SMART COLLISION AVOIDANCE SYSTEM

INNOViA Intelligent Detection

POWERED BY **NVIDIA**

- Fast Set-Up
- Powered By AI
- Prevents Accidents
- Any Weather Conditions
- Modular

System description

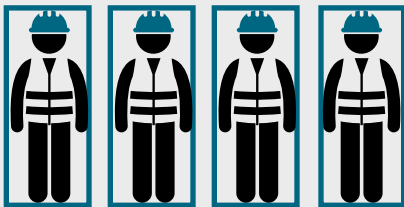Industrial controller

←1 to 8 cameras→

HMI on-board display

Powerful and Robust AI – *Difficult Situations and Environments*

InnoViA has strong artificial intelligence. The algorithms developed by Innodura are very efficient and allow to detect people around the vehicle in the following situations :

- Multi-detections
- Lying Down
- Crouched Position
- Backlight
- Snow
- Person in vehicle
- Hidden
- No additionnal equipment
- Fog

Technical Features

1. Cabin alert screen (visual + audible)
2. Near field camera aperture 115°
3. Controller

Options

1 Far field camera (5-35m)

Alert management module NF - FF :
- Outdoor : GPS Module
- Indoor : LiDAR module with feasibility

Standard

- **Real-Time Detection** >30 FPS
- **Danger Areas**
- **Reverse camera** latency < 200ms
- **Low Ambiant Light, Backlight, Rain, Snow**
- **IP67** Sealing (excluding controller)
- **Touch Screen** Attachment On Suction Cup
- **Simple** Set-Up
- **Dirty Lens** Detection
- More **Aggressive Detection** Mode

Options

- **Learning & Alerts** On Other **Objects** (Trucks, Plates Registration, Etc.)
- Automatic **3D Site Scan**
- Recomposition Of **Vehicle Trajectories**
- **Interface** With Other **Systems**
- Remote control - **Logging**
- GPS

Human-Machine Interface

Skyview: Location of Operators and Danger Zone

Visual Indicator Of Detection Real-Time Operator

Modular System – Applications

Fixed station

STANDARD

RUGGED

🔴🟢 Near Field Camera

⚪ Far Field Camera

Options

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(5-35m)
Alert management module
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Datasheet

	In-Vehicle AI Controller	Power & Camera Management Box
Environmental		
Operating Temp	-20ºC ~ + 45ºC	-20°C ~ + 80°C
Storage Temp	-40°C ~ 80°C	-40°C ~ + 85°C
IP Protection	IP65	
Power Requirement		
Power Input	12-24V DC	
Power Management	Vehicle Power Ignition for Variety Vehicle	
Current Protection	10A	
Mechanical		
Dimensions	200x200x120 mm	280x250x130 mm
Mounting	Wall-mount	

Cameras	STANDARD	RUGGED
System		
Resolution	1920x1080	
Frame per second	30fps	
Aperture	104°	115°
Operating Temp	-30°C ~ 60°C	-40°C ~ + 85°C
Infrared mode	NO	YES
Protection	IP67	IP69K
HDR	YES	YES

Screen	
Environmental	
Operating Temp	-30°C ~ 85°C
Mechanical	
Cable Input	All-in-One Cable
Monitor Dimensions (mm)	Display : 220(W) x 135(H) x 29(W) Display with shroud : 238(W) x 153(H) x 30(W)

System Applications

23%
of work accidents

in the construction sector are related to collisions between construction equipment and workers around the machine. (preventionBTP.fr)

28%
of Man-Machine collisions

on a construction site could have been avoided if the driver had better visibility. (EPICEA, INRS)

50%
of fatal accidents

on public works site are related to man-machine collisions. (preventionBTP.fr)

InnoViA Modular System

InnoViA is an anti-collision system composed of a controller and 4 cameras connected to it. Its simple installation allows InnoViA to adapt to a wide range of vehicles. The systemis designed to be onboard vehicles, but it may also be stationnary to help scanning the worksite.