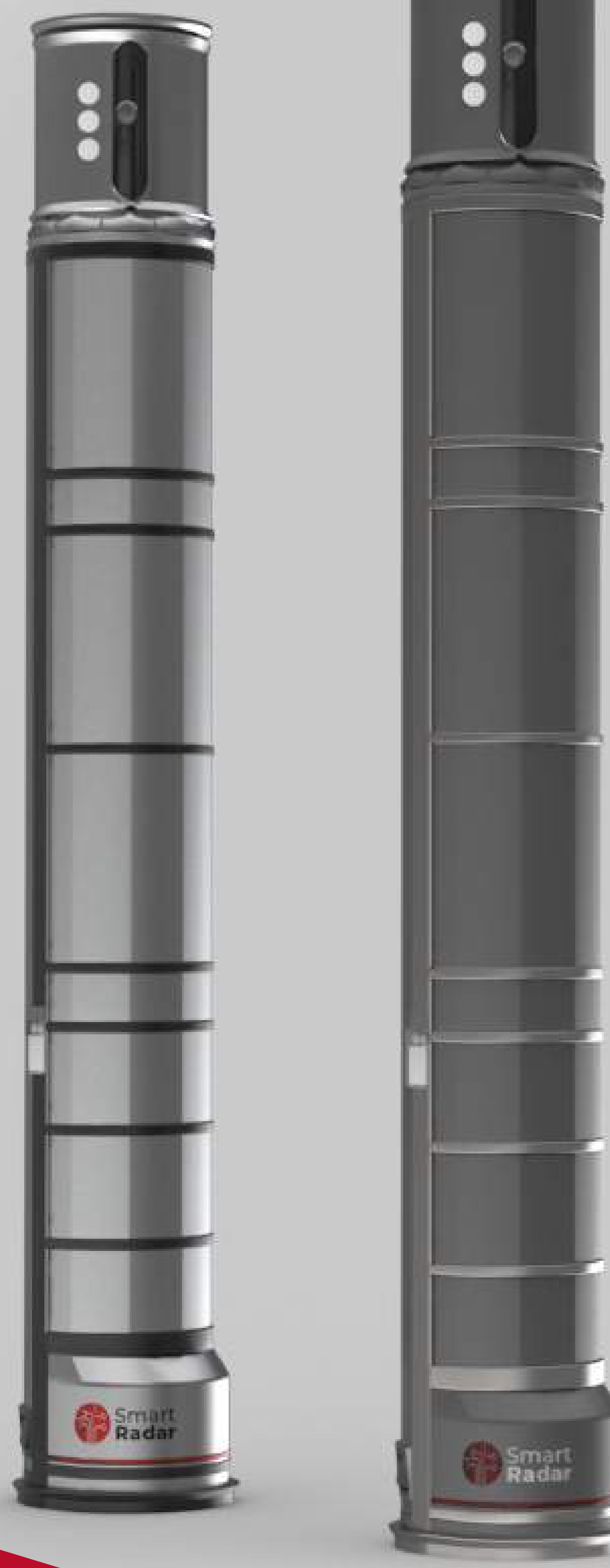
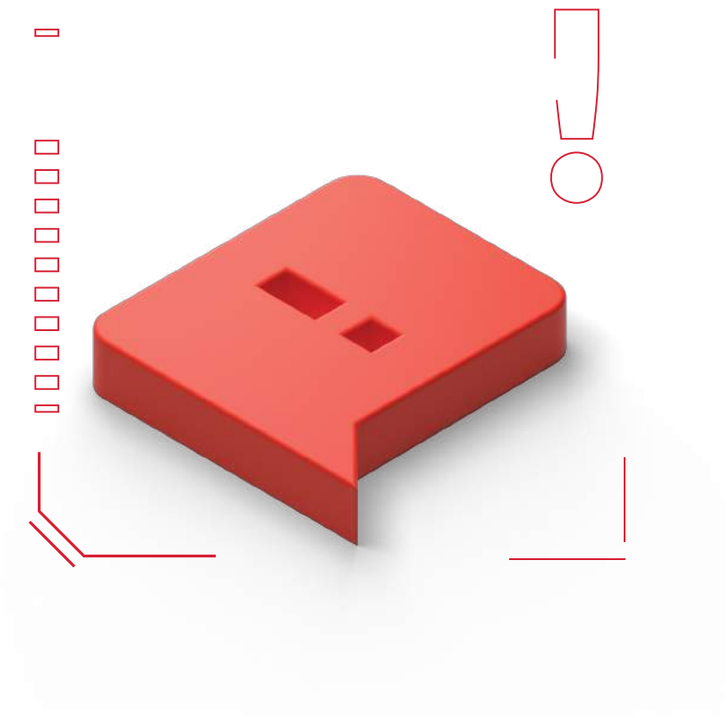
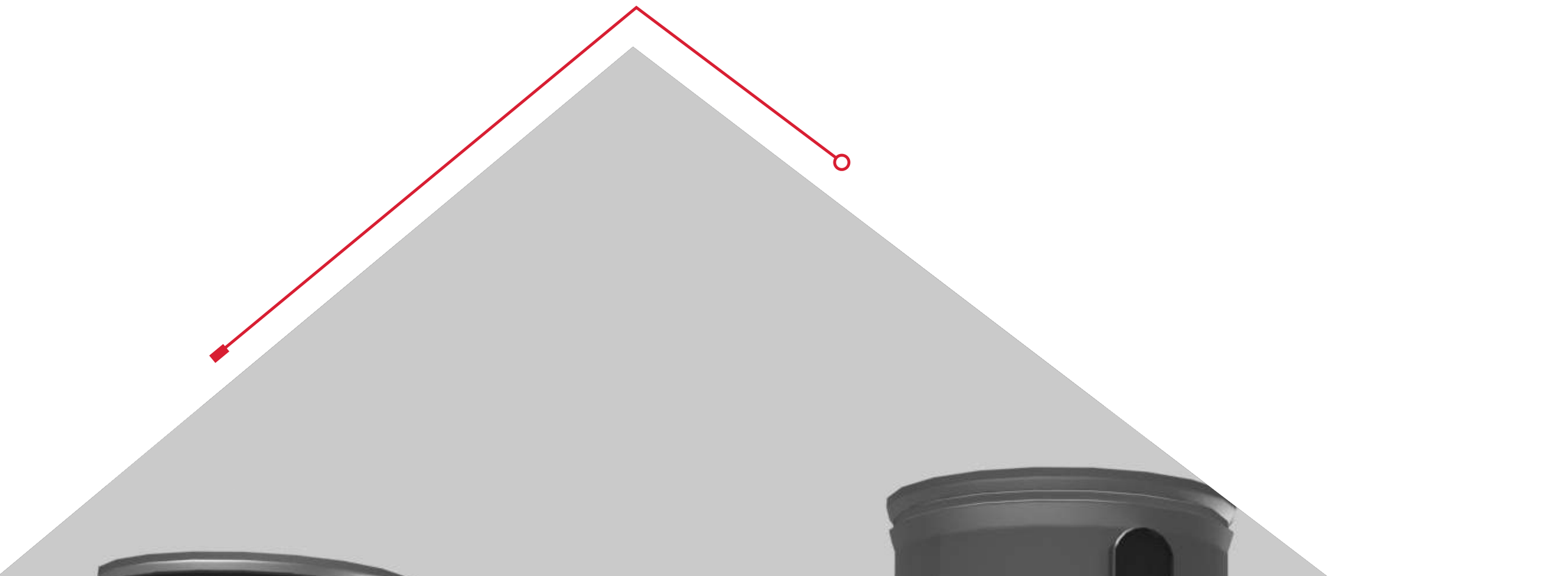


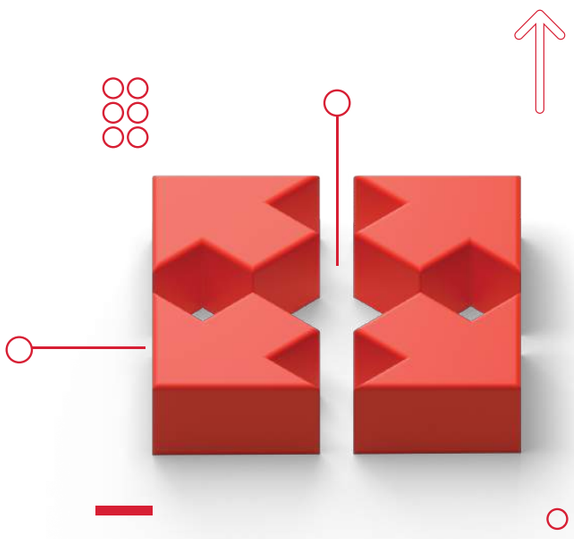
NG-RADAR



Product Overview

As a result of urbanization, many cities have started taking a smarter, more efficient and modernized approach to road safety and planning. Traffic analysis is high on the list of priorities. It is essential and complex component of planning, building, and operating a city's transportation system infrastructure and includes everything from traffic flow analysis and average speed monitoring to tailgating and lane change detection.





Benefits

Easily Adoptable for Smart City

With its entirely modular design, Smart Radar is capable of different functions with different modifiable modules. Allowing these modules to be added or removed easily, it can be adapted responsive to several needs in the different locations without any infrastructural costs and enables smart cities with several functions.

All Compact Design

Although having the slimmest design among its kind of traffic enforcement products in the market, Smart Radar includes all the hardware needed for the best result such as cameras, sensors, powering system inside. There is no need for any external hardware support.

Day and Night First Class Surveillance

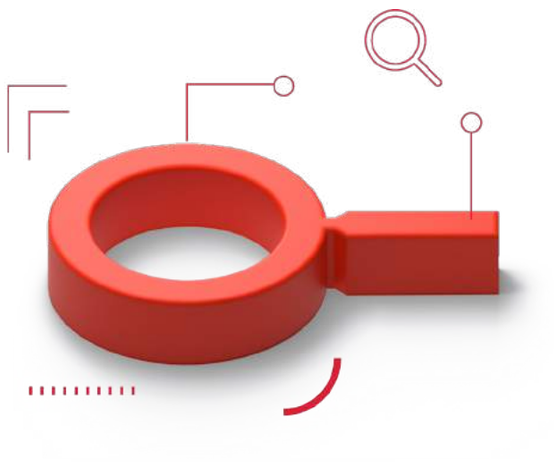
With its super high-resolution cameras, Smart Radar surveils large areas and records videos at the best resolution. It also continues to surveil in during the night with its own illumination without losing any sharpness and focus.

System Care for Environmental Changes

Smart Radar inspects environmental circumstances and its own performance by using its sensor. So that it informs the central system if there is an unnatural condition which effects its performance such as increasing temperature, humidity, tampering or attempting a door opening action and precautions can be taken on time.

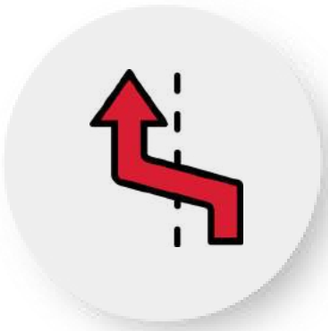
Red light enforcement

High resolution videos and images of all vehicles violating red light Automatic official fine or report issuing containing required violation information No cable connection needed. Using Video analysis technology for detecting red-light status.



Features

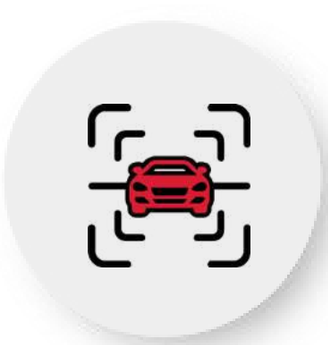
Tailgating detection



Sudden Lane change

Detect unexpected lane change to avoid a forward crash threat

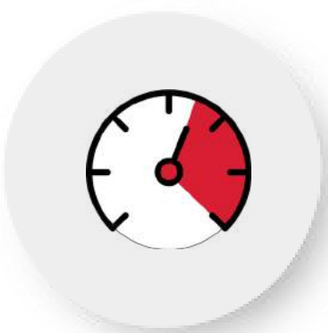
- Road traffic flow analysis
- Anomaly detection



Car model specific speed and lane detection

Detects the make, model of any vehicle.

- Image analysis and real-time statistics



AVERAGE TRAFFIC SPEED

Our NG-RADAR will not be dedicated only for the speed violators who exceed the speed limit, as it will detect the speed for all passing vehicles, which will allow us to detect the average traffic speed for each road

License Plate Recognition

Using license plate location tracking, character segmentation, and character recognition technology

Technical Features

DETECTION	
Multiple Lanes Speed Detection	Up to 7 lanes
Multiple Speed Limits Detection	-
Maximum Speed	320km/hour
Minimum Error Rate	<1km/hour
Dual Road Direction Speed Detection	-
Dual Vehicle Orientation Speed Detection	-
Average Traffic Speed	-
Apply Computer Vision	-
Operational Range	10m to 175m
Traffic Analysis Engines	-
Speed Enforcement	-
Connectivity	4GLTE, Ethernet, Wi-Fi lora

SYSTEM SPECIFICATION	
Offline operation mode	-
CCTV Streaming	-
Remote Configurations & Connections	-
Anti-Vandalism	-
Heat Sensors	-
Dual Network Interface	-

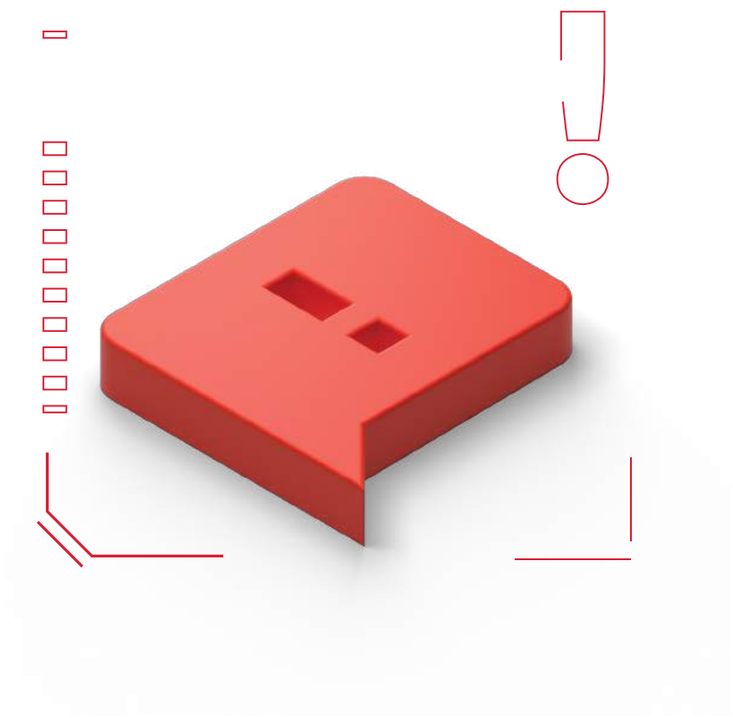
Technical Features

ENVIROMENTAL FEATURES	
Dimensions (height*Radius)	3000*300
Operating Temperature	-20 to 70 C temperature
Humidity Rate	10-90%, non-condensing relative humidity

MODULES	
Modules with latest technologies	-
AI Computing Unit powered by GPU to get real-time video analytics Thermal Camera	-
Cooling System	-
Support Modularity	-

LiDAR sensor	Optional
RADAR sensor	Optional
CCTV Cameras	Optional
IOT	Optional
Acoustic sensor	Optional
Drone	Optional
Weather sensing	Optional

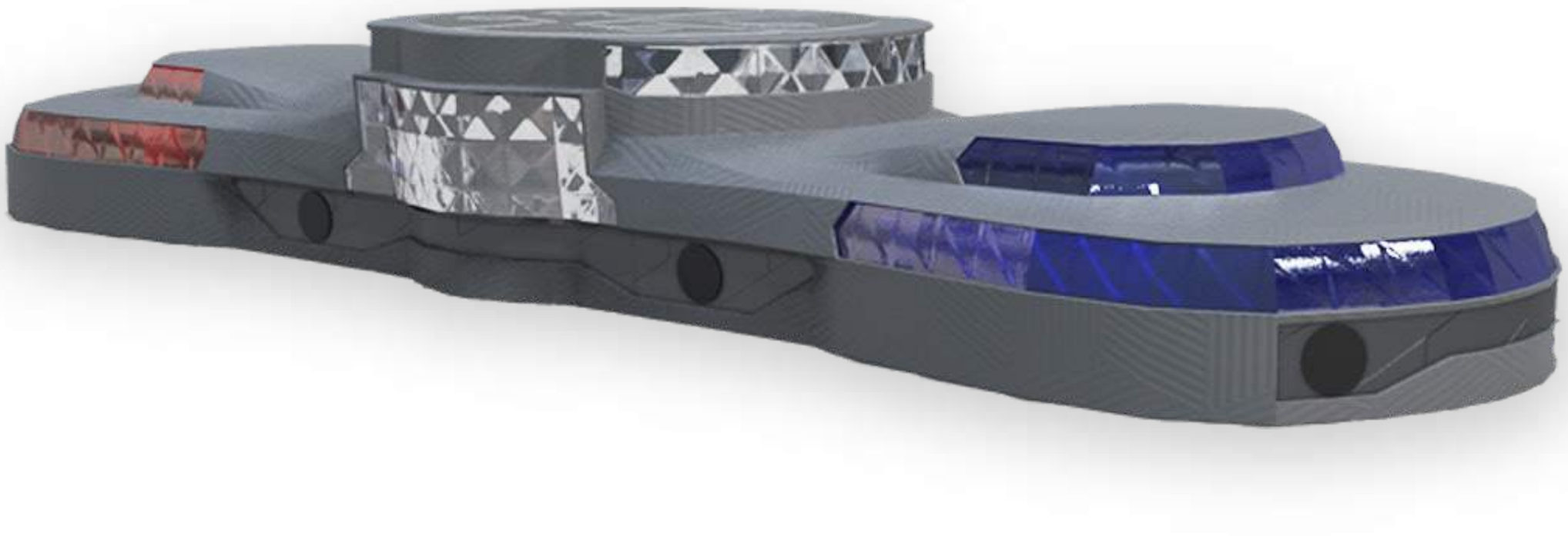
Smart patrol



Product Overview

Smart Patrol Designed specifically for law enforcement agencies, the Intelligent Lightbar provides the most advanced solution in the market for integrated intelligence and surveillance all in a single design.

Integrating a range of License Plate Recognition (LPR),Face Recognition ,Object Tracking ,Vehicle Recognition, and surveillance cameras into a sleek modern design Lightbar, built to be mounted on any vehicle, the Smart Patrol Intelligent Lightbar provides modern law enforcement agencies the capability to deploy a full range of intelligent analytics applications and local and remote video surveillance capability.



Benefits

As a mobile system, Smart Patrol provides 100% coverage at locations not covered by fixed systems.

Can be used in any location as a cost-effective mobile alternative to infrastructure investment in fixed surveillance units.

7

Can detect every plate number in up to 7 lanes.

Turns regular police vehicles into smart patrol vehicles with its plug and play design.

As the first and only compact smart patrol unit in the world, it is compatible with any vehicle.

360°

Records even unnoticed actions with 360 degrees surveillance.

The major disadvantage of fixed surveillance systems is the missing flexibility and limited viewing angle. Having integrated more cameras on all four sides, Smart Patrol provides a 360-degree view angle.

Features

Communicates with other systems and generates instant alarms.

Detects vehicles that are on the blacklist by their plates number and generates an audial or visual alarm on its tablet application.

Can communicate with all other Tahaluf solutions using the appropriate communication infrastructure and can be directed to the incident scenes immediately.

Centrally managed from a single point to ensure actions are taken on time.

Sleek, modern, and rigid design Lightbar Designed specifically for law enforcement agencies.

LICENSE PLATE RECOGNITION (LPR)

Using license plate location tracking, character segmentation, and character recognition technology, it can automatically recognize the number of vehicle license plates and other related details.

VEHICLE MAKE & MODEL RECOGNITION (VMMR)

Detects the make, model and color of any vehicle.

FACE RECOGNITION (FR)

Identifies and finds human faces in real-time.

WEAPON DETECTION (WD)

Helps identify threats before they become violent using an AI based engine that uses computer vision and artificial intelligence technology to detect guns, knives and other weapons in real time.

GUN-SHOOTING DETECTION & LOCALIZATION (GSLD)

Uses acoustic sensing technology and live video streaming to record, identify, discriminate, and report gunshots to the police within seconds of the shot being fired.

HUMAN CROWD DETECTION (HCD)

When a specified number of people or a specified percentage of people is reached, the edge-based video analysis estimates the number of people within a given area in real time and causes an alarm. Suspicious

HUMAN FIGHTING DETECTION (HFD)

Recognize violent scenes in real-time by capturing the degree of motion, as well as the characteristic sounds of violent events.

HUMAN FALL DOWN DETECTION (HFDD)

Identify and find someone who has fallen down due to a criminal act or detect falls of elderly people with health issues.

MOBILE VEHICLE SPEED DETECTION

- Automatic speed measurement for all the vehicles in the field of view.
- Optional rear speed enforcement.
- Different speed limit adjustment for each lane and automatic official fine or report issuing containing required violation information.

Vehicle Detection, Classification, & Tracking

- Detect All types of vehicles
- Classify the vehicles into 5 main classes
- Track each detected vehicle across multiple video streams

Light Bar Specs & Design

The light bar can operate between -20 to 70 C temperature range.

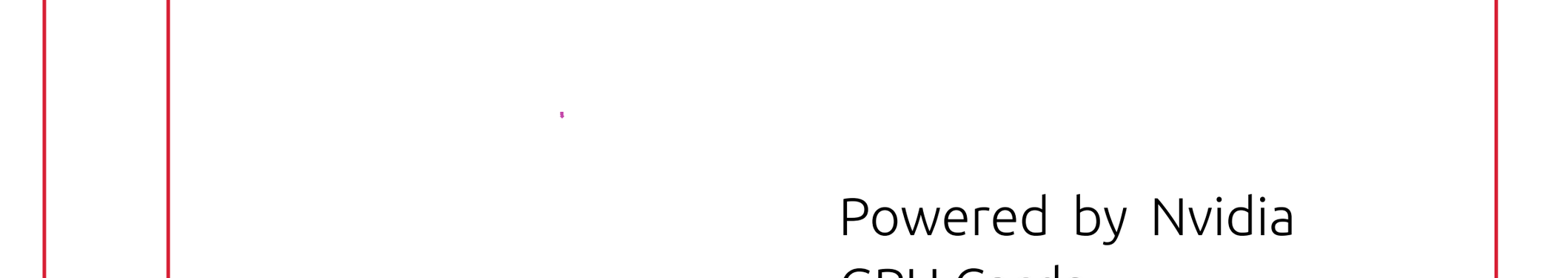
The light bar shipped with the most advanced in-vehicle power ignition management system to ensure an outstanding performance.

Integrated with versatile, highly customizable lightbar and Hand-Held Controller Siren

Support Bluetooth, Wi-Fi, 4G/LTE, Ethernet.

The light bar connected with 8 cameras with very high resolution.

Powered by Nvidia GPU Cards



Technical Features

DETECTION	
Speed Range	Up to 160 km/h relative speed
Coverage	Up to 7 lanes
Number of Simultaneously Detected Vehicles/Persons/Objects	Over 50 vehicles / Over 200 Persons
Direction of View	360 Degrees
IR Spot	-
Day and Night Detection	-

ENVIROMENTAL FEATURES	
Dimensions (w × l × h)	122cm*30cm*16cm
Operating Temperature	-20 to 70 C temperature
Shock and vibration resistance	-
Humidity Rate	10-90%, non-condensing relative humidity

Technical Features

SYSTEM SOFTWARE	
Integrated AI Engines	-
In-Vehicle App	-
Alarm Management	-
Remote Secure Installation and Access Violation	-
Photo and Video Evidence 24/7 Surveillance	-
Record	-
Watermark	Applied on all photos and videos
Media Local Storage	Applied as per Client Data Retention policy (Up to 2 months)
Integration with Command & Control Solutions via Tahaluf embedded OS	-

About Tahaluf

In an effort to define the digital landscape for the region, Tahaluf was established in 2015 as a strategic initiative for the nation's quest for digital transformation.

Since its inception, Tahaluf has strived to provide the latest state-of-the-art solutions and services to keep businesses secure and at the forefront of the future. By solidifying its position as an innovative industry leader offering integrated solutions and services across the country and internationally, Tahaluf has established itself as a leading national presence in IT and cybersecurity.

Tahaluf’ s growing legacy has become intrinsically woven into the technological advancement of the UAE, shaping, and elevating the government’s determined strive to achieve its ambitious vision built around smart cities and infrastructure developments. With this vision, Tahaluf intends to continuously cultivate innovation and transformation, provide cutting-edge security solutions, and create a future of possibilities in the UAE and beyond.

WE DO IT WITH PASSION

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