

3D Laser Scanner optimized for Autonomous Mobile Robot

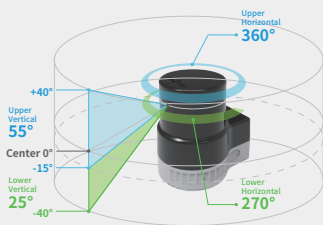
# YUJIN 3D LiDAR



YRL3V2-05/10/25



## Selectable Scanning Modes



### Mode 1

General scanning mode(Default)

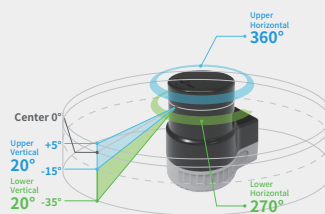
- Mapping and object detection
- AMR, PCR, Service Robot



### Mode 2

Upward scanning mode

- Mapping and object detection
- AMR, PCR, Service Robot



### Mode 3

Downward scanning mode

- Mapping and object detection
- AMR, PCR, Service Robot



### Mode 4

Fast scanning mode

- Object detection, collision avoidance, positioning

## Widen Your Vision

YUJIN LiDAR is an enhanced direct ToF(Time of Flight) 3D LiDAR (Light Detection And Ranging) optimized for mapping, object detection, navigation, and other applications in Robotics.

## Applications



Field of View



Enclosure Rating



Eye Safety



Selectable Scanning Modes

## Key Features

- ✓ Single Channel & Wide FoV (Max 360° x 80°)
- ✓ Selectable Scanning Modes
- ✓ ROS compatible
- ✓ Affordable

# 3D Scanning LiDAR

## YUJIN LiDAR

### Basic Specification

Model Name	YRL3V2-05	YRL3V2-10	YRL3V2-25
Detection Range	5m	10m	25m
Size	65 mm x 85 mm x 91.4 mm (2.55" x 3.34" x 3.59")		
Weight	410 g (0.90 lbs)		
Power Consumption	6 W		
Supply Voltage	DC 12V		
Light Source	Laser Diode		
Laser Class	Class 1, eye safety (IEC 60825-1:2014)		
Laser Wavelength	905 nm		

### Interface

Communication Interface	100Mbps Ethernet
Optical Indicators	1 x LED (Green : Available, Red: Error)
Protocol	UDP packet
Configuration Software	YUJIN LiDAR Viewer
Output Data	Horizontal Angle, Vertical Angle, Range, Intensity, Cartesian coordinates (x,y,z)
Electrical Connection	1 x M8 for Power, 1 x M12 for Data
Materials	Top window cover (PC), Bottom cover (AL)
Enclosure Rating (IP)	IP67

### Performance

Scanning Mode	Mode 1 General scanning mode(Default)	Mode 2 Upward scanning mode	Mode 3 Downward scanning mode	Mode 4 Fast scanning mode
FoV: Horizontal x Vertical	Upper 360 ° x 55 ° (+40 °/-15 °), Lower 270 ° x 25 ° (-15 °/-40 °)	360 ° x 40 ° (+35 °/-5 °)	Upper 360 ° x 20 ° (+5 °/-15 °), Lower 270 ° x 20 ° (-15 °/-35 °)	360 ° x 20 ° (+10 °/-10 °)
Horizontal Scan Frequency	20 Hz			
Vertical Scan Frequency	15.5 Hz			10.7 Hz
Horizontal Angular Resolution	0.24 °			
Vertical Angular Resolution	0.1 °	0.05 °		
Range Resolution	<10 mm			
Data Packet Rate	30,000			
Response Time	>50ms per layer			
Accuracy	Within 15m : ± 50 mm, 15m or more : ± 100 mm			

### Environmental Specification

Temperature Resistance	-10 ° ~ 50 °C
Operating Humidity	95%
Storage Temperature	-20 ° ~ 70 °C
Storage Humidity	0 ~ 85% RH
Ambient Light Immunity	LED light : 100,000 Lux
Certificate	KC, CE, RoHS

\* Specifications and design are subject to change without any prior notice.

### Product Dimension

