



USER MANUAL

RWECS IOS BETA

TRAINING APP

VERSION 1.7 (5)



Welcome to the beta version of RWECS (Race Walking Electronic Control System), your comprehensive training companion for race walking performance analysis and technique improvement.

Beta testing for iOS, through Apple's TestFlight platform, is a process in which developers distribute preliminary versions of their applications to a select group of users. These "inflight" or pre-release tests allow developers to gather feedback, identify bugs, and evaluate the application's performance in a real-world environment before publishing it on the App Store.

¿What is the RWECS App?

RWECS is a specialised training app that connects RWECS Bluetooth devices attached to your shoes to monitor and analyse your race walking technique, specifically tracking Loss of Contact (LOC) time with the ground.

What do I need to use the RWECS beta iOS aplicación?

- Iphone XS, 11, 12, 13, 14, 15 and 16 series. It also supports the iPhone SE (2nd generation and later).
- One or two RWECS chips (RWECS measures the loss of contact (LoC) using either one chip or two chips (one on each shoe))
- Download:
 - The Testflight application
 - Beta Application of RWECS

The Application allows you to:

- Loss of Contact Monitoring: Real-time tracking of ground contact time and LOC violations
- Training Sessions: Record and analyse complete race walking sessions with detailed metrics
- Performance Analytics: View comprehensive charts and statistics of your walking technique
- Location tracking: GPS integration for route recording and pace analysis
- Audio Feedback: Real-time voice alerts for technique violations and performance updates
- Session History: Review past training sessions with detailed LOC data and improvement trends.
- Violation Alerts: Immediate notifications when LOC time exceeds legal limits

What this beta App is testing:

- Bluetooth connectivity with RWECS shoe-mounted devices
- Real-time LOC time monitoring and accuracy
- Session recording and data analysis
- Chart visualization of walking technique
- Audio alert system for violations
- App stability during long training sessions
- GPS tracking accuracy for routes and pace

FEEDBACK WELCOME

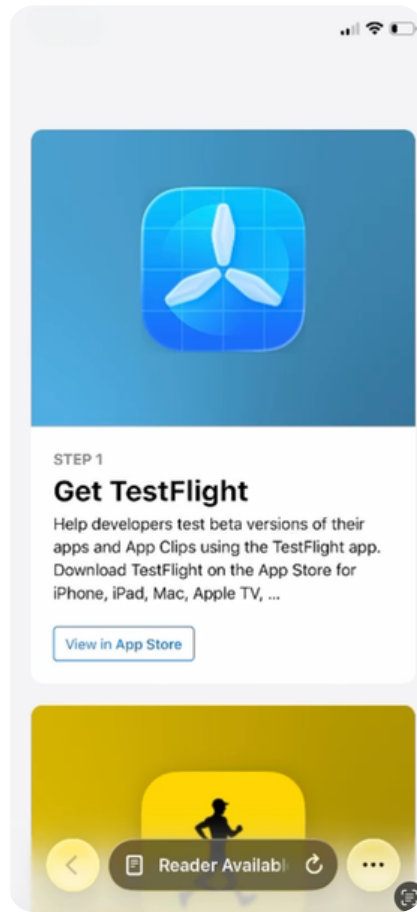
Please report any bugs, crashes or suggestions through TestFlight feedback.

Your input helps us improve the app for the race walking community.

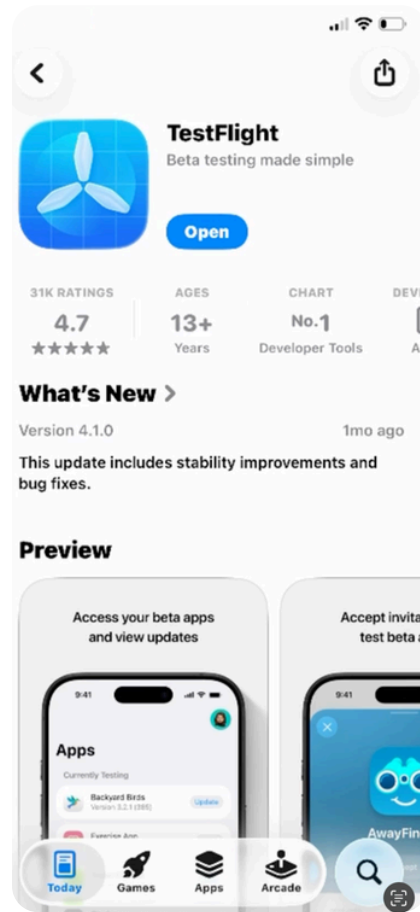
HOW TO START

Download the two apps through the link in your email:

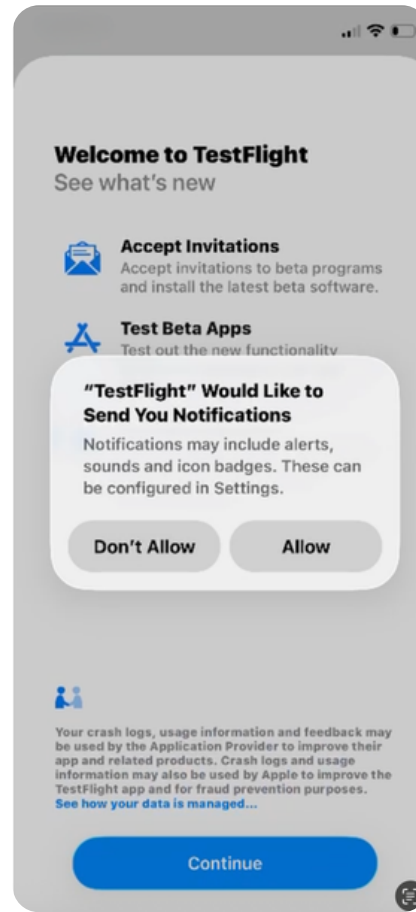
1. Download TestFlight
2. Download RWECS



Press "View in App Store"

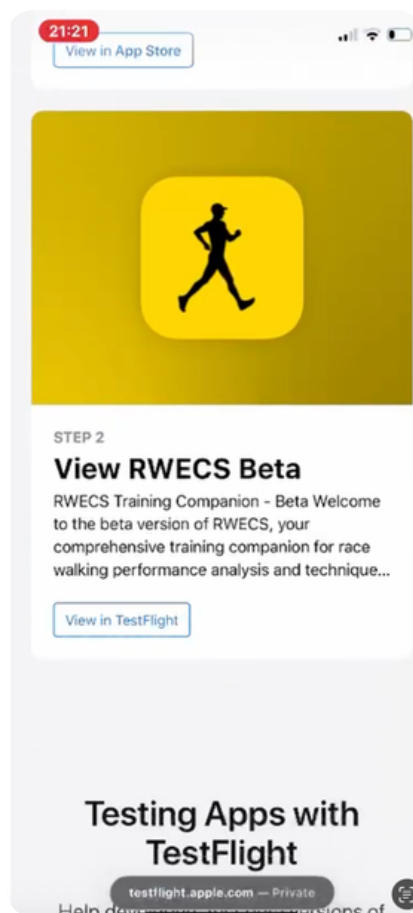


Press "Download" then "Open"

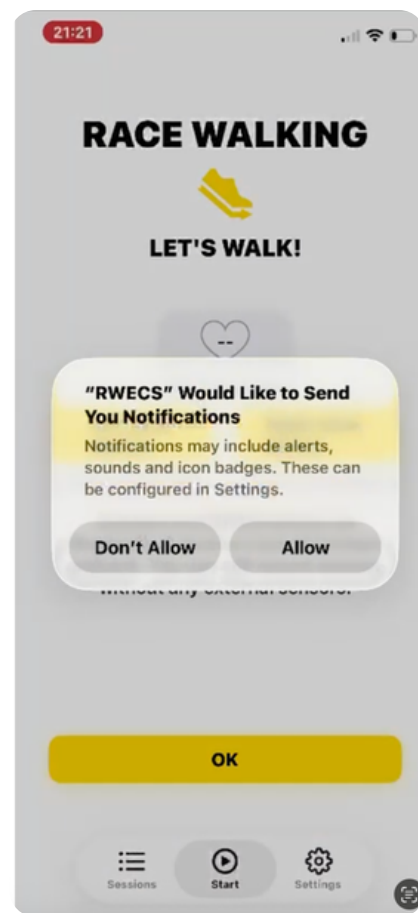


Allow "Send Notifications"

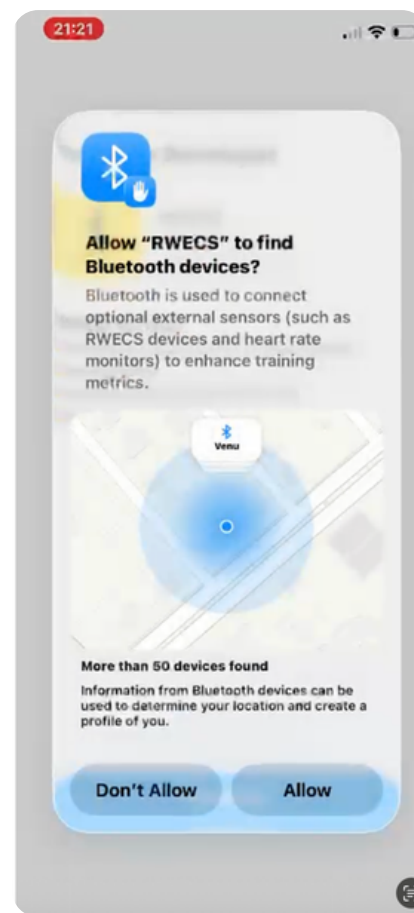
When finished return to the original screen to download and open RWECS Beta App



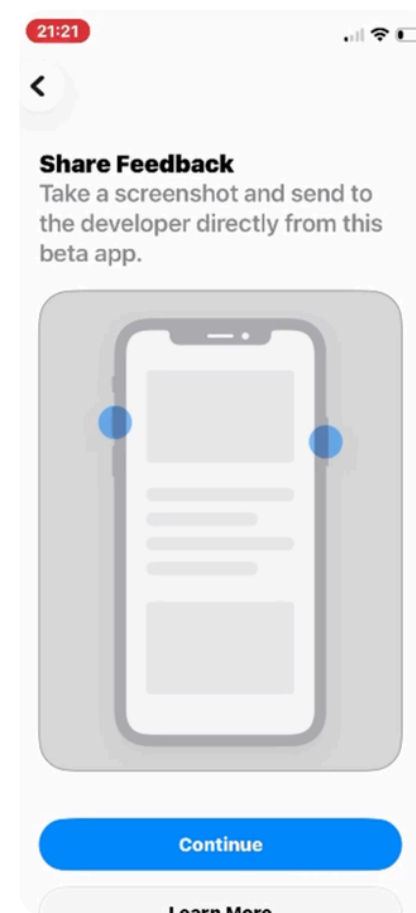
Press "View in TestFlight" & "open"



Allow "Send Notifications"

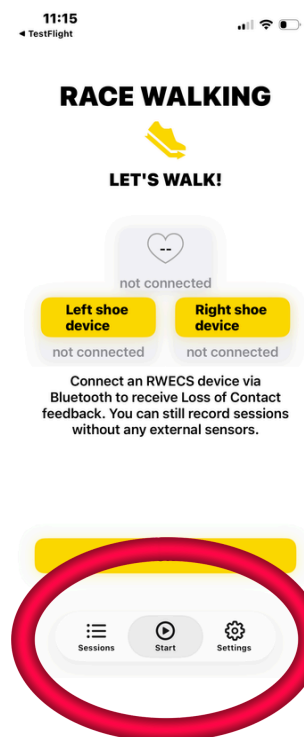


Press "Allow" tu use Bluetooth



Press "Continue" to share information

WELCOME SCREEN



The three graphics at the bottom are for three different pages:

- Sessions = Saved training sessions
- Start = Start a new session
- Settings = Configure the limits and alerts

The first time you use the application you need to configure the system and then pair the chips.

The system works with one or two chips.

Each chip has a number (below the QR) and a unique name with three characters: RWECS-xxx. This name is what appears in the app when the chips are in connection mode.

If you want to know the name and details of each chip scan the QR and it will appear.

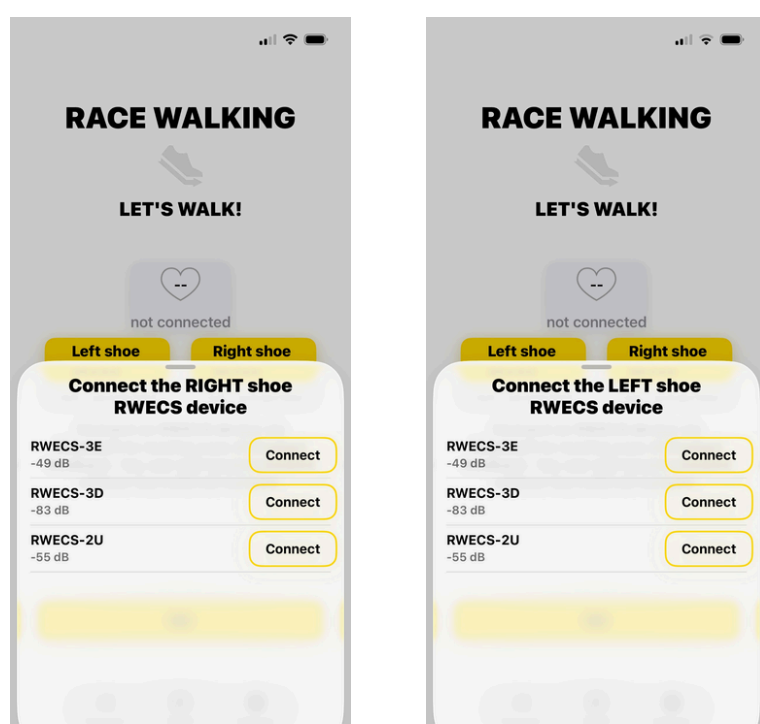


Before connecting "LEFT SHOE DEVICE" or "RIGHT SHOE DEVICE" ensure that the LED is flashing **GREEN**.

If it's not flashing move the chip to wake it up from sleeping mode

Press "LEFT SHOE DEVICE" or "RIGHT SHOE DEVICE" and the system will search for RWECS chips that are ready, that is, flashing green.

See the annex for information about different LED colours



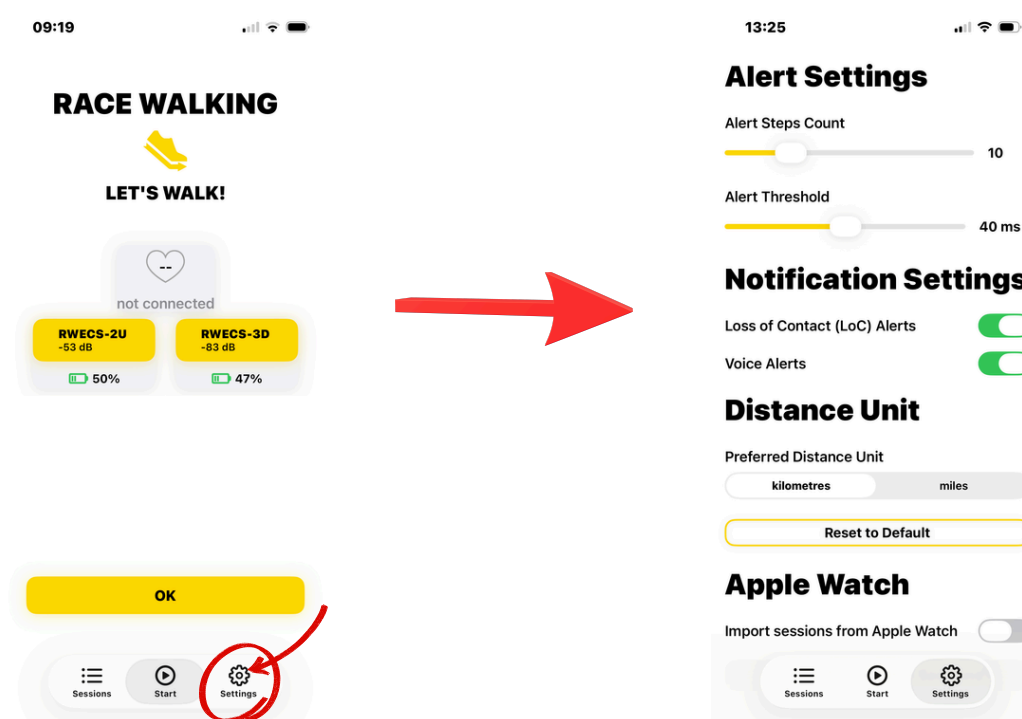
Press "Connect the RIGHT Shoe RWECS device"

- Available devices will be shown with their unique RWECS name
- connect the chip you want to use.

Do it for the other device "Connect the LEFT Shoe RWECS device"

When both are connected press OK and it will open a new screen to start training

CONFIGURE SETTINGS & ALERTS



Alert settings allows you to change settings:

Alert Steps count: The information period to calculate the average values of Loss of Contact. Range is between 4 – 30 steps

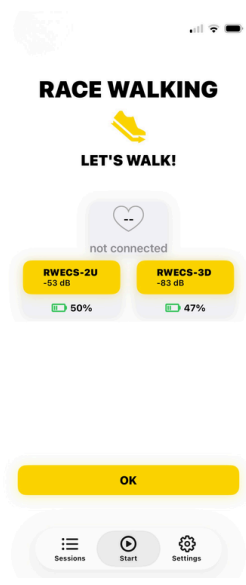
Alert Threshold: Set the alarm for when the average goes over this threshold (in milliseconds)

Notification Settings

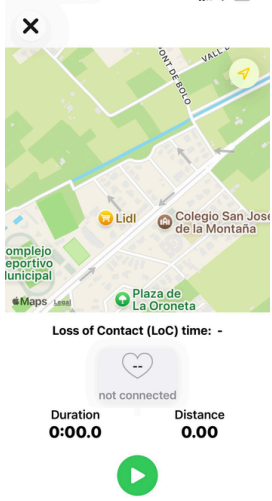
Loss of Contact (LoC) Alerts: Turn on alert of average LoC threshold

Voice Alert: Turn on voice alert for exceeding the set average threshold

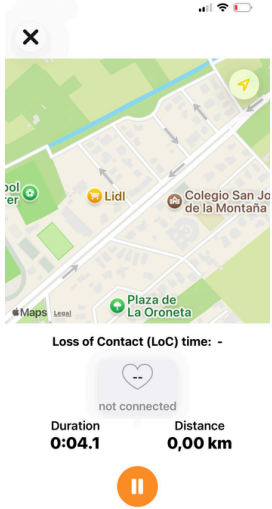
EMPEZAR ENTRENAR



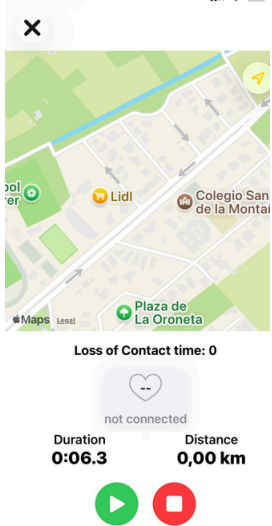
When the chips are connected press Ok and a new screen will open



Press the green circle with the white triangle to start the watch and recording.

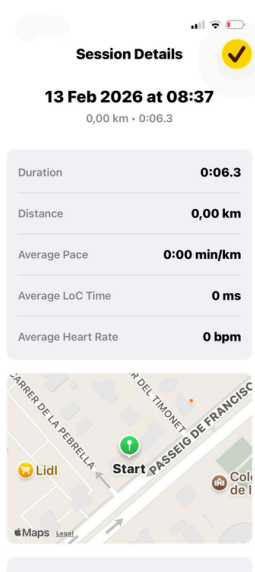


You can pause the recording at a time by pressing the orange pause circle.



You have two options:

- continue the session by pressing green again
- finish the session/recording by pressing the red circle

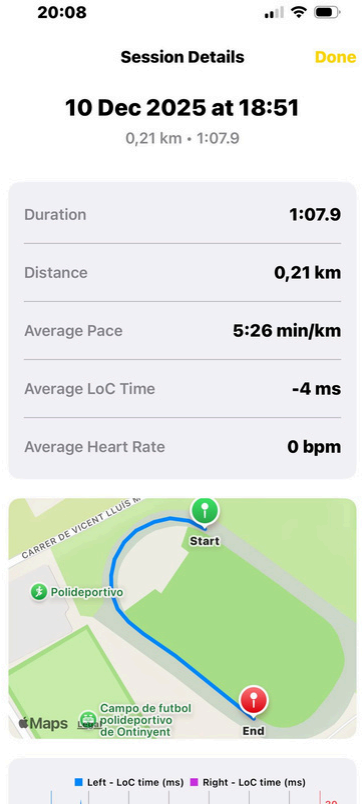


When the session is finished and the red button is pressed a new screen appears with the information from the training session.

Scroll down to see the graphic with the loss of contact information

To save the information press the tick in the yellow circle in the top right hand corner of the screen.

SESSIONS



20:08
Session Details Done
10 Dec 2025 at 18:51
0,21 km - 1:07.9

Duration	1:07.9
Distance	0,21 km
Average Pace	5:26 min/km
Average LoC Time	-4 ms
Average Heart Rate	0 bpm

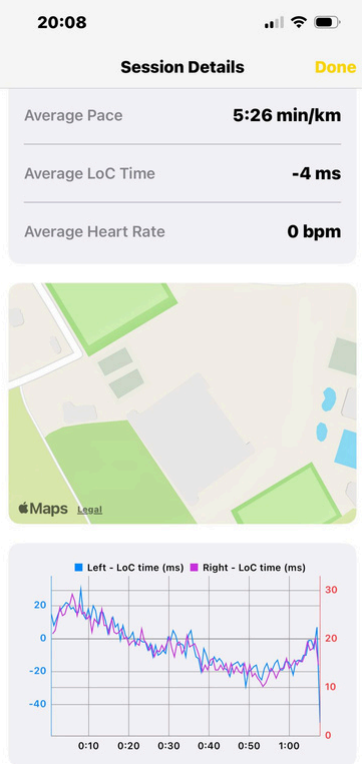
Start End

Left - LoC time (ms) Right - LoC time (ms)

This page allows you to view each training session in graphic format .

The graph is below the map of your session.

Scroll down to see.



20:08
Session Details Done

Average Pace	5:26 min/km
Average LoC Time	-4 ms
Average Heart Rate	0 bpm

Left - LoC time (ms) Right - LoC time (ms)

0:10 0:20 0:30 0:40 0:50 1:00

30
20
10
0
-10
-20
-30
-40

The left foot is in blue and the right in magenta with alerts, when you go over the set threshold, shown as orange triangles

The left vertical axis shows the values of loss of contact

The right vertical axis shows the heart rate

You can turn the graph and make it larger

HOW TO PLACE THE CHIPS ON THE SHOES



IMPORTANT:

- The widest part must be at the top
- Place it as high as possible on the shoelaces
- Ensure it is straight



ANNEX: LED LIGHT MEANING

STATE	LED	NOTES
SLEEP	Flashing CYAN once every 6s	Low Power. Battery lasts 2 weeks
SLEEP (Low Battery)	Flashing RED once every 6s	Recharge the device
IDLE	Flashing GREEN once every 2s	Waiting to receive connection over BLE (Bluetooth)
CHARGING	Flashing YELLOW once every 6s	Charging in progress
CONNECTED	Flashing BLUE once every 2s	The device is connected to the App
MEASURING TRAINING	Flashing MAGENTA every second	Measuring flight time, step by step.
PROTOCOL ERROR	Flashing RED every second	An unexpected command received
HARDWARE ERROR	Flashing RED (1 to 6) every 5s	Hardware Error

If there is a continued flashing red light when the device is removed from the charger, reconnect to the charger and disconnect slowly.