

ZIKOD ROBOTICS



R-bot Four-Way Pallet Shuttle

Leader of Pallet-to-Person Robotics

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The R-bot Four-Way Shuttle is a smart storage robot that is independently developed by Zikoo and designed for dense storage systems of pallets. It boasts four-way flexible driving, smart autonomous handling, multi-shuttle collaborative operation, and other benefits. It is flexibly adaptable to dense storage scenarios for pallets in various industries.



All-mechanical construction

All gearbox design with self-developed intellectual property rights
Short production cycle, fast delivery and easy maintenance



Precise positioning

Positioning accuracy of $\pm 2\text{mm}$, breaking through the distance between cargo spaces
RFID+laser positioning, realizing absolute address recognition and maintenance free



Extreme speed

Maximum running speed of 2m/s
Reversing time of 2.5s



Extra-long battery life

Super large battery capacity and a 10h battery life
Automatic sleep when there is no task, low energy consumption and energy saving



Various optional models

-25°C~45°C operation environments
Suitable for various pallet dimensions and customizable according to the scenarios



Flexible intelligence

Cluster scheduling, path planning and task scheduling
Hotspot storage and smart charging



Applicable to multiple scenarios

Applicable to electricity, new energy, cold chain, medicine, food, 3PL, precision manufacturing and other scenarios



Intelligent protection

All-round ranging sensor and multi-level obstacle avoidance
Pallet anti-skew detection for safer cargo



Product Values

• Flexible

The Four-Way Shuttle can access any location within the stereoscopic warehouse without being restricted by fixed paths, making it suitable for a variety of complex scenarios.

• Efficient Handling

A highly intelligent design is used to enable auto goods handling and conveying, as well as switching of aisles and layers, thus ensuring efficient operation.

• Smart Scheduling

It can be integrated with elevators, conveyors, and other equipment, allowing for the efficient scheduling of multiple vehicles on the same floor, as well as smart scheduling among various devices.

• Dense Storage

Ideal for dense storage of pallets, significantly enhancing space efficiency and reducing land costs.

R-bot Product Specifications

		Standard Model R1500N	Cold Chain Model R1500C	New Energy Model R1500E
Weight	Kg	320	360	350
Rated load	Kg	1000	1500	1500
Navigation	-	RFID + photoelectric sensor	RFID + photoelectric sensor	RFID + photoelectric sensor
Positioning accuracy	mm	±2	±2	±2
Applicable temperature	°C	-10~45	-25~0	-5~45
Type of batteries	-	Lithium-iron phosphate battery	Lithium-iron phosphate battery	Lithium-iron phosphate battery
Battery capacity	Ah	46	38	48
Duration time at full charge	h	8~10	6~8	8~10
Fully charging time	h	1.5	2.5	2.5
Body dimensions	mm	L1000*W972*H125	L1192*W972*H125	L1192*W972*H125
Applicable pallet sizes	mm	1100~1600*800~1200	1200~1600*1000~1200	1200~1600*1000~1200
Maximum speed	m/s	2	2	2
Acceleration	m/s ²	2	2	2
Reversing time	s	2.5	2.5	3.5
Lifting time	s	2.5	2.5	3.5

Cold Chain Model

- The lithium battery specialized for low-temperature environments ensures stable operation at -25°C / The combination of RFID and laser positioning facilitates easy maintenance
- Enhanced security protection with a special PCBA coating / Low-temperature charging port design
- It is highly durable, with a battery life of 6-8 hours, and supports auto charging
- A high level of intelligence, featuring smart operation/scheduling/power management

New Energy Model

- Anti-static design
- The wheels are fully cushioned with rubbera
- The entire vehicle is devoid of materials like copper, zinc, nickel, and lead, and is dust-proof
- The structural components are blackened and the racks are stainless steel



R-bot + H-bot Dense Storage System



U-BOT + R-BOT Dense storage picking system



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