

XT-S1 ToF Single-Point Ranging LiDAR Sensor (0.3-30m)

SKU:SEN0585 Brand:Other Reward Points: 550

Categories: Sensors All Products Range & Distance Sensors
Topic: Arduino

Quantity: − 1 +

BUY IT NOW ADD TO CART

INTRODUCTION

This is a compact single-point laser radar based on the Time-of-Flight (ToF) principle. With a lightweight design of only 9 grams, it is incredibly convenient to install. Thanks to its low power consumption, which is less than 0.5W, it is well-suited for battery-powered or low-power demanding scenarios.



This laser radar offers compatibility with both indoor and outdoor environments with intense lighting conditions of up to 100klux, enabling reliable operation in various bright settings. With a measurement range of up to 30 meters, it provides stable, precise, and highly sensitive distance measurements.

Size of XT-S1 ToF Single-Point Ranging LiDAR Sensor (0.3-30m)

The application potential of this laser radar is extensive. In the field of unmanned aerial vehicles (UAVs), it can be used for altitude control, ensuring the drone maintains a stable flying height. In robotics, it proves valuable for collision avoidance, helping robots detect and navigate around obstacles. In the realm of smart homes, it can be employed for environmental perception and tracking, enabling intelligent control of home devices based on human position and movement.

Note: **Please don't directly look into the laser radar with your eyes while using it!**

FEATURES

- Compact size
- Lightweight
- Measurement range of up to 30m indoors and outdoors

APPLICATIONS

- Altitude control
- Collision avoidance
- Smart homes

Applications of XT-S1 ToF Single-Point Ranging LiDAR Sensor (0.3-30m)

SPECIFICATION

- Measurement range: 0.3~30m (90% reflectivity indoors and outdoors)
- Measurement accuracy: 30~250cm @ ±5cm, 250~3000cm @ ±2%cm
- Operating voltage: 4.8~5.2V
- Power consumption: < 100mA @ 5V
- Communication interfaces: UART/I2C/IO
- Wavelength: 940nm
- Resolution: 1cm
- Measurement frequency: Maximum 50Hz
- Ambient light immunity: 100klux
- Emitter angle: Half-angle of 2°
- Receiver angle: Half-angle of 1°
- Operating temperature: 10°C~60°C
- Storage temperature: -20°C~70°C
- Weight: 9g

DOCUMENTS

- Product manual
- Upper Computer Operator Manual
- Upper Computer

SHIPPING LIST

- XT-S1 ToF Single-Point Ranging LiDAR Sensor(0.3-30m) x1
- 6-pin DuPont cable x1

REVIEW

More Arduino Related Projects Arduino Tutorials

FAQ

Sign up for exclusive offers!
Your email address →
Like us on

DFROBOT DRIVE THE FUTURE

INFORMATION
About Us
Warranty
Terms & Conditions
Shipping
Payment
FAQ

CUSTOMER SERVICE
DFRobot Distributors
Contact us
Site Map

MY ACCOUNT
Affiliates
Specials
Coupon

Connected from Ashburn, US