HPS-3D160-U Area Array Lidar

DFR0728

Product Overview
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For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

DFRobot HPS-3D160-U Area Array Lidar is a high-performance solid-state LiDAR sensor based on the Time-of-Flight (ToF) principle. This array lidar is equipped with an optimized lighting system and a low distortion infrared optical lens. This lens is capable of measuring distances of up to 12m on 90% reflective white targets. The HPS-3D160-U area array lidar features a flexible user-defined Region Of Interest (ROI) function, simple-HDR, auto-HDR, and super-HDR modes that make the array lidar suitable for various applications.

The HPS-3D160-U area array lidar integrates high-power 850nm infrared VCSEL emitters and high-photosensitive components. The embedded high-performance processor, advanced data processing, filtering, and compensation algorithms ensure very stable simultaneous measure data output. This array lidar offers a full solid structure, industrial IP67 protection design, and sturdy aviation aluminum housing that enable the lidar to be used in complicated environments. Applications include AGV collision avoidance, safety area protection, people counting, service robot collision avoidance, smart transportation, and automatic door area trigger control.

Features

- Full field of view frame up to 35fps
- 76° x 32° field of view
- 160 x 60 resolution
- Support 16 groups ROI setting and each group support multi-ROIs
- USB port and 1 group of Optocoupler isolation GPIO
- Supports GPIO input measurement simultaneously
- Up to 12m measuring range
- Range accuracy:
    - Points cloud in centimeter

Specification

- Support for Windows, Linux, ROS, and Raspberry Pi
- Excellent ambient light suppression ability
- Embedded anti-interference algorithm and supports multi-machine work
- Total solid structure and industrial IP67 anti-water design
- Supports simple-HDR mode, auto-HDR mode, and super-HDR mode with fine scene adaptability

Applications

- AGV collision avoidance
- Safety area protection
- People counting
- Service robot collision avoidance
- Smart transportation
- Automatic door area trigger control

Mouser Part Number

View Part

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