

MOBILE ROBOT PRODUCT CATALOG

Lead Intralogistics Reform with AI



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Hangzhou Hikrobot Technology Co.,Ltd.

Hikrobot is a global manufacturer and supplier of mobile robots and machine vision products. Relying on the over 1000 R&D staffs, Hikrobot involved into multiple innovate industry include intralogistics and smart factory. Adhering to the advanced technology, Hikrobot commit to continuously leading the intelligent manufacturing process.

■ Mobile Robot

With efforts in robotic technologies, Hikrobot provides global customers with leading mobile robot products and solutions. The company has developed the intelligent warehouse robot system since 2015. Focused on mobile robots, it has launched a series of products, Latent Mobile Robot (LMR), Conveyor/Heavy-duty Mobile Robot (CMR/HMR), Forklift Mobile Robot (FMR), etc. These products are widely applied in 3C, automobile, manufacturing, e-commerce logistics, 3PL, food and pharmaceuticals. Hikrobot's intelligent robot solutions help you simplify intralogistics flow, reduce the costs and reform the logistics process.

RoHS

Rohs

CE

Directive



China Robot Certification



HI-tech Enterprise



CIIF Gold Award



Red Dot Design Award

Product |

Hardware Product



LMR (Latent Mobile Robot) is a leading mobile robot product characterized by its lifting mechanism. LMR has an optimized motion performance and enhanced safety protection. It helps customers create a safer working environment and more cost-effective productivity.



FMR (Forklift Mobile Robot) focuses on the automatic transfer of standard bins/pallets. FMR adopts high-precision laser SLAM navigation, vision navigation, etc. which realize high positioning accuracy of up to ±5mm.



CMR/HMR (Conveyor/Heavy-duty Mobile Robot) series covers the conveyor type and lifting type. Thanks to the high customization, it can fulfill automatic docking requirements in different scenarios.



The accessory includes charge station and battery swap station. With user-friendly interface, safe protection mechanism, charge station docks with robots flexibly, providing fast charging. The battery swap station is designed for automatic battery exchange. It improves the operational efficiency of the overall system and reduces costs.

Software Platform

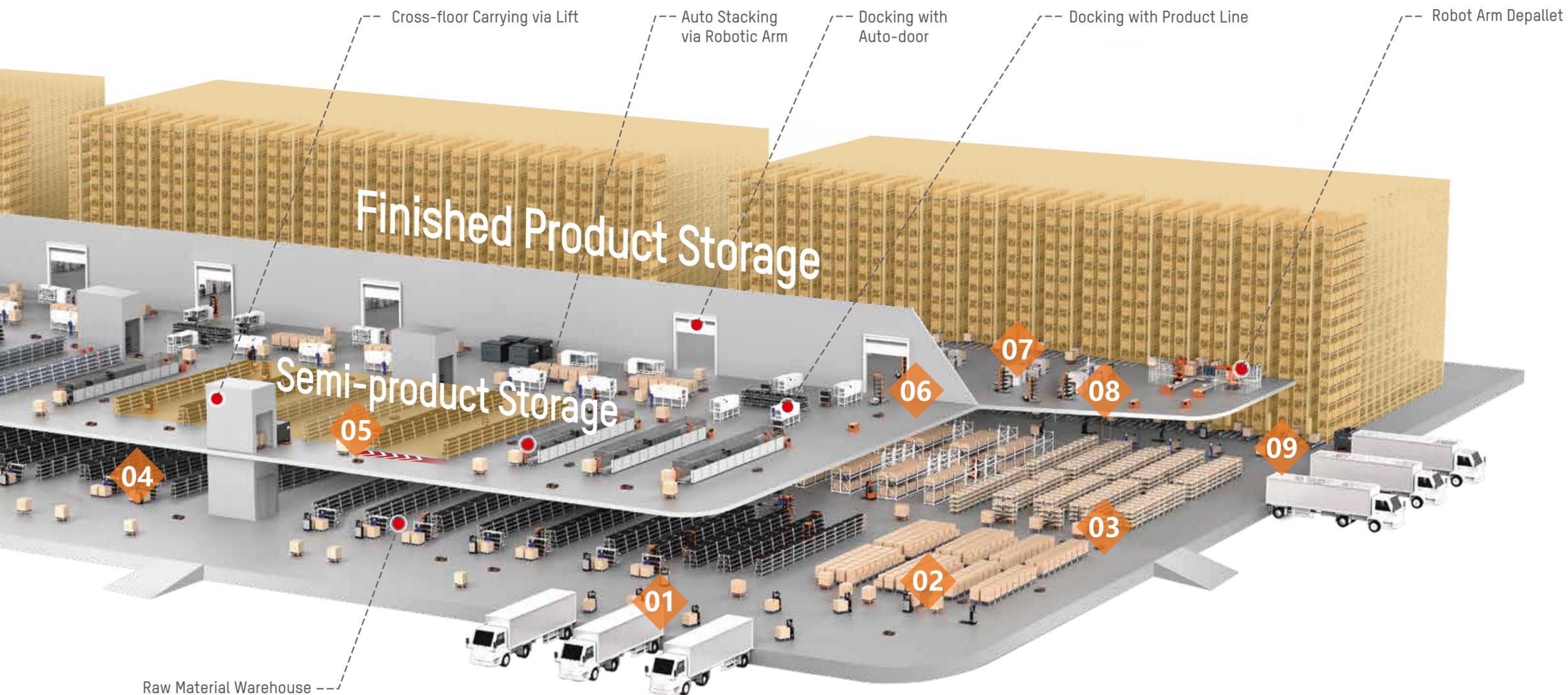
The core of Hikrobot software platform architecture is the iWMS 1000 (Intelligent Warehouse Management System) and the RCS 2000 (Robotic Control System). iWMS 1000 docks with the upper-level system seamlessly to realize intelligent warehouse management at high efficiency and low costs. RCS 2000 is used to build the map model and dispatch various robots. The two systems work together to link through the whole logistics process, connect various transfer scenarios seamlessly.



Intelligent Intralogistics Solution |

With the transformation of manufacturing production mode, mobile robots as an intelligent logistics equipment is being applied in various industries. Mobile robots can not only meet the logistics transfer needs of the entire logistics process, but also support flexible integration of different functional modules. Integrated with the WMS/MES, Hikrobot's solution can realize intelligent warehouse management.

As a leading provider of mobile robotics products and services, Focused on industry changes and needs, Hikrobot provides, intelligent and practical solutions to various industries, leading the intralogistics reform with AI.



Intralogistics Process

01 Raw Material Arrival



02 Incoming Quality Control (IQC)



03 Raw Material Inbound



04 Raw Material Outbound



05 Material Transferring



06 Product Transferring



07 Product Storage



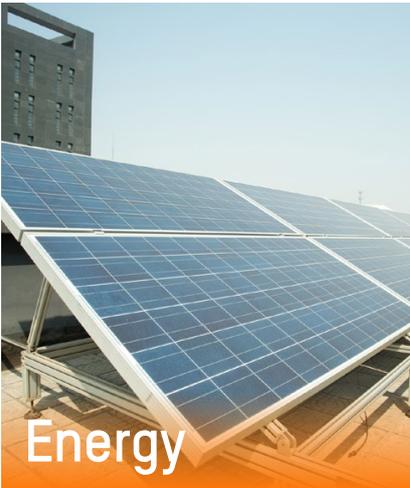
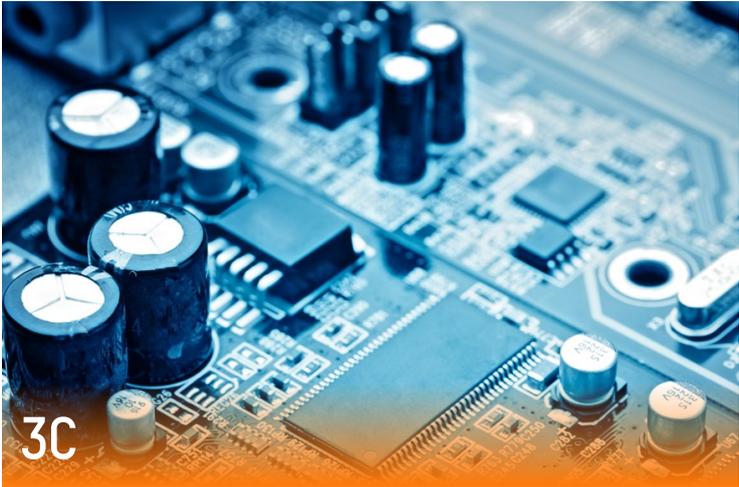
08 Tote Inbound/Outbound

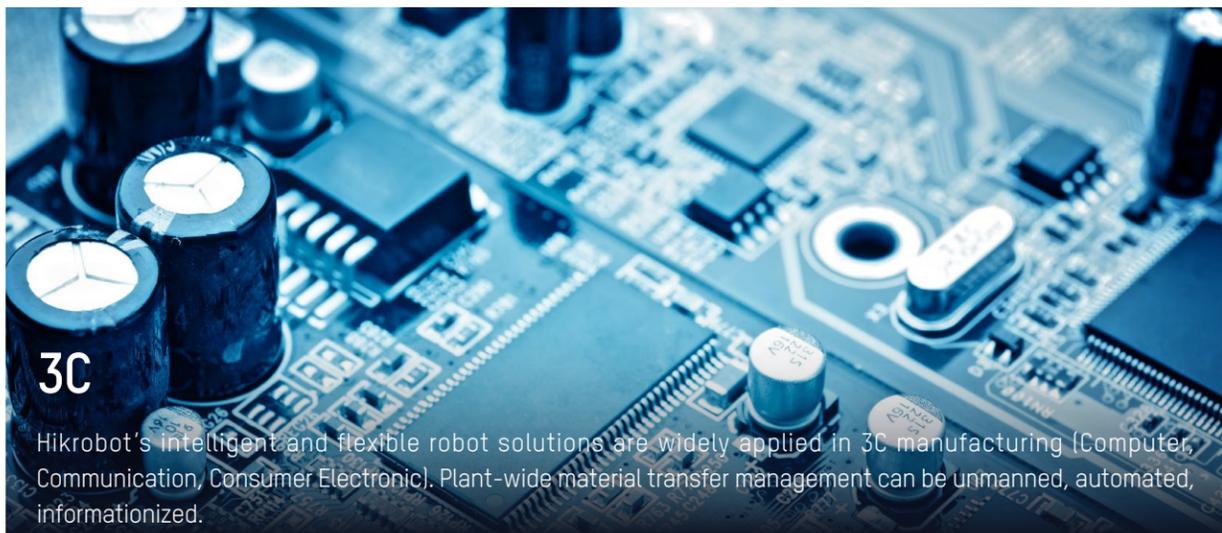


09 Pallet Outbound



Industry Solution





3C

Hikrobot's intelligent and flexible robot solutions are widely applied in 3C manufacturing (Computer, Communication, Consumer Electronic). Plant-wide material transfer management can be unmanned, automated, informationized.

Industry Challenge



Complicated technological processes

Transforming raw materials into finished products involves dozens of processes. Sometimes, secondary processing is required. Logistics flows and devices should be taken into consideration comprehensively.



Varied production equipments

The processes and equipment are diverse, which makes the equipment docking and communication complicated.



Stringent environmental requirement

Production line processing requirements are extremely demanding. Equipment must be anti-static and corrosion resistant of acid, alkali, gas, liquid.



Manual management is disorganized

Manual unloading leads to disorder in the warehouse. Additional ID cards are required for materials identification. Operation is more inaccurate and unsafe.

Solution Introduction

Hikrobot developed various mobile robots to solve varied processing requirements. Working with iWMS/RCS/WCS system, external equipment can be docked easily. Factory-wide unmanned materials transfer and sequence management are realizable. Automated production and digital inventory management are improved significantly, which guaranteed well-organized management.

Solution Highlight



Meets onsite technical and production environmental requirements



Supports accurate positioning for automated loading and unloading



Supports flexible docking with multiple logistics devices and cross-floor transferring



Uses strict sequence management to avoid errors in materials feed-in

BOE Technology

Background

BOE Technology Group Co., Ltd., is an IoT company that provides intelligent interface products and professional services. For the traditional operation methods of its panels factory, it faces limited efficiency, heavy labor intensity, and low warehouse utilization. Meanwhile, a variety of SKUs and high-level cleanliness requirements impose higher demands for warehouse management.

Solution

To reduce labor costs, increase efficiency and inventory utilization, BOE introduced 35 latent mobile robots, which work with RCS and iWMS, to increase the intelligence in production and warehousing information management. The solution supports automatic transfer across floors, by docking with elevators and air shower rooms. In addition, robots satisfy strict cleanliness requirements.

Customer Benefit

- **Partitioned storage and management:** realizes the partitioned storage of large /small materials and empty shelves
- **Increased space utilization:** reduces stacking, and site stains
- **Reduced work strength and labor costs:** transferring materials to workstation automatically, reduces worker movements
- **Digital inventory management:** iWMS communicates with upper-level WMS to deliver inventory information seamlessly



Project in a Leading Packaging and Testing Provider

Background

It is a well-known semiconductor packaging and testing company, which business scale is top 3 in China. In the factory, production lines are located on different floors, and the turnover of the materials is busy. Business volume expansion makes it difficult to manual transfer materials timely. Introducing robots help solve the problems, and make it the 1st enterprise with mobile robots running on a 5G network in this industry.

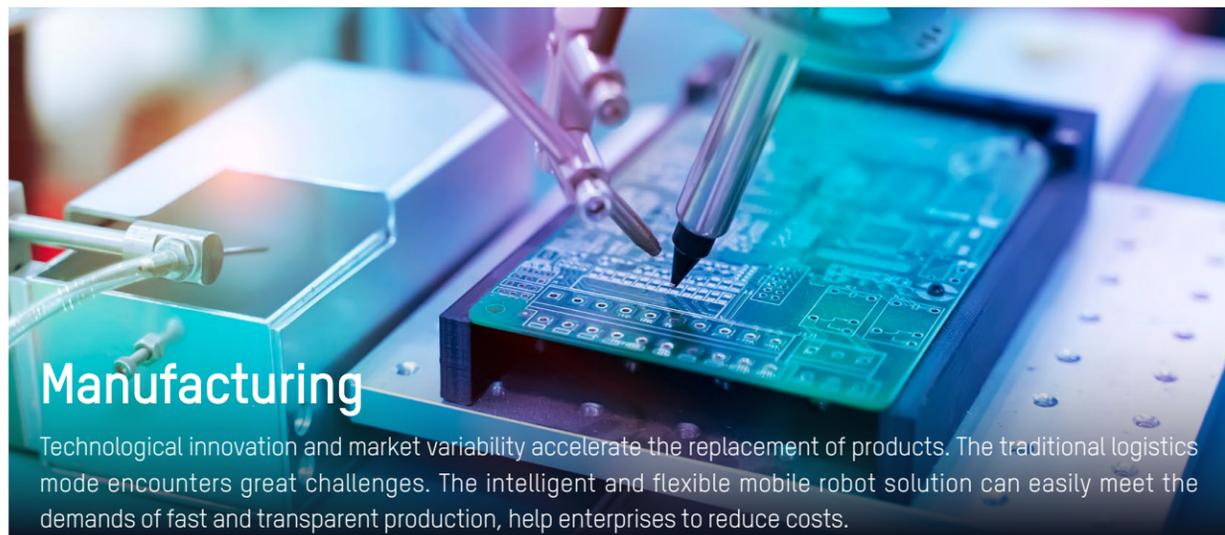
Solution

To optimize logistics and improve efficiency, the company focused on handling frequent cross-floor materials transfer. After evaluation, the company chose Hikrobot. This project is the first application in this industry to use mobile robots to realize logistics automation and unmanned operation in the 5G environment. Cooperating with RCS and WCS, intelligent management and maintenance have been realized.

Customer Benefit

- **Increased operation efficiency by 30%**
- **Improved space utilization:** with rotatable mobile robots
- **Realized digital material information management**
- **Realized 5G network:** reduces data loss and communication interruptions





Manufacturing

Technological innovation and market variability accelerate the replacement of products. The traditional logistics mode encounters great challenges. The intelligent and flexible mobile robot solution can easily meet the demands of fast and transparent production, help enterprises to reduce costs.

Industry Challenge



Varied SKUs
SKUs have wide varieties and small size, which caused picking errors.



Cross-floor transferring
Cross-floor transferring and other unique transferring are needed.



Complicated processes
Intralogistics processes and working modes are complicated. The warehouse management system must offer quality inspection, S/N management, warranty management, and inventory management, etc.

Solution Introduction

Adopting G2P mode, the solution uses multiple types of mobile robots to perform transport tasks in various situations. It reduces dependence on experienced workers. In this solution, WCS integrates with devices such as elevators, and air shower doors. iWMS docks with upper level systems, including MES, ERP, PLS, and OMS. Multiple quality inspection modes and transfer strategies are supported.

Solution Highlight



Reduces manual transferring and increases automation



Increases flexibility, allows adjusting operations according to needs



Intelligent planning and scheduling to maximize robots' performance



Supports industry-specific quality management, inbound/outbound strategy, etc.

Project in a Famous Compressor Manufacturer

Background

This company produces world-class air-conditioning compressors with an annual production capacity of 15 million units. Not only is the factory large and complex, but also SKUs are varied and heavy. Furthermore, cross-floor transferring is needed.

Solution

To automate production and logistics, and improve operation efficiency and quality, this company introduced around 140 mobile robots (including LMR and CMR) in two batches. Through integration with our RCS and iWMS, these robots support intelligent product component and inventory information management, as well as unmanned transportation across floors.



Customer Benefit

- Improved work efficiency: 7000+ carrying tasks per day
- Partitioned materials storage: materials are stored according to its specific requirements
- Reduced labor intensity: eliminates over 300km of manual transferring distance per day
- Digitalized inventory and logistical information management: rapid and easy to query and manage statistics

Project in a New Photovoltaics Provider

Background

The company is a new enterprise engaged in developing, producing and selling solar cells and battery packs. Working with ERP, MES, and other upper-layer systems, our solution integrated with onsite equipment well, enhanced the automation, digitalization, and intelligence.

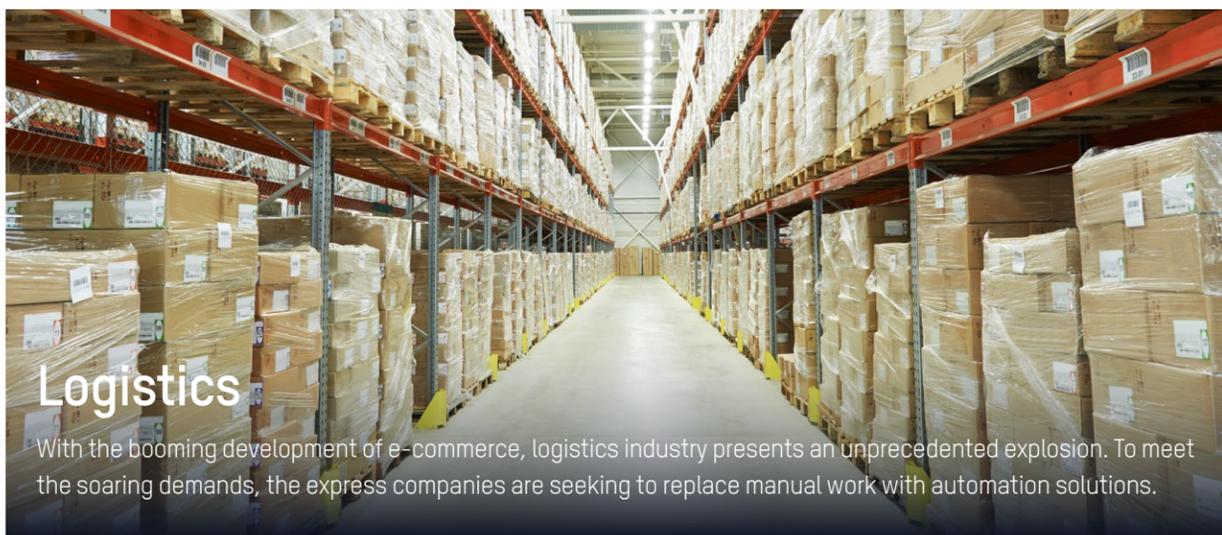


Solution

To realize higher production capacity and automated manufacturing, 50 CMRs were put in use. Combining with the RCS, the solution achieved the automatic transfer of semi-finished materials from loading, texturing, diffusion, engraving, PECVD, to printing. It saved labor costs significantly, and improved production capacity.

Customer Benefit

- High-precision docking: up to ± 2 mm
- Automatic docking: transfers empty/full carriers from/to production lines automatically
- Improved space utilization: supports curve movement, front side docking, saves space
- Digital management: seamless communication between RCS and upper-layer system improves management level



Logistics

With the booming development of e-commerce, logistics industry presents an unprecedented explosion. To meet the soaring demands, the express companies are seeking to replace manual work with automation solutions.

Industry Challenge



Large peak volume

Business volume has large fluctuations. Warehouses must handle massive order volumes timely during promotion.



Low fault tolerance

Logistics volume is large with low fault tolerance, and high time sensitive.



Unique requirements

Management requirements are various in different segments, with high request of lean, efficient and flexible.

Solution Introduction

Robotic and manual warehouses can interoperate to handle orders. By adding robots, robotic warehouse capacity can realize rapid expansion, to handle business peaks in real time. iWMS analyzes the business data, comprehensively considers the order structure, strategy and inventory distribution, to calculate the optimal solution that meets the business needs and the lowest costs.

Solution Highlight



Collaboration between robotic and manual warehouses: adds/removes robots flexibly



Combines dynamic and static wave strategies to handling tasks



Advanced algorithms to improve hit rates



Integration of data acquisition devices to guarantee accuracy



Works with Hikrobot Cloud Platform for accurate order tracking

DHL Express

Background

As the largest international express transshipment center in Asia-Pacific area, DHL Shanghai North Asia Hub deals with 120,000 items on average each day. To meet the efficiency demand brought by the increased business volume and solve the man-to-goods problems, DHL Express introduced Hikrobot intelligent warehousing solution.



Solution

To provide accurate international express service to the customer, Shanghai Asia hub introduced the Hikrobot intelligent warehousing solution. The mobile robots work together with RCS and the intelligent iWMS. Through the integrated solution, fast query, unmanned operation and digital management of processes can be realized.

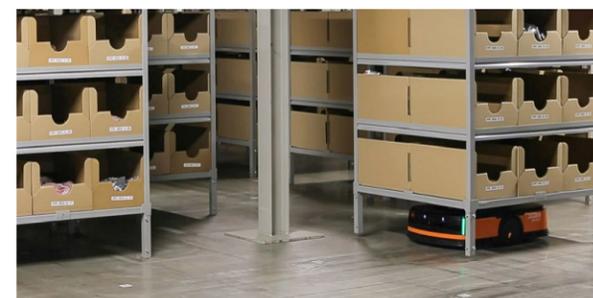
Customer Benefit

- Reduced work strength and labor costs
- Improved work efficiency by 33%
- Improved space utilization by 40%: reduces the goods stacking situation, and site stains
- Intelligent warehouse management: makes statistics query and management easier

Superdry

Background

Superdry is an iconic, global fashion brand operating through 768 store locations in 65 countries. Maintaining product availability, keeping efficient fulfillment, and processing the returns rapidly are essential for ensuring the best customer experiences. To support future growth, deliver accurate and efficient picking, Superdry introduced Hikrobot intelligent mobile robots.

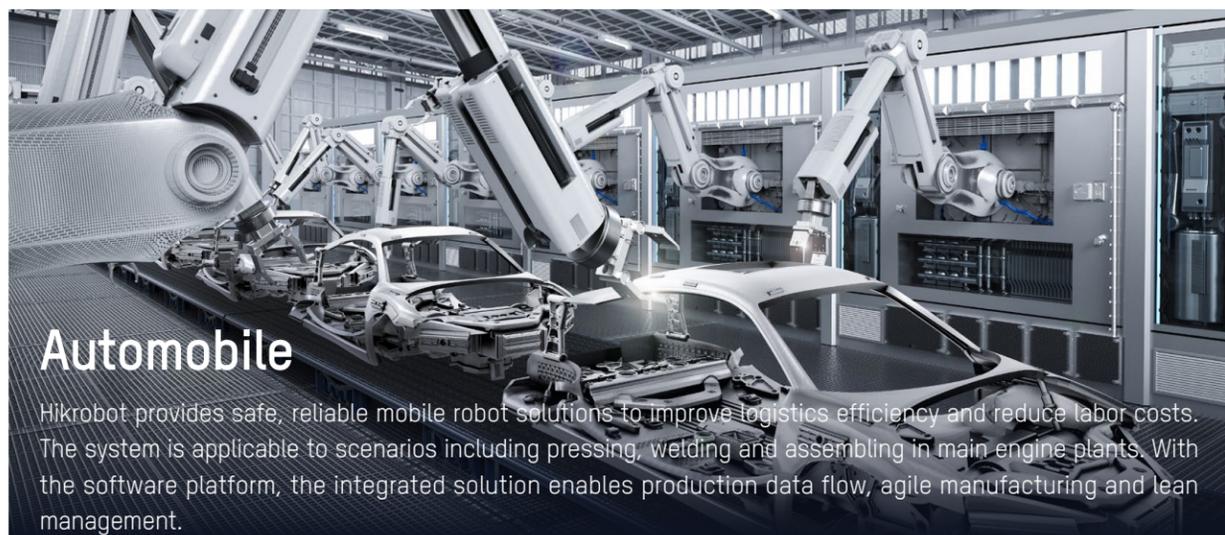


Solution

Superdry introduced 46 robots into the Burton-upon-Trent DC and 20 robots in European DC for order picking and returns handling. Meanwhile, combination of PTL and indicator light ensured the accuracy of order fulfillment.

Customer Benefit

- Significantly improved work efficiency: return processing speed *3-3.5, picking efficiency *2
- Higher inventory utilization for returns: 99% of returns can be processed and re-dispatched within 24 hours
- Better operation accuracy: operation accuracy is up to 99.9%



Automobile

Hikrobot provides safe, reliable mobile robot solutions to improve logistics efficiency and reduce labor costs. The system is applicable to scenarios including pressing, welding and assembling in main engine plants. With the software platform, the integrated solution enables production data flow, agile manufacturing and lean management.

Industry Challenge



Tight production cycle
JIT method is widely adopted. Production suspensions due to delivery delays cause large costs.



Low efficiency
Traditional transferring mode needs too much manpower, which causes huge labor costs and space wastes.



Varied components and suppliers
Varied components and suppliers result in picking errors.



Safety risks
Transport of heavy components create safety risks.

Solution Introduction

By introducing robots (including LMR and FMR), workers and components are separated in the entire process. Robots transfer components from platforms to production line automatically. RCS and iWMS are upgraded to match industry features, and support different operation modes including production cycle, call button and PDA, etc. This solution reduces the risk of production interruption caused by improper manual operation, and helps to maximize the performance of JIT mode.

Solution Highlight



Scenario-specific hardware design



Industry-oriented software upgrade



Seamless docking with upper systems including ERP and MES



Integrates with industrial automation devices (e.g. robotic arm, code reader, and PTL)

FAW-Volkswagen

Background

The Foshan plant is FAW-Volkswagen's 4th plant in China, which covers approximately 1.66 million m². Currently it is the production base of FAW-Volkswagen with the most models on the same production line. During peak period, 2,400 cars are produced per day, involving tens of thousands of components. To handle complex picking tasks and improve efficiency and accuracy, the mobile robots solution was introduced.



Solution

The intelligent logistics system adopted at the Foshan plant is complicated, which integrated FAW-Volkswagen's FIS and PLP, Hikrobot's RCS and iWMS, along with 47 LMRs. It is the first "Supermarket 2.0" solution in the automobile industry, that made factory-level collaborative intelligent logistics system a reality.

Customer Benefit

- Reduced manual work intensity by 30%
- Improved efficiency and accuracy: 100% outbound accuracy in warehouse and 100% on-time supply of components between production lines
- Real-time exchange of warehouse information
- Less repeated planning work: supports dynamic inventory arrangement, intelligent load balancing

Yanfeng Automotive Interiors

Background

Yanfeng Automotive Interiors Co., Ltd is a world-leading automobile interiors supplier. Its Jinqiao factory warehouse has a wide variety of components, and requires high warehouse capacity under a tight logistics cycle. To solve the problems, Yanfeng adopted Hikrobot warehouse and logistics solution.

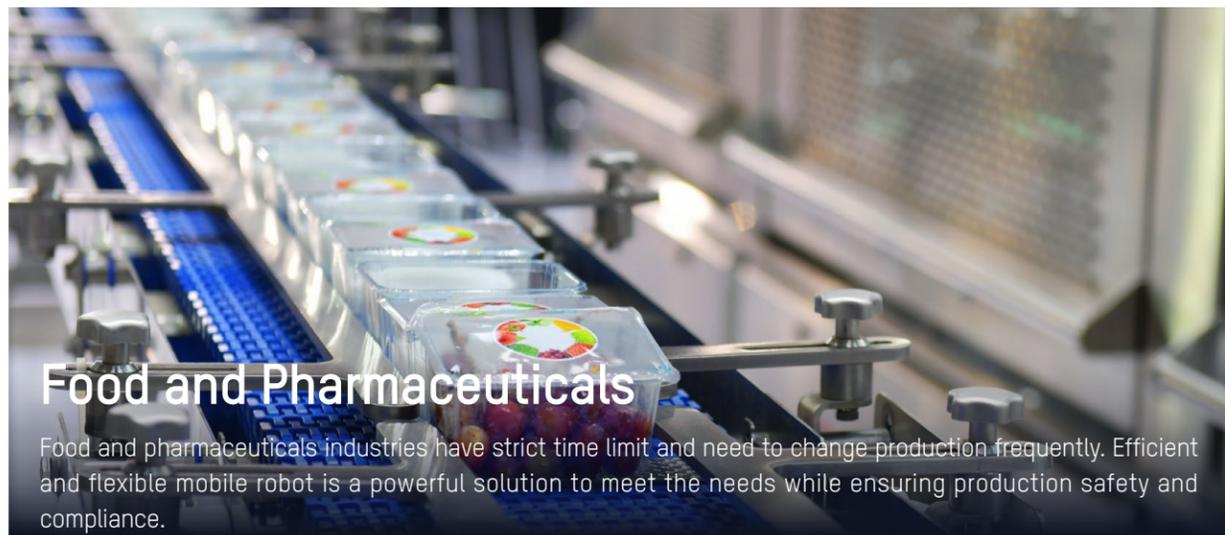


Solution

To enable flexible upstream and downstream flows of logistics information, and reduce labor costs, the factory introduced Hikrobot intelligent warehouse logistics solution. It is used for cockpit inbound/outbound, and door transferring between production lines. Over 60 LMRs are put in use, collaborating with RCS and iWMS to increase the intelligence of management.

Customer Benefit

- Outbound based on order sequence
- Increased operational efficiency: up to 45 orders/hour.
- Adapted to tense production cycle
- Digitized warehouse management: seamlessly docks with upper business systems to realize order sequence-based inbound and outbound



Food and Pharmaceuticals

Food and pharmaceuticals industries have strict time limit and need to change production frequently. Efficient and flexible mobile robot is a powerful solution to meet the needs while ensuring production safety and compliance.

Industry Challenge



Varied business types
Wholesale distribution, hospital delivery, retail medicine stores, etc.



Diversified order forms
Order structures, storage and picking modes are varied.



Strict batch control
Strict batch control and expiration date management are required.



Multiple zones
Robots must operate across varied ambient zones and multi floors.

Solution Introduction

This solution supports multiple warehouses and multiple owners. Isolated permission management is available by rules configuration according to different business modes. Integrating with ASRS, high-bay rack, etc., automatic transferring and seamlessly interworking are realized. Furthermore, it supports multi-temperature zones and cross-floor management.

Solution Highlight



Configurable processes and expandable service



Compliance with GSP regulations



Lifecycle tracking by serial number



Strict batch control and expiration date management



Lean inventory management

Lianhua Supermarket

Background

Zhejiang Lianhua is a leading enterprise featuring multiple business models and chain stores. To address timeliness, temperature and humidity requirements, and weight loss problems during storage and outbound, the company introduced a G2P project in its fresh product warehouse.



Solution

Robots are introduced to automate the fresh product warehouse. In view of the weight deviation of fruit and vegetable, the system supports real-time adjustment of inventory data during outbound to avoid accumulation of errors. For the surplus and shortage of goods caused by inventory errors, the system supports the pre-allocation strategy. It also supports to adjust the pre-shipment volume according to the current inventory to ensure that all stores are not out of stock.

Customer Benefit

- **Reduced labor cost:** double efficiency per person, labor costs reduces by 33.3%
- **Reduced labor intensity:** transforms traditional picking mode
- **Digital warehouse management:** customized iWMS to satisfy industry requirements

Dashenlin Pharmaceutical

Background

It's a long-established pharmaceutical corporation, and owns over 3500 chain stores. Numerous categories of medicines are involved, which have strict management requirements for batch control and expiration date. In order to improve the efficiency and accuracy during order picking, the company introduced Hikrobot's solution.



Customer Benefit

- **Automated picking and putaway by cartons**
- **Improved operation efficiency:** up to 500-600 order lines/hour
- **Double picking position** designed for improved picking speed

Specification |

Latent Mobile Robot (LMR)

Available		Optional	—NA						
Model		Q1-010CRL-A	Q2L-300LE-A	Q3-600CE-C	Q3-600LE-C	Q7-1000CE-D	Q7-1000LE-D		
General	Dimension L*W*H (mm)	461*454*252	750*540*300	940*650*253	940*650*253	1180*860*260	1180*860*265		
	Rotation diameter (mm)	480	780	996	996	1265	1265		
	Lifting height (mm)	—	70	60	60	60	60		
	Ground clearance (mm)	15	30	25	25	25	25		
	Lifting pad size (mm)	461*454	728*540	750*600	850*650	980*800	980*800		
	Lifting motor	Electric	Electric	Electric	Electric	Electric	Electric		
	Weight (kg)	18	128	135	135	225	215		
	Rated load (kg)	10	300	600	600	1000	1000		
	Navigation	2D code	SLAM/2D code	2D code	SLAM	2D code	SLAM		
	Screen	—	Available	Available	Available	Available	Available		
Safety Protection	Laser obstacle avoidance	Available	Available	Available	Available	Available	Available		
	Sound-light alarm	—	Available	Available	Available	Available	Available		
	Laser width indicator	—	—	Optional	Optional	Optional	Optional		
	Side protection	—	—	Optional	Optional	Optional	Optional		
	Rear protection	—	Optional	Optional	Optional	Optional	Optional		
	Bumper strip	Front	Front/Rear	Front/Rear	Front/Rear	Front/Rear	Front/Rear		
	Scram button	Rear	Front/Rear	Front/Rear	Front/Rear	Front/Rear	Front/Rear		
Motion Performance	Rated speed (mm/s)	3000	1500	2000	2000	1800	1800		
	Angular accuracy (°)	±1	±1	±1	±1	±1	±1		
	Position accuracy (mm)	±10	±10	±10	±10	±10	±10		
Battery Performance	Endurance (h)	8	8	8	8	9	9		
	Charging time (h)	≤1.5 (after deep discharge)	≤1.5 (after deep discharge)	≤1.5 (after deep discharge)	≤1.5 (after deep discharge)	≤2 (after deep discharge)	≤2 (after deep discharge)		

Conveyer Mobile Robot (CMR)

Available		Optional	—NA			
						
Model		C7-1200C	C5-300B1	C3-300B2	C3-200LB2	C3-120B4
General	Dimension L*W*H (mm)	1525*1200*705	1670*1150*760	1409*900*1176	1250*743*1243	1628*828*1125
	Rotation diameter (mm)	1880	2088	1645.5	1396	1788
	Transfer method	Chain (one layer)	Roller (one layer)	Rollers (two bins one layer)	Rollers (two bins two layer)	Rollers (four bins two layer)
	Ground clearance (mm)	25	25	25	25	25
	Weight (kg)	550	650	550	315	250
	Rated load (kg)	1200	300	2*150	2*100	4*30
	Navigation	2D code	2D code	SLAM	SLAM	2D code
	Screen (in)	—	4.3	4.3	4.3	7
Safety Protection	Front protection	Laser	Laser	Laser	Laser	Laser, ultrasound
	Rear protection	—	Infrared	Ultrasound, infrared	Ultrasound, infrared	Ultrasound, infrared
	Side protection	—	—	Ultrasound	Ultrasound	Ultrasound
	Bumper strip	Available	Available	Available	Available	Available
	Scram button	Available	Available	Available	Available	Available
	Sould alarm	Available	Available	Available	Available	—
Motion Performance	Rated speed (mm/s)	1000	1200	1200	1000	1000
	Angular accuracy (°)	±1	±1	±1	±1	±1
	Position accuracy (mm)	±10	±10	±10	±10	±10
	Driving mode	Forward, backward, rotation	Forward, backward, rotation	Forward, backward, rotation	Forward, backward, rotation	Forward, backward, rotation
	Actuator Transfer speed (mm/s)	150	250	300	300-400	300-400
	Docking height(from ground) (mm)	590	580	520	1117/541	500/1100
Battery Performance	Enduracne (h)	8	8	8	8	8
	Charing time (h)	≤1.5 (after deep discharge)	≤1.5 (after deep discharge)	≤1.5 (after deep discharge)	≤1.5 (after deep discharge)	≤1.5 (after deep discharge)

Heavy-Duty Mobile Robot (HMR)

Available		Optional	—NA		
					
Model		H8C-2000	H9P-3000		
General	Dimension L*W*H (mm)	2700*1400*380	4342*1564*320		
	Lifting height (mm)	110	100		
	Weight (kg)	840	1500		
	Rated load (kg)	2000	3000		
	Navigation	SLAM	SLAM		
	Safety Protection	Laser, TOF	Laser		
	Rear protection	Laser, TOF	Laser		
Safety Protection	Side protection	TOF	Laser		
	Bumper strip	Available	—		
	Scram button	Available	Available		
	Motion Performance	1200	1200		
	Angular accuracy (°)	±1	±1		
Motion Performance	Position accuracy (mm)	±10	±15		
	Driving mode	Forward, backward, sidesway, skew, curve, rotation.	Forward, backward, sidesway, skew, curve, rotation.		
	Battery Performance	8	8		
Battery Performance	Charing time (h)	≤1.5 (After deep discharge)	≤2.5 (After deep discharge)		

Forklift Mobile Robot (FMR)

Available Optional —NA								
Model		F1-1000U	F1-200T	F4-1000C	F4-1000A	F3-3000A	F4-2000A	F6-1500A
General	Dimension L*W*H (mm)	1600*990*1870	1095*745*1240	1640*990*1990	1775*940*2130	2072*970*2045	2200*1106*2200	2827*1268*2233
	Weight (kg)	800	220	700	750	840	1410	2500
	Rated load (kg)	600	200	1000	1400	3000	2000	1500
	Load center (mm)	600	—	600	600	600	600	500
	Fork lifting height (mm)	2000	250	1300(customize to 3000mm)	3000	120	2500	3000
	Height of mast, extended (mm)	2665	—	—	3435	—	3580	3908
	Fork dimension s*e*l (mm)	55*206*1150	—	55*160*1200	60*180*1150	55*180*1150	55*180*1150	55*120*1150
	Fork spread (mm)	540/Customizable	270	680/Customizable	600/Customizable	620/Customizable	620/Customizable	600/Customizable
	Pallet size (mm)	1200*800	—	1200*1000	1200*1000	1200*1000	1200*1000	1200*1000
	Navigate	Laser SLAM	Laser SLAM	Laser SLAM	Laser SLAM	Laser SLAM	Laser SLAM	Laser SLAM
Screen (in)	11	4.3	11	11	11	11	11	
Motion performance	Laser obstacle avoidance	Available	Available	Available	Available	Available	Available	Available
	Automobile data recorder	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	Bumper strip	Available	Available	Available	Available	Available	Available	Available
	Pallet in-position detection	Available	Available	Available	Available	Available	Available	Available
	Fork infrared sensor	Available	—	Available	Available	Available	Available	Available
Battery Performance	Scram button	Available	Available	Available	Available	Available	Available	Available
	Caution light	Available	Available	Available	Available	Available	Available	Available
Safety Protection	Sound-light alarm	Available	Available	Available	Available	Available	Available	Available
	Rated speed (mm/s)	1200	1200	1200	1200	1500	1500	1200
	Position accuracy(mm)	±5	±5	±10	±10	±10	±10	±10
	Angular accuracy (°)	±1	±1	±1	±1	±1	±1	±1
	Driving mode	Omni-directional, forward, backward,sidesway,skew, rotation, arc.	Omni-directional, forward, backward,sidesway,skew, rotation, arc.	Steering wheel driving, forward, backward, rotation, arc.	Steering wheel driving, forward, backward, rotation, arc.	Steering wheel driving, forward, backward, rotation, arc.	Steering wheel driving, forward, backward, rotation, arc.	Steering wheel driving, forward, backward, rotation, arc.
	Min. aisle width (1200*1000 mm pallet) (mm)	1800	—	2100	2200	2550	2750	3400
	Endurance (h)	6-8	8	6-8	6-8	8-10	6-8	6-8
	Charging time (h)	≤1.5 (after deep discharge)	≤2 (after deep discharge)	≤2 (after deep discharge)	≤3 (after deep discharge)			
Others	Pallet recognition	Optional	—	Optional	Optional	Optional	Optional	Optional
	Visual code reading	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	Controllable fork	—	—	—	—	—	—	Optional
	RFID reader	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	Fork customization	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	Mast customization	Optional	Optional	Optional	Optional	—	Optional	Optional

Carton Transfer Unit (CTU)

Available		Optional	—NA
			
Model		F0-50SC	F0-50DCSH
General	Dimension L*W*H (mm)	945*680*2050	1730*950*4565
	Weight (kg)	390	820
	Rated load (kg)	50	30*7 or 50*5
	Ground clearance (mm)	25	20
	Lifting height (mm)	340-1450	270-4000
	Adaptable tote dimension (mm)	{400~600}*400*(140~340)	{400~600}*400*(120~420)
	Navigation	2D code/SLAM	2D code/SLAM
	Screen	Optional	Optional
Safety Protection	Laser obstacle avoidance	Available	Available
	Side protection	Optional	Optional
	Rear protection	Optional	Optional
	Bumper strip	Available	Available
	Scram button	Available	Available
	Sound-light alarm	Available	Available
Motion Performance	Rated speed (mm/s)	1500	1500
	Positioning accuracy (mm)	±10	±10
	Angular accuracy (°)	±1	±1
	Max. actuator lifting speed (mm/s)	510	500
	Actuator lifting accuracy(mm)	±2	±2
	Max. actuator telescoping speed (mm/s)	1500	1000
	Min. aisle width (mm)	900	1100
	Rotation diameter (mm)	1065	1850
Battery Performance	Endurance(h)	6-8	6-8
	Charging time(h)	≤2 (after deep discharge)	≤1.5 (after deep discharge)



Hikrobot

MOBILE ROBOT PRODUCT CATALOG

HIKROBOT

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