

HOV

LECTOR VISION

High-occupancy vehicle detection



Plate + occupancy



Smart trigger



Full-passage analysis.



Data + evidence



High-Occupancy Vehicle (HOV) is designed to verify vehicle occupancy and maintain a clear, auditable record of every vehicle passing through a controlled lane. By combining license plate identification and cabin interior analysis in the same workflow, it delivers easy-to-manage results. Typical implementations include parking lots (2 cameras + 2 IR illuminators) and roads (2 cameras + 1 IR illuminator; optional reinforcement).



Complete passage record: images + full video of each transit.



Operating results: board, type, speed, occupancy, and reliability.



Privacy-ready: delivery with faces anonymised.

HOV system

Technical details

LECTOR VISION



Master Camera (OCR) & Slave Camera (HOV)

Identifies the vehicle by reading the licence plate and creates the event that starts the inspection. Captures the vehicle during its passage and calculates the number of occupants from the recorded sequence, generating the final occupancy output.

IR Illuminators

Combine infrared light with a night vision device to improve your lighting.



- Consistent event-to-vehicle association: each trigger is tied to a single vehicle passage.
- Supports free-flow operation and external triggering depending on the site.

- Automated workflow reduces manual intervention during capture and processing.
- Easy review and reporting thanks to structured outputs for each transit.
- Deployment-ready architecture for parking and road environments.

ADVANTAGES

Features

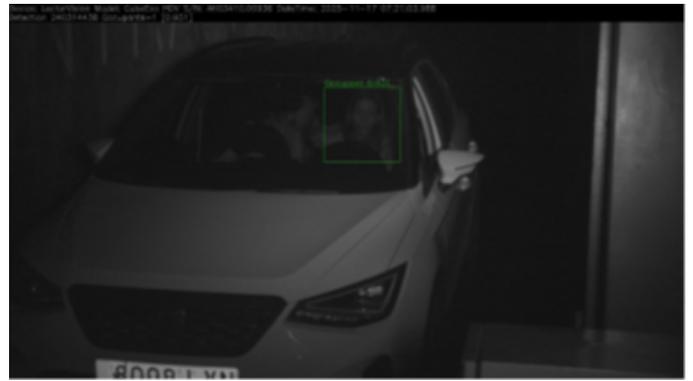
- Dual CMOS sensor B/W + Colour (2.3 MP, 1/2.6").
- Video compression H264 / H265.
- Embedded processor NXP i.MX8+ (CPU + DSP + NPU + GPU) + NN support (Tensorflow-lite / ONNX).
- Power 12V DC / PoE + web configurator.
- Optics: Master 2× motorised zoom 5–50 mm | Slave 2× fixed IR 3.0 mm.

All in one system

- Single system workflow: coordinated OCR + HOV capture under one operational flow.
- Complete data package per transit: structured outputs designed to integrate with backoffice tools.
- Built for practical deployments: fits typical parking/roadside setups with dedicated roles per device.
- Scalable operations: prepared to adapt as operational needs evolve.

Real cases

Parking examples



Road examples



Installation

Images of facilities currently in operation in Madrid EMT parking lots.

