

Street Parking Space Occupancy Sensor

The Challenge

The customer is a smart parking solution provider that operates networked parking meters integrated into a city-wide parking management system. The customer's objective is to provide the best parking experience for drivers by allowing them to locate available street parking spaces through a mobile application. The challenge thus consists in ensuring both robust and reliable street parking space occupancy detection for various types of vehicles, including cars and motorcycles. The system must be based on a cost-effective sensor that can be mounted to or overhead of smart street parking meters, and is able to ensure round-the-clock operation (day and night) and operate in all weather conditions, including fog, rain, and snow.

The LeddarTech Solution: Leddar™ Sensor

The Leddar™ Sensor uses a novel, inherently eye-safe technology that performs detection and ranging by time-of-flight measurement using pulses from visible or infrared LEDs.

Product features:

- Wide diffused light beam and multiple segments provide robust detection of all vehicle types under all environmental conditions.
- Active illumination and immunity to ambient light ensure reliable day and night operation.
- Robust IP67 enclosure allows for permanent outdoor installation.
- Compact and cost-effective design results in a high-efficiency, largely maintenance-free system.
- Optional sensor assemblies are available for solutions requiring custom mechanical integration.

The Outcome

Installation with a 45-degree sensor for occupancy detection of each parking space, two sensors per parking meter.

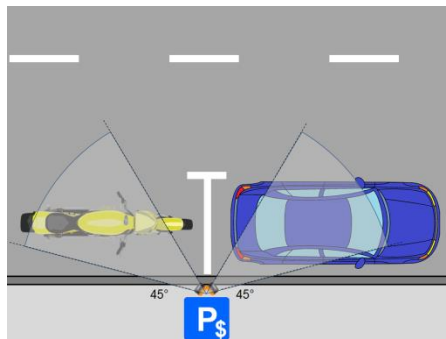


Fig. 1: Coverage of two parking spaces by two 45° sensors mounted to parking meter

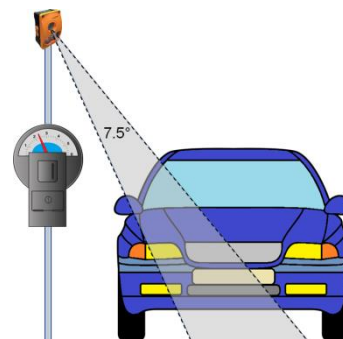


Fig. 2: Sensor is mounted high enough to protect from vandalism

Product References

- Leddar™ Sensor (45° beam)
- Leddar™ Assemblies
- Leddar™ Evaluation Kit (45° beam)