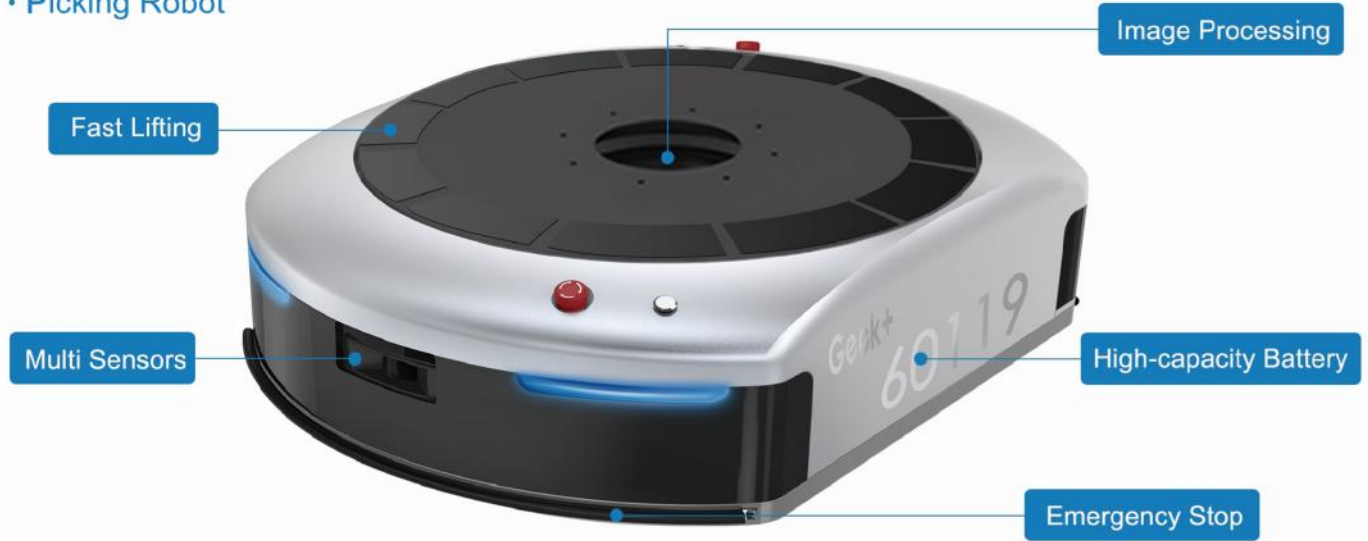


• Picking Robot



Geek+ supports one-stop, turn-key solution.

Consulting & Planning



Consulting



Analysis



Design

Implementation



Implementation



Testing

Operation & Service



Operation



After-sales



Relocation



• Features

- "Goods-to-person" picking
 - Stable Lifting and Carrying
 - Accurate Navigation and Obstacle Avoidance
 - Flexible Intelligent Scheduling
 - Advanced Automatic Charging

- "Order-to-person" picking
 - Without Transforming Environment
 - Flexible Dynamic Obstacle Avoidance
 - Fast and Efficient Man-Machine Interaction
 - Labor Free

• Values

- Improved Productivity**
Triple labor picking rate
- Increased Accuracy**
Accuracy up to 99.99%
- Lower Labor Cost**
Reduce 50-70% labor
- Fast Deployment**
Full operation in 3 months
- Rapid ROI**
Lower investment than conventional system
- Flexible Operation**
On-demand deployment, easy to expand
- Simple Maintenance**
Automatic fault diagnosis
- Secured Safety**
Obstacle avoidance to secure safety



Geek Picking System

• Background

Market pressure under the consume upgrading, inventory management of vast of SKUs and unpredicted labor cost have become the common challenges of E-commerce and many retail industries. Geek+ provides a flexible choice for breaking industry bottlenecks.

• Definition

"Goods-to-person" picking: Geek Picking System realizes "Goods-to-person" picking by enabling robots to carry shelves, which breaks the traditional Person-to-Goods law.

"Order-to-person" picking: robots automatically move to the targeting picking areas with orderbins according to system instructions to save manual seeking and walking.

• Application

Geek picking system is suitable for multi-SKU, normal-size goods picking operation and operating warehouse could be tens thousands of square meters. The system can be applied in E-commerce, retail, 3PL, medical, clothing, food, daily consumables, manufacturing, automobile, etc.



Application Scenarios

Receiving / Staging



Putaway



Picking



Packing



Customer Value



Full Automation
Reduce 50%-70% labor



Rapid ROI
1-3 years' payback period



Fast Implementation
System implementation within 3 months



Great Flexibility
Lowest investment risk



• Features

Pallet Moving

- Meet multi load/carrier requirements
- Fast operating speed
- Seamless interface with MES/WMS/ERP
- Suit for complex working environment

Flexible Workbin Moving

- No extra navigation marker
- No site transforming
- Quick respond to changing demand
- Assist to manual material handling

Flexibile Roller Joint

- Accurate positioning
- Material joint to automatic production line
- Quick respond to changing demand
- Fast and flexible configuration

• Values

Improve Productivity

Break the bottleneck of material handling

Lower Production Accident Risk

Multi-sensor infusion to minimize risk

Reduce Labor Cost

Reduce labor and save invisible costs

Lower Labor Intensity

Ergonomic design

Accelerate Return on Investment

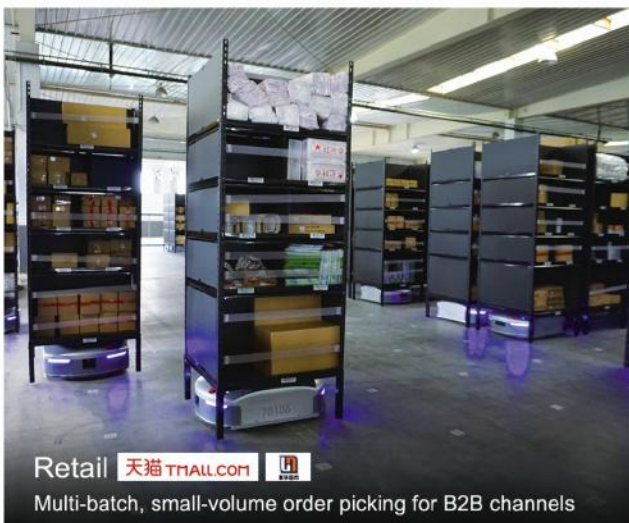
Lower total cost and accelerate ROI

Enhance Branding Image

Branding enhanced by automation upgrade



Reference Cases in Multi Areas and Industries



Parameter



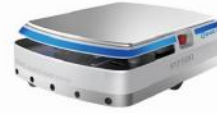
P1000



P800



P500



M100



S10

Weight	260kg	180kg	130kg	50kg	12kg
Lift Load	1000kg	800kg	500kg	—	—
Payload	1000kg	800kg	500kg	100kg	6kg
Length	1300mm	1040mm	920mm	740mm	460mm
Width	940mm	820mm	690mm	500mm	380mm
Height	340mm	280mm	280mm	210mm	140mm
Drive mode	Two-wheel differential drive	Two-wheel differential drive	Two-wheel differential drive	Two-wheel differential drive	Two-wheel differential drive
Speed	1.5 m/s	1.5 m/s	1.5 m/s	1.5 m/s	3.0 m/s
Charging mode	Automatic charging, support user-defined	Automatic charging, support user-defined	Automatic charging, support user-defined	Automatic charging, support user-defined	Automatic charging, support user-defined
Operating duration	24h operation, support user-defined	24h operation, support user-defined	24h operation, support user-defined	24h operation, support user-defined	24h operation, support user-defined
Battery	Li-ion, 77Ah	Li-ion, 77Ah	Li-ion, 38.5Ah	Li-ion, 24Ah	Li-ion, 6Ah
Navigation	2D bar code visual, support other way	2D bar code visual, support other way	2D bar code visual, support other way	SLAM navigation, support other way	2D bar code visual, support other way
Obstacle avoidance	Infrared laser / ultrasonic (opt.)	Infrared laser / ultrasonic (opt.)	Infrared laser / ultrasonic (opt.)	Laser radar	Laser ranging
Control/Stop precision	<10 mm	<10 mm	<10 mm	<20 mm	<10 mm
Communication	WIFI / IEEE802.11 b/g	WIFI / IEEE802.11 b/g	WIFI / IEEE802.11 b/g	WIFI / IEEE802.11 b/g	WIFI / IEEE802.11 b/g
Status light	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
Protection grade	IP54	IP54	IP54	IP54	IP54