Liftians Inc.

Company Profile

Liftians was founded in Silicon Valley in June, 2016. We design and develop robotic systems for automated storage and retrieval operations. Our R&D team consists of experienced engineers in enterprise software, algorithm, aitifical intelligence, advanced robotics, and embedded hardware.
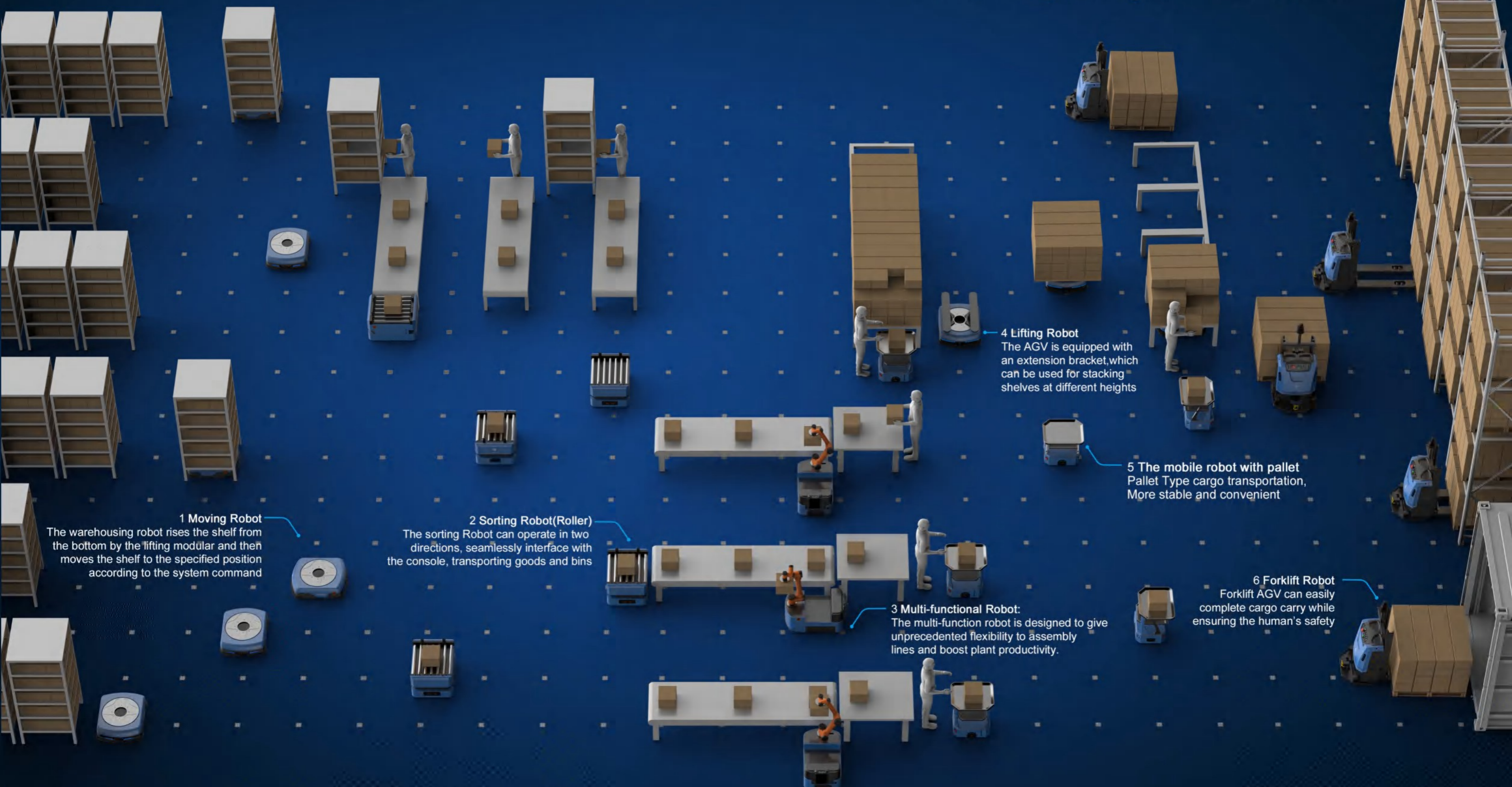
Currently, we provide QR code-based navigation and laser radar navigation system to 3PL companies and fulfillment centers.

Efficient | Accurate | Reliable

Liftians robotics designs, manufactures,

and deplroys robots for logistics automation

Application In Warehousing

Warehouse robots, Industrial robots
Laser guided Forklifts, Customized robots
To innovate your logistics automation

4 Lifting Robot
The AGV is equipped with an extension bracket,which can be used for stacking shelves at different heights

5 The mobile robot with pallet
Pallet Type cargo transportation, More stable and convenient

1 Moving Robot
The warehousing robot rises the shelf from the bottom by the lifting modular and then moves the shelf to the specified position according to the system command

2 Sorting Robot(Roller)
The sorting Robot can operate in two directions, seamlessly interface with the console, transporting goods and bins

3 Multi-functional Robot:
The multi-function robot is designed to give unprecedented flexibility to assembly lines and boost plant productivity.

6 Forklift Robot
Forklift AGV can easily complete cargo carry while ensuring the human's safety

Moving AGV

The moving robot is equipped with a new generation of QR code+inertial navigation / laser rader navigation / hybrid navigation to achieve precise positioning, more efficient and safer operation

High payloadd Capacity

Multiple navigation option

Cluster Scheduling algorithm

Longer battery life
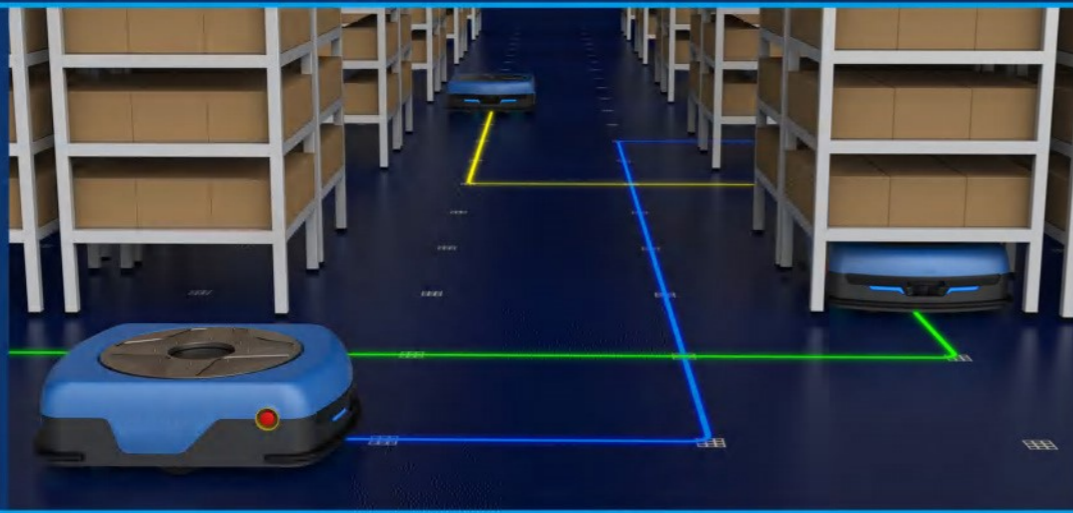
Intelligent algorithm

500KG

1000KG

Autonomous obstacle avoidance

Equiped with anti-collision bar and obstacle avoidance radar, it is safer for both the people and facilities around.

Smart planning

Self-learning and analyzing environmental data, sharing databases, and improving system collaboration efficiency.

Rise the Shelf from the bottom top by the lifting structure

Payload can be customized to meet mutiple operating requirements

Lifting Robot

Flexible loading structure

The lifting robot is equipped with customize bracket which can meet multi-platform docking requirements, support QR code navigation, laser rader navigation, more flexible options.

- High payloadd Capacity
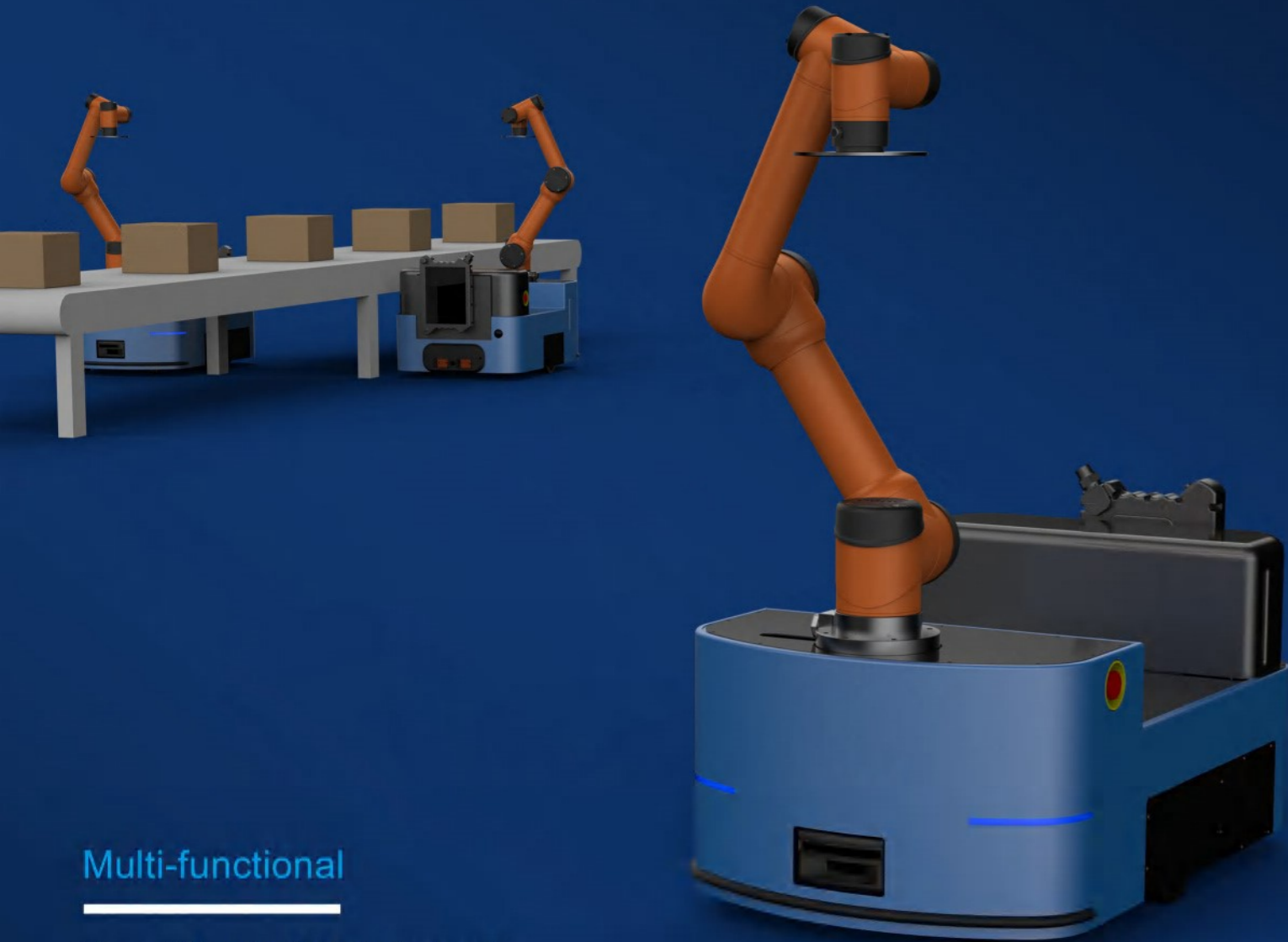- Multiple navigation option
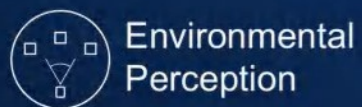- Flexible planning path
- Rapid deployment
- Intelligent dispatching

Multi-functional Robot

Multi-functional

The multi-function Robot is designed to give unprecedented flexibility to assembly lines and boost plant productivity.

- Environmental Perception
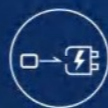- Inertial navigation& QR code navigation/ laser rader navigation
- Multiple security protection
- Efficient and Stable
- Longer battery life
- Autonomic charging

Forklift Robot

High efficiency& Punctuality

Laser radar navigation, multiple protection and sound & light alarm. No manual operation are required , it's easy to fork, unload, stack goods, suitable for whole pallet cargo transportation.

- Human-Robot friendly interaction
- Inertial navigation& QR code navigation/ laser rader navigation
- Multiple robots collaborating
- Automatic charging
- Easily Operating

Sorting robot (roller)

Relay transfer

The sorting robot can operate in two directions,so it can be automated transport of goods and connect with the moving belt, seamlessly interface with the conveyor, smooth and quick transfer.

It is widely used in the transportation of materials in the electronic 3C and other warehouse.

- Efficient and Stable
- Inertial navigation& QR code navigation/ laser rader navigation
- Smart Obstacle avoidance
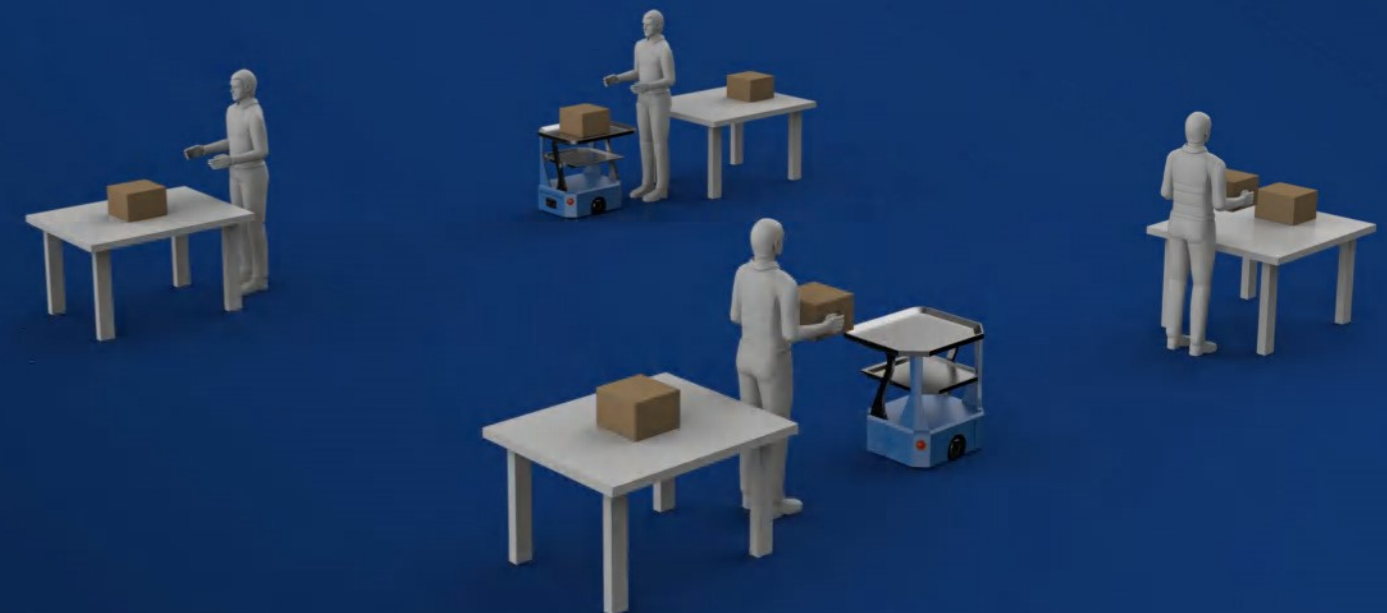- Flexilbe Operation
- Automatic connection
- Automatic charging

Customizing Robot

Customizing Support:

Payload customization
Navigation method customization
Dimension customization
Function customization

- Human-Robot friendly interaction
- Inertial navigation& QR code navigation/ laser rader navigation
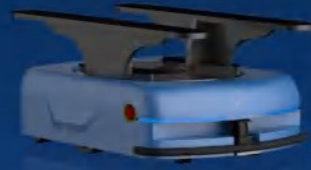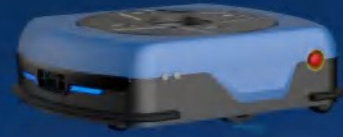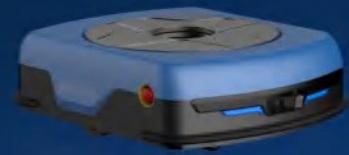- Multiple robots collaborating
- Automatic charging
- Easily Operating

Technical Parameter

Basic parameters							
Model	W1000	W500	Customization	WRA100	WF1000	W100-R	Customization
Name	Lifting AGV	Lifting AGV	Lifting AGV	AGV with Arm	Forklift AGV	Sorting robot(roller)	The mobile Robot with Pallet
weight	200KG(±5KG)	180KG(±5KG)	180KG(±5KG)	150KG（±5KG）	490KG（±5KG）	120KG（±5KG）	120KG(±5KG)
Payload	1000KG	500KG	500KG	100KG	1000KG	50KG	100KG
Dimension	924*758*290mm	880*680*280mm	880*680*280mm	997*607*487mm	1947*830*1241mm	860*680*580mm	600*485*235mm
Lifting height	55mm	55mm	55mm+Rack height customizable	/	650mm	/	Pallet customizable
Navigation	Inertial navigation system/ QR code navigation/ Laser radar navigation(Optional)	Inertial navigation system/ QR code navigation/ Laser radar navigation(Optional)	Inertial navigation system/ QR code navigation/ Laser radar navigation(Optional)	Inertial navigation system/ QR code navigation	Magnetic navigation /Laser radar navigation(Optional)	Inertial navigation system/ QR code navigation	Inertial navigation system/ QR code navigation
Performance							
Drive mode	Servo motor&Daul-wheel differential drive	Servo motor&Daul-wheel differential drive	Servo motor&Daul-wheel differential drive	Servo motor&Daul-wheel differential drive	Steering wheel drive	Servo motor&Daul-wheel differential drive	Servo motor&Daul-wheel differential drive
Stop accuracy	±10mm	±10mm	±10mm	±10mm	±10mm	±10mm	±10mm
Speed (no-load)	1.5m/s	1.7m/s	1.7m/s	1.5m/s	1.3m/s	1.7m/s	1.7m/s
Speed (full-load)	0.8m/s	1m/s	1m/s	1m/s	1.1m/s	1.5m/s	1.5m/s
Charge mode	Automatic charging/ offline charging	Automatic charging/ offline charging	Automatic charging/ offline charging	Automatic charging/ offline charging	Automatic charging/ offline charging	Automatic charging/ offline charging	Automatic charging/ offline charging
Endurance	≥8H	≥10H	≥10H	≥5H	≥8H	≥8H	≥10H
Battery parameters							
Battery	Lithium-ion battery DC48V	Lithium-ion battery DC48V	Lithium-ion battery DC48V	Lithium-ion battery DC48V	Lithium-ion battery DC24V	Lithium-ion battery DC48V	Lithium-ion battery DC48V
Battery capacity	40AH/30AH	40AH/30AH	40AH/30AH	20AH	80AH	40AH/30AH	10AH
Charging time	1.5H~2H	1.5H~2H	1.5H~2H	1.5H~2H	1.5H~2H	1.5H~2H	1.5H~2H
Battery cycle life	≥2000times	≥2000times	≥2000times	≥2000times	≥2000times	≥2000times	≥2000times
Safety							
Obstacle avoidance	Lidar obstacle avoidance / Ultrasound Barrier Avoidance/ collision avoidance bar(Optional)	Lidar obstacle avoidance / collision avoidance bar(Optional)	Lidar obstacle avoidance / collision avoidance bar(Optional)	Lidar obstacle avoidance / collision avoidance bar(Optional)	Lidar obstacle avoidance / collision avoidance bar(Optional)	Lidar obstacle avoidance / collision avoidance bar(Optional)	Lidar obstacle avoidance / collision avoidance bar(Optional)
Status light	Available	Available	Available	Available	Available	Available	Available
Emergency switch	Available,switch at each side	Available,switch at each side	Available,switch at each side	Available,switch at each side	Available,switch at each side	Available,switch at each side	Available,switch at each side
Communication	WiFi	WiFi	WiFi	WiFi	WiFi	WiFi	WiFi
API Support	Support	Support	Support	Support	Support	Support	Support
Operating ambient							
temperature	-20℃~60℃	-20℃~60℃	-20℃~60℃	-20℃~60℃	-20℃~60℃	-20℃~60℃	-20℃~60℃
environment	Indoor use, no excessive dust, no corrosive gas	Indoor use, no excessive dust, no corrosive gas	Indoor use, no excessive dust, no corrosive gas	Indoor use, no excessive dust, no corrosive gas	Indoor use, no excessive dust, no corrosive gas	Indoor use, no excessive dust, no corrosive gas	Indoor use, no excessive dust, no corrosive gas