EDTracker Pro Wireless

User Guide

EDTRACKER®
See what you're missing...

ENG

Document Issue 1.0

This document is available in other languages—download from www.edtracker.co.uk

Introduction

Thank you for purchasing your EDTracker Pro Wireless head tracker. We hope that it becomes an invaluable addition to your gaming experience and that you enjoy using it.

EDTracker uses solid-state electronic components to monitor and measure your head movement and report this information to your computer as a USB game controller. These components are incredibly sensitive and accurate, giving you a level of responsiveness previously unavailable at this price.

While we appreciate you are probably eager to get started using your device, we urge you to pay attention to these instructions – in particular, the section around **calibration** of your device. This step is essential to guarantee good performance of your device.

Quick Start

Here is a quick summary of the steps required to get your device up and running.

- Download and install the EDTracker software from www.edtracker.co.uk
- Run the EDTracker software
- Insert the EDTracker Wireless Dongle in to a USB port on your PC
- Turn on the EDTracker Pro Wireless
- Follow the setup wizard instructions
- Set your preferences

The device is then ready to use with a variety of games and head tracking software.

Minimum Requirements

- PC running Windows 7/8/10 operating system (32bit or 64bit)
- Microsoft .NET Framework v4.5.2 or greater
- 100MB available disk space
- USB v2.0 (or greater) port

Hardware Features

1. EDTracker Pro Wireless
2. Power switch
3. USB Micro-B socket for charging
4. LED status indicator

5. EDTracker Wireless Dongle
6. LED status indicator

Software Install

- Open a web browser on your PC
- Navigate to the EDTracker website (www.edtracker.co.uk/support/downloads)
- Download the EDTracker Pro software
- Once downloaded, run the software installation by double-clicking on the file. Alternatively, if you are asked whether you wish to “Run” or “Save” the file, choose Run.
- Follow the on-screen steps to install the software on your PC

To run the software, click the EDTrackerPro item in your start menu, or double-click the EDTrackerPro desktop icon.

Attaching to Headset

The device should be firmly attached onto your headphones or headset using the adhesive Velcro pads provided.

Avoid attaching the device onto the side earcups of headphones wherever possible. Some headphones uses strong magnets within the earcups that can affect the performance of the device.

If your headset has a moveable microphone, ensure it is kept away from the EDTracker during use.

EDTracker User Interface

The EDTracker UI software can be used to monitor and calibrate your device, change the behaviour to suit your preferences and configure the wireless connection.

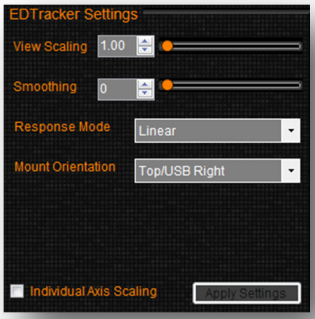
Profiles

You can save the current EDTracker settings into profiles, and load these again in the future for ease of use. This enables you to set up profiles for multiple games, and load them quickly and easily.

Click the “Profile” menu to create a new profile, save the current settings to a profile or load an existing profile.

EDTracker Settings

This section of the UI is used to change the head tracking behaviour of the device.



Yaw/Pitch/Roll Scaling

Changing the sliding bars (or changing the number values) adjusts the sensitivity of the device on the corresponding axis.

A low value (e.g. 1.0) requires more physical movement of your head to provide in-game movement. A high value increases the scaling effect. In-game movement will be amplified. This reduces the amount of real-world head movement necessary.

Scaling values are highly dependent on your setup : the size of your PC screen, the distance you sit from the screen and your own personal preferences. The default values are a general recommendation. Experimentation with different values is to be expected.

To individually change scaling axes, click the “Unlock Scaling” control.

Smoothing

EDTracker Pro is very sensitive and can pick up the tiniest of vibrations and movement. If you use high scaling values, you may experience wobbling of the 3D head because of the very fine movements of your own head in the real world.

Smoothing can be used to reduce unintentional movement, if you find it too sensitive. Increase the smoothing value to reduce any fine vibrations from the output.

Response Mode

Two response modes are available; linear and exponential. Your choice of response mode is down to personal preference.

When using EDTracker in conjunction with 3rd party head tracking software, we recommend the LINEAR response mode setting.

Mounting Orientation

You must set this value to match how you have attached the EDTracker device to your headset. We advise you to place EDTracker on the top of your headset, with the USB port to one side. Choose the corresponding orientation in the UI.

WARNING : If the Mounting Orientation setting does not match the actual device orientation, strange behaviour may occur!

Recenter Hotkey

Bind a key or joystick button that can be used to re-center your view. This effect is the same as click the “Reset View” button (see section 3.2.8 below).

Toggle Hotkey

Bind a key or joystick button to toggle head track on or off

Head Display

When the device is active and paired with your PC, the 3D head will show a graphical representation of your head movement.

Set Level

Before use, EDTracker must establish what “flat and level” is. To do this, the device automatically calibrates during the first 10 seconds after being switched on. During this period the device must be kept flat and motionless.

If you need to re-do the calibration, click the **Set Level** button. The LED status indicator on the device will flash rapidly. Keep the device flat and still for approximately 10 seconds until the calibration has completed and the LED status indicator stops flashing rapidly.

Reset View

Click the Reset View button to re-centre your view to the current position. The current position of the EDTracker will be set to “looking straight ahead”.

Options

Allows you to change preferences around the UI software.

- Start Minimised – automatically minimise the UI to the system tray upon startup
- Autorun Program – automatically start another (3rd party) program when EDTracker UI starts (e.g. Opentrack, FaceTrackNoIR, FreeTrack)

Wireless Setup

In order for your EDTracker Pro Wireless to communicate with the EDTracker Wireless Dongle, the two devices must first be “paired”. Pairing establishes a unique link between the devices.

You can select one of 28 different wireless channels to use. From the factory, the device will use channel 1. You can change the device to another channel if required.

During normal operation, the number of illuminated bars on the wireless graphic relates to the quality of the signal. 3 bars indicates excellent quality, down to 1 bar showing reduced performance.

If wireless communications between the dongle and the EDTracker Pro Wireless are lost altogether, or the pairing between the device is lost, the graphic will show an exclamation mark (!) to indicate the loss of communication.

Establishing a new pairing

1. Turn off the EDTracker Pro Wireless and ensure it is not plugged in to a USB power source
2. Insert the EDTracker Wireless Dongle into your PC
3. Turn on the EDTracker Pro Wireless device

The devices should establish a pairing and the EDTracker UI software will start to register movement.

Loss of Pairing

Pairing between the devices will be lost if

- the EDTracker Pro Wireless unit is turned off by the switch
- the EDTracker Wireless Dongle is uplugged
- the EDTracker Wireless Dongle loses power (such as by turning off the computer or putting it into sleep/standby mode)

If this occurs, restore power or connection as required and click the “Pair” button in the UI software.

Pairing multiple devices

It is not possible to pair multiple EDTracker Pro Wireless devices with a single EDTracker Wireless Dongle.

It is possible to use EDTracker Pro Wireless in the vicinity of other EDTracker wireless devices – for example, at a LAN party. When pairing, you must ensure no other devices are actively trying to pair at the same time otherwise you may inadvertently pair with another user’s device. Once paired, functionality should be normal.

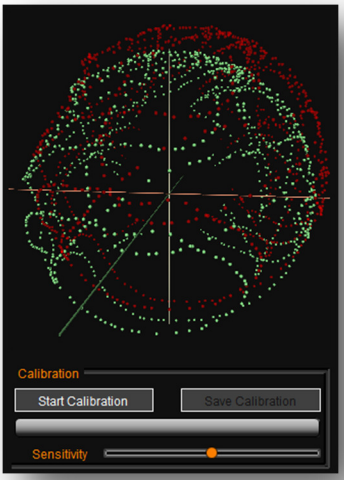
In busy environments, you may need to choose an alternative wireless channel.

Calibration

EDTracker includes a component called a “magnetometer” – effectively this works like a magnetic compass. In order to be accurate, it must be calibrated. Good calibration is key to getting the best performance from your EDTracker Pro Wireless. The start-up wizard walks you through this process, which must be done with the EDTracker Pro mounted on you headset or headband.

The first time you use this feature an animation will be displayed, showing you a suitable way to rotate the device to obtain a good calibration. Once the minimum number of samples has been collected, the “Save Calibration” button will be enabled. Clicking this button will complete the calibration and display the results.

The results should show a collection of green dots arranged in a spherical shape. Some minor distortion is acceptable but if the results do not look roughly spherical, please re-attempt the calibration.



The calibration is stored in the memory of the device and does not need to be repeated, even after switching off the device.

If you change your headset or gaming environment you may need to perform a fresh magnetometer calibration. You can either re-run the set-up wizard via the Help menu or click on the “Magnetometer” tab in the UI and click “Start Calibration”.

Power & Charging

The EDTracker Pro Wireless device has an internal battery which, when fully charged, should provide power for at least 8 hours continuous use (typically more).

To recharge the device, simply connect it to a USB power source such as a spare port on your computer.

The device can be charged and used at the same time.

Do not leave the device fully discharged for extended periods of time. Doing so can reduce the battery capacity. If you plan on storing the device without use, first charge it to at least 2 bars in the battery icon.

The EDTracker UI software displays the battery status with the following icon :

Animated Icon : Device is charging
Green Icon : Device is fully charged
Orange Icon : Device is discharging (3 levels of charge are shown)

Power Saving (Sleep Mode)

If no motion of the EDTracker Pro Wireless is detected for a period of 3 minutes or more, the device goes into a power saving mode to conserve battery. Wireless transmission is temporarily stopped. The EDTracker UI software will report the device as sleeping.

As soon as the device is moved, it will resume operation. Very small movements may not be enough to wake the device, so ensure the device is moved significantly.

In power saving mode, battery usage is drastically reduced and a full charge can last upwards of 2 weeks provided the unit is not moved.

For extended periods of non-use, you are advised to switch the device off using the power switch.

Safety Information

- For indoor use only
- Do not expose to water
- No user serviceable parts inside – do not open or modify
- Contains a lithium polymer battery – dispose of responsibly and recycle
- Always turn the device off prior to transport
- Keep out of direct sunlight and extreme heat or cold

Troubleshooting

Device is not detected or is unresponsive

- Check the EDTracker Pro Wireless is charged
- Check the EDTracker Pro Wireless is switched on and the status indicator light is flashing
- Check the EDTracker Wireless Dongle is plugged in to a USB port on your PC and the status indicator light is flashing
- If the device has been left still for more than 5 minutes, it will be in sleep mode. Move the device to wake it up.
- As a last resort, turn off the EDTracker Pro Wireless and unplug the dongle. Re-insert the dongle, then turn the EDTracker Pro Wireless back on. This will force the devices to re-pair.

Head position is not aligned correctly

- Look straight ahead and click the “Reset View” button in the EDTracker UI software
- Check the device is mounted firmly and is not moving about unintentionally
- Check the orientation setting in the EDTracker UI software matches the physical orientation of the device
- Device is upside down (screws must face downwards)

Head position drifts over time

- Re-perform the magnetometer calibration phase, paying attention to the results
- Ensure the device is not close to any magnetic field (e.g. attached with magnets, close to the speakers of your headphones)
- If your headset has a moveable microphone, ensure it is in the same position as when magnetometer calibration was performed.

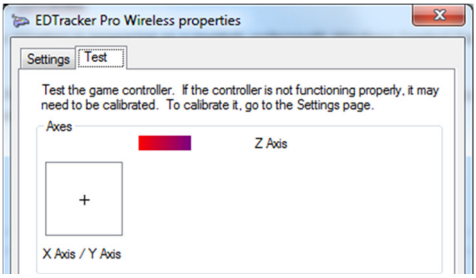
Troublshooting (cont...)

Magnetometer calibration shows distorted green dots

- Non-spherical results indicates some form of magnetic interference. Verify the distortion goes away when calibrating the device in “free air” (ie. not attached to a headset)
- Try to establish what is causing the interference, and remove it from the environment. Normally magnetic fields must be *very close* to device to cause a problem (<5cm). In some rare cases, the headband of your headset may be magnetic.

Game is not detecting the EDTracker

- Check that EDTracker Pro Wireless is appearing as a joystick underneath Windows Control Panel, USB Game Controllers
- Highlight the EDTracker Pro Wireless device and click “Properties”. Movement of the device should show movement of the crosshairs in the box.



- Your game should see the EDTracker Pro Wireless as a 3-axis joystick. You may need to configure settings within the game to tell it which joystick to use for head movement. Please consult your game manual, or the game support details, for assistance.

- Consult the EDTracker website “Support” section for individual game setup hints and tips or email us at support@edtracker.co.uk .

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Notice for Canada

This Class B digital device complies with Canadian ICES-003 and RSS-210.

This device complies with the Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions :

1) This device may not cause interference; and
2) This device must accept any interference, including interference that may cause undesired operation of the device.

This device does not exceed class B limits for radio noise emission from a digitial apparatus as set out in the interference-causing equipment statement entitled "Digital Aparatus", ICES-003 of the Department of Communications.

Any modifications made to this device without the express approval of the grantee could void the user's authority to operate the device.

Both the EDTracker Pro Wireless and EDTracker Wireless Dongle are of sufficiently low power that they do not require any special attention with regards to radiation and SAR. They are safe to use within close proximity to the human body.

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210.

Cet appareil entre dans la catégorie des exemptions des licences RSS de l'industrie canadienne.

1) Son utilisation est soumise aux deux conditions suivantes : Cet appareil ne doit pas provoquer d'interférence ; et
2) Cet appareil doit supporter toutes interférences, y compris les interférences susceptibles de provoquer un mauvais fonctionnement de l'appareil.

Cet appareil ne dépasse pas les limites de classe B dans le cadre de l'émission de bruits radioélectriques à partir d'un appareil numérique, comme stipulé dans le chapitre sur les appareils créant des interférences, intitulé : « Digital Apparatus (appareil numérique) » de l'ICES-003 du Département des Communications.

Toute modification apportée à cet appareil sans l'approbation expresse d'EDTracker Ltd pourrait révoquer le droit de l'utilisateur à utiliser cet appareil.

L'EDTracker Pro sans fil ainsi que le dongle EDTracker sans fil sont d'une puissance suffisamment faible pour ne pas nécessiter d'attention particulière concernant les radiations et le DAS (Débit d'Absorption Spécifique). Ils peuvent, sans danger, être utilisé à proximité du corps humain.

Regulatory Information

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Users are warned that changes or modifications to the device could void the user's authority to operate the equipment.

CE Conformance

This device has been tested in accordance with the Radio Equipment Directive 2014/53/EC and found to comply with the requirements of EN 301 489-1 (2.1.1), EN 301 489-17 (3.1.1), EN 300 328 (2.1.1), EN 62311:2008 and EN 60950-1:2006/A12:2001.

Battery Information

The EDTracker Pro Wireless device contains a Lithium Ion/Polymer battery that should only be removed by an authorised recycling centre, or the product manufacturer. Do not attempt to repair or replace the battery. For recycling information please contact your local authority.

Please dispose of responsibly

EDTracker Pro is made in the UK

Model Numbers
EDTracker Pro Wireless : EDTPWL001
EDTracker Wireless Dongle : EDTDGL001