

Composite Robot-R100RB-H (1000mm Length)

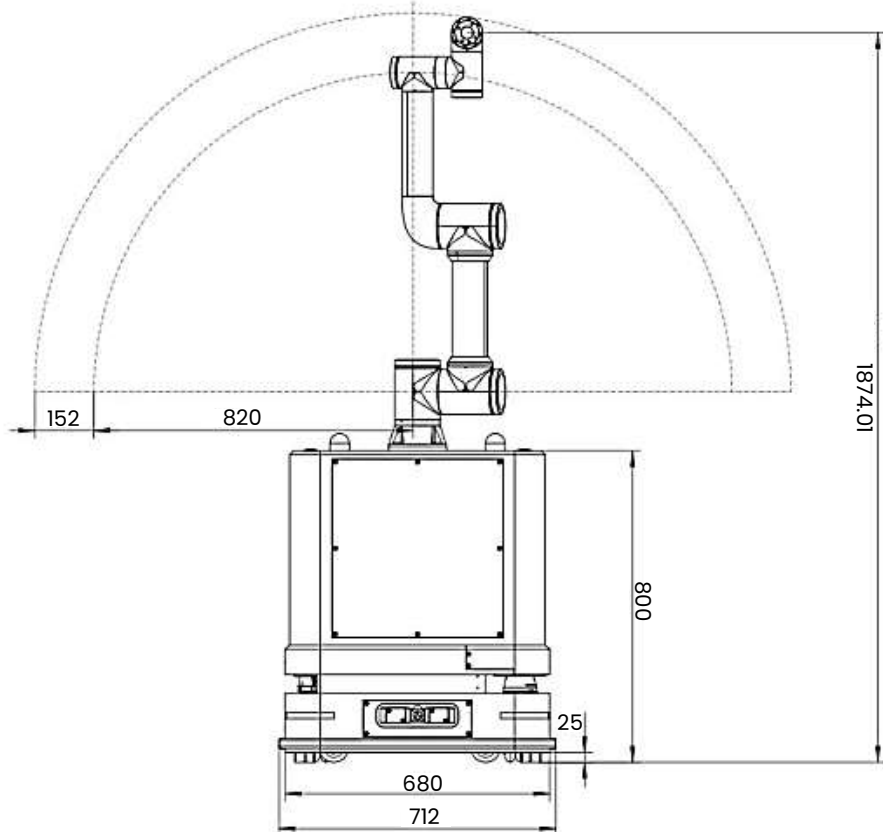
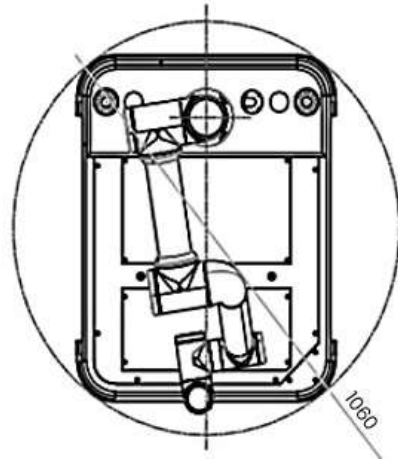
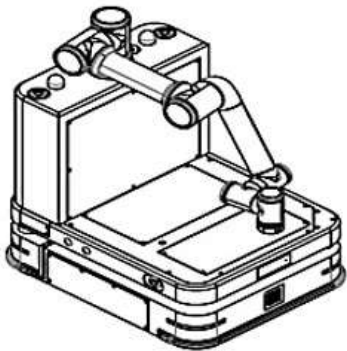
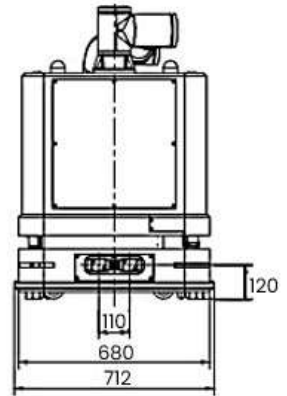
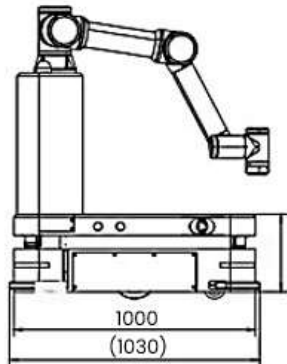
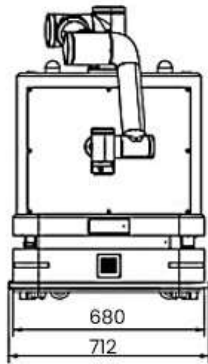
LiDAR SLAM Navigation + Payload 100Kg+FR 6-axis robotic arm



Product Features

- 1** The LiDAR SLAM autonomous navigation mode is adopted for rapid deployment. The equipment only needs to scan the environment to build a map and achieve accurate positioning of ± 10 mm.
- 2** The carrying capacity is 100kg.
- 3** The equipment adopts the modular design of the whole machine, which makes the assembly and maintenance more convenient.
- 4** The battery life can last for more than 8 hours, and the robot can automatically charge with low power (set the low power value according to the customer's requirements).
- 5** Cluster scheduling, in the robot control system, you can view the working status, electricity, location and other information of all robots at the same time, and schedule all devices through the system.
- 6** Equipped with LiDAR safety barrier avoidance, front contact anti-collision bar, left and right emergency stop buttons, multiple safety protection to protect equipment and cargo safety
- 7** Realizing unmanned operation by the system path planning, and the staff only need to give instructions through the control terminal.

Dimension



Specification	
Basic parameters	
Name	Composite Robot-R100RB-H
Navigation Mode	LiDAR SLAM Navigation
Drive form	Differential wheels
Dimension (L x W x H) (with bumper strip)	1000 x 680 x 780 mm
Maximum payload	100 Kg
Network	Ethernet / Wi-Fi 802.11 a/b/g/n/ac
Ambient temperature and humidity range	Temperature: 0~50°C / Humidity: 10~90%, No compression condensation
IP rating [1]	IP20
Performance Parameters	
Movement	Omnidirectional Movement
Navigation position accuracy [2]	±10 mm
Navigation angle accuracy [2]	±1°
Operation speed (no-load/full load)	1.2 m/s, 0.8 m/s
Battery Parameters	
Battery capacity	DC48V/40Ah (Lithium iron phosphate)
Endurance time	≥6 hr.
Charging Time (10~80%)	<2 hr.
Safety Parameters	
LiDAR SLAM number	2
Emergency stop button	✓
Speaker	✓
Atmosphere light	✓
Bumper strip	✓
Functions Parameters	
Basic functions [3]	✓
Wi-Fi roaming	✓
Automatic charging	✓
QR code accurate positioning	optional

[1] Designed for indoor transport, not recommended for outdoor environments.

[2] The navigation accuracy usually refers to the repeatability of the robot navigation to the target site, and the robot can achieve the expected value of repeatability of the robot navigation from a fixed direction to the target site under the condition that the environment scanned by the robot's LiDAR is relatively stable (change rate < 30%). When the robot runs along the virtual path, it tries to fit the path as closely as possible, but repeatability is not guaranteed. That is, the robot can guarantee to-point accuracy without guaranteeing navigation path-fitting accuracy. The minimum site spacing supported by the robot is 1 cm, so the robot cannot be used as a linear guide.

[3] The basic functions include map editing, model editing, positioning and navigation, API interface, etc.

Specification of Robot Arm			
Parameter	F3(standard)	F5(optional)	F10(optional)
Robot arm			
Degree of freedom	6	6	6
scope of work (mm)	622	922	1400
Rated load (kg)	3	5	10
Base diameter (mm)	130	150	190
Positioning accuracy (mm)	±0.02	±0.02	±0.05
Materials	Aluminum, Steel		
Arm's I/O Interface			
Power output	48VDC		
Current output	0.8A MAX		
Digital quantity I/O	4 MAX (available with input and output)		
Read analogue input	2		