



SHENZHEN HONGYIDA TECHNOLOGY CO., LTD.



# HYD AI Laser Vision Detector

## PRODUCT BROCHURE

# HYD AI

## INTRODUCTION

HYD AI is an artificial intelligence product provider integrating R&D, production and sales. Founded in 2016, the company with headquarters in Shenzhen has developed a series of intelligent spatial products and built a space information platform based on distance sensor networks.

With years of research and innovation, HYD AI has got an honor of “Peacock Team Award” and investment from Shenzhen government. The product range covers intelligent transportation and security, such as smart zebra crossing, boundary management system of prisons, self-service channel monitoring system for customs, flow monitoring system.

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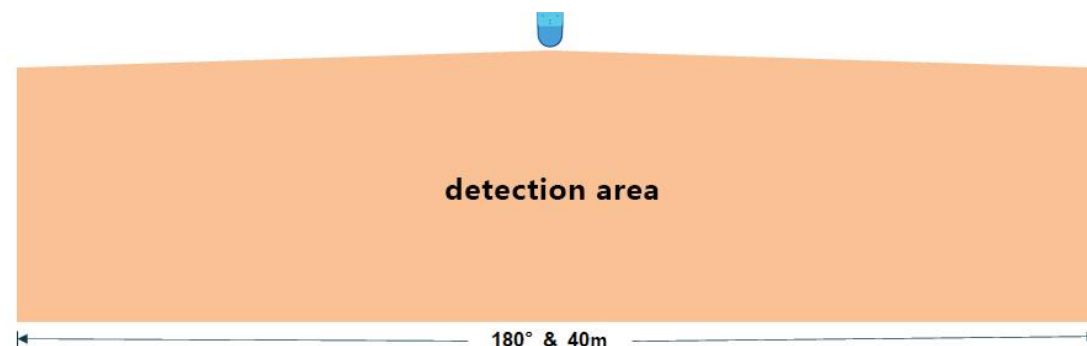
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# Laser Vision Detector

## INTRODUCTION



Based on ToF measurement, Laser vision detector, LVD for short, is a spatial intelligent detector, offering excellent perception in three-dimensions by laser. It has the advantages of 180° range, 20 meters radius and centimeter-level accuracy, making it possible to provide a variety of information, such as area detection, object movement detection, object location and quantity detection, flow detection, etc. Laser vision detector can be applied to traffic, security, culture and tourism, education, medical and other industries.



## Technical Benefits

- > 180° range, 20 meters detection radius, fast and reliable detection in large scale areas.
- > Centimeter-level accuracy with reliable data in monitoring areas.
- > Free from the influence of extremely bright, low light, dark areas, rain and snow, smog, haze, etc., providing high performance in special conditions.
- > Integrated with perception, analysis, sound and light warning, data output.
- > Easy installation for ceiling/wall hanging.





## PARAMETER

Wave length	905nm ( Non visible light )
Safety Class	Class 1 Eye Safe per (IEC 60825-1:2014)
Detection frequency	Up to 30hz
Detection radius	≤20 m
Detection Angle	Up to 180°
Detection Accuracy	± 2cm in detection distance
Vertical installation height	2.5m - 10m
Detection response time	≤2 seconds
Input voltage	DC 12V
Interface	1 gigabit RJ45 interface, support WiFi, 4G
Detection range	628 m²



## Application

### Horizontal monitoring of open field and object tracking

LVD detects any individuals who step into the pre-defined monitored area, such as airports and other buildings. The detection data recorded is further processed by an integrated algorithm unit.



### Vertical protection

LVD generates a vertical field and detects individuals crossing the boundary of a fence or wall with high detection speed and unaffected by influence from the weather. If anyone intrudes this field, LVD triggers an alarm.



### Horizontal monitoring of open field in front of buildings

LVD detects open field connected to a property horizontally. Multiple monitoring fields and selective field can be freely defined. This makes it possible to monitor object entering.



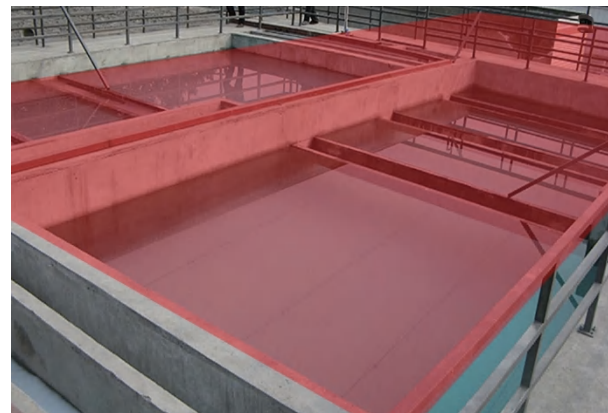
### Horizontal protection on double fences

LVD detects the area between fences reliably and consistently. It rarely triggers false alarms.



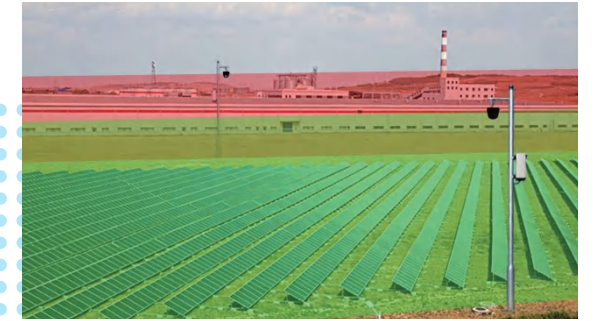
### Horizontal monitoring of cooling ponds

LVD protects cooling ponds at nuclear facilities from unauthorized intrusion. It defines the boundary of pond area in order to significantly reduces the rates of triggering a false alarm due to rain, snow, fog, or steam.



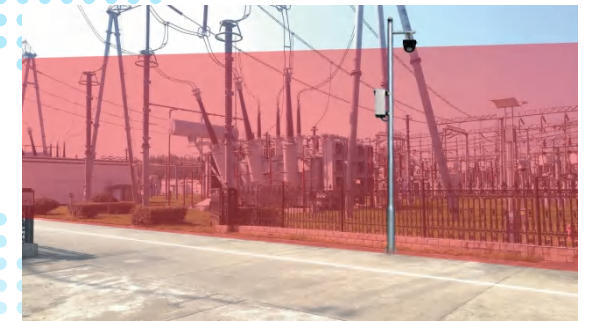
### Vertical protection of solar farms

LVD deployed around a solar farm detect any person and objects that pass through the vertically protected area. The area can also be protected horizontally.



### Vertical protection of transformer stations and telecommunication facilities

LVD protects transformer stations, telecommunication facilities, and other highly sensitive facilities from unauthorized intrusion, even in bad weather. It can detect small objects such as animals. If anyone or any object intrudes this field, LVD triggers an alarm and informs security center.



### Protection of banks, museum and other establishments

LVD protects banks and other establishments that could be targeted by robbers. If anyone intrudes the detection area, LVD triggers an alarm and informs security center.





### Vertical protection for private or public parks

Usually, it is often not enough to protect the parks by traditional video monitor. LVD could help protect unauthorized entry by vertical detection.



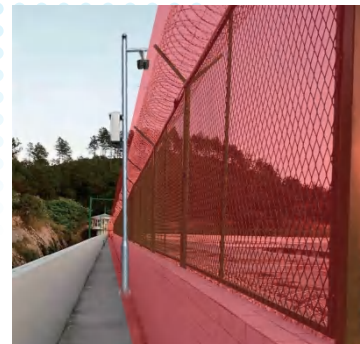
### Anti-climb protection for barriers

Barriers used as a mechanical protective device are easily crossed due to their low height. LVD can monitor the barriers and detect any object in close proximity.



### Protecting wall copings

In jails, LVD detects any escape attempts promptly. If anyone approach a wall in the defined field, LVD will trigger an alarm and informs the guards even at night or in bad weather, such as rain or fog.



### Vertical monitoring for oil well

LVD detects the defined area surrounding the oil well or oil extraction equipment for reducing serious economic loss and environmental pollution by illegal intrusion.



### Monitoring railway systems

LVD protects the railway from intrusion. If someone enters the detection area, an alarm is triggered.



### Horizontal monitoring of open spaces: building sites or junk yard

LVD detects the storage area in building sites and triggers an alarm if the field is intruded.

