

## Entry / Exit Parking Management System



**Parkcount-InOut**

Parkcount-InOut system is designed to define the occupancy state of a car park by detecting the incoming and outgoing vehicles. Each time a vehicle enters the parking lot, the parking places available are reduced by one and incremented by one when a vehicle exits.

The system is composed by a control unit, several detectors and, if desired, by several displays.

The system can use different kind of detectors (magnetic, infra-red or laser scanners) depending on the characteristics of the parking lot. The detectors must be installed on each entrance and exit of the parking.

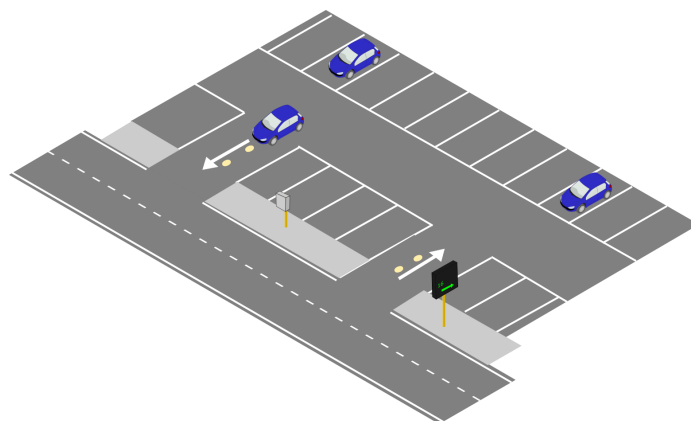
The control unit is equipped with a CPU (Linux embedded operating system), an expansion board and a modem (if required).

### TASKS

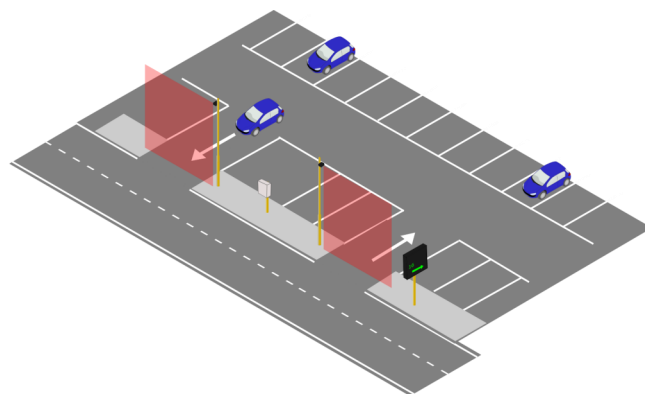
- Get data from the detectors
- Set filters and transits detecting mode
- Compute the car park state (free, filling, full) and available places
- Send data to the control station
- Modem control (GPRS, UMTS, WIFI)
- Sensors diagnostic
- Set the number of free or occupied park lots through web application or SMS
- Local display management

The software of the control unit contains specific algorithms to reduce multiple detections of transits generated by vehicles maneuvers inside sensors range.

The system can also be composed by several displays to show the number of available places of the parking.



**Figure 1: System with magnetic sensors**



**Figure 2: System with laser sensors**