and drag the line with your finger. With the button off, your finger moves the map as usual. To turn it off, press it again.

Would you rather not depend on mouse precision? The **+ Add stop** button does the same by typing the name of the place, as with origin and destination.

Full-screen map. With the four-corners button, just below the + and the −, you enlarge the map to work with more space. You leave with the same button or with the Esc key.

BEFORE CALCULATING

Your bike's data and the way you pedal

MOTOR AND BATTERY

Hub or mid-drive, and the Wh

The type of motor changes the efficiency of the calculation. The battery is measured in Wh: if your spec sheet only gives volts and amp-hours, multiply them (V × Ah = Wh).

WEIGHT AND LUGGAGE

Your weight, not the bike's

You enter your weight and the extra luggage (panniers, backpack...). The weight of the bike is already included in the calculation with an average value, so you do not need to add it.

EFFORT AND ASSIST

How you really pedal

Choose the assist you use on the climbs: from 1 to 5 with a hub motor (0 = no assist, 5 = maximum) or Eco, Tour, Sport and Turbo with a mid-drive motor. If you only use the motor on the hills, turn off assist on the flat.

THE RESULT

What to do with the answer

Press **Calculate range** and in the panel you will see whether the battery lasts, how much you have to spare or are short, and the km and elevation gain of the route. If you want to save the route to take it on your GPS or share it, use the **Download route (GPX)** link that appears next to the result.

× YOU DO NOT MAKE IT

You would be short by ~120 Wh

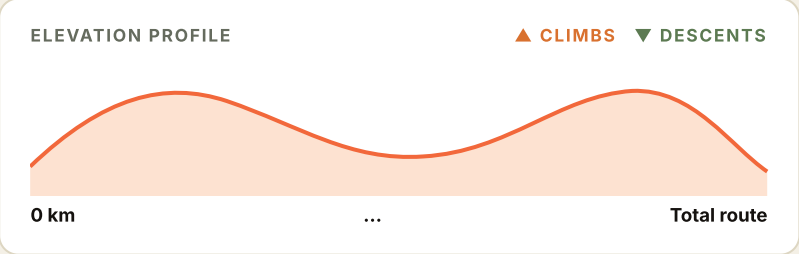
We estimate a consumption of ~620 Wh for the route, more than your 500 Wh battery gives.

⭳ Download route (GPX)

Illustrative example, not a real calculation

What if you do not make it?

Plan less demanding routes until your level of effort is up to it, or consider a battery with more range.



The profile shows the km from the start (0) to the total of the route.

Important: this is an indicative estimate, not an exact factory figure. Wind, temperature and the real condition of your battery also have an influence. The formula is still being calibrated with real routes: the more arrive, the more refined the calculation will be.

Try it on your next ride

Calculate for free whether your battery lasts, with no sign-up.

electroruta.net

AFTER YOUR RIDE

Help us fine-tune the calculator

If you have already ridden a route similar to the one you are calculating, tell us how much battery you really used. With your data we check where the calculator gets it right and where it gets it wrong, and we improve it for everyone. And you get your route sheet as a PDF.

1 · REQUEST YOUR CODE

Free and in a minute

Go to electroruta.net/en/contribute-a-route and press "Request my code". We email it to you within 48 hours at most.

2 · CONTRIBUTE YOUR ROUTE

Your file and your bike

Upload the GPX or TCX of the route (from Wikiloc, Komoot, Strava, Garmin...) and tell us your motor, your battery and how you pedal.

3 · YOUR SHEET

Map, elevation and battery

It is drawn in your browser with your file and your data. You can download it as a PDF right away.

What is worth noting down during the ride

Battery at the start and at the finish, in %. Set off with the battery charged to 100% and do not charge it during the route. A photo of the display at the start and at the finish helps you not to make a mistake.

Assist level and where you use it. If you change level halfway, note it down. Also whether you use the motor only on the climbs, sometimes on the flat or almost always: it is what changes consumption the most.

Optional data that is very useful. The energy of the charge with a plug-in meter (in kWh) is the most accurate figure. Also the wind, the type of terrain, the temperature and the stops.

Your data

You can ask for your data to be deleted whenever you want. Publishing your sheet on the website is **optional**: if your route starts from your home, do not tick that box or send a file that starts at another point, because the map will show where it starts and finishes.

Tell us about your next ride

Request your free code and help the calculator get it right for you.

electroruta.net/en/contribute-a-route