



TOF-05D Obstacle avoidance Type Laser Radar

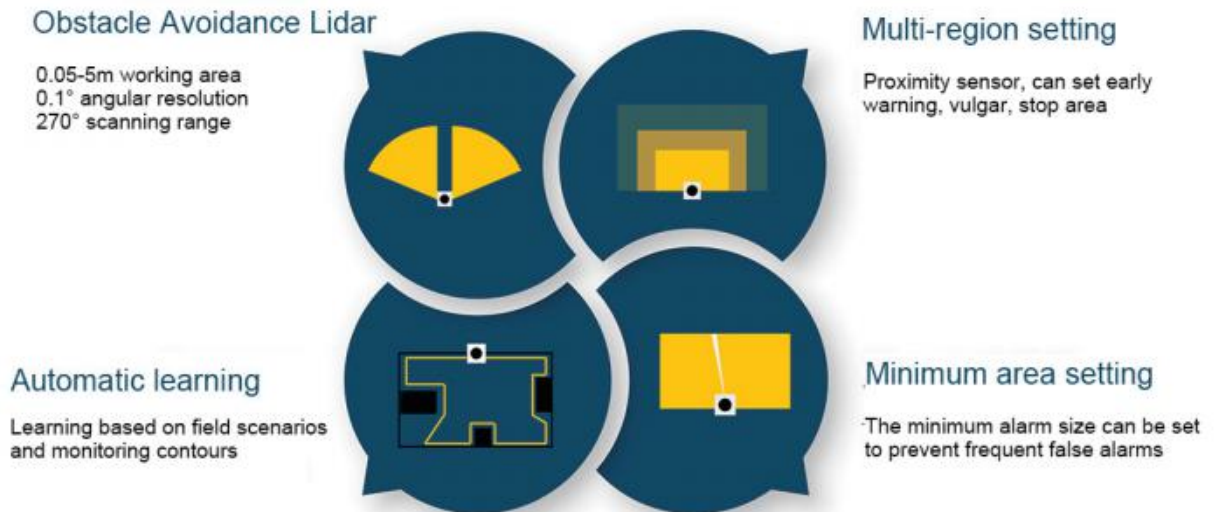


Product Brief

XD-TOF-05D obstacle avoidance laser radar

05D series two-dimensional TOF obstacle avoidance type laser radar has a 5M monitoring range and an angle of 270°. It has the function of stopping operation and taking into account the production. The products are mainly based on the newly developed compact, economical type, fast speed measurement, small size, light weight, low power consumption and low cost.

Product Features

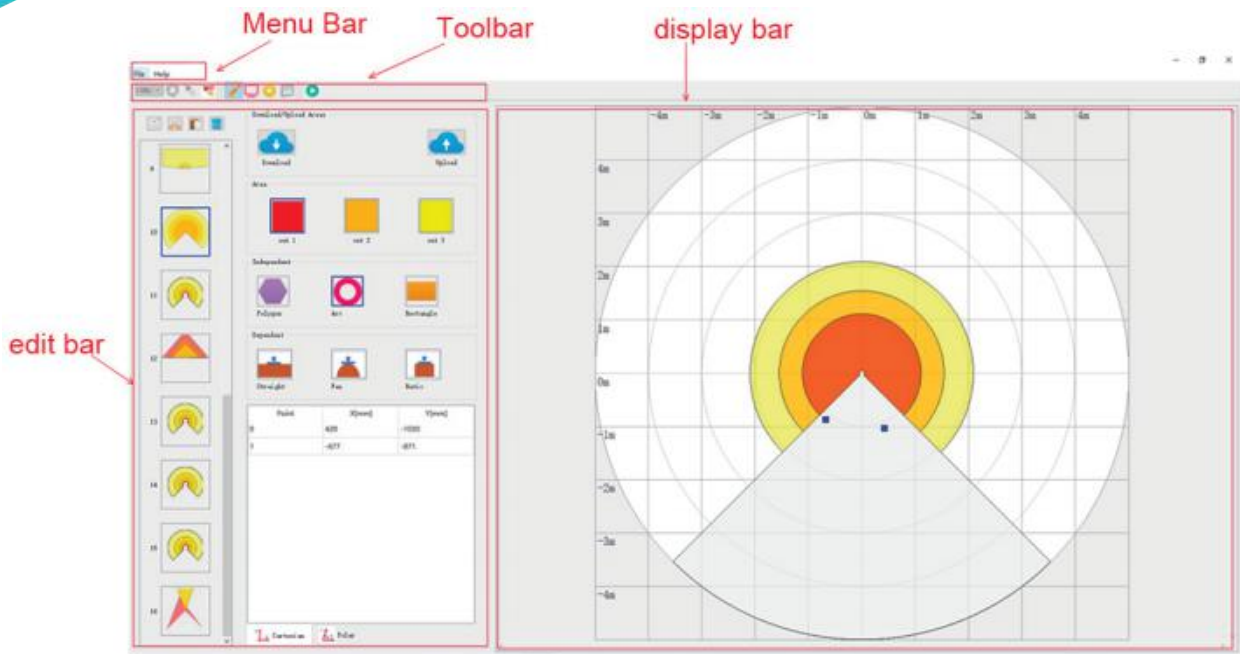


- Note:
1. Optical cover: The optical cover is made of plastic. Please be careful that the cover is scratched by a sharp object and affect the optical performance.
 2. LED indicator: the indicator has two functions
a) When Aries is working, if something intrudes into the work area, it will give an alarm through the LED indicator.
b) Indicate whether Aries is working properly.
 3. Self-learning button: Aries has a self-learning function, which builds areas and area groups by scanning the surrounding environment.

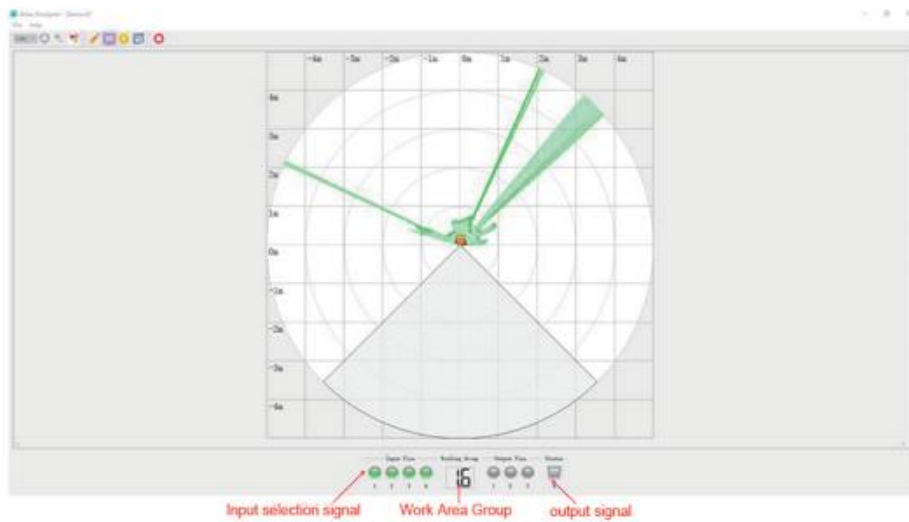
Parameters

Basic Information		
Product name	2D TOF obstacle avoidance laser radar	
Product number	XD-TOF-05D	XD-TOF-05D
IO output	NPN	PNP
Features		
Laser light source	905 nm (class I)	
Scanning angle range	270°	
Scanning frequency	15 Hz/30 Hz	
Angle resolution	0.1°/0.3°	
Working area	0.05 m~5 m	
Self-learning function	Automatically scan the environment and generate areas	
Mechanical/electronic parameters		
Electrical connections	DB15 MALE/ Scattered line	
Supply voltage	DC 9 V~28 V	
Power consumption	2W	
Switch drive	DC 30 V 50 mA MAX	
Shell color	light blue	
Protection class	IP65	
Weight	150 g, Without cable	
Dimensions (L×W×H)	50 mm×50 mm×76 mm	
Performance		
Recognizable object shape	Almost any shape	
Measurement error	±30 mm	
Number of regional groups	16 regional groups, each group contains 3 regions	
Interface		
USB	Micro-USB	
Enter	GND/NC×4	
Switch output	NPN×3, Working status indicator	PNP×3, working status indication×1
Signal output hold time	100 ms~10,000 ms (Adjustable) typical value 330ms	
Response time	67 ms~30,000 ms (Adjustable) typical value 134ms	
Status Indicator	Status indication ×1, area group indication ×3	
Environmental parameters		
Anti-vibration	10-55Hz, amplitude 0.75mm, XYZ triaxial, 2 hours per axis; 50-200Hz, 196m/s ² (20G), scanning speed 2min/-cycle, XUZ triaxial, 2 hours per axis	
Working temperature	-10 °C ~ +55 °C	
Storage temperature range	-30 °C ~ +75 °C	
Ability to resist ambient light	< 15,000 lux	

Software diagram

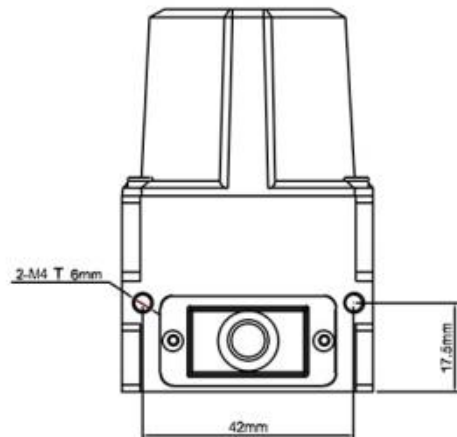
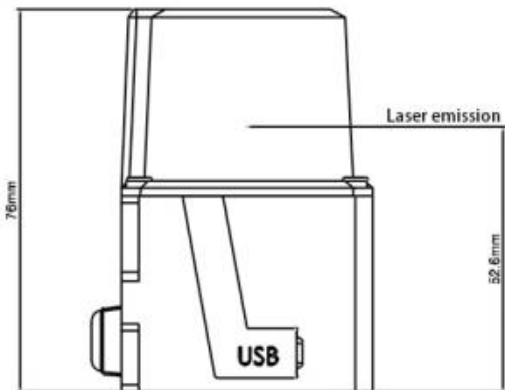
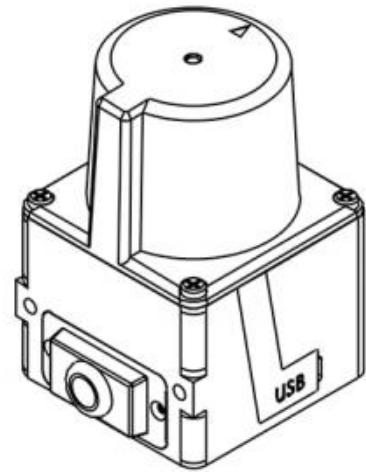
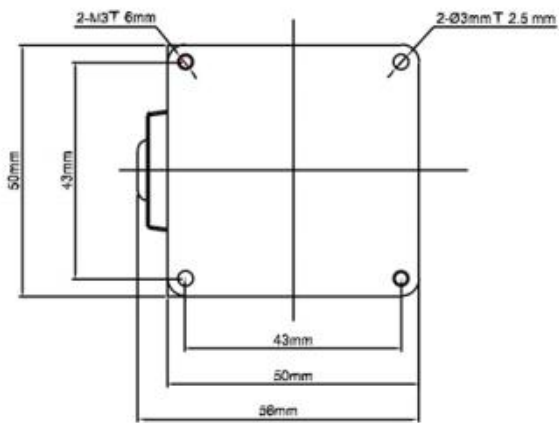


Edit interface



Monitoring interface

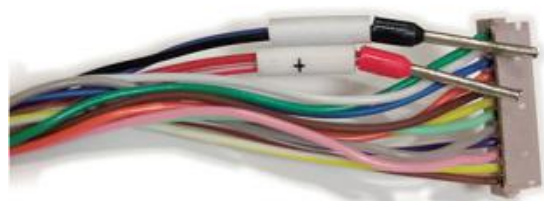
Product Size



Power accessories



GND/NC * 4

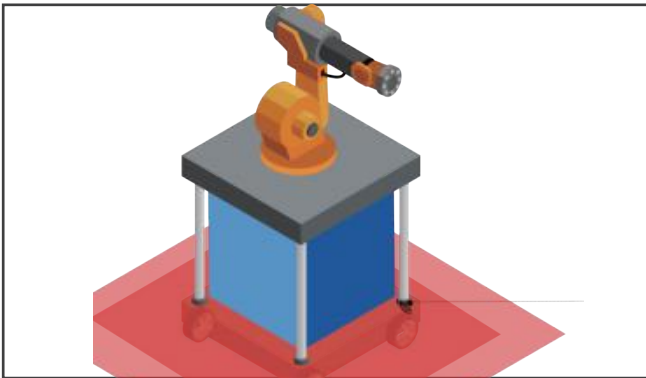


NPN * 3



Micro-USB

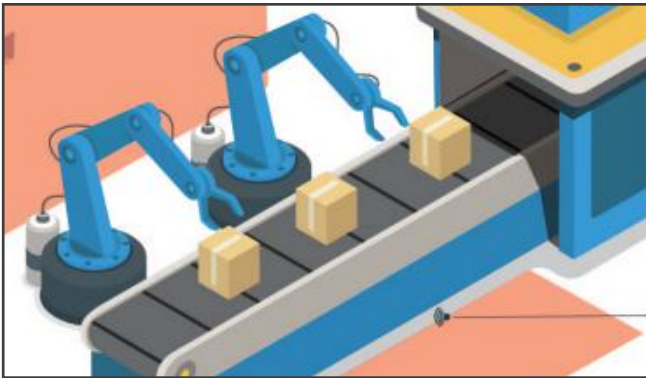
Application field



Robot/AGV autonomous obstacle avoidance



Activate parking barrier



Factory area safety protection



AGV height limit recognition

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