

Sorting System

Sorting

Maximum sorting efficiency through
AI-controlled robotic systems

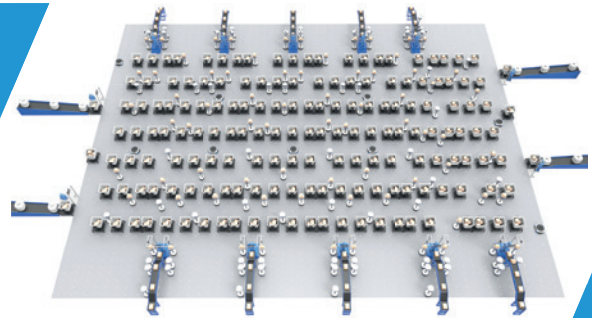
Geek+
Moving the world intelligently



Geek+ sorting system: Accurate, agile and scalable

Efficiency

The intelligent sorting system from Geek+ adapts to different sorting scenarios, improves efficiency, and minimizes overall costs many times over.



Geek+ robots are driven by innovative AI algorithms to achieve maximum sorting efficiency. Flexible route assignment finds the most effective route in the sorting process, thus reducing the time required. The self-propelled robots automatically carry out fast sorting and bring the loads to the appropriate destination points.

The efficiency of the system can be up to 10 times higher than with manual sorting. It has been proven to reduce labour intensity while improving accuracy. It is suitable for sorting scenarios in various industries such as apparel, 3C (computers, communications, consumer electronics), FMCG, and parcel services.

Full service over the entire lifetime

Full Service

- 1 Training
- 2 Technical hotline
- 3 Remote support
- 4 On-site services
- 5 Support during peaks
- 6 Resident services

Lifecycle Service

- Solution
- Implementation
- Expansion
- Upgrade
- Operation & maintenance



7 x 24h



Multilingual user interface



Cloud-based service platform



Authorized partners



Regional service centers

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Your benefits with the Geek+ sorting system



Flexible layout and scalability

Supports additional destination chutes, expanding capacity and improving efficiency.



Flexible implementation

No fixed equipment needed, can be easily re-designed when business model changes.



Flexible sites

No fixed steel platform required, reduced infrastructure costs, fast and flexible implementation. Site layout is based on actual site size, and multi-level layout can optionally be added quickly and easily to increase efficiency and space utilization.



Flexible financing models

Sorting project can be implemented in stages to minimize financial investment pressure;

robot rental service can be provided for peak business periods.

Intelligent sorting and transport on one level

Different Geek+ robot models work together to provide the optimum sorting process: S-Series robots sort packages or products into cages. Moving robots bring them into the loading area when the cage is full, all controlled by the Geek+ sorting system.

The packaging, sorting, and loading areas are highly integrated, maximizing storage space and optimizing the entire process. The robots choose their routes – the coordination of all routes is dynamically adjusted based on the AI-driven system.



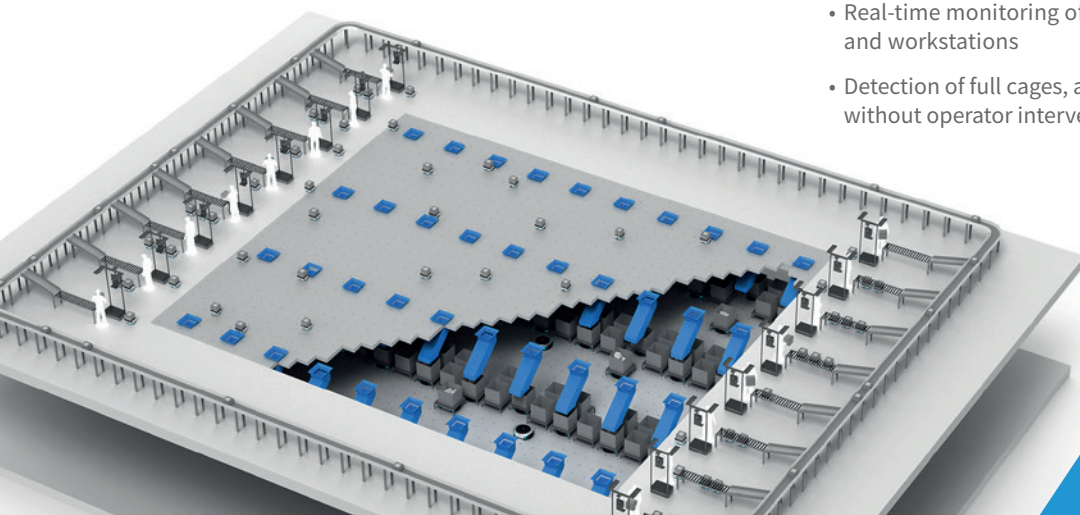
Intelligent sorting on multiple levels

The Geek+ multi-level sorting solution uses sorting robots on several levels to increase the efficiency of the sorting process and maximize the use of storage space. It is best suited for projects with

- over 200 sorting destinations
- high demands on sorting efficiency
- limited space for sorting

A flexible and stable system

- Implementation in stages, depending on actual capacity requirements
- Different types of robots that work together optimally during sorting
- A parallel software management system that manages robots and workstations independently of each other and is therefore not affected by the failure of a single robot
- Real-time monitoring of robots, job status, and workstations
- Detection of full cages, automatic cage transport without operator intervention



Many convincing advantages

Rapid ROI

- ROI in less than 3 years
- Lower initial investment compared to traditional automation technologies
- Scalable investments to adapt to business requirements

More Automation

- Replaces manual sorting
- Increases sorting efficiency and accuracy
- Reduces work intensity

High Efficiency

- Up to 10x more efficient compared to manual processes
- Reduces labour costs
- Fully automated process management

Rapid Deployment

- Short deployment period
- Implementation in stages according to business requirements



Before

6k – 8k
parcels/h



After

10k – 15k
parcels/h

Efficiency



Before

Increase
annually



After

ROI within
1 year

Cost



Before

70 – 80%



After

99%

Accuracy



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Wide range of applications



Sorting of returned goods

- Highly efficient and flexible processes for different types of returns to collect, classify and transfer returned pieces/parcels according to the SKU, supplier or predefined product profile/type.



Distribution Center

- Minimizes labour costs and maximizes site utilization
- Efficient, accurate, cost-effective and fast sorting solutions for small and medium-sized distribution centers



Sorting after packing

- Can be flexibly integrated into existing robot picking systems or conveyors and continuously sort parcels according to different destinations, carriers and areas
- Robots contribute to the integration of the different work areas to automate the entire warehouse



Package sorting in E-commerce

- Significantly improves the efficiency of sorting operations and reduces labour costs
- Barcode reading accuracy of over 99.99%
- Control of more than 200 robots
- sorting capacity of 7,500 pieces/h

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S10C

S20T

S20C

S100C

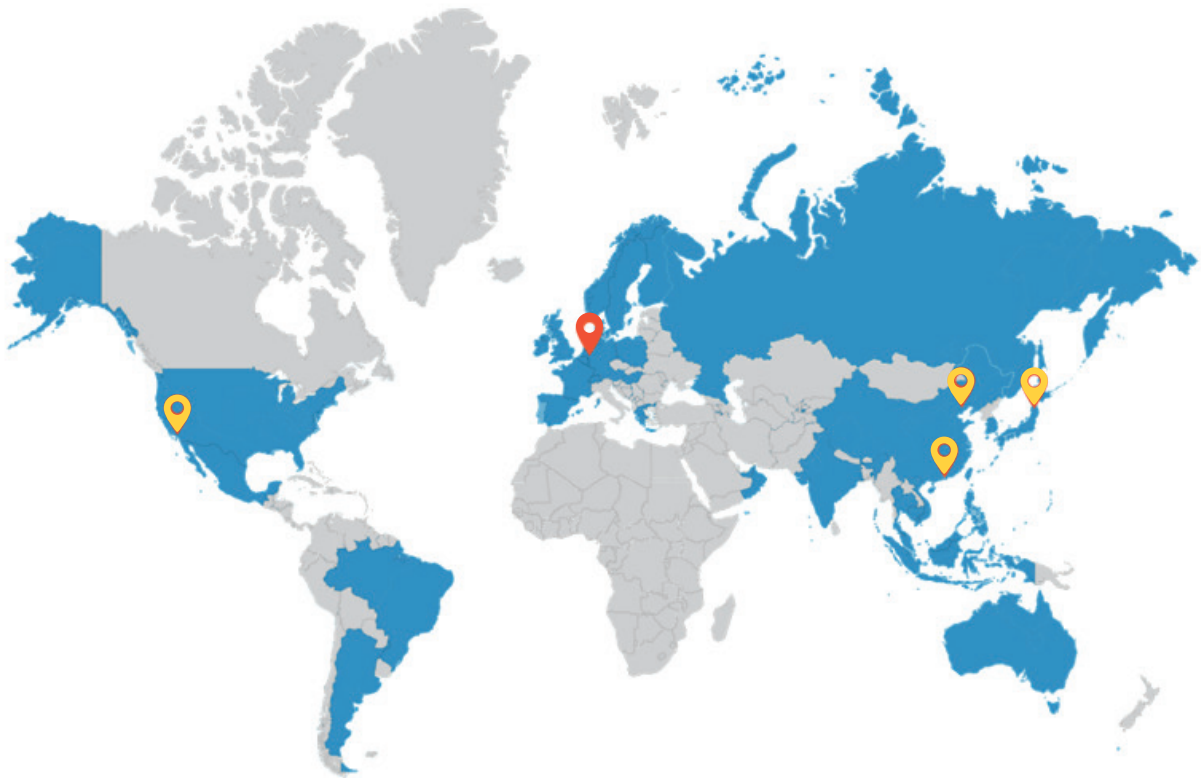


Model		S10C	S20T	S20C	S100C
General information	Dimensions	460 x 400 x 200 mm	560 x 510 x 1,335 mm	560 x 600 x 1,027 mm	1,170 x 832 x 540 mm
	Weight	18 kg	70 kg	75 kg	210 kg
	Payload	10 kg	8 kg	20 kg	100 kg
	Communication	WIFI, IEEE802, 11 a/b/g/n			WIFI, IEEE802, 11 b/g
	Maximum load size (L x B x H)	400 x 400 mm	500 x 400 x 300 mm	600 x 420 x 400 mm	1,060 x 832 mm
	Carrier surface height	200 mm	1,250 mm, customizable	1,000 mm, customizable	540 mm
Performance	Robot max speed	2.5 m/s	2.5 m/s	2.5 m/s	2.0 m/s
	Robot max accuracy	1.5 m/s ²	1.5 m/s ²	1.5 m/s ²	1.0 m/s ²
	Fully loaded speed	2.5 m/s	2.0 m/s	2.0 m/s	1.5 m/s
	Fully loaded accuracy	1.5 m/s ²	1.5 m/s ²	1.0 m/s ²	0.5 m/s ²
	Stop accuracy	g10mm			
Battery	Battery	Lithium, DC24V, 12Ah	Lithium, DC50, 4V, 12Ah		Lithium
	Run time	10 min. charging for 1.5 h full work			
	Battery life	Full charging and discharging cycle			
Safety	Obstacle detection sensor	Infrared TOF	LiDAR		Infrared TOF LiDAR
	Emergency stop	Yes			
	IP rating	IP54			
	Certification	CE			
	Operation temperature	-20 - 50°			

About GEEK +

Geek+ is a global technology company that is one of the pioneers of the smart logistics revolution. Geek+ develops innovative logistics robots powered by artificial intelligence (AI) as well as automation solutions and implements flexible solutions for warehousing and supply chain management. These include automated goods-to-person order picking as well as self-learning, SLAM navigation-based point-to-point transport of goods and load carriers in logistics and manufacturing. The portfolio of integrated customer solutions is rounded off by the Geek+ sorting system for highly efficient goods and parcel sorting and autonomous, self-propelled forklifts.

Geek+ has deployed more than 10,000 AMR robots worldwide, leading the global smart logistics revolution. Customers include world-renowned brands such as Nike, Decathlon, Walmart, Toyota, and more, including nearly 40 Fortune 500 companies.




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