

REAL-TIME LIDAR DETECTION & WARNING

Wrong-Way Detection

Stop a Wrong-Way Driver Before It Becomes a Crash

HyPoint's LiDAR-based system detects vehicles traveling in the wrong direction the moment they enter a monitored ramp or divided roadway. The system confirms the vehicle's lane and direction, activates connected warning signs or flashing beacons, alerts designated personnel, and records the event with time-stamped data for review.

Standard system: LiDAR sensor, edge-processing hardware, direction-detection software, warning-device outputs, real-time alerts, event logging, remote monitoring, and technical support. Warning signs, beacons, and trailers can be supplied as part of your deployment or integrated with your agency's existing equipment; the overview camera is optional.

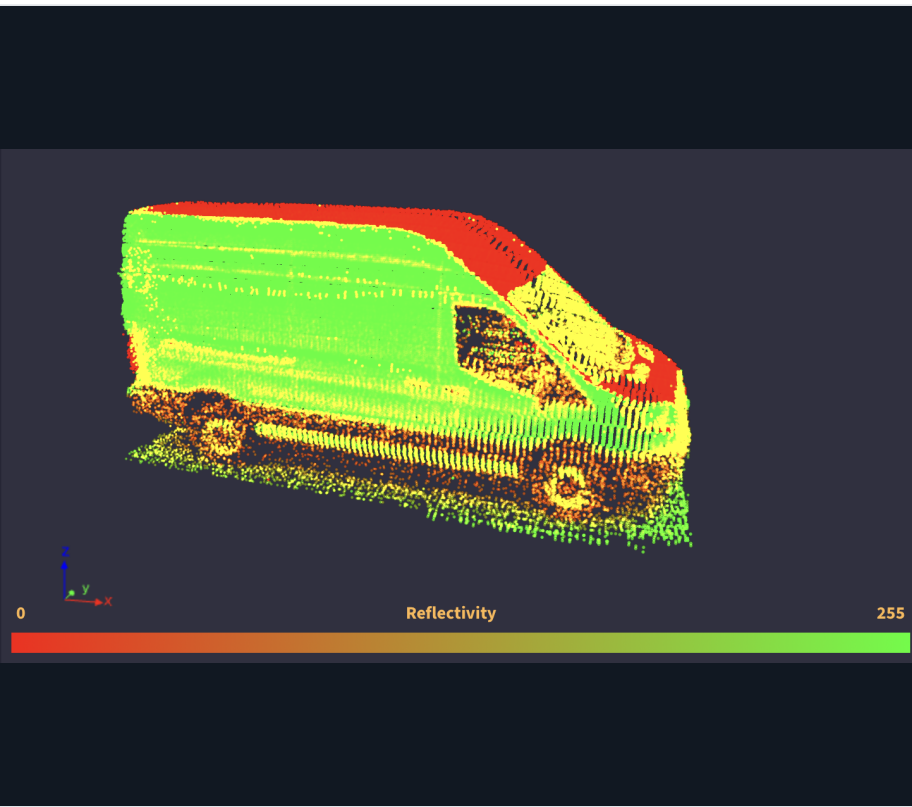


HyPoint LiDAR Sensor

Mast-mounted for an optimized field of view of the roadway.

SENSOR

Solid-State LiDAR



What the Sensor Detects

Live point-cloud output showing a vehicle identified by the LiDAR sensor.

RANGE

Up to 70 m



Warning Sign Activates

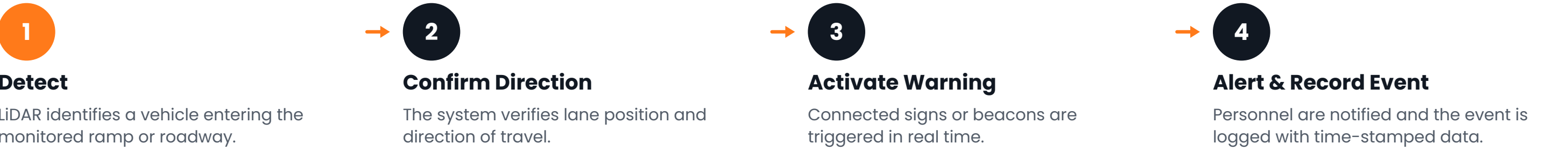
The sensor sends a real-time signal that lights the wrong-way warning sign on the trailer.

RESPONSE

Real-Time Alerting

HOW IT WORKS

A Simple Operating Sequence



Alerts & Event Verification

Every confirmed wrong-way event triggers a real-time alert to designated personnel — delivered by email, text message, API, or integration with your traffic-management system or web portal — and is logged with time-stamped detection data for after-the-fact review. An optional overview camera can be added at deployment to capture visual confirmation of each event, supporting incident reporting and evidence review.

API-Ready

Integrates with Your Systems

30 fps

Real-Time Scan Rate

940 nm

Eye-Safe Class 1 Laser

Day or Night

Engineered for Roadside Conditions

SENSOR ADVANTAGES

Pure Solid-State

No moving parts, not even micro-mirrors

3-Yr Warranty

Among the longest standard coverage in the industry

5-Yr Available

Extended warranty option for long-term deployments

PoE Powered

Single cable for power and data

<15W Power

Low draw, ideal for solar and portable deployments

Browser-Based Setup

Configure and calibrate from any standard browser

Embedded Intelligence

Detection & tracking run on the sensor, no external servers

DEPLOYMENT OPTIONS

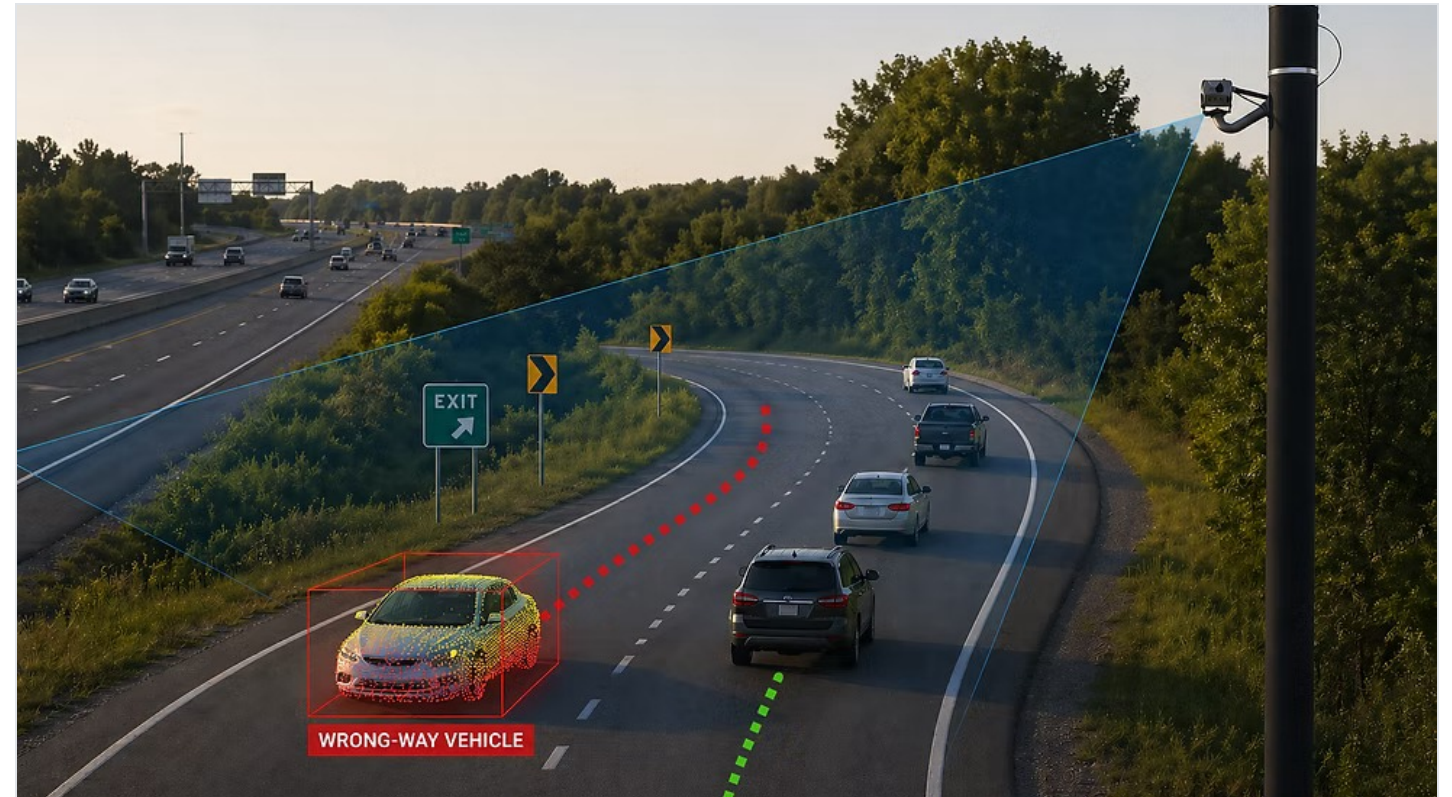
Flexible Deployment, Built Around Your Site

HyPoint doesn't lock a site into one setup. The same LiDAR platform deploys through HyPoint's trailer partners for rapid, solar-powered portable coverage, mounts directly to existing infrastructure already at the site, or goes in as a dedicated permanent installation. Warning signs, beacons, and trailers can be supplied as part of the deployment or integrated with your agency's existing equipment.



Portable Trailer

Deployed through HyPoint's trailer partners — sensor and warning sign integrated on a solar-powered, rapid-deployment trailer. On site in hours, no permanent structure required. Signage and beacons can be supplied with the trailer or matched to your agency's existing equipment.



Existing Infrastructure & Permanent Installation

Mounts directly to what's already there — light poles, sign posts, or overhead gantries — for a simpler installation that may eliminate the need for a new support structure. For high-traffic or long-term sites, the same sensor also goes in as a dedicated, pole-mounted permanent installation built to stay in place.

SENSOR TECHNOLOGY

Why LiDAR for Wrong-Way Detection

Radar can support wrong-way detection, but many agencies choose LiDAR where minimizing false alerts and obtaining precise, verifiable detections are priorities.

Choosing the Right Sensor

Wrong-way detection works best with a sensor that can confirm lane position and direction with confidence, separate closely spaced vehicles, and perform reliably in outdoor, high-traffic environments around the clock. Radar remains a viable option for some sites; LiDAR is often preferred where precision and verifiable detection are the priority.

- Confirms lane position and direction, not just speed
- Separates closely spaced vehicles reliably
- Performs reliably in outdoor, high-traffic environments around the clock

Why Agencies Choose HyPoint LiDAR

- Precise, lane-level tracking
- Direct measurement of travel direction
- Reliable separation of closely spaced vehicles
- Consistent performance at low speeds, when stopped, or reversing
- Detailed 3D point clouds for filtering and verification
- Easy integration with cameras for an alert plus visual evidence

LiDAR tracks vehicle movement in 3D to determine speed and direction of travel, with no second sensor required. An optional overview camera can be added for sites that also want a continuous visual record to support reporting.

Let's talk about your site.

Trailer, existing infrastructure, or permanent install — HyPoint will help you find the right fit, at no cost.

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Built to catch the wrong-way driver before the crash.

HyPoint LiDAR — deployed however your site needs it.