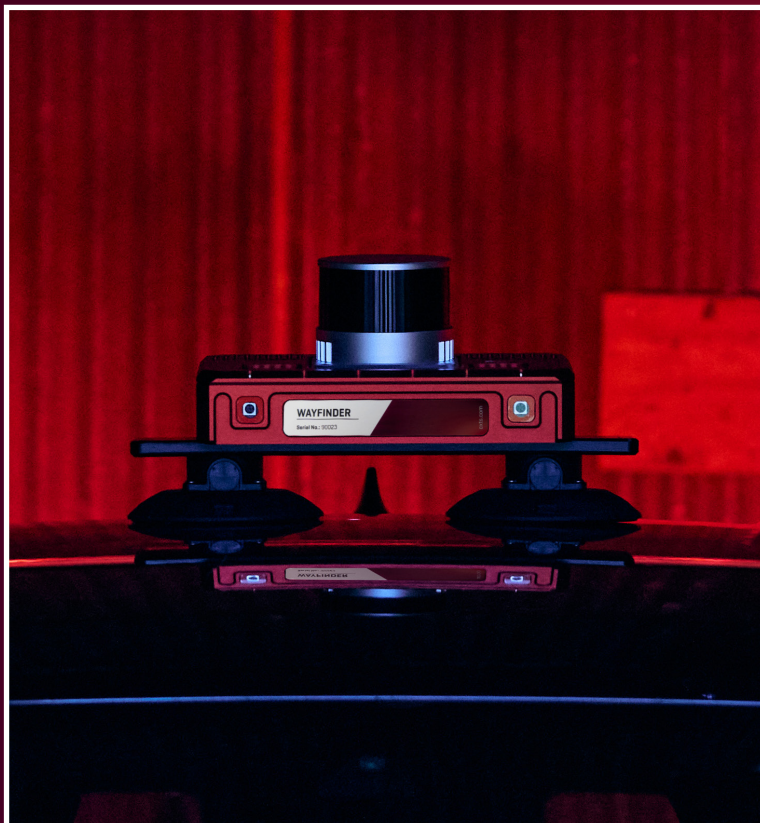# WayFinder

Locate and navigate, where others can't

Eliminate the complexity of GNSS-denied navigation with WayFinder's integrated GNSS, IMU, LiDAR and camera sensors - delivering precise, real-time localisation with minimal setup and effort.


Key Benefits

+ Save time with pre-integrated sensors, and setup in under 30 minutes
+ Confidence in all environments, even when GNSS is absent
+ Simple & powerful control interface designed for phones/tablets
+ Real-time processing for instantaneous location updates

OXTS

What is WayFinder?

WayFinder is an advanced real-time sensor fusion platform that enables you to accurately navigate in any environment - even when GNSS signals are intermittent or completely blocked. Ready to deploy out of the box, WayFinder is the best solution for those who need a quick, easy-to-use navigation system for accurate, real-time localisation in challenging GNSS conditions.

Hesai XT32 LiDAR

NVIDIA Jetson

OxTS IMU10 & Quad-constellation GNSS

Stereo cameras
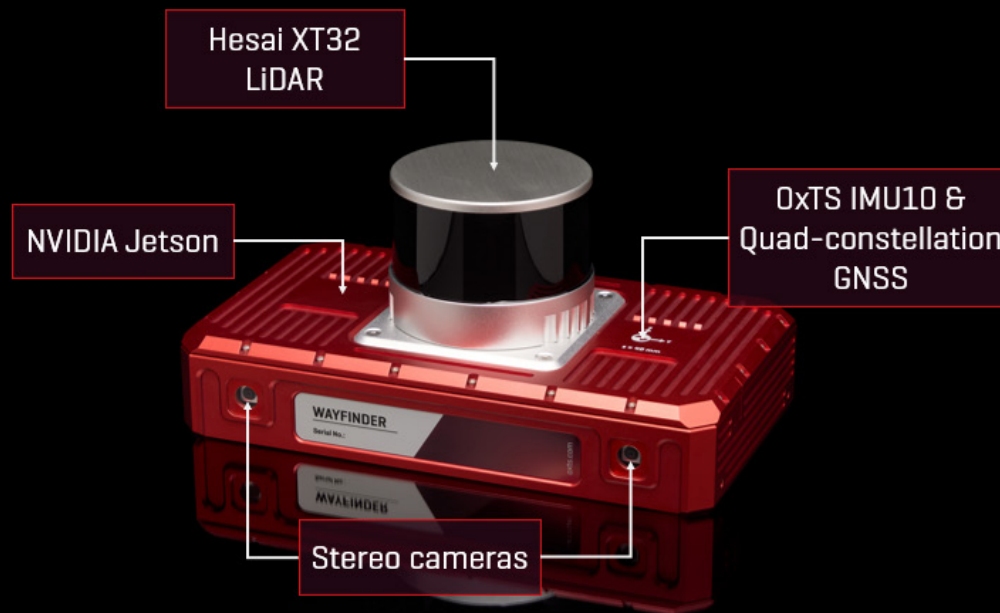
Why choose WayFinder?

Navigate anywhere

WayFinder ensures confidence in your data, even in the most challenging GNSS environments. Our LiDAR Boost technology seamlessly integrates data from any 32-laser, 360° LiDAR with our powerful navigation engine, delivering accurate, real-time localisation in any environment.

Set up in under 30 minutes

WayFinder is an advanced solution, requiring no additional hardware to run. Simply mount it to any vehicle, configure, initialise, and begin navigating. OxTS has built integrator tools that enable you to connect Wayfinder to your surveying payload, or data logging systems with ease.

An extensible platform

LiDAR Boost is a unique OxTS feature that uses data from WayFinder's integrated LiDAR sensor to mitigate drift in environments where GNSS signal is patchy or nonexistent. WayFinder is a platform that can expand with new functionality developed by OxTS or its users in the future.

Where can WayFinder take you?

Deep into autonomy

WayFinder enables an autonomous platform to navigate accurately in environments where GNSS signal is poor or nonexistent, and move between environments without interruption.

Seamless surveying

Surveyors working underground or in other areas where GNSS signal is poor can use WayFinder to radically improve the quality of their survey data for more accurate georeferencing.
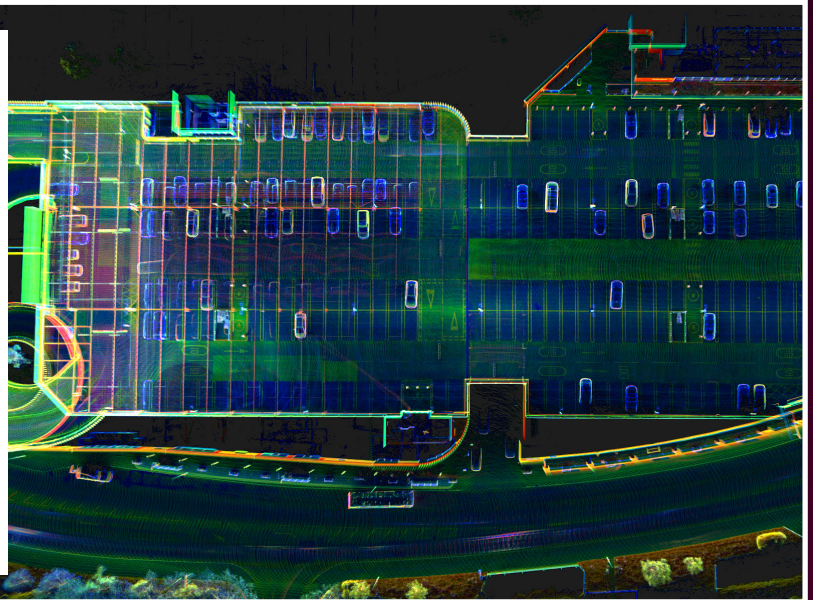
Off the beaten testing track

WayFinder delivers highly accurate ground truth data beyond the proving ground, enabling automotive testers to conduct open-road or indoor testing with confidence - without the need for any external infrastructure.

Proven performance in challenging GNSS environments

WayFinder has been tried and tested across various challenging environments, including in dense urban canyons and indoor spaces. The LiDAR Boost technology extends the high performing navigation engine of our products.
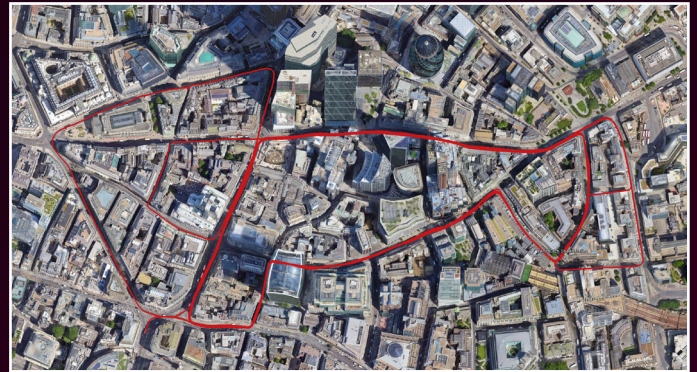
City Navigation

London Sky Garden Quarter

With its high rise buildings and narrow streets, the London Sky Garden Quarter is a notoriously difficult environment in which to obtain accurate localisation data. Using LiDAR odometry updates there is a vast improvement in both data accuracy and repeatability.
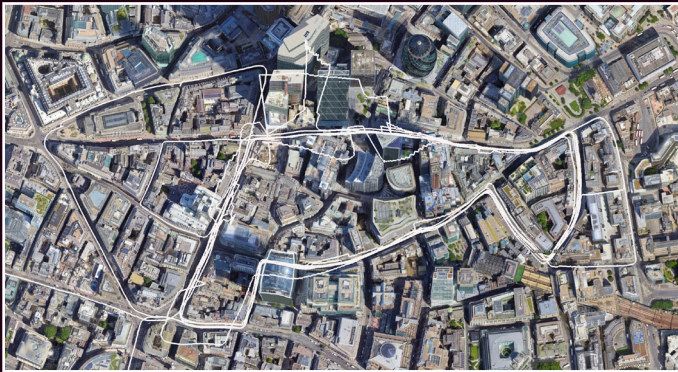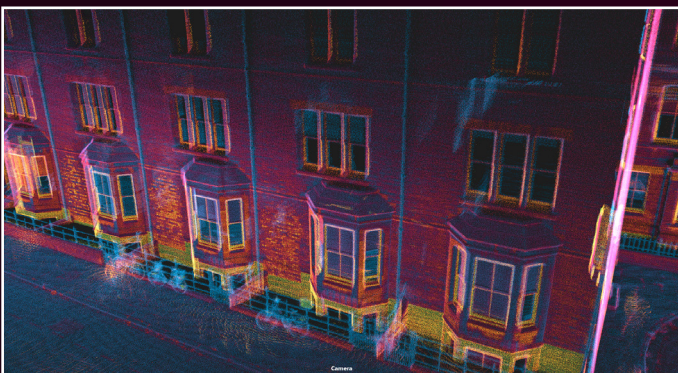

1. GNSS and IMU data

2. WayFinder

City of Oxford

Tall buildings and tree cover make obtaining consistent GNSS position updates difficult. Where this occurs, using odometry updates from WayFinder's integrated LiDAR sensor can significantly improve overall position accuracy. This is demonstrated through the clarity of the pointclouds created from the data.

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