

# LeddarTech<sup>®</sup>

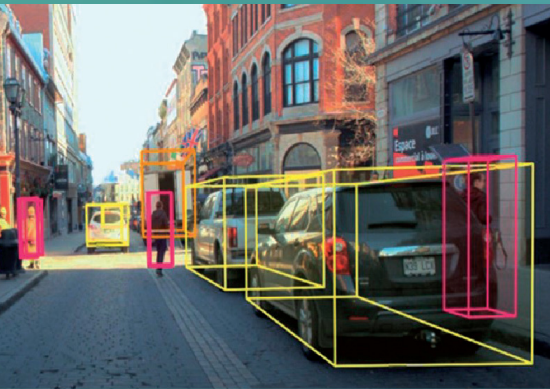
#LDTC

An Automotive Software Company



## Accelerating ADAS and AD Adoption With a Single Platform Supporting Multiple Configurations

Single Architecture - Superior Performance - Cost Effective



A global automotive software company founded in 2007 and headquartered in Quebec City with additional R&D centers in Montreal and Tel Aviv, Israel, LeddarTech develops and provides comprehensive AI-based low-level sensor fusion and perception software solutions that enable the deployment of ADAS and autonomous driving (AD) applications. LeddarTech's automotive-grade software applies advanced AI and computer vision algorithms to generate accurate 3D models of the environment to achieve better decision making and safer navigation.

This high-performance, scalable, cost-effective technology is available to OEMs and Tier 1-2 suppliers to efficiently implement ADAS and AD solutions.

**160 + patents** (filed or granted) that cover the complete spectrum from signal acquisition to perception and fusion.

#### **Fundamental IP**

- ✓ **Fundamental proprietary fusion IP** is core to the benefits of superior performance, flexibility and scalability at lower cost.
- ✓ **Solid anteriority** – many patents filed before most auto tech companies began research.

## Our Vision

To improve safety and quality of life through the deployment of innovative automotive software solutions

## Our Mission

To deliver high-performance AI automotive software that enables the market to deploy ADAS features reducing the number of road accidents and making transportation more enjoyable and efficient.

## Our Customers

Automotive OEMs and Tier-1 & Tier-2 suppliers seeking sensing and perception solutions that are flexible, adaptable and scalable, allowing them to meet their key performance, cost and development time requirements.



# LeeddarVision™

Sensor Fusion & Perception Software and Inspired Products

## Low-Level Sensor Fusion & Perception Software for Automotive and Off-Road Industrial Vehicles L2-L5 Applications

LeeddarVision™ is an advanced environmental perception solution for the automotive market, from passenger light vehicles to off-road, heavy industrial vehicles.

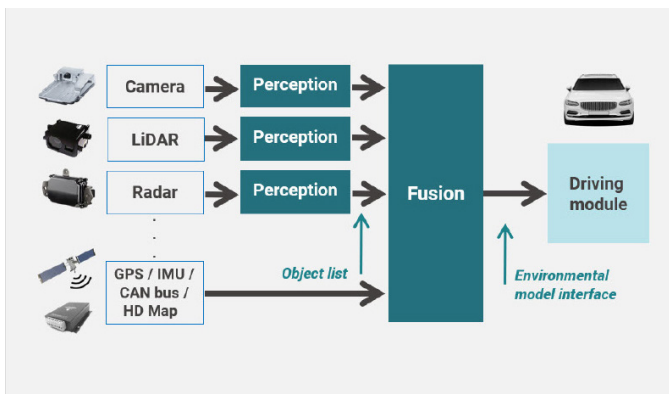
Based on LeeddarTech's comprehensive AI-based low-level sensor data fusion technology, LeeddarVision software provides a comprehensive 3D environment model delivering superior perception performance from any sensor set. LeeddarVision's unified architecture accelerates the custom development by OEMs and Tier 1-2 suppliers of cost-effective perception solutions that are scalable from ADAS to highly automated driving. LeeddarVision's advanced AI becomes the central enabler of such scalability as perception training continues to improve from system to system.

## LeeddarVision-Inspired Products for L2 to L3 ADAS Applications

LeeddarTech supports customers seeking specific perception systems that enable ADAS capabilities with preconfigured LeeddarVision products for front-view (LVF), surround-view (LVS-2+) and parking assist (LVP-H) perception. The LeeddarVision product family is designed to enable L2/L2+/L3 ADAS but also to meet a 5-star safety rating (ADAS) for new car assessment programs (NCAP) and general safety regulations (GSR).

## Low-Level Sensor Fusion Outperforms Object Fusion

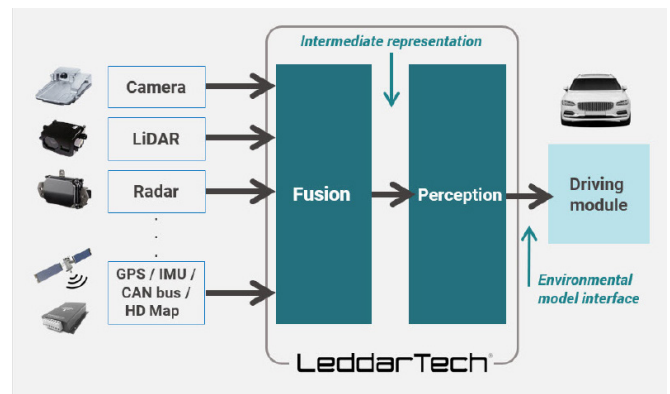
### Object-Level Fusion Architecture



- Each sensor detects and classifies objects.
- Sensors' decisions are then fused.

- Raw information from the sensors is lost.
- False alarm removal is difficult.
- Sensor changes require high efforts in perception changes

### LeeddarVision Low Level Fusion Architecture



- Raw data from sensors is first fused together.
- Detection and classification algorithms then run on the fused model.

- + Sensors' conflicts and missing sensor info are inherently solved.
- + Perception is more invariant to sensor changes, enhancing solution scalability.

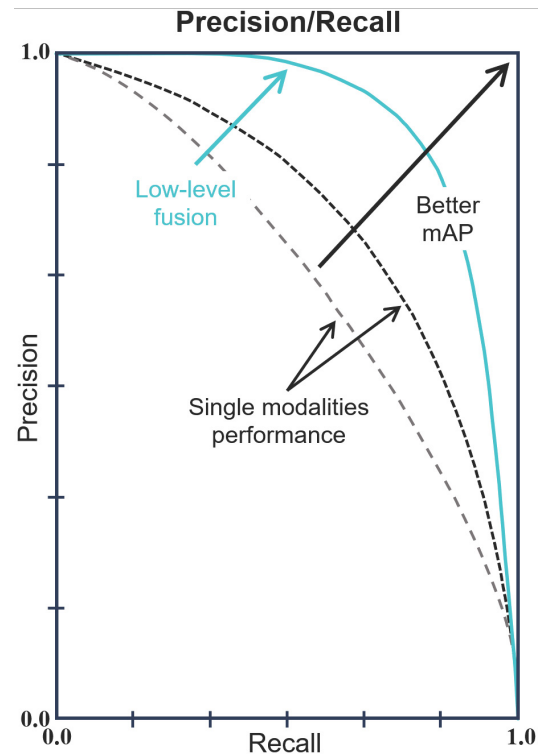
## Low-Level Sensor Fusion Benefits

AI-based low-level fusion (LLF) does not just tune between precision and recall. It actually pushes the performance envelope for better mean average precision (mAP), utilizing ALL sensors for better decision making.

### Optimized ADAS Performance and Costs

LeddarVision perception solutions provide a complete environmental model and include AI and DNN processing to support ADAS L2/L2+ applications

- Detection
- Calibration
- Segmentation
- Identification and Tracking
- Localization and Mapping
- Lane Segmentation



## LeddarTech Addresses Customer Challenges



### High-Performance

- Surpasses object-level fusion performance and increases the sensors' effective range.
- Inherent sensor redundancy, providing superior performance and reliable operation in presence of degraded, failing or conflicting sensors and adverse scenarios.



### Cost-Effective

- Enables entry-level ADAS offering with 1V2R lowest-cost sensors.
- Streamlines development efforts for optimized R&D costs.
- AI perception training continues to improve from system to system.



### Scalable

- Single architectural approach that scales from entry-level to premium segments.
- Reduces rework efforts with sensor changes and efficiently scales computational power with sensor additions.



### Sensor and Processor-Agnostic

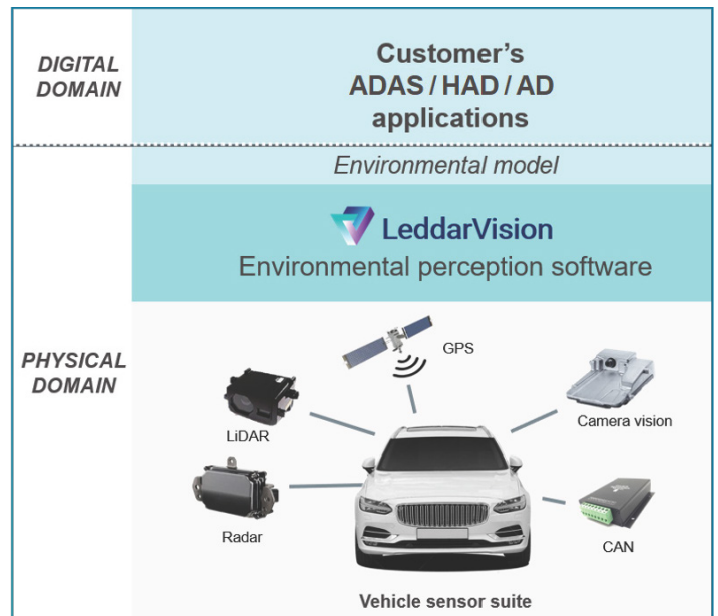
- Drives optimal performance from various sensor sets and works with different sensor providers.
- Flexibility to handle a wide variety of use cases is highly important in multi-SOP platform development.
- Works on any processor for ultimate flexibility.

# LeddarVision Optimizes ADAS Performance

AI-based low-level sensor fusion (LLF) leverages the raw information from all sensors to enable better perception and more reliable operation. Based on advanced LLF, LeddarTech's perception software generates superior performance from any sensor set, as demonstrated by industry benchmarks.

## Comprehensive Environmental Model

Delivering **SUPERIOR PERCEPTION** performance from **MOST** sensor sets into **SINGLE** and **UNIFIED ENVIRONMENTAL MODEL** to enable and accelerate the development of **HIGH-PERFORMANCE** and **SCALABLE** ADAS to HAD solutions based on our strong and demonstrated **LOW-LEVEL FUSION AND PERCEPTION** domain expertise.



# LeddarTech Offers Automotive OEMs and Tier 1-2 Suppliers

## Software

### LeddarVision Sensor Fusion and Perception Software

An advanced environmental perception solution for the automotive and mobility segments, from passenger light vehicles to off-road vehicles. LeddarVision software provides a comprehensive environment model delivering superior perception performance from any sensor set that supports customers wishing to enable and accelerate the development of high-performance solutions scalable from ADAS to highly automated driving (HAD).

## LeddarVision Products

### Sensor Fusion and Perception Software Stacks Built on LeddarVision

The newly released LeddarVision family of automotive software products addresses the challenges faced by Tier 1-2 suppliers and OEMs when developing Level 2/2+ ADAS applications targeting a 5-star NCAP 2025/GSR 2022 rating, such as solving safety issues and finding a scalable fusion and perception software stack that offers high performance at a low cost.

# LVF-E

## LeddarVision Front-View – Entry-Level

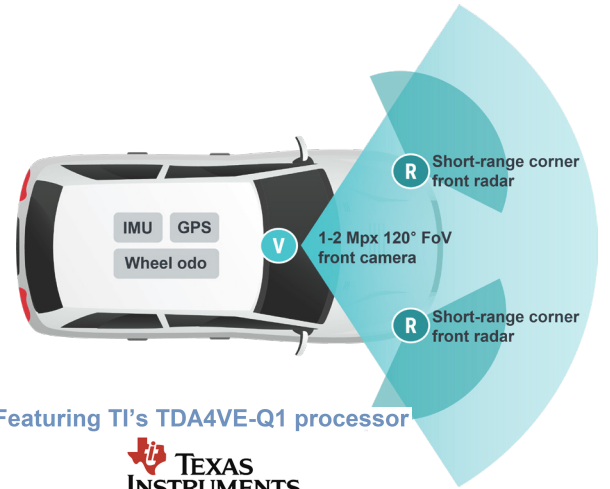
**For customers seeking to develop entry-level ADAS safety and highway assistance L2/L2+ applications**

LVF-E is a comprehensive front-view fusion and perception stack for entry-level ADAS L2/L2+ highway assist and 5-star NCAP 2025/GSR 2022. LeddarTech's low-level fusion (LLF) technology pushes the performance envelope, doubling the effective range of the sensors and enabling, for the first time, a solution with one 120-degree front camera and two short-range front corner radars in a 1V2R configuration. Efficient implementation on the TDA4VE-Q1 platform achieves one of the lowest system costs for L2/L2+ entry-level ADAS without sacrificing system performance.

LVF-E production samples are now available.



[LVED Product Brief](#)



# LVF-H

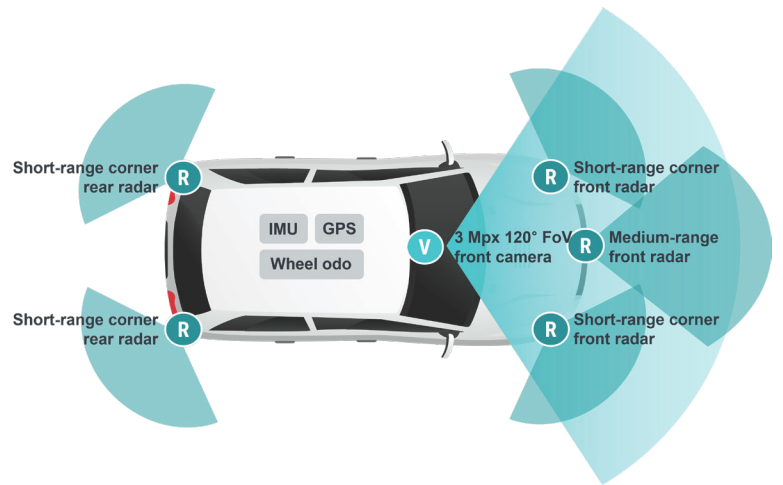
## LeddarVision Front-View – High-End

**For customers seeking to develop premium ADAS safety and highway assistance L2/L2+ applications**

With sensor configuration extended to 1V5R based on a single 120-degree camera, single front medium-range radar and four short-range corner radars, the LVF-H stack extends the perception support to highway assist applications at lower system cost, including 160 km/h adaptive cruise control, 200-meter range and semi-automated lane change. It also enhances the NCAP 2025 support for overtaking/reverse/dooring scenarios.



[LVFH Product Brief](#)



# LVS-2+

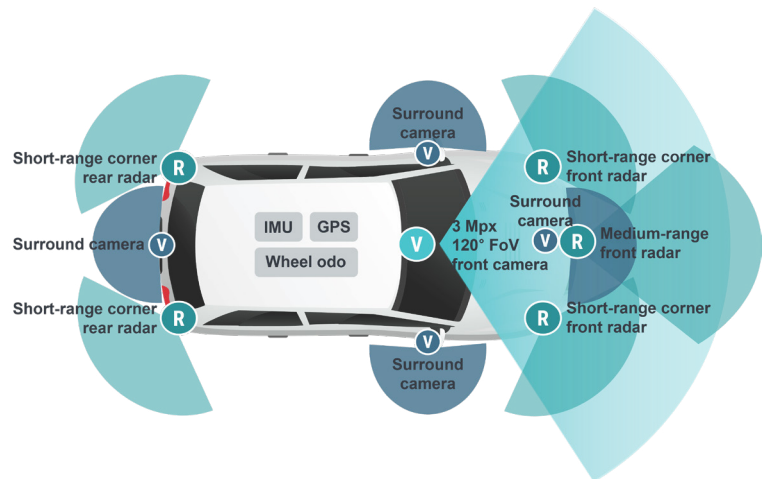
## LeddarVision Surround-View for Premium ADAS L2/L2+

**For premium ADAS L2/L2+ highway assist and 5-star NCAP 2025/GSR 2025 applications**

The newly launched LVS-2+ is a comprehensive fusion and perception software stack supporting premium surround-view L2/L2+ ADAS highway assistance and 5-star NCAP 2025/GSR 2022 safety applications. Based on LeddarVision architecture, LVS-2+ efficiently extends the LVF front-view product family 1VxR sensor configuration to a 5V5R configuration, enhancing support to TJA and HWA applications, and enabling automated lane changes, overtaking and extended speed range adaptive cruise control (ACC).



[LVS-2+ Product Brief](#)

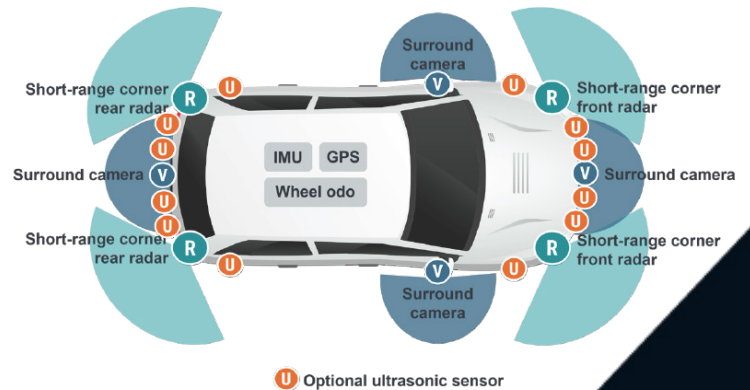


# LVP-H

## LeddarVision for Automated Parking and Parking Assist

For premium ADAS L2/L2+ parking applications, including IPA, RPA and MA

Based on a 4V4R sensor configuration, LVP-H is a comprehensive fusion and perception software stack supporting premium ADAS L2/L2+ automated parking and parking assist applications, including intelligent parking assist (IPA), remote parking assist (RPA) and maneuver assist (MA). LVP-H optimally combines all sensor modalities to enhance performance and reliability for safer and stress-free parking experience. LVP-H enhances valid parking detection probability to over 95% with low false detections in challenging ODDs and environments and provides superior dynamic and static object detection for enhanced safety, including support to advanced NHTSA IPA safety scenarios.



[LVP-H Product Brief](#)

## Scalable Environmental Perception for All Performance Levels



APPLICATIONS



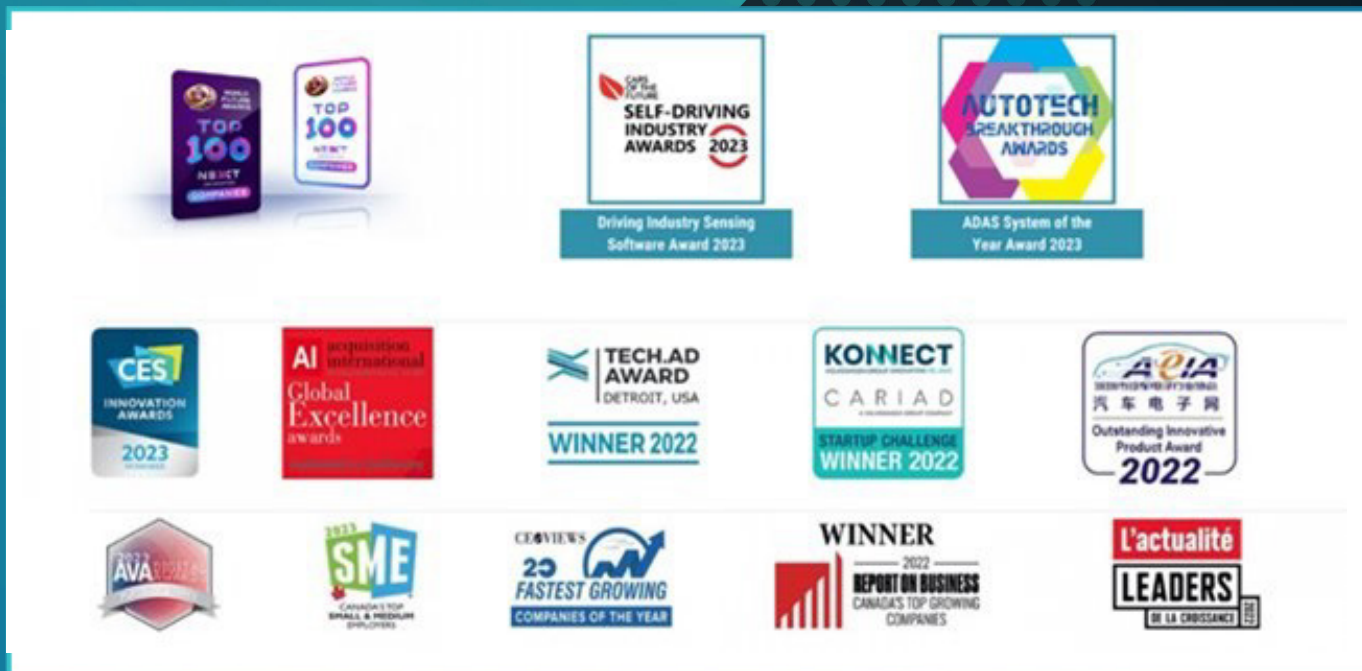
# LeddarVision

## Associations and Memberships

- APMA** – Automotive Parts Manufacturers’ Association of Canada
- AQT** – Association québécoise des technologies
- CCI** – Council of Canadian Innovators
- CTA** – Consumer Technology Association
- CPQ** – Conseil du patronat du Québec

- InnovÉÉ** – Innovation in Electrical Energy (Québec)
- Linux Foundation** – World-class open-source software
- Propulsion Québec** – Intelligent and Electrical Transports
- Quebec Innovation Council** – Network for Acceleration of Innovation
- SOAFEE** – Scalable Open Architecture for Embedded Edge

# Specialized Expertise, Global Recognition



## LeddarTech®

CANADA – USA – AUSTRIA – FRANCE – GERMANY – ITALY – ISRAEL – HONG KONG – CHINA

### LeddarTech head office

4535, boulevard Wilfrid-Hamel, Suite 240  
Québec (Québec) G1P 2J7  
Canada  
Phone: + 1-418-653-9000  
Toll-free: 1-855-865-9900

### Contact information

Sales: [sales@LeddarTech.com](mailto:sales@LeddarTech.com)  
Media: [media@LeddarTech.com](mailto:media@LeddarTech.com)  
[InvestorRelations@LeddarTech.com](mailto:InvestorRelations@LeddarTech.com)  
Financial media contact: [dan.brennan@icrinc.com](mailto:dan.brennan@icrinc.com)  
Investor relations contact: [kevin.hunt@icrinc.com](mailto:kevin.hunt@icrinc.com)  
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