MOVING THE WORLD INTELLIGENTLY

Geek+

Moving the world intelligently

Geek+

is one of the largest independent robotics companies for intelligent logistics worldwide.

With more than 10,000 autonomous robots worldwide, the company is a leader in the industry

10.000+	800+	400+	300+	20+
Robots	Employees	R&D engineers	Patents	Countries

We offer a comprehensive range of logistics robots and solutions that help companies with intelligent logistics transformation.

Modern warehouse and distribution centers cannot afford the limitations of inflexible or inefficient picking, transport, and sorting systems. Permanently installed systems cannot be flexibly adapted to changing demands and scaled to meet the needs of the market, and workers are often not readily available, deployable, or affordable.

Our goal is to contribute to the complete automation of the supply chain. The development of software as well as artificial intelligence (AI) and Big Data analysis are just as important to us as the development of the hardware, always oriented towards the requirements of the customers. We provide you with robot solutions from a single source, which sustainably increase the efficiency of logistics and warehousing.

Our smart solutions include automated picking, transport, sorting, intelligent forklifts, intelligent factories, and intelligent warehouses for industries such as e-commerce, retail, apparel, logistics, pharmaceuticals, automotive, and 3C manufacturing (computers, communications, consumer electronics).
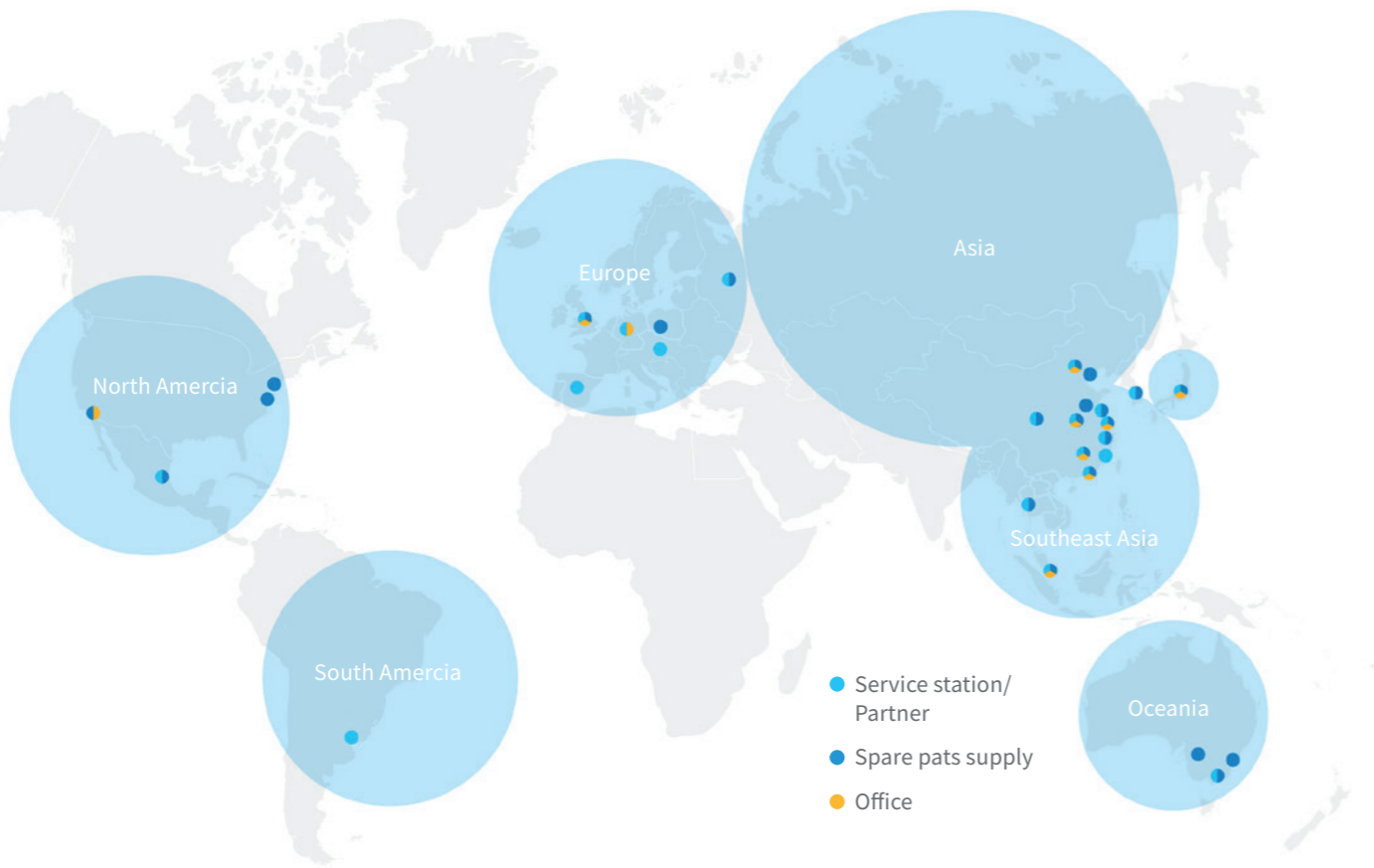
There are currently more than 10,000 Geek+ autonomous mobile robots (AMRs) in use around the world, and the number is growing daily. This makes Geek+ a global leader in the intelligent logistics revolution. In October 2018, Geek+ received the UK Supply Chain Excellence Award in the category Robot Innovation. In 2019, Geek+ was listed as one of the top 50 robotics companies in the world by Robotics Business Review and was named „Best in Intralogistics" in Germany in 2020.

Almost 300 world-famous brands such as Nike, Decathlon, Walmart, Toyota, and Suning, including almost 40 Fortune 500 companies, rely on smart solutions from Geek+. We develop software intelligence with our engineers and produce the robots ourselves in our Smart Factory. This ensures that the highest quality standards are maintained throughout.

Global presence and reliable service

Geek+ was established in 2015. Headquartered in Beijing, the company has since expanded to Asia Pacific, Europe and North America and currently offers global sales, operation and service capabilities in 20 countries, Geek+ holds more than 400 patents globally as well as 20 certifications that meet the strictest standards around the world.
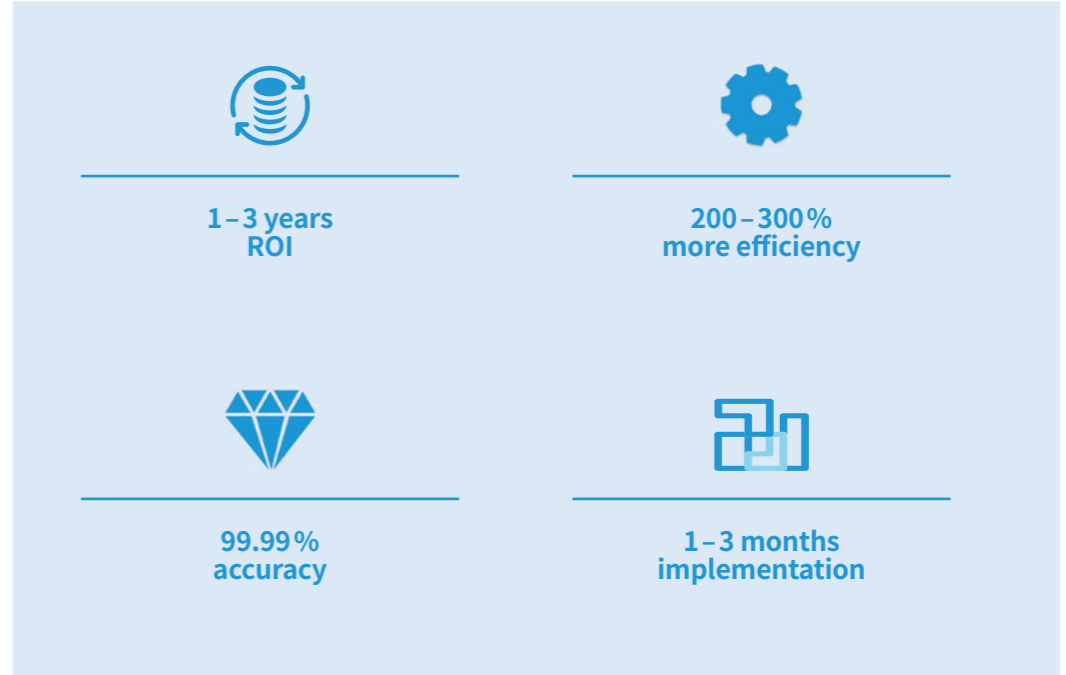
Geek+ has implemented a ‚localization ' strategy setting up regional sales teams, channel and service partners and providing products and services in local languages, adapted to customers ' needs and requirements.

Our after-sales support provides the most in depth support and superior quality service to reduce downtime of on-site equipment and systems, maximizing system availability and efficiency.

This includes:

• 24/7 helpdesk

• Remote maintenance

• On-site repair

• System Maintenance & Upgrade

• Preventive Maintenance

• Resident maintenance

• Spare parts service

• Training & Certification

Map legend

• Service station/ Partner
• Spare pats supply
• Office

North Amercia

South Amercia

Europe

Asia

Southeast Asia

Oceania

Added value through intelligent logistics

1 – 3 years ROI	**200 – 300 % more efficiency**
99.99 % accuracy	**1 – 3 months implementation**

The first flexible cooperation model in the industry

Geek+ has been offering its customers „Robot-as-a- Service" (RaaS) since 2018. This innovative and flexible business model enables companies to achieve maximum economic flexibility through robot leasing or rental models, allowing them to choose between short-term rental or a cooperative operating model from a single source.

RaaS reduces the investment barriers for companies when introducing innovative technologies. It helps them to quickly upgrade and modernize their warehouse to the latest technological standards with low risk so that they can respond effectively to market demand and use business models more flexibly.

Solutions + Robot | **Solutions + Robot + Operator**

Comprehensive solutions for smart logistics

Geek+ currently has six product lines which consist of picking, moving, sorting, smart forklift, smart factory and smart warehouse, overall encompassing two major logistics scenarios i.e. warehousing and manufacturing. This takes into account the entire supply chain process from production to consumer. Geek+ has accumulated a wealth of understanding of various industries such as e-commerce, retail, apparel, logistics, pharmaceutical, automotive and 3C manufacturing through successful deployments, and can thus integrate industry characteristics to bring real value to our customers.

01/

Picking system

The Geek+ picking system works on the goods-to-person principle, with picking robots bringing racks or pallets to the picking stations. This significantly reduces the walking distances for workers and significantly increases picking efficiency and accuracy:

• the picking efficiency is improved on average by three times compared to manual picking and

• the workload is reduced by 50%–70%

• labour costs are reduced on average by more than half

The self-learning system uses intelligent algorithms as its core element to implement functions such as order optimization, product turnover analysis, shelf recommendations, RFID inventory, etc. It is flexible, scalable, and can be implemented in less than two months depending on requirements. The Geek+ picking system is suitable for warehouse and distribution centers in many different industries.

IFOY nominee
The IFOY-Award-nominated **Geek+ Roboshuttle system** combines the picking of totes from the shelf with the transport to the picking or packaging workstation. It is, therefore, an innovative, productive and AI-controlled solution to improve the efficiency of order processing in the warehouse or distribution center, enabling „goods-to-person" picking at low cost and with high storage capacity and flexibility.
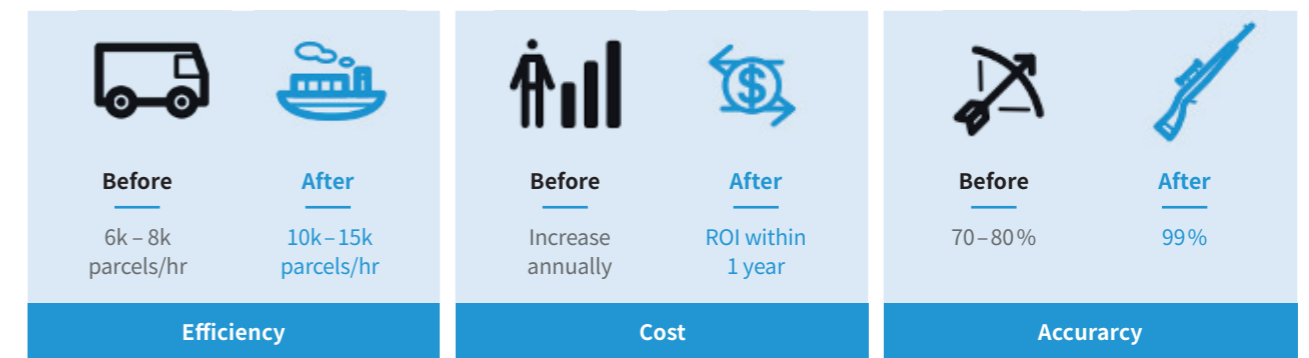
Before	After	Before	After	Before	After
100 pics/hr	400 pics/hr	20 pickers	6 pickers	Fixed	Increase 30%
Picking Rate		**Number of Workers**		**Storage Capacity**	

02/

Sorting system

The Geek+ sorting system adapts to different sorting scenarios, improves efficiency, and noticeably minimizes overall costs. Geek+ currently has two solutions for sorting:

• floor-based sorting   • multi-level sorting

Geek+ robots are controlled by powerful AI algorithms to achieve maximum sorting efficiency. A flexible route assignment finds the most effective route, reducing the time required. The robot automatically performs fast sorting and brings the parcels to the appropriate destination. The efficiency of the system is 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, FMCG, and express delivery.

Before	After	Before	After	Before	After
6k – 8k parcels/hr	10k – 15k parcels/hr	Increase annually	ROI within 1 year	70 – 80%	99%
Efficiency		**Cost**		**Accurarcy**	

03/

Moving system

The Geek+ moving system replaces fixed conveyor technology. It navigates a wide variety of containers of different shapes and dimensions from point to point and can handle a load capacity of over 1,000 kg. With its SLAM-based navigation and multi-sensor support, the system is extremely adaptable to fast and flexible industrial production cycles and can also be used safely in manned environments. The interface of the moving system is open and modular, so it can be docked to customers ' existing WMS and software systems. Additional modules can also be connected to realize a fully automated transport system. The Geek+ moving system can also optimise inventory management and increase warehouse utilisation.

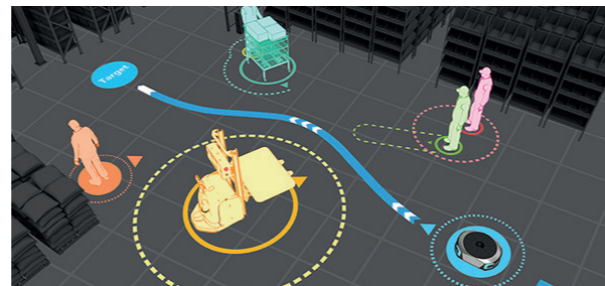| Before	After	Before	After	Before	After
Increase annually	30% Reduce	Low	High	Low	High
Labour Cost		**Productivity**		**Flexibility**	

04/

Intelligent forklift system

Based on advanced SLAM navigation, the intelligent forklift truck can adapt to various complex factory and warehouse environments. Combined with the Geek+ AI vision algorithm which has powerful environmental perception capabilities, it can easily respond to various application scenarios such as unloading on the production line, high-level shelf stacking and warehouse stacking.

Currently, our intelligent forklifts support customers in the apparel, e-commerce, retail, 3C, pharmaceutical, and manufacturing industries.

05/

Smart Warehouse Solution

The Geek+ smart warehouse solution offers customers flexible solution designs and simulations of the entire automated warehouse process. It integrates all robotic applications in the warehouse: an order picking system, a moving system, and a sorting system. It can also be connected to other automation equipment.

The system meets all actual customer requirements while at the same time being compatible with existing processes and systems.

06/

Smart Factory solution

The Geek+ smart factory solution covers a wide range of application scenarios in manufacturing.

Intelligent robots are used to perform a wide range of tasks.

Combined with cloud technology and Big Data analysis, this solution offers customers a complete toolbox of hardware and software services to integrate different types of equipment in the factory with the industrial IoT platform.

Highest efficiency through AI and Data Mining

Geek+ robotic systems are characterized by continuous data analysis and machine learning. With new data, the AI algorithms are constantly improved to increase precision and complexity.
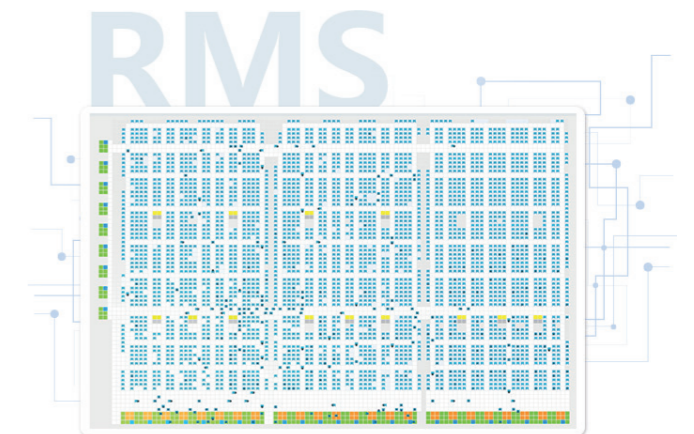
Geek+ Cloud Brain

Geek+ RMS

The Geek+ RMS provides APIs and SDKs with open standards that make it easy for customers to develop and dock their own systems.
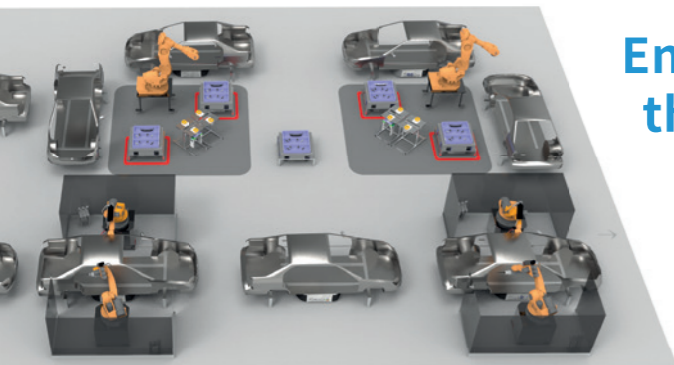
The Geek+ Robot Management System (RMS) is a multi-agent platform for planning and task management.

It supports both cloud and field operations and handles route planning, traffic management, task assignment, capacity optimization, safety emergency stops, and other tasks of large mobile robot clusters in real-time and with high parallelism and reliability.

- **Virtually unlimited scalability:**
  You can employ thousands of concurrently operating robots that perform their tasks efficiently and accurately

- **Multi-model planning:**
  Support of robots with different navigation types, which are combined in the same system and work together across models

- **Cluster path planning:**
  Providing real-time path optimization, traffic congestion management, and other processing mechanisms to ensure high efficiency in the paths of multi-robot systems

- **Intelligent storage space management:**
  flexibly configurable for management in several dimensions, such as area and floors, according to operational requirements
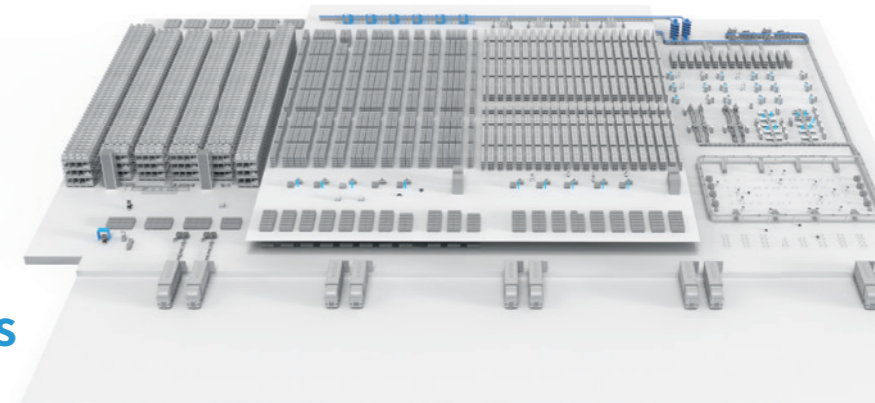
RMS

Milestones

Ensuring business continuity during the Covid 19 crisis

During the Covid 19 pandemic, Geek+ systems successfully contribute to maintaining the warehouse operations of numerous companies. With the help of Geek+, 3 million products are delivered in China within 14 days during the Chinese New Year and the lockdown. The Geek+ Smart Factory, opened in 2019, is the first production facility of its kind in which robots manufacture robots.

Major projects implemented

Geek+ implements robot-assisted warehouses for VIP.com and SUNING, two leading Chinese e-commerce companies, improving picking efficiency by more than three times compared to manual picking.

2020 — **2019** — **2018** — **2017** — **2016** — **2015**

Global project replications

Thanks to clearly positive project results and fast ROI, Geek+ customers replicate their robotics projects at additional locations worldwide. Geek+ opens offices in Germany, Great Britain, Singapore, and the USA. In Japan, a major project for the customer Nike is successfully implemented, and in Europe, the first robot solutions for customers are successfully deployed.

Launch of „Robotics-as-a-Service"

Geek+ is the first company in the industry to introduce the „Robotics-as-a-Service" (RaaS) business model, a flexible and integrated service solution for intelligent warehouses.
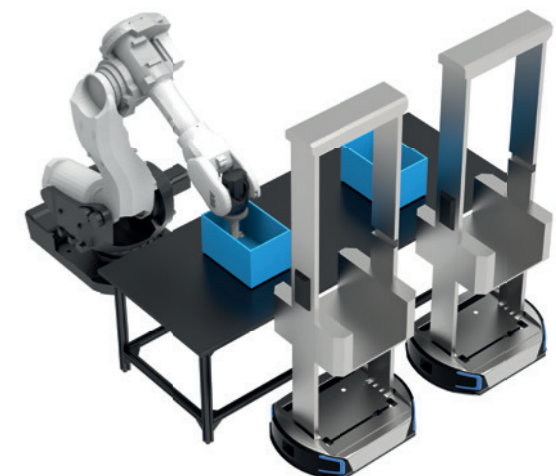
Global expansion

Geek+ obtains CE certification for its robot systems and begins to expand internationally. First successful deployments of robots in Japan, South East Asia, Europe, and America.

Market launch of the first robot picking system in China

Geek+ deploys its first robot picking system in the TMALL warehouse of Alibaba, becoming the first logistics robot manufacturer in China to officially enter the commercial phase.

Decathlon triples picking efficiency by introducing the Goods-to-Person System from Geek+

With more than 1,500 stores in 49 countries, Decathlon is the world 's largest sporting goods retailer. Given the rapid growth of Decathlon 's e-commerce business and the high number of SKUs, manual picking was not efficient enough.

Geek+ developed an innovative storage solution for Decathlon 's Shanghai warehouse: a pick & place picking and inventory system based on RFID technology.

The result:

• Increased shipping capacity to 40,000 items/day

• picking efficiency increased to 300 pieces/h, three times the efficiency of manual picking

• In combination with RFID technology, picking efficiency and accuracy has been significantly improved once again

Nike increases picking speed and reduces labour costs

Nike is the world 's leading designer, marketer and distributor of athletic footwear, apparel, equipment and accessories for various sports and fitness activities. Nike set itself the goal of same-day delivery in conjunction with a massive reduction in labour costs.

Geek+ implemented 200 P-Series robots on 10,000 square meters.

The result:

• Significant reduction in labour costs

• Increase of the picking speed by more than double

• Same day delivery in the Tokyo region

VIP.com increases sorting efficiency and reduces staffing by 70 %

VIP.com is the third-largest e-commerce platform in China and specializes in branded products. The company complained about low efficiency and poor accuracy of manual sorting. Also, manual sorting requires a large area and delivers a slow ROI.

Geek+ implemented a single-floor sorting system with an intelligent planning system to ensure efficient and accurate sorting.ng.

Das Resultat:

• Increase in sorting performance to 7,500 pieces/h
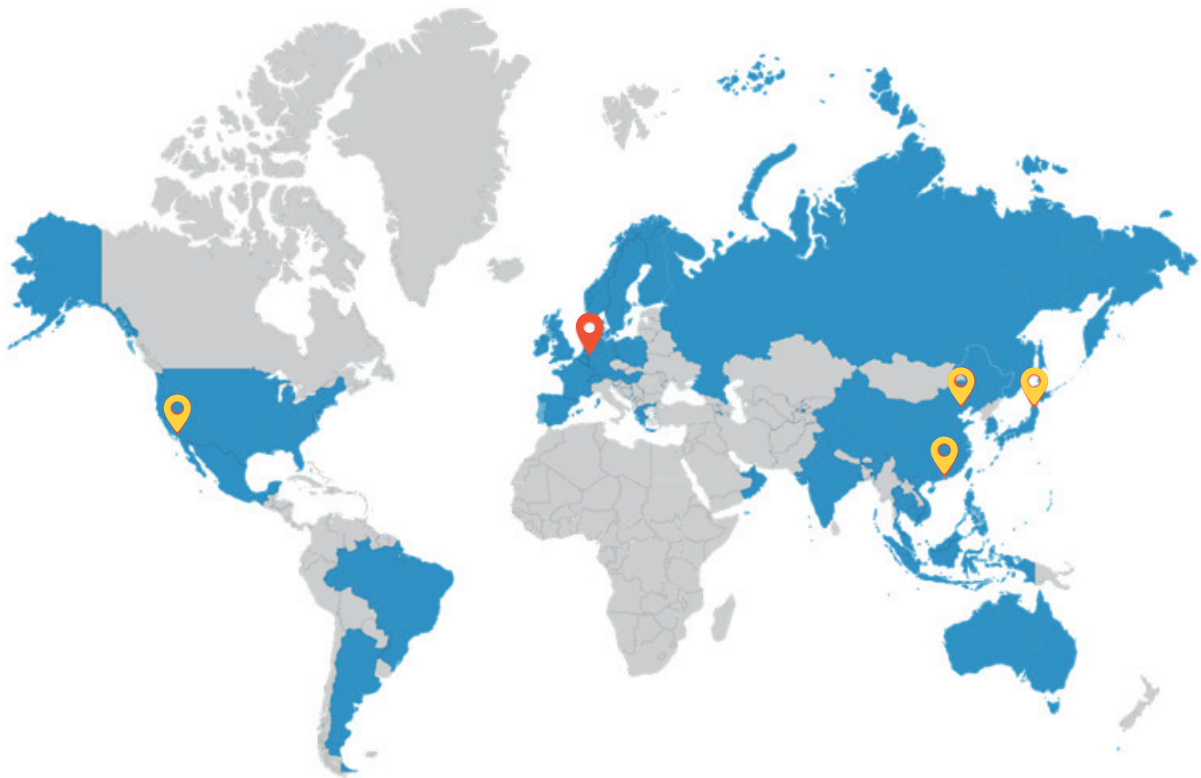
• 70% reduction in labour

Awards

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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 ntegrated 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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