



## M<sup>3</sup> MODULE: CARPOOLING SOLUTION

**Carpooling** is increasingly being promoted by governments all over the world. This has manifested itself in the emergence of **HOV- lanes**. HOV stands for "High Occupancy Vehicle". It is a separate dedicated lane where only High Occupancy Vehicles are allowed to drive, such as a bus, or a car with 3 or 4 occupants.

## How does this work?

Imagine the correct use of HOV-lanes requires some sort of control mechanism. It is now possible to accurately detect how many occupants might be in a particular car. To be able to provide accurate data, an **ANPR camera** is deployed to read the front number plate. **Optionally a second ANPR camera** can be deployed to read the back plate of the car (motorbike, trucks,...). To be able to ascertain how many people are in the car, we need **2 VOR cameras** (VOR = Vehicle Occupancy Recognition) \*See image. One is incorporated with the ANPR camera that reads the front plate, the second one is aimed at the passenger window. The 2 cameras send all the relevant data to a back-office system which converts this data into valuable traffic information.

One has to indicate in advance with which number plate and with how many occupants a vehicle may use the HOV-lane. This makes it perfectly possible to check whether or not a certain vehicle is allowed to drive in the HOV-lane.

## **THE MACQ QCAM 5P:**

- Dual high-sensitivity, high standard and polarized sensors (2664 Hpx x 2056 Vpx - B/W & Color)
- > Vehicle speed detection from 0 to 180 km/h
- > Weight: 3.8 kg
- > PSU: 24 Vdc
- ▶ Processor: NVIDIA JETSON TX2
- > Operating temperature: -20°C +60°C
- Minimum IP67 protection (IP55 Arm Mechanism)
- > WIFI, 3G/4G/GPS



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