Measurement conditions

! Critical for accuracy

Lighting and background

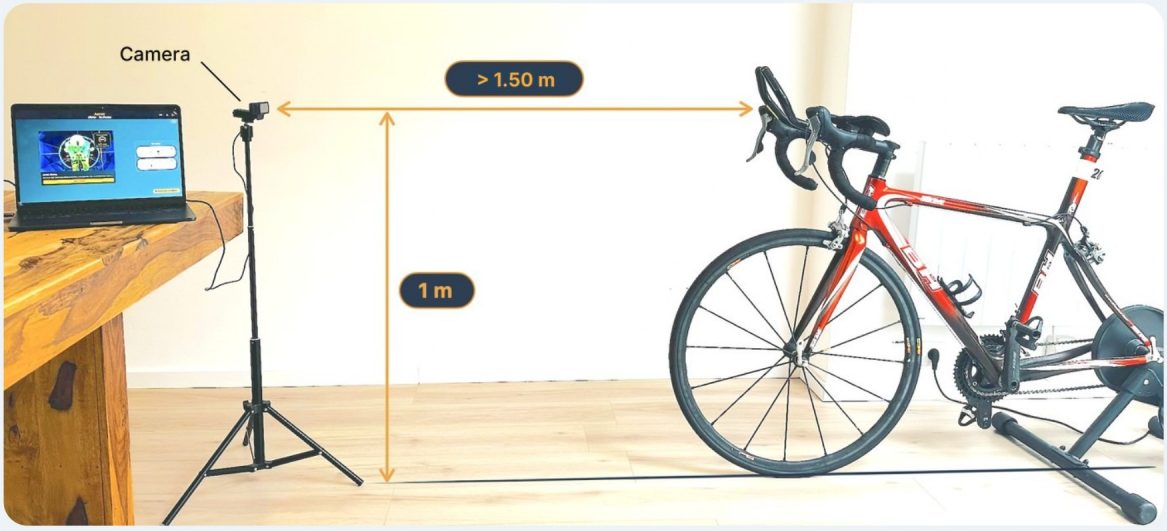
- Natural or artificial light: ensure sufficient contrast between the cyclist and the background (the higher the contrast, the more accurate the measurement).
- Favor front lighting over overhead lighting (to avoid shadows on the legs).
- Avoid wearing clothing that blends into the background.
- Remove any poster showing cyclists from the camera's field of view.

Camera position

Bring a tape measure

1.50 m* minimum between the camera and the front of the handlebars (horizontal)

1 m ± 10 cm height above the floor



Example setup: webcam on a tripod, facing the cyclist.

During and between measurements

Change nothing

- Avoid large changes in lighting during the session.
- Avoid anyone walking through the camera's field of view.
- ! Keep the same outfit throughout the session (helmet included).
- ! Do not move the camera once calibration is done.
- ! If the bike is moved, put it back in exactly the same place; mark its position on the floor with adhesive tape, for example.

* Indicative distance, to be adjusted in step 1 (framing): start at 1.50 m, then move back if the camera's field of view is too narrow to frame the whole cyclist. Do not exceed 2.50 m: beyond that, the cyclist takes up too few pixels (depending on the camera).

Starting a session

! Critical for accuracy

Step 1: Framing

! The cyclist must already be in their session outfit: body measurements are taken during this step.

1. Place the bike in the center of the frame.
2. Check that it is aligned with the camera axis.
3. Have the cyclist get on in an upright position, one pedal down.
4. Follow the instructions displayed by AeroX.



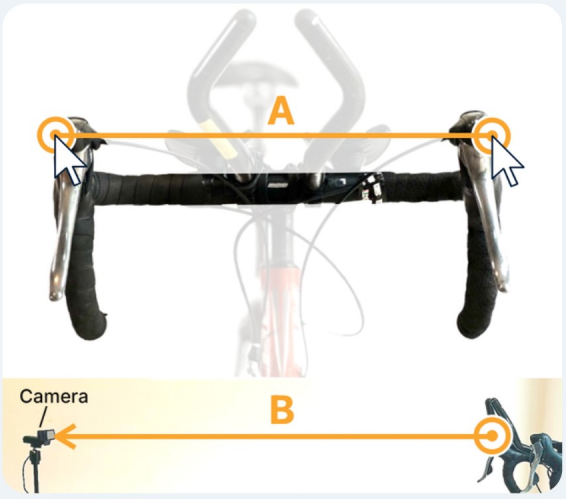
Reference position

Step 2: Calibration

Bring a tape measure

Measure with a tape measure, as precisely as possible.

1. Pick 2 points ⊙ that are easy to identify, on the brake hoods for example.
2. Click on these same points in AeroX !
3. Measure two distances: !
   - A the distance between these two points ⊙;
   - B the distance between the camera and these points (horizontal).
4. Enter these two distances in AeroX.



Calibration procedure

- 2 clicks
- 2 distances to measure: A between the two points, B between the camera and the handlebars