

AIRY



Lite

360°×45° Ultra-Compact Digital LiDAR

Airy Lite is an ultra-compact 360° digital LiDAR specifically engineered for robotics applications. It adopts a digital architecture and features a 360°×45° omnidirectional FOV, ultra-long detection range of 60m, and high perception precision of 1 cm @1 σ , delivering large-area, high-accuracy perception capability. With a compact body and a 20mm low-profile window, Airy Lite can be easily embedded into various devices. It also offers strong resistance to collision, vibration, and shock, making it highly durable.

Airy Lite provides structured point clouds and is algorithm-friendly, enabling real-time detection of objects in 3D space, helping robots efficiently perform localization, mapping, navigation, and obstacle avoidance. Whether it's complex terrain detection or irregular obstacle recognition, Airy Lite performs outstandingly, making it an ideal choice for perception upgrades in robotic applications across consumer, industrial, and commercial scenarios.

产品优势



Ultra-wide Range
Perception



High
Precision



Compact &
Lightweight



Integrated
IMU



Digital
Architecture



24-beam
3D Perception



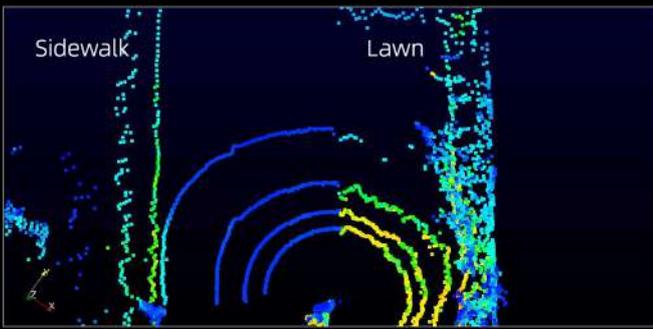
Wide Operating
Temperature Range



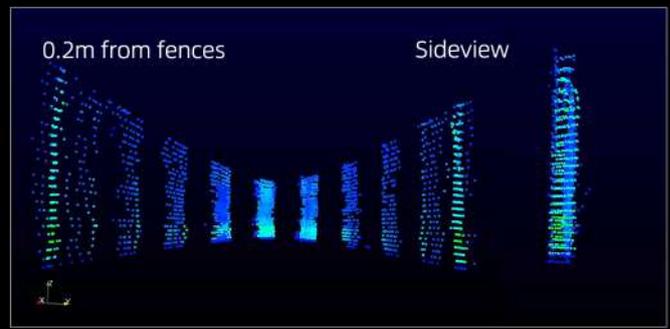
Low Noise & Low
Power Consumption

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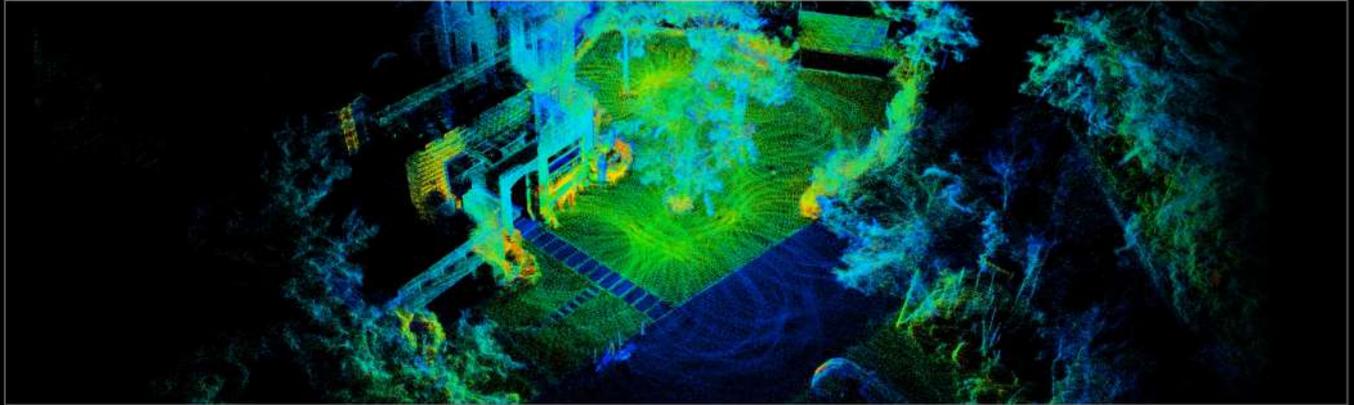
RoboSense Global Headquarters - Building 9, Block 2, Zhongguan Honghualing Industry Southern District, 1213 Liuxian Avenue, Taoyuan Street, Nanshan District, Shenzhen, China / 0755-86325830 / service@robosense.cn



Clear rings on both ground surfaces



Ordered and organized point cloud with high precision



Efficient SLAM & Navigation

Specifications

Wavelength	940nm	Blind Spot	< 0.1m
Range	7-18 Channels: 40m @ 10% 1-6 & 19-24 Channels: 30m @ 10% Maximum Range: 60m	Precision	7-18 Channels: 0-10m: 0.5cm; 10-40m: 1cm 1-6 & 19-24 Channels: 0-30m: 1cm; 30-40m: 1.5cm
Horizontal FOV	360°	Vertical FoV	45°(-11.5°~+33.5°)
Angular Resolution	0.6°(H)×1.96°(V)	Frame Rate	10Hz
Laser Safety	Class 1 eye safety	Points Per Second	144,000 pts/s (single return mode)
Data Interface	RS485	Power Consumption	4.5 W
Dimensions	69*64*62 mm (including cable outlet)	Weight	210±10g
Packet Content	Spatial Coordinates, Intensity, Timestamp, etc.	Operating Voltage	10-16V
Operating Temperature	-20°C ~ +60°C	Storage Temperature	-40°C ~ +85°C
Time Synchronization	\$GPRMC with 1PPS	Ingress Protection	IP67

*Airy Lite is available with a 100BASE-TX interface version. For more details, please contact RoboSense.

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販売代理店：株式会社ハイテック
〒164-0012 東京都中野区本町4-44-18ヒューリック中野ビル6F
TEL：03-3229-7351
E-mail：contact@high-tech.co.jp

