PATENT-PENDING

PSIONIC SAFETY SENSORS

A New Safety Layer for AV Sensing Stacks

Reduce Technology Risk,
Optimize Systems, Improve Safety

Enhance Vehicle Automated
Control Recovery

Advanced Lidar Sensing from Psionic

A new concept in automated vehicle safety, Psionic Safety Sensors combine to offer AV makers system performance improvement, redundancy and consumer-grade safety

Only from Psionic

Risk Ahead

Today's choices in advanced technology have more at stake than R&D budgets, technology obsolescence or non-competitive offerings.

In the event of a safety fail, recall or regulatory prohibition due to safety concerns brand reputation and potentially financial viability come into play.

How can AV makers reduce risk while still developing a technically viable and economically competitive AV offering?

Enter Psionic.

Sensing	Perception	Decision
Camera	Localization	Path Planning
GPS/IMU	Object Recognition	Action Prediction
LIDAR	Object Tracking	Obstacle Avoidance

Different Systems, Similar Stack

Many Choices for Proprietary Systems

AV makers have choices when it comes to architecting their systems, but not all choices will be equal

Sensor Selection

Number & type of sensors, mounting points, performance requirements, sensor fusion, sensor processing, vendors

Performance & Redundancy

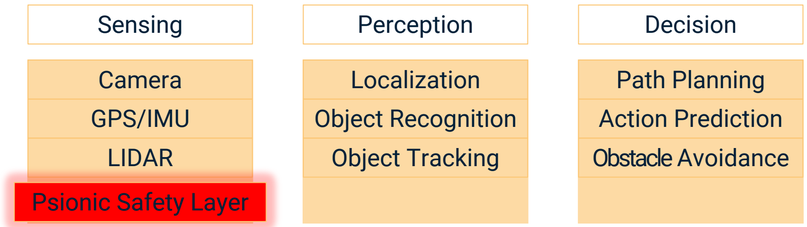
Balance system performance, processing, timing, power & safety requirements, all with backup

Managing Trade-offs

Balancing technology capabilities, cost and safety for a brand-consistent user experience

The Safety Fail

The common risk & challenge to offset that risk, with economic constraints



PSIONIC SAFETY LAYER

Sensor Suite Providing New Capabilities

Improve Effectiveness of Every Sensor & Every Onboard Processing Function

Reduce risk, improve performance and provide redundant safety in your AV offerings with Psionic patent-pending Doppler lidar sensor technology

Verify Path Ahead

Psionic Fidelity Sensor verifies objects in forward path

Monitor Vehicle State

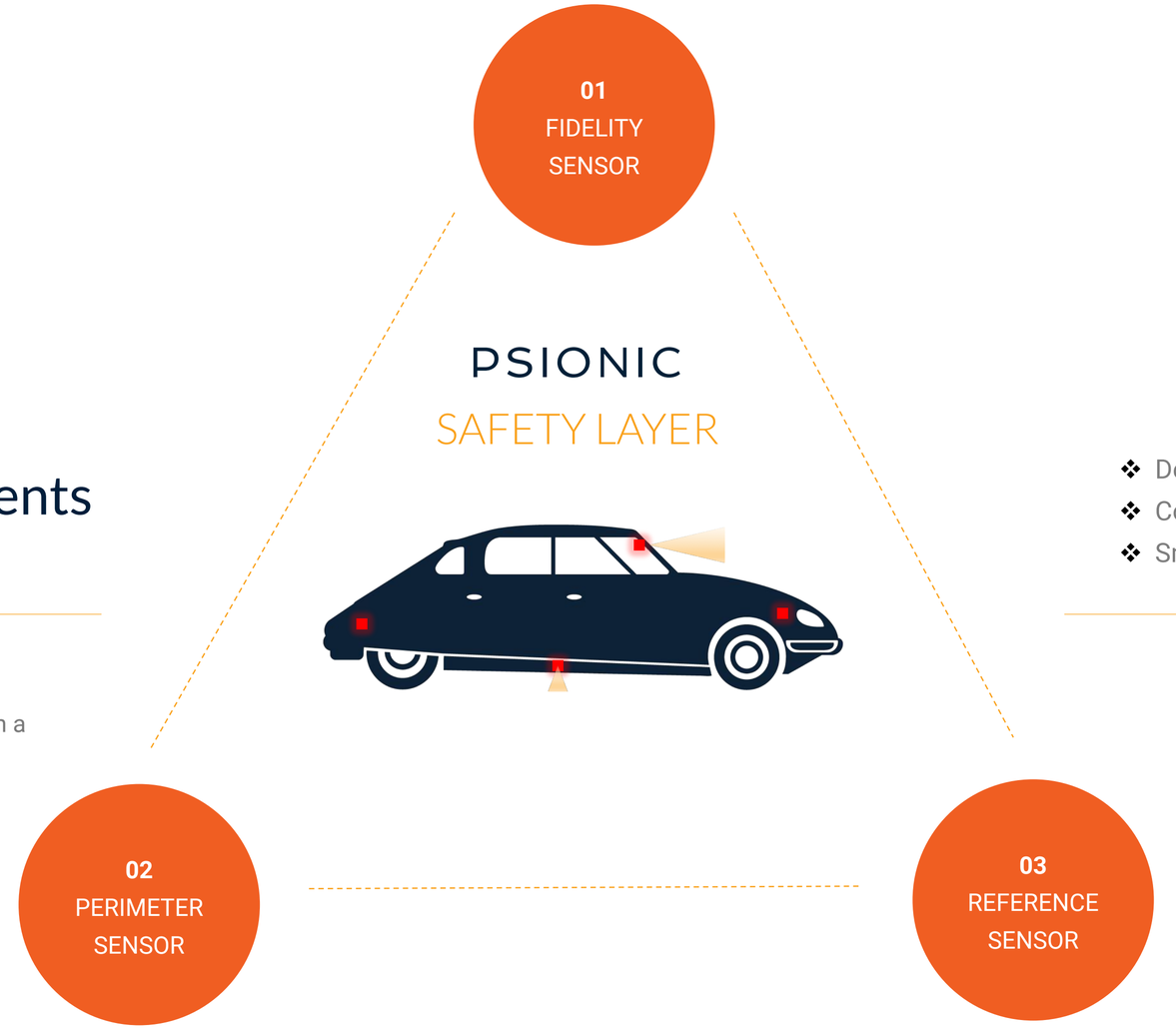
Psionic Reference Sensor monitors vehicle pose at 30Hz

Navigate without GPS

Psionic Reference Sensor localization with low cumulative error

Recover from Trouble

Enhance vehicle control recovery in the event of vehicle control loss

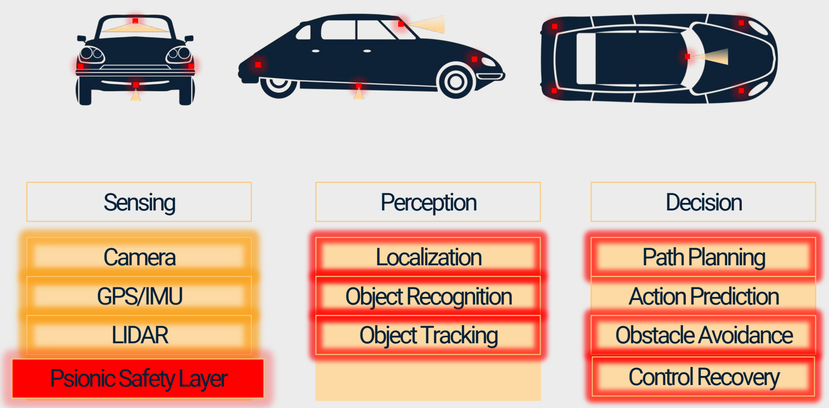


Three Sensor Elements

Separately or Combined

Advanced Doppler lidar sensors provide immediate, unambiguous information with a light system overhead

- Designed for flush vehicle mount
- Configurable to differing performance requirements
- Small power, weight, processing footprints



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Enhancing the Entire Stack

REDUCE RISK
IMPROVE PERFORMANCE
BRAND SAFETY

Only the Psionic Safety Layer enables AV makers to reduce risk, optimize system performance and deliver a safe AV product

Avoid unnecessary risks and high cost with Psionic

Psionic Automotive Sensors

Enabling Safe Autonomy & New Autonomous Features

Originally developed by NASA, Psionic's doppler lidar technology provides superior performance for automotive applications

www.psionic.ai

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