

## LRA7 Series Millimeter Wave Radar



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Safety millimeter wave radar is an electromagnetic wave radar that detects obstacles ahead. It has good performance against interference and detection ability even working in dusty, smoky and moist etc complex industrial site, can be applied in a specific area, movable equipment in medium or low speed, and in port/wharf for safety protection.

LRA7 lidar can work in smoky, dusty and moist environment where cause optical sensors false alarms or failures. The special algorithms of LAR7 supply accurate and safer protection.

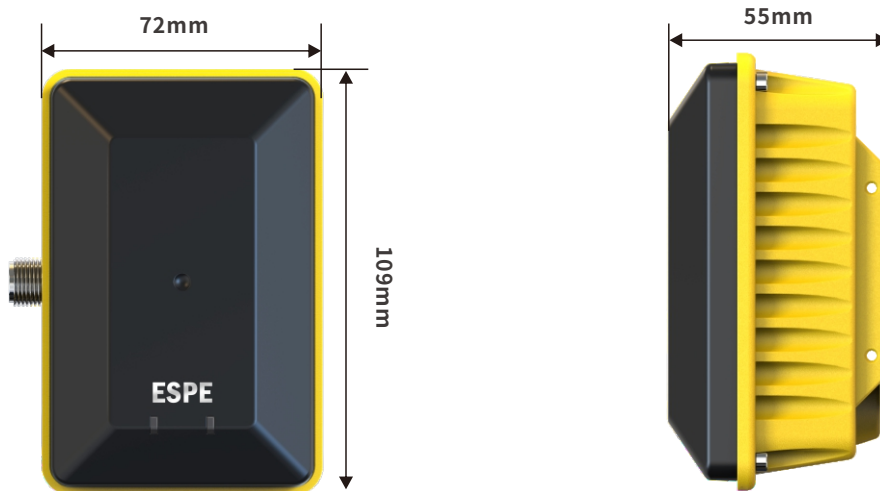
### Product features

- **Adjustable detection distance**  
The detection distance is up to 20m.
- **IP68 mechanical protection**  
High protection suitable for indoor or outdoor harsh environment.
- **Wide range of ambient temperature**  
Normal temperature -40°C-80°C.
- **Reduce the frequency of false signal**  
Strong penetrate ability through particles, dust, smoke, mist, oil, wood, paper, plastic and so on.
- **Intelligent software configuration**  
Stop area and warning area, beam width, shielding area, etc., can be easily set by software, which can distinct and track human and machine.
- **Support setting by APP or Bluetooth**  
Android 6.12-13.0.0 or advanced.

## Product parameter

Model	LRA70	LRA76
Working frequency	81 Ghz	
Detection range	0.2-20m	0.2-6m
Cover range	Azimuth 120°X Tilt 30°	
Power supply	DC10V-24V (suggest 12v for normal, 24V if over 20m)	
Response time	≤100ms	
Lightning protection level	2 KV	
Average power	≤70 mA	
PC communication	RS485 or CAN	
Protection	IP68	
Relay signal	2 channel	
Working temperature	-40°C—80°C	
Stock temperature	-20°C—65°C	
Configuration mode	PC/ APP	
Application	LRA70: Adapt to harsh outdoor environment, can be installed on mobile equipment, such as crane, port equipment, construction equipment, etc., to achieve safety collision prevention.	LRA76: Automotive production line, automated production line, automated equipment, all kinds of mechanical arms and other safety protection.
Cable length	2m cable of power & IO	

## Size diagram

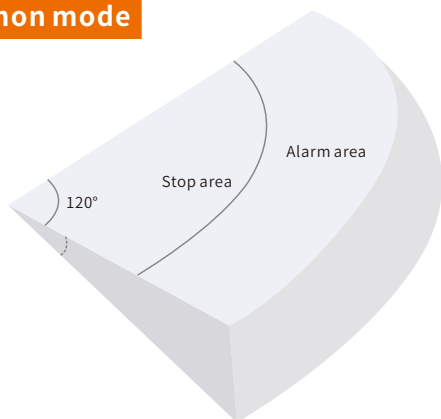


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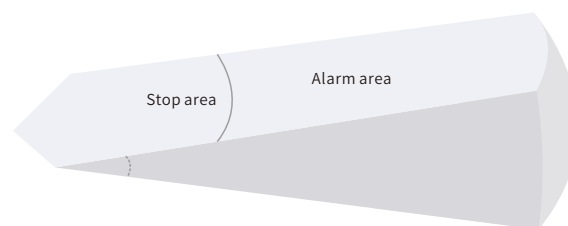
## Software setting

- Detection Angle can be set.
- Edge of protection area can be set.
- It can monitor dynamic or static objects respectively.
- Stop area & warning area can be set.
- Normal moving area can be set as shield area in case of false alarm to protect people.
- 6 lidar can be cascaded for expand the monitoring area.

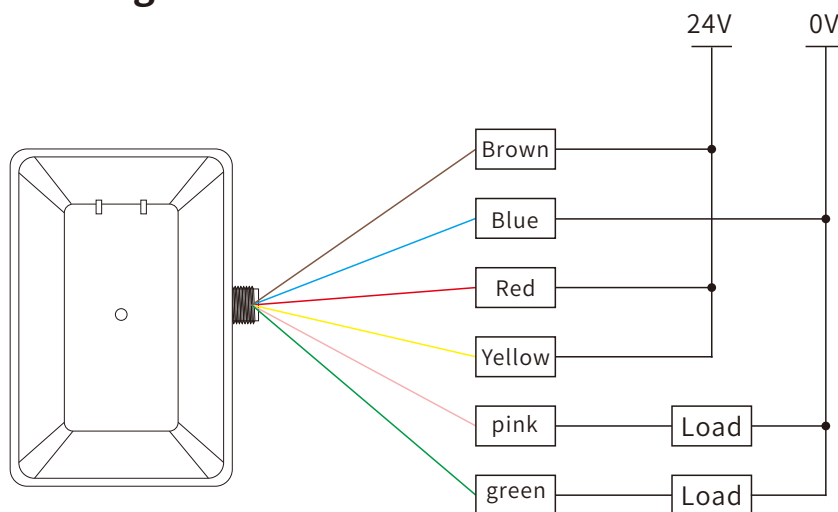
### Common mode



### Focusing mode



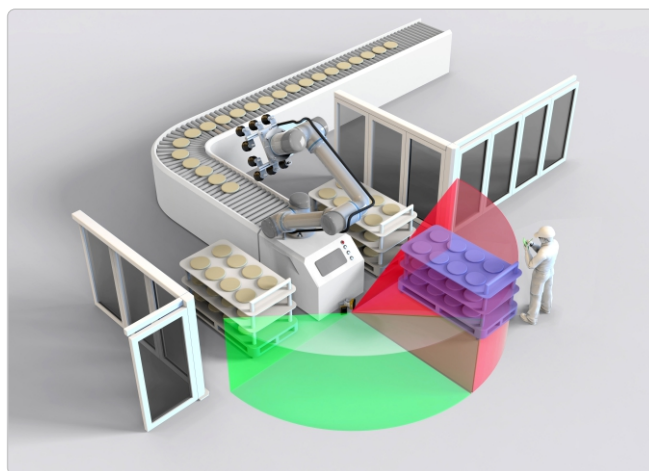
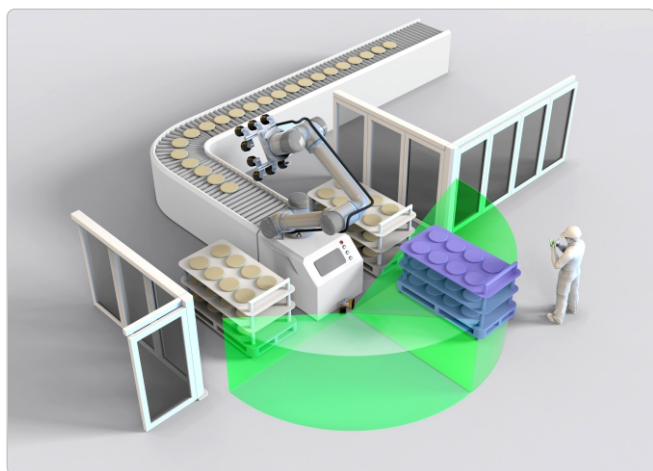
## Connection diagram



### Wire definition

Serial NO	Color	Description
1	Brown	Negative of power supply
2	Blue	GND
3	Grey	485A+
4	White	485B-
5	Red/pink	Relay normally open (warning area signal)
6	Yellow/green	Relay normally open (pre-warning area signal)

## ☆ Application in complex area



## ⚙️ Application in harsh environments



Dirt & dust



Rain



Smog



Sunshine & strong light



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## Application case



Welding & spray robotic



Automobile production



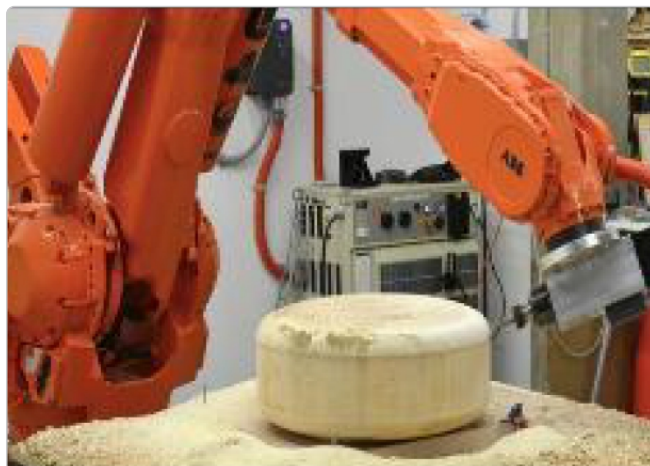
Wood & stone processing



Metallurgical workshop



Dock / port / ship / crane



Grinding equipments