Hokuyo URG-05LX-UG01

The Hokuyo URG-04LX-UG01 Scanning Laser Rangefinder is a small, affordable and accurate laser scanner that is perfect for robotic applications. The URG-04LX-UG01 is used for area scanning and localization of autonomous robots and automated material handling systems (AMHS). It's the ideal solution for academic and R&D start-up applications. It acts as the "eyes" for mobile robots in guide path planning and obstacle detection within unknown environments and has a light-weight, compact design that uses USB bus power.

Features

- Light weight(160g).Best for robot!
- Low-power consumption(2.5W) for longer working hours.
- Wide-range(5600mm×240°).
- Accuracy(±30mm).*
- Distance and angle data output with high angular resolution(0.352°).
- High quality product under Total Quality Management. Designed, manufactured and inspected by HOKUYO.

* For distance above 1,000mm, accuracy is ±3%.

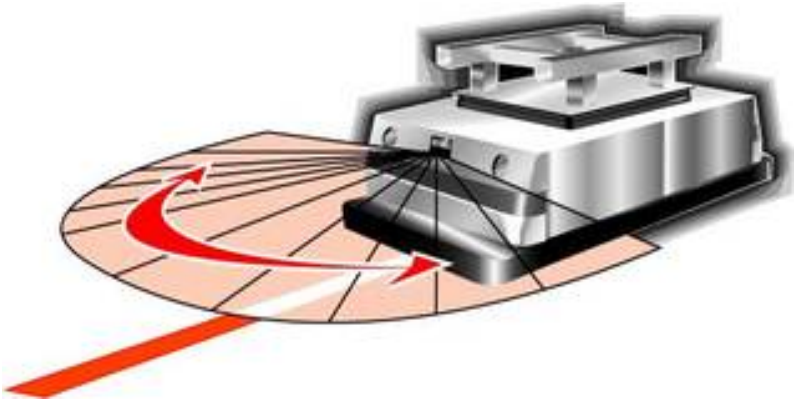
Robot's eye, No.1 Share

- Revolutionarily low price!!
- Laser range finder for autonomous robot.
- Best for students and researchers who are involved in robotics.
- Smart to run on USB bus power.

Applications

Technology frontier and No.1 market share in Japan for service robots!

Wide applications, from robot vision sensor to Automatic Material



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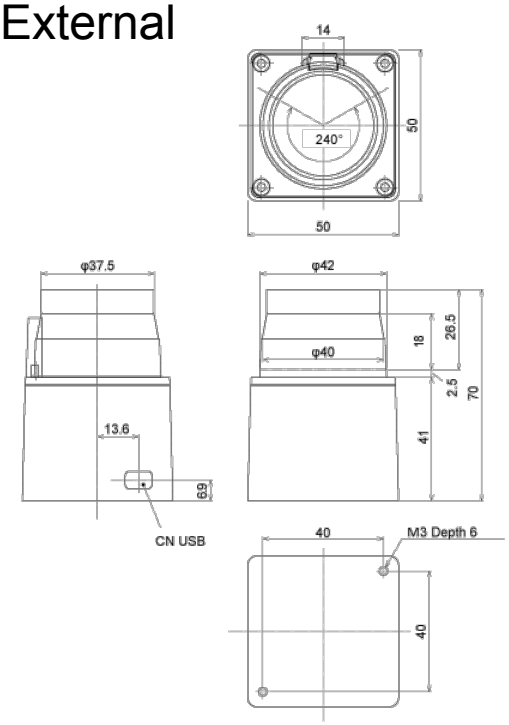
External



Connection

• Cable URG-C001

*During booting, 500mA current is required. If the sensor can not be started with a single USB port, please use 2 USB cables(not included) for power supply from 2 USB ports.

Please connect to 2 independent USB ports which can supply 500mA.

PC's motherboard could be broken if the sensor is connected to the USB ports which are not able to supply 500mA×2.

The GND lines connected to the USB are all shorted.

Specifications

Model No.	URG-04LX-UG01
Power Source	5VDC±5%(USB Bus power)
Light Source	Semiconductor laser diode(λ=785nm), Laser safety class 1
Measuring area	20 to 5600mm(white paper with 70mm×70mm), 240°
Accuracy	60 to 1,000mm : ±30mm, 1,000 to 4,095mm : ±3% of measurement
Angular resolution	Step angle : approx. 0.36°(360°/1,024 steps)
Scanning time	100ms/scan
Noise	25dB or less
Interface	USB2.0/1.1[Mini B](Full Speed)
Command System	SCIP Ver.2.0
Ambient illuminance	Halogen/mercury lamp: 10,000Lux or less, Florescent: 6000Lux(Max)
Ambient temperature/humidity	-10 to +50 degrees C, 85% or less(Not condensing, not icing)
Vibration resistance	10 to 55Hz, double amplitude 1.5mm each 2 hour in X, Y and Z directions
Impact resistance	196m/s2, Each 10 time in X, Y and Z directions
Weight	Approx. 160g