

AutoFusion

High-Accuracy, Targetless Multi-Sensor Calibration

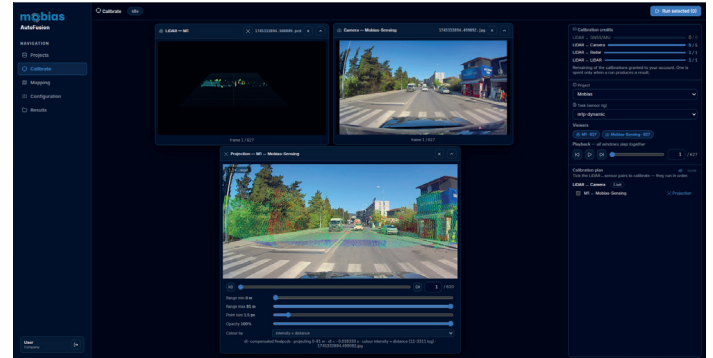
Align your sensors quickly and with high accuracy — no calibration target required.

Overview

AutoFusion requires no checkerboard-style targets for calibration. This eliminates the field preparation demanded by traditional methods; a short data recording is all it takes. The collected data is processed and turned into results in a maximum of 30 minutes.

AI-powered algorithms use data collected on the move to resolve the position and orientation offset between sensors in six degrees of freedom (XYZ + roll, pitch, yaw) with high accuracy.

AutoFusion is not limited to LiDAR–Camera; it also calibrates LiDAR–IMU, LiDAR–LiDAR and LiDAR–Radar pairs automatically, with no target required.



6 DoF

Position (XYZ) and orientation (roll, pitch, yaw) together

≤ 30 min

Processing time for a data recording

Key Features

High-precision sensor fusion with AI-powered algorithms

6-degree-of-freedom measurement: position (XYZ) and orientation (roll, pitch, yaw)

LiDAR–Camera, LiDAR–IMU, LiDAR–LiDAR and LiDAR–Radar calibration

Flexible sensor support, independent of brand and model

Processes recorded data in a maximum of 30 minutes

Works with data collected on the move

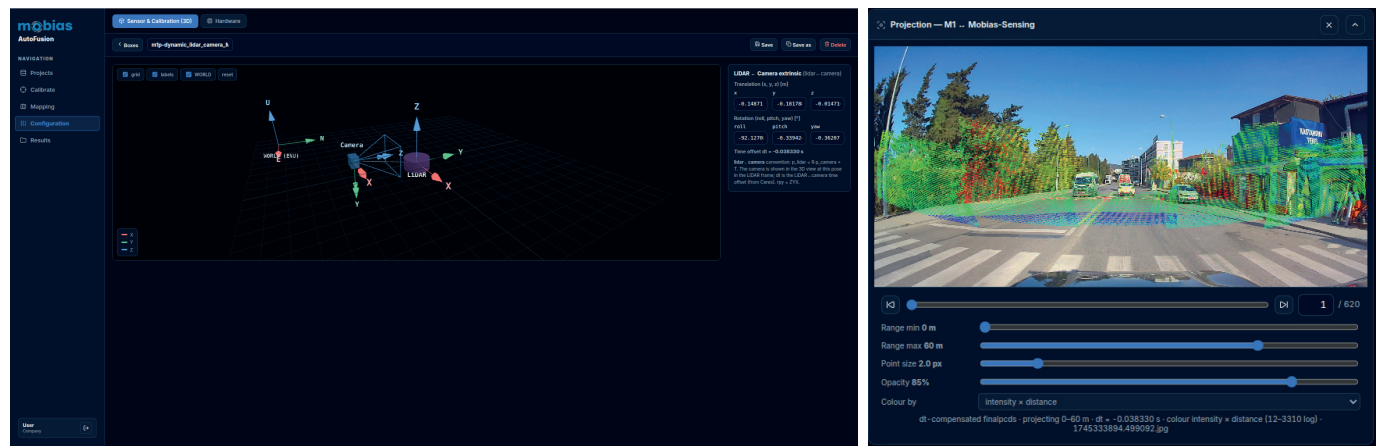
Fast and easy data collection thanks to the targetless advantage

No hardware time synchronization required: even without PTP/PPS, AutoFusion determines the inter-sensor time offset itself



Benefits

- **Speed** — a short data recording, results in a maximum of 30 minutes
- **Precision** — sub-pixel alignment, accuracy across six degrees of freedom
- **Broad coverage** — support for LiDAR, camera, IMU, GNSS/INS and radar
- **Ease of use** — calibration without calibration targets or field preparation
- **Holistic measurement** — position and orientation in a single pass



Automotive Sensor fusion for autonomous driving and driver-assistance systems.	Robotic Systems Perception infrastructure for mobile robots.
Unmanned Aerial Vehicles (UAV) Multi-sensor calibration on lightweight platforms.	V2X Communication Shared perception between vehicle and infrastructure.

Keywords

High-Speed Processing	Highly Adaptable	6-Axis Measurement
High Accuracy	User Friendly	Targetless Calibration

Key Specifications

Targetless Data Collection	Easy and fast data acquisition without the need for physical targets
6-Axis Measurement	Measurement of XYZ position and roll, pitch, yaw angles
Sensor Compatibility	Works with LiDAR–Camera, LiDAR–IMU, LiDAR–LiDAR and LiDAR–Radar pairs
Time Synchronization	Automatically resolves inter-sensor time offset without PTP/PPS
Fast Results	Full results delivered in a maximum of 30 minutes
Data Type Flexibility	Capable of processing both static and dynamic data
AI-Powered Processing	Sensor fusion supported by advanced algorithms and artificial intelligence