

Loading Dock Vehicle Position Sensor

The Challenge

The customer is a material handling facility integrator. The firm was mandated to provide all material handling automation for a new warehouse facility. A specific challenge is to provide a system that will assist truck drivers in docking at the loading/unloading platform. The system must indicate lateral alignment and distance from the dock, and be able to provide 24-hour operation in all weather conditions.

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:

- Operates in all weather conditions (fog, rain, snow...), both day and night.
- IP67 sensor enclosure for outdoor operation.
- Ease of installation and configuration.
- Multiple measurements provide lateral position and distance.
- RS-485 port provides configuration and data acquisition for seamless integration in custom applications.

The Outcome

Two 45° beam Leddar™ Sensors positioned on each side of the dock detect the truck backing up. A controller processes the measurements to control lights (Fig. 1) that provide guidance to the truck driver for alignment and distance from the dock (Fig. 2).

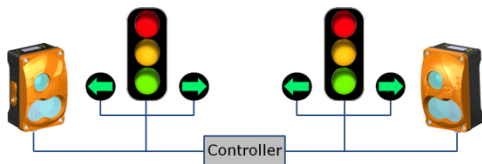


Fig. 1: The Leddar™ Sensors are used to provide real-time guidance based on the truck's current position

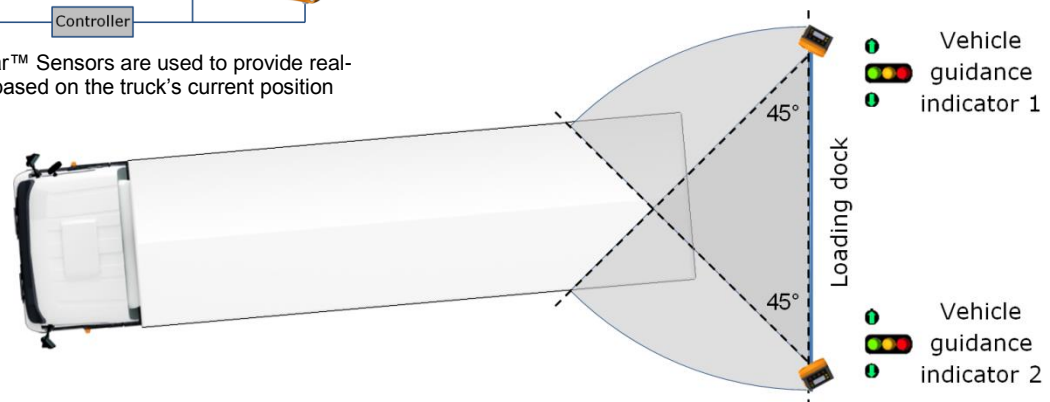


Fig. 2: Vehicle guidance indicator is placed on each side of the platform for truck backing up in any direction

Product References

- Leddar™ Sensor (45° beam)