

## Laser Range Finders: for Robots

Sentek Solutions Ltd supply a complete range of ultra compact laser range finders for robots and other autonomous machinery.

These unique devices from **HOKUYO** provide an accurate spatial map of surroundings in two or three dimensions.



How far each devices can “see”, how small an object can be distinguished, and how quickly they react depends on the model.

Which one is right for your application?



## Laser Range Finders

Laser Range Finders provide continuous time stamped digital mapping coordinates which the host robot / AGV can interpret and determine subsequent real time actions.

### URG-04LX

The URG-04LX has become the default option for serious robotiers looking to develop small mobile robots.

Key decision criteria are functionality, size and power consumption.

- 5.6 metres range
- 240° scan window
- 0.36° resolution
- 10 scans per second
- 50mm x 50mm x 70mm
- Weight 160g
- 5V DC



The UBG-04LX-F01 is essentially a turbo charged URG-04LX. It is almost four times as fast but still fits into a similar compact and lightweight footprint.

- 5.6 metres range
- 240° scan window
- 0.36° resolution
- 35 scans per second
- 60mm x 75mm x 60mm,
- Weight 260g
- 12V DC



## UHG-08LX

The **UHG-08LX** is a longer range amplitude modulated scanner. This technology allows objects to be seen from 20mm through to 8m.

- 8 metres range
- 270° scan window
- 0.36° resolution
- 15 scans per second
- 83mm x 83mm x 87mm
- Weight 500g
- 12V DC



The **UHG-08LX** has been used successfully to provide 3 Dimensional mapping of the Tokyo subway system using a specially designed gyroscopic mount.

## UTM-30LX

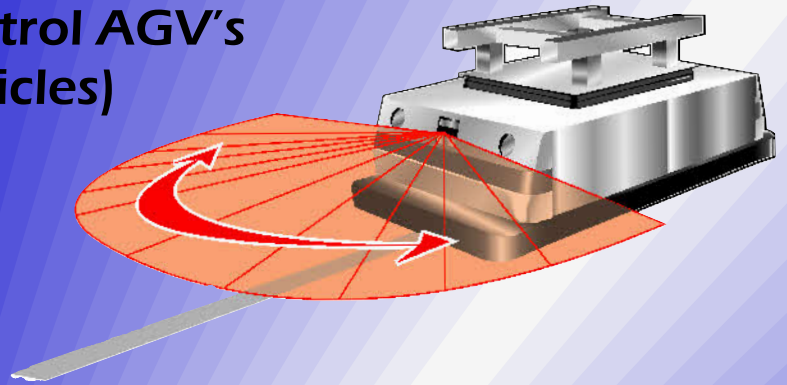
At the top of the range is the **UTM-30LX** which “punches well above its weight”. Considering the **UTM-30LX** has a size profile comparable to a standard credit card its ability to map objects up to 30m away is remarkable. Additionally; response time and scan window are unparalleled.

- 30 metres range
- Ideal for outdoor or indoor use
- 270° scan window
- 0.25° resolution
- 40 scans per second
- 60mm x 60mm x 87mm
- Weight 370g
- 12V DC



## Obstacle detectors

Obstacle detectors can be pre-programmed with configurable & selectable "alarm" zones. They operate on a standalone basis triggering digital outputs when objects encroach into these areas; this information can be used to determine subsequent actions. Generally obstacle detectors are used to control AGV's (Automated Guided Vehicles)



### UBG-05LN

In the same ultra compact housing as the **UBG-04LX -F01** the **UBG-05LN** is a fully featured standalone obstacle detector ideal for all forms of autonomous vehicle.

- 5 meters range
- 180° scan window
- 0.36° resolution
- 5 inputs
- 4 outputs
- 31 programmable detection areas
- 60mm x 75mm x 60mm
- Weight 260g
- 24V DC



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