



# RoboShuttle<sup>™</sup> System

Improve the Efficiency, Flexibility and Storage Capacity of your Warehouse

# Geek+ RoboShuttle™ Bin-to-Person picking solution

Geek+ Roboshuttle uses our next generation Bin-to-Person C-series robots, C200M and C200S, featuring high picking efficiency, high-density double-deep storage capabilities, and narrow aisle design.

Make full use of vertical warehouse space with C200S, an efficient solution compatible with multi-floor layouts, or maximize storage capacity and flexibility with C200M's multiple bin-picking function and modular design, suitable for single-floor layouts.

#### Efficient

- High picking efficiency: 300 bins / hour / station
- 99,99% accurate picking

#### Cost saving

- Low investment and shorter payback period
- No need for high-precision rails and easy to maintain
- Compact high-density storage

#### Flexible

- Fast implementation and low floor load requirements
- Flexible to fit customers' existing shelves and mezzanines
- Utilizes existing shelving system and infrastructure

#### Scalable

• Flexibly add robots and workstations to expand operations and manage peak periods, and underlying growth demands





Geek+ RoboShuttle™ system was certified "Best of Intralogistics 2020" by the world-renowned IFOY award, one of the industry's most prestigious recognitions.

# Single Bin-to-Person Roboshuttle

## The AMR solution with the strongest bin-picking capacity

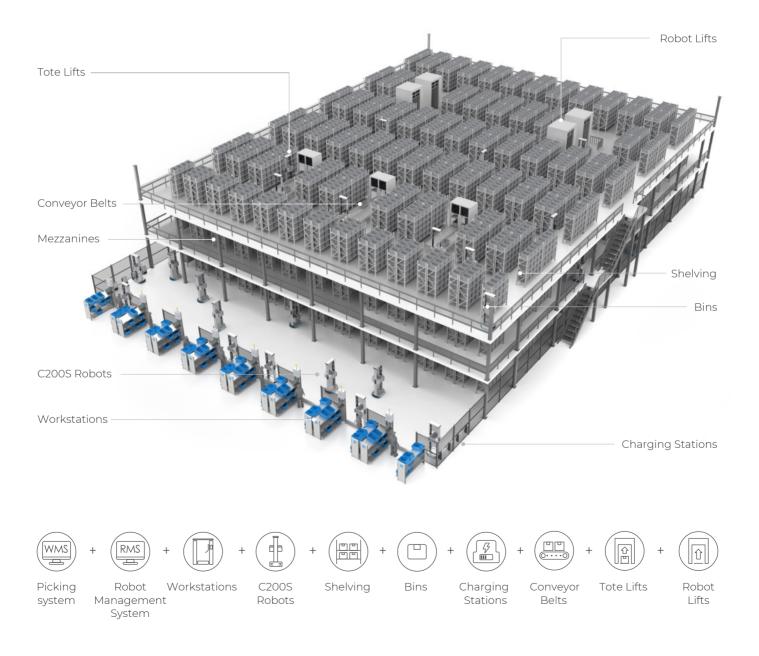
C200S Single Bin-to-Person picking robot transfers ordered goods from the shelves to and from the workstation, automating the process of picking, replenishment, reverse logistics, and inventory checking. C200S is a highly efficient solution compatible with multi-floor layouts.

#### Industry Application:

E-commerce, pharmaceuticals, apparel, cosmetics, retail, 3PL, manufacturing and 3C.

#### **Application Scenarios**:

Small parcel picking suitable for pharmaceuticals, apparel, cosmetics and more.





## **Customer value**



High efficiency 2-3 x picking efficiency



Flexibly scale operations to meet peak periods and fluctuating demand

) Fast ROI 1-3 year return on investment



Reduced labor costs Reduce manual operations



Quick implementation and flexible scaling

▲ C200S Robot

# Pain points

## Solutions

Low picking efficiency; C-product picking is time consuming	Bin-to-Person Model, eliminates redundant and time-consuming tasks of warehouse employees. By letting robots transfer items from shelf to workstation, the operations will be more ergonomic and allow the employee to focus on more value added tasks.
Rebuilding a warehouse can take up to 6 months and implies costs for rent of temporary space and delayed business operations.	Fast implementation: flexible to fit customers' existing shelves and mezzanines utilizing existing infrastructure.
Warehouse space is not fully utilized with low storage capacity.	C200S robot can operate on mezzanines, fully utilizing vertical space for maximum storage capacity.

# Double-Deep Bin-to-Person Roboshuttle

### The AMR solution with the strongest single-layer storage capacity

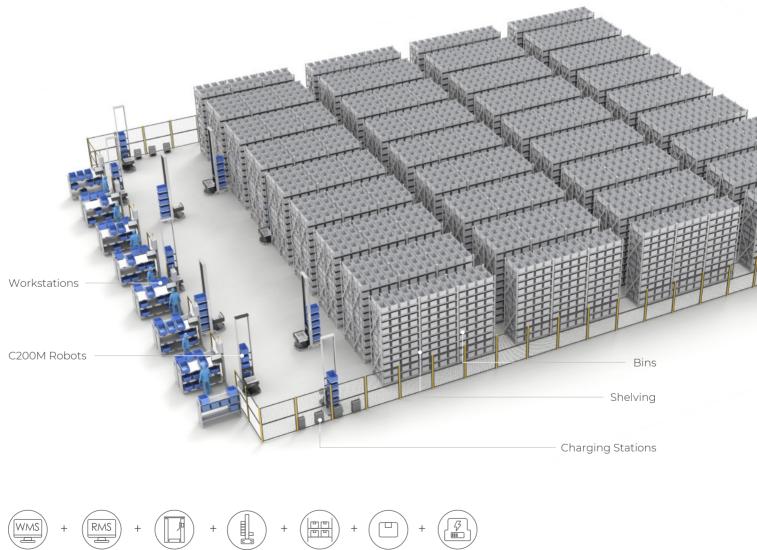
C200M Double-Deep Bin-to-Person robot can operate 1m narrow aisles and reach 5m of height. Its extended arms can access 2 bins at once, making full use of 3-dimensional space on single-floor layouts. C200M can transfer up to 5 bins to and from the workstation, automating the process of picking, replenishment, reverse logistics, and inventory checking.

#### Industry Application:

E-commerce, pharmaceutical, apparel, cosmetics, retail, 3PL, manufacturing and 3C.

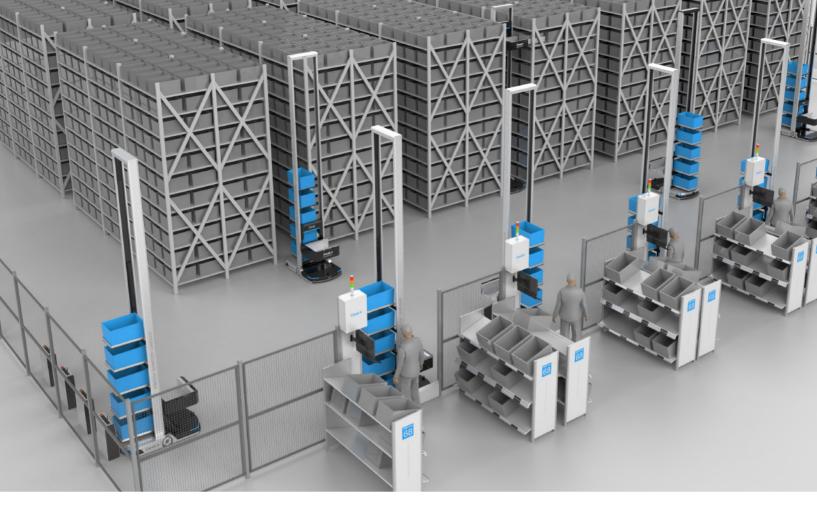
#### Application Scenarios:

Small parcel picking suitable for pharmaceuticals, apparel, cosmetics and more.



Picking Robot Workstations C200M Shelving system management Robots System Bins

Charging Stations



## **Customer value**



Strong single-layer storage capacity 2.5 x storage capacity of manual warehouses



Flexible integration of other robots and infrastructure

Can work together with existing infrastructure and equipment to support conveyor docking, robot integration, and more



Short installation period and fast to go-live Transportation and installation of components are flexible

# **Pain points**

## **Solutions**

Warehouse space is not fully utilized with low storage capacity. C200M is equipped with two 1.5m telescopic fork arms that can access two bins at once. The design enables the robot to operate 1m narrow aisles, for better use of warehouse space.

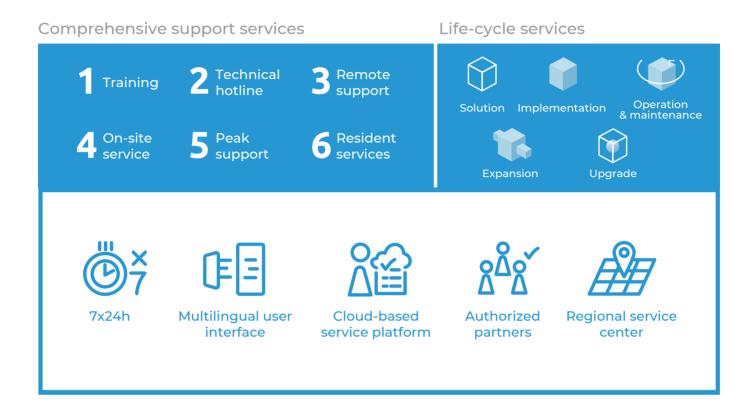
Robot design does not fit with existing shelves and racking, leading to costs for adjusting infrastructure. Modular door frame: adjust the height of the door frame to fit the height of existing shelves.



▲ C200M Robot

Roboshuttle Robots			
Model		Contraction of the second seco	
Robot	C200S	C200M	
Dimensions	L950 x W702 x H2500mm	L1490 x W870 x H2500~5000mm	
Selfweight	270kg	350kg	
Maximum payload	40kg	200kg	
Maximum lifting height	2200mm	4350mm	
Full range lifting time	8s	_	
Pick up time/return time	4.1s	_	
Maximum speed	2m/s	1.8m/s	
Maximum rotation speed	90°/1.5s, 180°/2s	90°/2s, 180°/3s	
Positioning accuracy	<10mm	<10mm	
Navigation	Inertial + QR code visual navigation	Inertial + QR code visual navigation	
Obstacle detection method	Defaulted infrared obstacle avoidance, support for lidar; 2m infrared light/3m laser	3m laser	
Battery	Lithium, DC50.4V, 39Ah	Lithium, DC50.4V, 42Ah	
Operating time	Charging time: 10min; operating time: 2~3h; Support user-defined charging time and operating time		
Battery life	Full charging and discharging >2000 cycles		
Certification	CE	CE	
Bin size	L400 x W300 x H200 ~ L600 x W400 x H500 mm		
Operating temperature	-20~50°	-20~50°	
Charging temperature	>0°	>0°	

# **Geek+ Comprehensive Support and Life-cycle Service Experience**



# **The World's Leading AMR Solutions Provider For Smart Logistics**

Our mission as a global AMR company is to build the infrastructure network for smart logistics and establish a fully automated and intelligent supply chain globally.



10.000+ Robots Highest output globally





experience





Beijing | Hong Kong | Tokyo | Singapore | Düsseldorf | Birmingham | San Diego