GY-530 laser ranging sensor

Produktkode: 2056
Tilgjengelighet: 2
Vekt: 0.00kg

Pris: kr. 85,00

Short Description
GY-530 VL53L0X World smallest Time-o f-Flight (ToF) laser ranging sensor

Beskrivelse
Description

The GY-530 sensor has the VL53L0X sensor on board, with power management IC on board, the module can accept power arrange from 2.8V to 5V.

The VL53L0X is a new generation Time-of-Flight (ToF) laser-ranging module housed in the smallest package on the market today, providing accurate distance measurement whatever the target reflectances unlike conventional technologies. It can measure absolute distances up to 2m, setting a new benchmark in ranging performance levels, opening the door to various new applications.
The VL53L0X integrates a leading-edge SPAD array (Single Photon Avalanche Diodes) and embeds ST’s second generation FlightSenseTM patented technology.
The VL53L0X’s 940nm VCSEL emitter (Vertical Cavity Surface-Emitting Laser), is totally invisible to the human eye, coupled with internal physical infrared filters, it enables longer ranging distance, higher immunity to ambient light and better robustness to cover-glass optical cross-talk.

Applications

- User detection for Personal Computers/Laptops/Tablets and IoT (Energy saving).
- Robotics (obstacle detection).

- White goods (hand detection in automatic faucets, soap dispensers etc...)
- 1D gesture recognition.
- Laser assisted Auto-Focus. Enhances and speeds-up camera AF system performance, especially in difficult scenes (low light levels, low contrast) or fast moving video mode.

Features

- Fully integrated miniature module
  – 940nm Laser VCSEL
  – VCSEL driver
  – Ranging sensor with advanced embedded micro controller
  – 4.4 x 2.4 x 1.0mm
- Fast, accurate distance ranging
  – Measures absolute range up to 2m
  – Reported range is independent of the target reflectance
  – Operates in high infrared ambient light levels
  – Advanced embedded optical cross-talk compensation to simplify cover glass selection
- Eye safe
  – Class 1 laser device compliant with latest standard IEC 60825-1:2014 - 3rd edition
- Easy integration– Single reflowable component
  – No additional optics
  – Single power supply
  – I2C interface for device control and data transfer
  – Xshutdown (Reset) and interrupt GPIO
  – Programmable I2C address

Datasheet

GY530 Schematic

VL53L0X datasheet.pdf

Arduino Code

Info
Specifications:
Infrared distance measurement module
Model: GY - VL53L0X

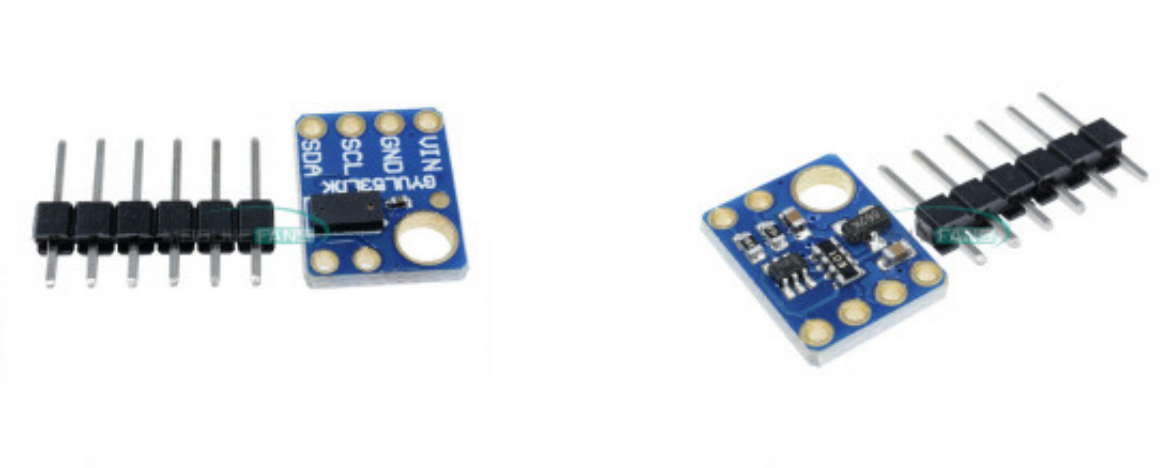
Using the chip: VL53L0X
Power supply: 2.8 to 5V
Ranging time: <30ms
Operating mode: Power consumption 20mW
Standby power consumption: 5?A
Distance: <2 meters
Communication: the IIC communication protocol (fully compatible with 3-5 v system)
PCB size: about 13.3x10.5mm/0.51"x0.43"
No Retail Packages

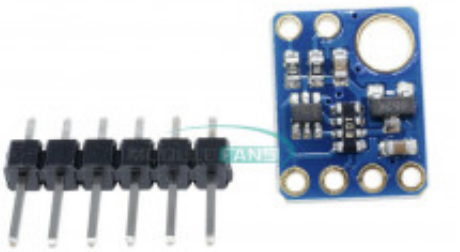
Application:
wall detection, cliff detection, collision detection
sweeping robots
faucet, soap dispenser, Dry cell phone
unmanned aerial vehicles, IoT products.

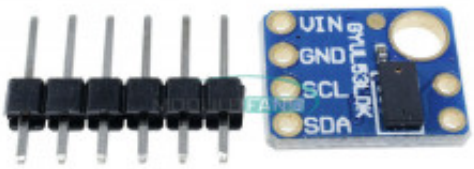
Note: Due to the difference between different monitors, the picture may not reflect the actual color of the item. Thank you!

Package Include: 1 x GY-530 VL53L0X IIC I2C ToF Time-of-flight Ranging Distance Sensor 2.8-5V

Product Gallery



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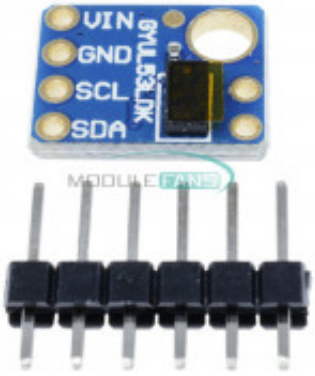
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