

Making AGV as Easy as Building Blocks

- Turnkey Solution Customization
- Standard Module
- Preferred Industry Suppliers

ROBOTPHOENIX INTELLIGENT TECHNOLOGY CO., LTD.

- Yuhuan HQ: Building E, Digital Economy Industrial Park (Nanwan Zhigu), No. 1261 Jinhai Avenue, Yuhuan Economic Development Zone
- Jinan Subsidiary: Puyi Robot Industrial Park, Hangtian Avenue, High-tech Development Zone, Jinan, Shandong Province
- Shanghai Subsidiary: No. 1, No. 485 Xiangjiang Highway, Nanxiang Town, Jiading District, Shanghai
- Hangzhou Subsidiary: Building 4, Phase II, Xiaoshan Robot Town, No. 477 Hongxing Road, Xiaoshan Economic Development Zone, Xiaoshan District, Hangzhou
- Shenzhen Subsidiary: No. 1201, Building 2, Manjinghua Kechuang Workshop Building (Industrial Zone), No. 6 Songjiang Road, Songgang Street, Baoan District, Shenzhen
- Suzhou Subsidiary: Room B-407-411, Ascendas Suzhou, No. 388 Xiping Street, Gusu District, Suzhou
- Linyi Subsidiary: No. 1 Factory Building, Yimeng New Quality Industrial Park, Intersection of Xi'an Road and Yushan Road, Lanshan District, Linyi
- Wuhan Subsidiary: Room 0528, F5, Building 2, Phase 3, International Enterprise Center, No. 1 Guanggu Avenue, Donghu New Technology Development Zone, Wuhan
- Zaozhuang Subsidiary: Room 109, Building 3, Jinshui Chang Street (Internet Town), No. 3333 Taihangshan Road, Xingren Street, Zaozhuang High-tech Zone, Shandong Province
- Quanzhou Subsidiary: Room 3526-1, Henghe Fortune Center, No. 77 Daxing Street, Binhai Community, Donghai Street, Fengze District, Quanzhou, Fujian Province
- Yancheng Subsidiary: F3, Building A4, Robot Industrial Park, Jianhu County High-tech Zone, Yancheng
- Shaoxing Subsidiary: Building 10, Zheli New Journey Venture Capital Industrial Park (Shangyu), Lianxing Village, Dongguan Street, Shangyu District, Shaoxing

Tel: 400-116-0626

Email:marketing@robotphoenix.com



ROBOTPHOENIX AGV/AMR



ODM AGV/AMR Supplier



www.robotphoenix.com

CONTENTS

01

ROBOTPHOENIX

01

02

CAMEL LATENT MOBILE ROBOT

09

03

MOBILE MANIPULATOR

13

04

SMART FORKLIFT

17

05

CHARGER

21

06

SOFTWARE SYSTEMS

23

07

SOLUTION

27



ROBOTPHOENIX is a leading comprehensive industrial robot enterprise in China. It is a national-level Specialized, Refined, Distinctive, and Innovative (SRDI) “Little Giant” enterprise. It focuses on the design, R&D, manufacturing and commercialization of industrial robots, and provides turnkey robot solutions to deeply develop the light industry. With self-developed robots, control and vision systems and manufacturing processes, we have established a powerful full-coverage technology ecosystem to achieve large-scale intelligent decision-making, environmental perception, precise control and autonomous movement. It is one of the few robot companies in China that has comprehensive coverage of large-scale industrial robots and related robot solutions. It helps corporate customers from all walks of life improve production efficiency, optimize production costs and improve product quality so as to ultimately promote intelligent transformation.

ROBOTPHOENIX has carefully designed a comprehensive industrial robot product portfolio for Chinese light industry, covering delta robots, AMRs, SCARA robots, wafer handling robots and 6-axis industrial robots. It also owns independently developed core technology - control and vision system. We provide turnkey robot solutions based on intelligent automation systems to cope with specific application scenarios in intelligent manufacturing, including loading and unloading, sorting, pick-and-place, packaging, visual inspection, assembly and glue coating systems.



Mission

Leading the world into the intelligent era with industrial robots



Development Purpose

Create superior products with cutting-edge technology



Business Philosophy

Good faith, excellence, hard-working, innovation and mutual trust



Service Commitment

Professional and efficient to achieve customer satisfaction

Established in

2012

R&D staff

38%

National patents

200+



Development History

2012-2014 Initial Stage

- Won the provincial talent plan award of RMB 2 million
- The first product - Bat-series delta robot was officially released

2015-2018 Business Development

- Received Series A and B financing
- Received a nearly 200 million RMB order from a Fortune 500 company for the first time.
- Shanghai office was established

2019-2021 Transformation Breakthrough

- Received Series C financing
- Won the title of Key Support Material Enterprise for COVID-19 Prevention and Control, and received support from the Ministry of Industry and Information Technology
- Hangzhou subsidiary was established
- SCARA robot and small 6-axis robot were released

2022-2026 Steady Growth

- Moved to a new 24000m² factory building
- Obtained hundreds of millions of RMB in Series D financing
- Awarded the title of national-level Specialized, Refined, Distinctive, and Innovative (SRDI) "Little Giant" enterprise.
- Changed name to Robotphoenix Intelligent Technology Co., Ltd.
- Quanzhou Shenzhen and Suzhou subsidiaries were established
- Entered the semiconductor and logistics industries

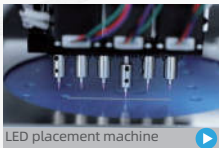
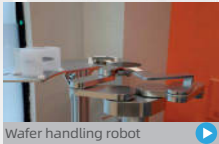
| Our intention is to achieve perfection

Clients&Partners

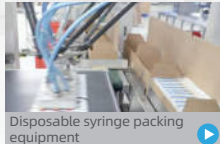
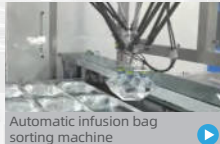


Industry Cases

Semiconductor Industry



Biopharmaceutical Industry



Food & Daily Chemical Industry



Automotive Parts Industry



3C Industry



Smart Warehousing Industry



| Our intention is to achieve perfection

20 +

Exporting countries

28

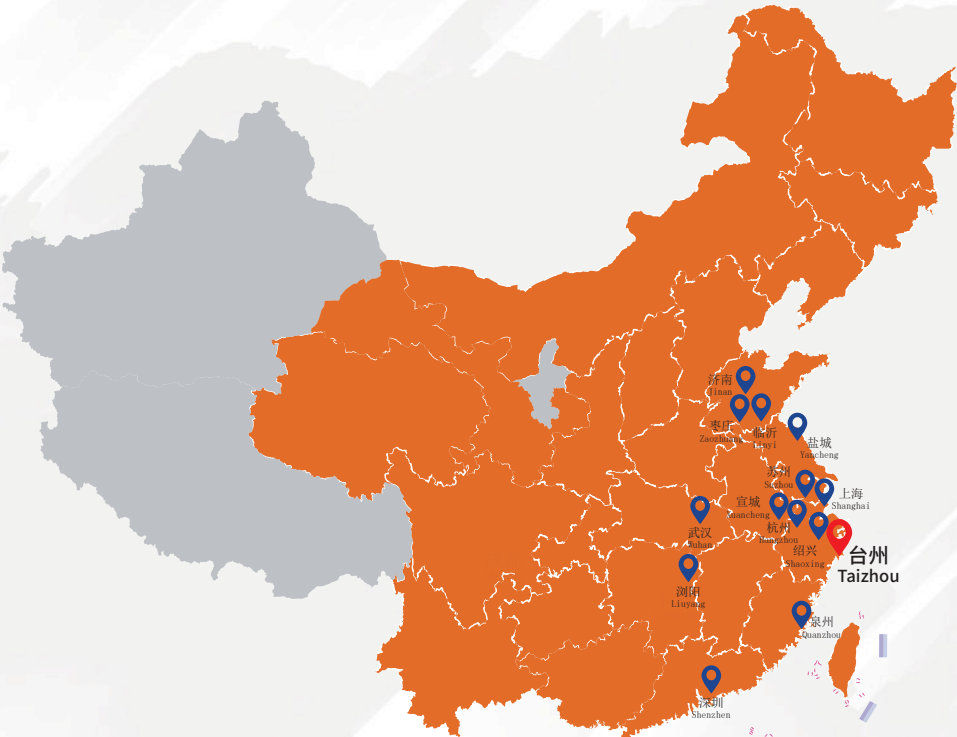
Domestic sales areas

14

Domestic service points

24 H

Online service + technical training



After-sales Service

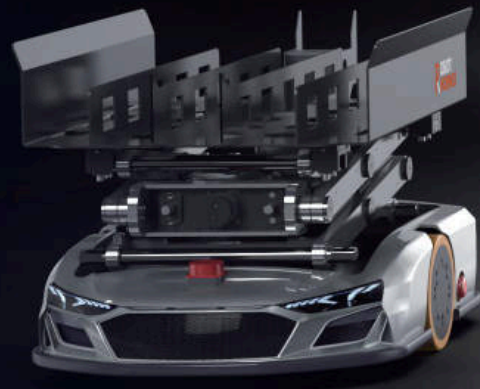


02

CAMEL LATENT MOBILE ROBOT

ODM Supplier; Making AGV as Easy as Building Blocks

📍 Efficient ~ Steady ⊕ Accurate 🧩 Modular



ROBOTPHOENIX latent mobile robot covers the ODM with the most industry characteristics. It is compatible with a variety of vehicles. It can intelligently identify shelf models and flexibly deploys to cope with complex environments. With laser SLAM, QR code navigation and sensing technology, it ensures reliable delivery and safe personnel interaction. It is efficient and intelligent to bring a new experience to warehouse management.

8⁺
compatible controller brands

Flexible, easy to use and highly compatible

14^{day}
lead time

Quick delivery

300⁺
configuration combinations

Suitable for main brands in the industry and customizable

| Our intention is to achieve perfection

Technical Parameters



Model		Squirrel-50	Camel-400-D	Camel-600-SP1	Camel-1000-D	Camel-1500-D	Camel-2000	Camel-3000
Basic Parameters	Dimensions (L*W*H)	678*450*435mm	780*540*255mm	950*650*255mm	1150*820*256mm	1150*820*256mm	1900*1200*400mm	2000*1300*420mm
	Self-weight	70kg	98kg	130kg	180kg	200kg	680kg	900kg
	Rated Payload	50kg	400kg	600kg	1000kg	1500kg	2000kg	3000kg
	Chassis Ground Clearance	25mm	25mm	25mm	25mm	25mm	40mm	40mm
	Minimum Turning Diameter	678mm	780mm	965mm	1199mm	1199mm	2166mm	2304mm
	Lifting Drive	Electric + Screw Rod	Electric	Electric	Electric	Electric	Electric	Hydraulic
	Lifting Height	>=400mm	60mm	60mm	60mm	60mm	100mm	130mm
	Lifting Speed	<=4s	2-3s	2-3s	2-3s	2-3s	2-3s	2-3s
Motion Performance	Rated Speed (No Load / Full Load)	4/3.5 m/s	1.9/1.5 m/s	1.9/1.5 m/s	1.8/1.5 m/s	1.5/1.0 m/s	1.2/1.0 m/s	1.2/1.2 m/s
	Acceleration (No Load / Full Load)	2/1.2 m/s²	0.6/0.3 m/s²	0.6/0.3 m/s²	0.6/0.3 m/s²	0.6/0.3 m/s²	0.6/0.3 m/s²	0.6/0.3 m/s²
	Drive Type	Dual-wheel Differential	Dual-wheel Differential	Dual-wheel Differential	Dual-wheel Differential	Dual-wheel Differential	Dual Steer Wheel	Dual Steer Wheel
Location & Navigation	Navigation Method	QR Code Navigation	Laser SLAM or QR Code	Laser SLAM or QR Code	Laser SLAM or QR Code	Laser SLAM or QR Code	Laser SLAM or QR Code	Laser SLAM or QR Code
	Stop Position Accuracy / Angular Accuracy	±5mm / ±1°	±5mm / ±1°	±5mm / ±1°	±5mm / ±1°	±5mm / ±1°	±10mm / ±1°	±10mm / ±1°
Battery Performance	Capacity / Rated Voltage	10Ah/48V	16Ah/48V	24Ah/48V	40Ah/48V	50Ah/48V	67Ah/48V	135Ah/48V
	Charge/Discharge Cycle Times	1500 Full Cycles	1500 Full Cycles	1500 Full Cycles	1500 Full Cycles	1500 Full Cycles	1500 Full Cycles	1500 Full Cycles
	Rated Endurance (Working Conditions)	4-6H	8H	8H	8H	8H	8H	8H
	Full Charge Time (After Full Discharge)	<=1.5H	<=1.5H	<=1.5H	<=1.5H	<=1.5H	<=2H	<=2H

03

MOBILE MANIPULATOR



Mobile manipulators with various innovative robotic arms

④ Self-developed vision system ④ Self-developed arm ④ Self-developed chassis

Integrated chassis design, fully floating shock absorption, laser positioning accuracy within 5mm, meeting more than 95% of composite handling applications;

0.1^{mm}
visual arm positioning accuracy

Equipped with self-developed vision system

360[°]
full-range safety protection

Ensure 100% operational safety

8^{hour}
deployment

SCARA mobile manipulator

50[%]
cost reduced

SCARA mobile manipulator

| Our intention is to achieve perfection

Technical Parameters



	Model	Chameleon-S200	Chameleon-P300	Camel600-SCR-B-L06	Chameleon-P300-CR-L06	Camel600-C50
Basic Parameters	Dimensions: L*W*H	920*620*257mm	1000*650*300mm	950*650*500mm	1000*650*300mm	950*650*500mm
	Swivel diameter	1013mm	1193mm	965mm	1193mm	965mm
	Dead Weight	90Kg	130Kg	200Kg (excluding robotic arm)	200Kg (excluding robotic arm)	180Kg (Including roller carrier)
Motion performance	Rated operating speed/no load/full load	1.5/1.2 m/s	1.5/1.2 m/s	1.5/1.2 m/s	1.5/1.2 m/s	1.9/1.5 m/s
	Acceleration no/full load	0.6/0.3m/s ²	0.6/0.3 m/s ²	0.3/0.3 m/s ²	0.3/0.3 m/s ²	0.3/0.3 m/s ²
	Drive mode	Two-wheel differential drive	Two-wheel differential drive	Two-wheel differential drive	Two-wheel differential drive	Two-wheel differential drive
Positioning & Navigation	Navigation mode	Laser Slam	Laser Slam/QR Code	Laser Slam/QR Code	Laser Slam/QR Code	Laser Slam/QR Code
	End-guided positioning method	—	—	Vision (3D/2D)	Vision (3D/2D)	—
	Stop position accuracy/angle accuracy	±10mm/±1°	±5mm/±1°	±5mm/±1°	±5mm/±1°	±5mm/±1°
Battery performance	Capacity/ rated voltage	50Ah/48V	60Ah/48V	24Ah/48V	60Ah/48V	24Ah/48V
	Charge/discharge cycles	Fully charged and discharged 1,500 times	Fully charged and discharged 1,500 times	Fully charged and discharged 1,500 times	Manual/auto/quick-fitting battery	Fully charged and discharged 1,500times
	Endurance time under rated operating conditions	8H	10H	6H	10H	8H
	Charging time after full discharge	1.5H	1.5H	1.5H	1.5H	1.5H
	Whether to support battery change	No	Yes	No	Yes	No
Safety Protection	E-stop button	Qty.: 2/1 each at front and rear	Qty.: 2/1 each at front and rear	Qty.: 2/1 each at front and rear	Qty.: 2/1 each at front and rear	Qty.: 2/1 each at front and rear
	Contact protection	Piezoelectric edge switch	Piezoelectric edge switch	Piezoelectric edge switch	Piezoelectric edge switch	Piezoelectric edge switch
	Laser obstacle avoidance range	360°	360°	Front 260°/Rear 180°	360°	Front 260°/Rear 180°

04

FORKLIFT AGV

Innovative fork-lifting robot solution
and fast customization of non-standard carriers

Safe Accurate Intelligent cluster



| Our intention is to achieve perfection

The load of the entire series of forklift AGV covers up to 1,500kg, with small access space. It supports the top vision camera to realize the top navigation function. The high-precision SLMA fusion navigation algorithm covers a variety of storage scenarios such as ground handling, shelf stacking, and dense storage. It solves the customer's pain point of high storage capacity and narrow access planning.

2 dual-mode switching

Flexible adaptation to a variety of work scenarios

360° omni-directional obstacle avoidance

Ensure unmanned safe operation

20% access space saved

Body thickness suitable for narrow access

| Our intention is to achieve perfection

Technical Parameters

	Model	Yak PT-1500-V	Yak PT-1500	Yak FL-1500
Basic Parameters	Dimensions: L*W*H	1635*820*1470mm	1635*812*2118mm	1700*1004*2180mm
	Dead Weight	325Kg	335Kg	970Kg
	Max. load	1500Kg	1500Kg	1500Kg
	Max. lifting height	95mm	95mm	1600/2500mm (optional)
	Max. operating speed no load/full load	1.5/1 m/s	1.5/1 m/s	1/1 m/s
	Acceleration no/full load	0.5/0.5 m/s²	0.5/0.5 m/s²	0.5/0.5 m/s²
	Drive mode	Single wheel drive	Single wheel drive	Single wheel drive
Motion performance	Navigation mode	Top	Laser Slam	Laser Slam/reflector
	Stop position accuracy/angle accuracy	±30mm/±1°	±10mm/±1°	±10mm/±1°
	Capacity/ rated voltage	60Ah/24V	100Ah/24V	205Ah/24V
Battery performance	Charge/discharge cycles	Fully charged and discharged 1,500 times	Fully charged and discharged 1,500 times	Fully charged and discharged 1,500 times
	Endurance time under rated operating conditions / charging time	6-8H/2H (manual battery change)	6-8H/2H	7.5-9H/2H
Safety Protection	Laser obstacle avoidance	Standard	Standard	Standard
	3D visual obstacle avoidance	Optional	Optional	Optional
	Fork tip detection	Standard	Standard	Standard
	Pallet in-place detection	Standard	Standard	Standard
	E-stop button	Standard, Qty.: 2	Standard, Qty.: 2	Standard, Qty.: 2
	Contact protection	Standard with piezoelectric edge switch	Standard with piezoelectric edge switch	Standard with piezoelectric edge switch



05 CHARGER

Features



Excellent energy saving

Maximum conversion efficiency 93% and intelligent sleep technology reducing standby loss;



HMI

Touch screen, with friendly HMI interface to check charger data and alarm information in real time;



Easy to transport

Lightweight design of the whole machine and small size, easy to transportation.

| Our intention is to achieve perfection



Charging method

Support automatic and manual charging methods;



Network communication

Wifi communication



Excellent performance

Floating connection system increases fault tolerance with wide working temperature of -30°~50°;



Safety Protection

Multiple safety protection measures such as output short circuit/overvoltage/battery undervoltage/battery reverse polarity/overtemperature protection;

Application Industry

Automatic/manual AGV charging, supporting multi-power model customization.



Technical Parameters

	Model	Eh-4850-C1-130		Model	Eh-4810-C1-S
Basic Parameters	Dimensions: L*W*H	426*419*475mm	Basic Parameters	Dimensions: L*W*H	246*125*68mm
	Charging method	Automatic/manual charging		Charging method	Manual charging
	Input voltage	90~264VAC/47~63H Or 127~370VDC V		Input voltage	176-264Vac
	Output voltage	42Vdc~80Vdc V(Programmable)		Output voltage	6Vdc~54.75Vdc
	Output current (A)	50A		Output current (A)	10A
	Max. power (W)	3000W		Max. power (W)	600w
	Charging curve	BMS given or customized via programmer		Charging curve	No
	HMI method	Touch screen		HMI method	Status indicator
Protection function	Output short-circuit protection	Constant current limit, the charger shuts down after 5 seconds and can be restored after restart	Protection function	Output short circuit protection	Yes
	Overvoltage protection	Shut down at 82~100V and lock the output voltage, can be restored after restart		Over-current protection	Yes
	Battery reverse connection protection	Protect internal reverse detection without damage and recoverable after restarting after fault removal		Battery reverse connection protection	Yes
	Over-temperature protection	Turn off the output voltage and automatically recover after fault removal			
Others	Communication method	RS485	LED indicator	Charging	Charging indicator flashing
	WiFi communication interface	1 channel (standard)		Fully charged	Charging indicator on
	HMI	Touch screen	Environment	Operating temperature	-25°C~±45°C
	Display	7" touch screen		Operating humidity	10-95%RH non-condensing
Environment	Ambient temperature for charging	0~40°C(needs to be customized in cold storage environment)			
	Ambient humidity for charging	20~95%RH non-condensing			
	Storage temperature and humidity	-40~+85°C, 10~95%RH non-condensing			
	Temperature coefficient	±0.05%/°C (0~50°C)			
	Vibration resistance	10~500Hz,2G10min/1 cycle X, Y, Z axis 60min each			

★ The above marked parameters are obtained under ideal conditions;

06

SOFTWARE SYSTEM

YiWMS Warehouse Management System



Group cloud deployment, supporting global multi-warehouse, multi-material, multi-owner, multi-customer, and multi-carrier architectures.



Automatic operation and intelligent scheduling, supporting up to millions of warehouse location management and multiple device integration.

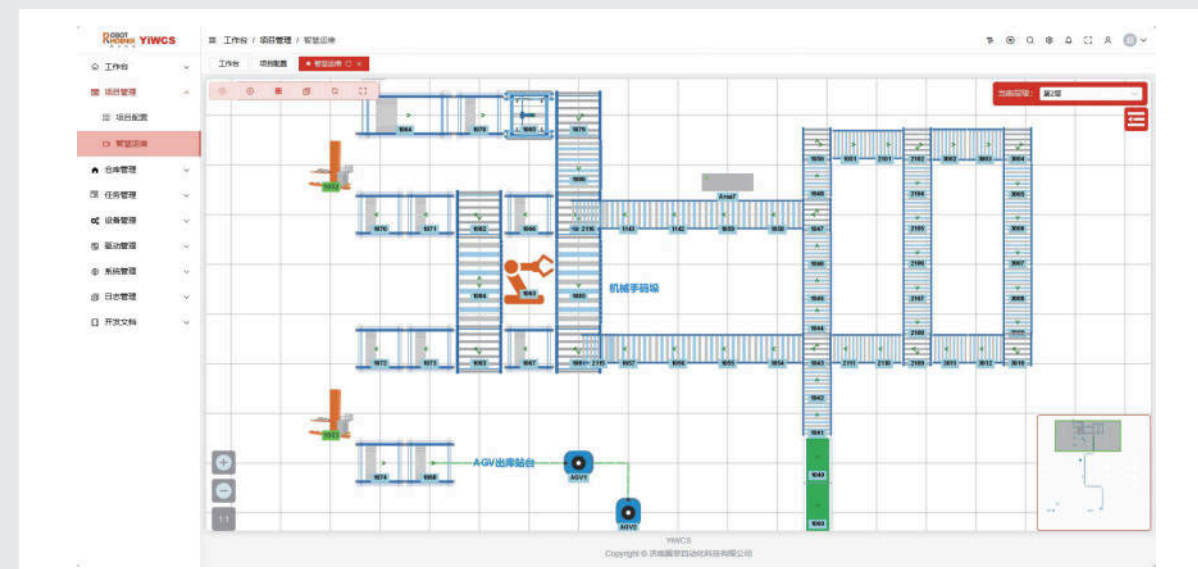


Standard interface connection can be completed quickly and efficiently and a centralized interface management can be realized online and offline.

| Our intention is to achieve perfection

Software System

YiWCS Warehouse Control System



Universal design based on the IoT platform, compatible with a full range of storage equipment.

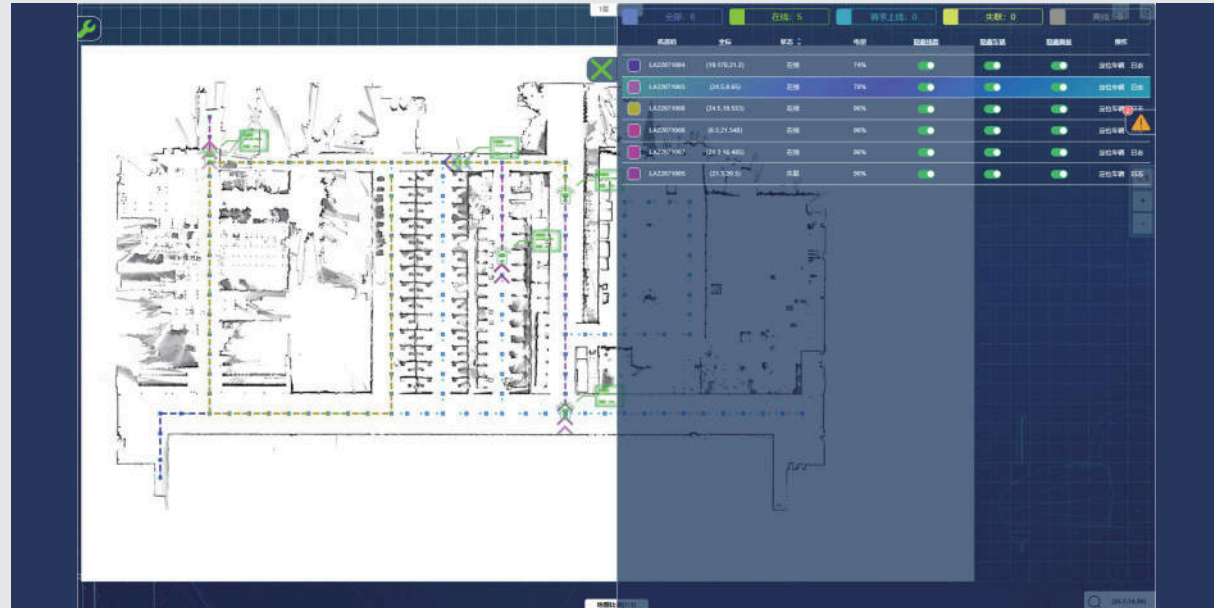


The first programmable equipment control to achieve minimum code installation and flexible production line function switching.



Support a variety of communication protocols and compatible with mainstream PLC and industry standard protocols.

AntRCS



Task template flowchart design, easy to configure, and meeting different complex business scenarios.



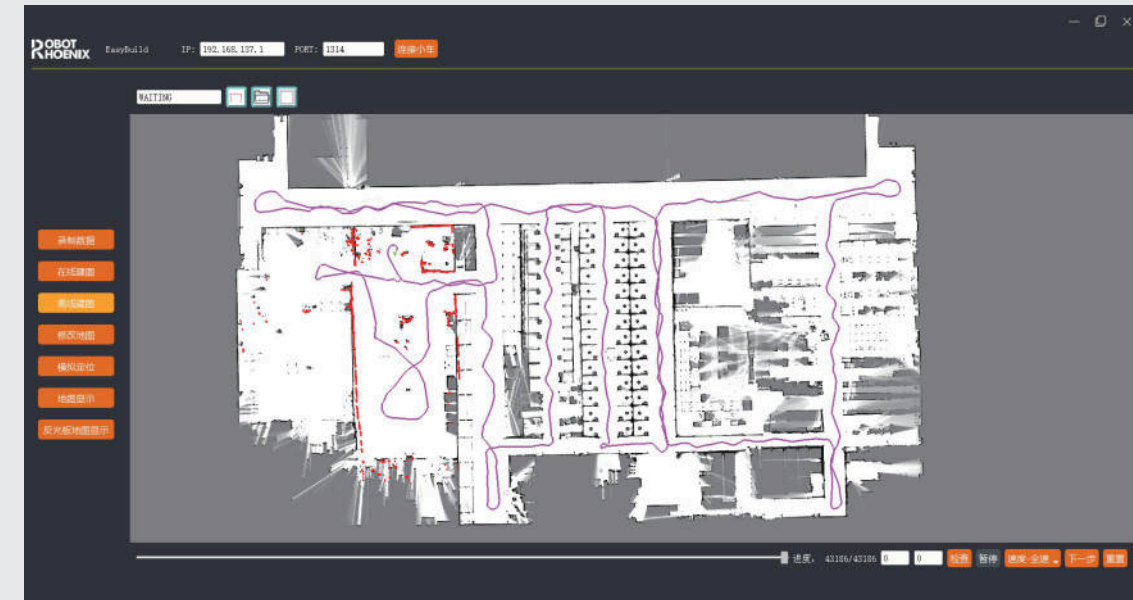
Rich upstream interfaces and support more than 10 peripheral devices.



Vehicle simulation and task simulation software simulates real vehicle and real site to ensure project delivery planning.

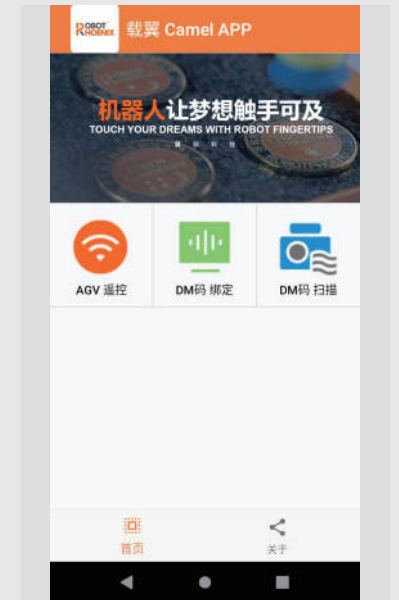
| Our intention is to achieve perfection

EasyBuilder



Support online mapping and offline mapping. The maps can be edited and positioning can be simulated to check and optimize maps.

Camel APP



Support remote control, map point code binding and DM code scanning to improve mapping efficiency.



| Our intention is to achieve perfection

Fresh Food E-commerce Industry Solutions

Goal

For fresh food, medicine, shoes, clothing and tobacco sub-industries. The goal is to unmanned handling, informatization of inventory management, and improvement of operational efficiency and flexibility.

Application solutions

The integrated robot relies on the robot scheduling platform and warehousing management platform to create application solutions for warehouse receipt, shelving, picking and collection scenarios to effectively improve picking accuracy, reduce labor intensity and increase picking efficiency.

Adaptation scenarios

Full box and split picking.



Industry (customer) pain points and solutions

INDUSTRY PAIN POINTS

Inefficient manual picking

High flexibility is required to expand quickly and flexibly in response to market and business fluctuations.

The deployment cycle and cost of automatic logistics and warehousing equipment are high, and the subsequent expansion and movement are difficult and costly.

Complex orders and large order management volume. It is difficult to meet manual timeliness and accuracy.



SOLUTIONS

1

Goods-to-person picking mode and the robot moves the goods to the picking station. It solves the problem of time wasted looking for goods and walking around.

2

Add and delete robots and warehousing according to specific needs.

3

QR code placement is only required to reduce implementation costs and high flexibility is considered for easy expansion later.

4

Seamlessly connect the scheduling system via the order management system for flexible handling and connecting the picking workstation.



| Our intention is to achieve perfection

Automatic Material Distribution for Production Lines in Auto Parts Industry

Goal

For OEMs and auto parts manufacturers, involving stamping, welding, final assembly, and machining. The mobile robot system is used to realize unmanned delivery and informatization of the whole process of manufacturing and logistics handling to improve working efficiency and flexibility.

Application solutions

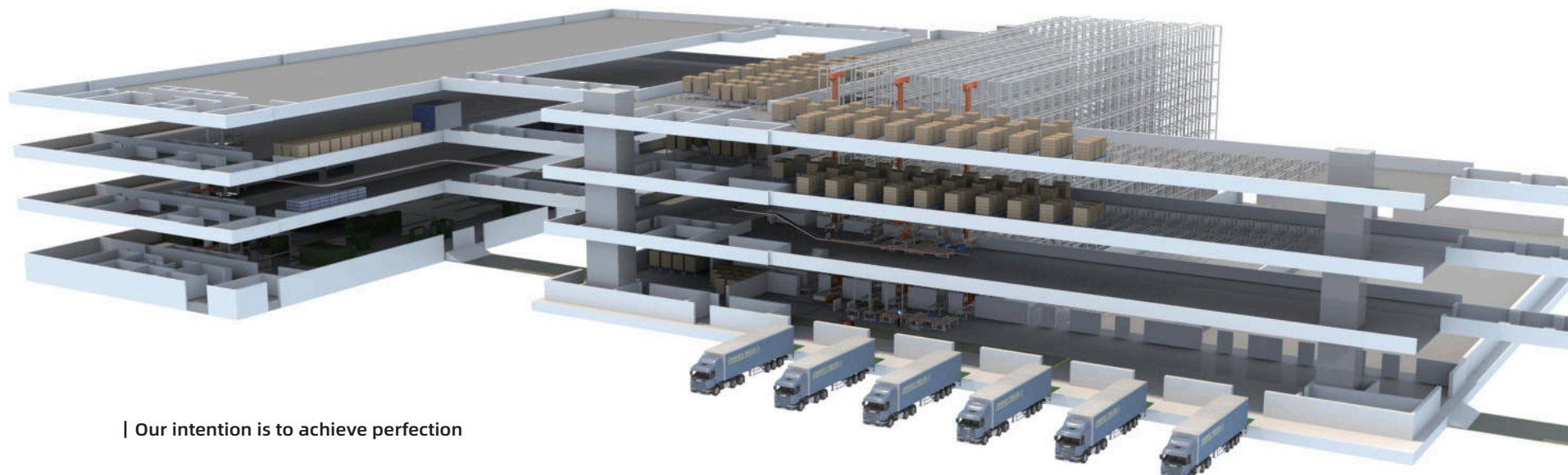
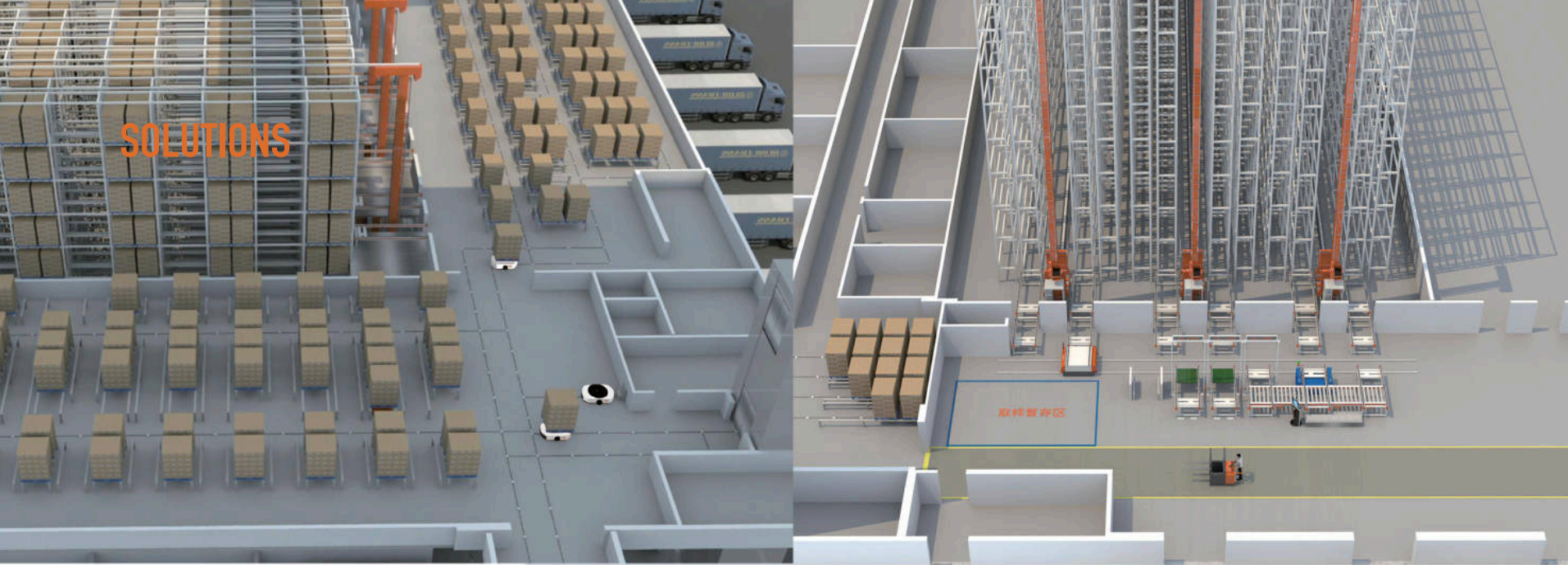
Mobile robots are used to replace manual labor to achieve the separation of people and goods in the entire process and eliminate safety hazards. The RCS system is seamlessly connected with the production management system to realize the whole process information management according to various pulling modes such as production rhythm, signboard, cable pulling, lamp pulling and PDA, greatly reducing the risk of line stop caused by uncertain factors of personnel.

Adaptation scenarios

Stamping, welding, final assembly and machining workshops as well as warehousing and logistics centers.

Industry (Customer) Pain Points and Solutions

INDUSTRY PAIN POINTS	The compact production rhythm of the final assembly process in the automobile manufacturing industry requires real-time distribution	Many SKU materials and manual handling (high, medium and low) of the same material is very likely to cause sorting and delivery errors	Manual handling cannot achieve information management, resulting in confusion of traceability information and waste of materials	The complex production environment mostly includes heavy equipment. The weight of parts and components is heavy and there are potential safety hazards in manual handling
SOLUTIONS	↓ 1 Mobile robots replace manual labor. It meets 7*24h operation requirements, improves system efficiency and reduces labor costs	2 The order management system can be accessed to use mobile robots to realize handling and sorting of goods, as well as digital and information management of the entire system process	3 Seamlessly connect with customer production management system for intelligent O&M and feedback	4 Mobile robots replace manual labor and reduce personnel participation in manual handling



| Our intention is to achieve perfection

Full-process Intelligent Warehousing Solution

Goal

Create a full-process intelligent warehousing system and realize efficient, accurate and automatic management of raw/auxiliary materials, packaging materials and finished products by using advanced automation and intelligent technologies. The goal is to improve the warehousing efficiency, reduce human errors, reduce management costs and complexity in order to realize unmanned and paperless operation in warehousing management, provide strong support for optimization of supply chains and improvement of market competitiveness.

Application solutions

Automated handling, intelligent warehouse management and automatic replenishment and outbound systems are integrated to build an efficient and accurate intelligent warehousing system. Automated handling improves efficiency and safety, intelligent management optimizes inventory turnover, and automatic replenishment and outbound ensure seamless supply chain connection, significantly reducing operating costs.

Adaptation scenarios

Food, health care products and pharmaceutical industries, especially the enterprises with large production scale, various kinds of materials and complex management.



Industry (Customer) Pain Points and Solutions

INDUSTRY PAIN POINTS	Many kinds of materials and complex management	Costly manual handling and likely to cause error	Inventory backlog and low turnover rate	Low outbound efficiency affects distribution	Traditional management model is inefficient and costly
	1	2	3	4	5
SOLUTIONS	The intelligent warehouse management system is adopted to realize automatic identification, classified storage and accurate management of materials. The system supports a variety of material coding methods to meet personalized needs of enterprises	Automated handling equipment and robotic arms are introduced to realize automatic handling and palletizing of materials, reduce manual participation and reduce error rate	Understand the inventory status in real time via the inventory warning and location optimization functions of the intelligent warehouse management system to avoid inventory backlog and improve inventory turnover rate	The automatic outbound system is adopted to automatically select goods according to the order information, and automatic equipment is used to assist the outbound personnel to complete the consolidated outbound, and improve the outbound efficiency and accuracy	Realize unmanned and paperless operation in warehousing management, optimize operation process through intelligent system, reduce management costs and complexity, and improve overall working efficiency