Ekin X SPOTTER

Portable ALPR, Speed and Traffic Violation Recognition System

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SMART CITY SOLUTIONS

Next Generation Smart City Solutions

Ekin X Spotter is a portable smart AI based traffic enforcement system that performs automatic license plate recognition, speed and violation detection of the vehicles in its field of view via 4K motor-zoom image sensor backed video-based license plate recognition technology performing continuous traffic safety even on the move.

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Why Ekin X Spotter?

Self-Contained Design

With its compact design and size, Ekin X Spotter can be mounted easily to any type of vehicle as a mobile Plug and Play solution. Also, it can be mounted to the pole or used on tripod to provide instant safety at required locations. With all built in ready to use GPS, LTE, Wi-Fi, Ethernet support, it provides versatile application range.

Mobile Surveillance

Ekin X Spotter fixed and mobile surveillance provides range of 3 lanes even on the move. With its perfect mobility, it provides more coverage and various usage options.

Super High-Resolution Videos

With its 4K motor-zoom image sensor, Ekin X Spotter ensures super high-resolution video and ALPR, records evidence photos and videos without losing any focus or sharpness. Having motor zoom camera and remote image sensor calibration function provide easy and fast setup.

24/7 Surveillance and Traffic Control

Ekin's video-based license plate recognition technology records not only the violation moment but also the entire traffic flow which is a distinctive property compared to conventional photograph-based systems.

Internationally Applicable

Ekin X Spotter recognizes almost any countries' license plates including European, North American, South American, Eastern and Middle Eastern license plates with high accuracy and identify the country information that license plates belong to.

Central Management by Ekin Red Eagle OS

Ekin Red Eagle OS operates all the traffic systems in the city including Ekin X Spotter from a single point and ensures actions to be taken on time. Ekin X Spotter can communicate with all other Ekin products offer perfect traffic safety over the network.

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FUNCTIONS

* More than one device is needed for all functions

Smart Traffic Analytics

- Analysis of rush hour congestion for specified points of interest, flow of cars passing toll points including delays and hotspots of traffic congestion by date and time
- Estimation of average time spent in traffic
- Detection of number of the vehicles that drive by a specific point

License Plate Recognition

- Recognition of every license plate with its video-based license plate recognition technology for up to 3 lanes.
- Automatic license plate recognition simultaneously for incoming, outgoing or parked vehicles
- Identification of wanted or stolen vehicles over a specific database
- Vehicle type classification (bus, truck, car, motorbike etc.) based on AI image processing
- Vehicle make, model, color recognition from the front and back of the vehicle

Speed Detection

* Optional

- Automatic speed measurement optional for all the vehicles in the field of view
- Different speed limit adjustment for each lane and/or vehicle type
- Automatic official fine or report issuing containing required violation information

Violation Detection

- Red light enforcement, wrong way, right, left, U turn violations detection
- Detection of lane change, tailgating, safety lane violations
- Provide data of expired insurance, registration, document violations
- Prepare alerts for traffic jams and accidents

Parking Enforcement

- Detection of vehicles exceeding the parking time in the defined parking zone
- Automatic official fine or report issuing containing required violation information

Video Surveillance

- 24/7 surveillance and video recording
- Day and night 4K video recording, even in adverse weather conditions

ON-BOARD INTELLIGENCE

Fully Automated LPR

Speed Detection

Red Light Violation Detection

Vehicle Counting

Included based on Image Processing

Vehicle Make, Model, Color Recognition

Traffic Density Analytics

Vehicle Classification

Included based on Image Processing

Tailgating Detection

Lane, Turn, Wrong Way Violations

Vehicle Detection

Stopped Vehicle Detection

Pedestrian Detection

TECHNICAL FEATURES

DETECTION

Speed Range	5-320 km/h - 3-200 mph
Coverage	3 lanes including approaching and departing vehicles
Number of Simultaneously Detected Vehicles	Over 100 vehicles

ILLUMINATION

IR Spot	√
Day and Night License Plate Detection	√
Flash	Optional

SYSTEM SOFTWARE

Automatic License Plate Recognition	24/7 for all the vehicles in the field of view
Web Service	√
Protocol	TCP/IP, UDP, NTP, FTP, RAW
Various Database Support	SQL/NoSQL
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	Up to 2 TB
Vehicle Color, Brand, Type and Model Recognition	Optional
Communication with Other Safe City Solutions via Ekin Red Eagle OS	√

CENTRAL SOFTWARE

Various Database Support	SQL/NoSQL
Graded Authorization	Admin, Supervisor, Users
Customizable Fine Printing	√
SMS and Mail Support	√
Automatic Update	√
Log Record	√

ELECTRICAL FEATURES

Connection Interfaces	Ethernet, Wi-Fi, 3G, LTE
Required Power Supply	12-48 VDC min/300 Watt
Power Consumption	<50 Watt/Hour

ENVIROMENTAL FEATURES

Dimensions (w × l × h)	195 × 190 × 100 mm
Operating Temperature	-25°C + 60°C (Optional 65°C)
Storage Temperature	-25°C + 80°C
Humidity Rate	%95 non-condensing
Weight	5 kg
Protection Class	IP67

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Next Generation Smart City Solutions

Mobile Products

- Ekin Patrol G2
- Ekin Bike Patrol
- Ekin X Spotter

Fixed Products

- Ekin Spotter
- Ekin Box Spotter
- Ekin X Spotter

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