JD Logistics Maximizes Throughput, Efficiency With ASRS

HAI ROBOTICS

About Hai Robotics

Established in 2016, Hai Robotics is committed to gathering global talents to push forward the progress of human civilization using robotics technology. Its goal is to empower every warehouse and factory with logistics robots. The HaiPick solution is the world's first autonomous case-handling robot (ACR) system. Unlike other existing autonomous mobile robot solutions, it intelligently identifies desired totes and cartons, rather than the entire rack, and autonomously brings them to the workstation.

With HaiPick, you can automate your warehouse within one to two months. HaiPick has increased warehouse operation efficiency by three to four times and storage density by 80% to 400% for clients including DHL Supply Chain, BEST Supply Chain, Philips, and many others. The robotic warehouse solutions have been implemented in various industries, including fashion, 3PL, retail, electronics, healthcare, and e-commerce.

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Growth & Impact

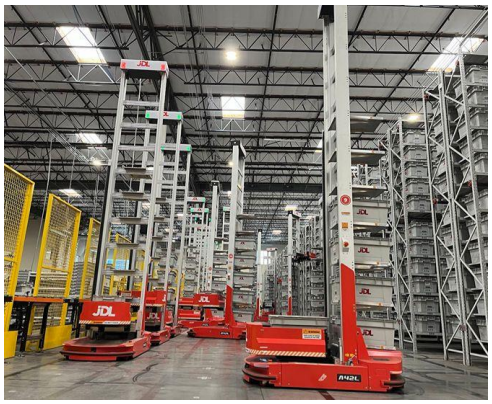
240%
more vertical storage

42%
daily order fulfillment improvement

175%
more throughput during busiest time of year

JD Logistics Maximizes Throughput, Efficiency With ASRS

JD Logistics' California distribution center maximized throughput, storage density and labor efficiency with Hai Robotics' ASRS solution.



Project Background

JD Logistics is a leading international logistics company offering Retail-as-a-Service, managing inventory and fulfilling e-commerce orders on behalf of their customers. Their order fulfillment facility located in Fontana, California, was growing quickly and to maintain the industry leading service their customers have come to rely on, JD Logistics once again turned to Hai Robotics.

In 2021 JD Logistics' California location upgraded their manual processes by implementing Hai Robotics' Autonomous Case-handling Robotic (ACR) Automated Storage and Retrieval System (ASRS) to speed up order fulfillment, increase storage density, increase efficiencies, and improve inventory management.

The Solution

All shelving and totes were standard non-precision assets that are readily available on the market. This allowed the system to both be designed to best support the facility's needs and avoid unnecessary costs. These ACRs are intelligent enough to work in real-world environments. The robots needed only standard configuration typical for all installations so robotic grippers match the tote size selected for the shelves.

Hai Robotics' ACRs seamlessly integrated via a flexible interface communication layer with JD Logistics' existing WMS system, helping to minimize the adjustment period to the new workflows and integration time.

Throughput and Efficiency

- Picking efficiency improved to 100% accuracy
- Daily order fulfillment improved 42% — at just a third of the system's maximum performance capacity

Flexibility

- During Black Friday Week, JD Logistics successfully fulfilled 118%+ more orders over the normal weekly rate — with the same ASRS and no additional temp-staffing
- That's nearly 175% more throughput JD Logistics was able to fulfill during the busiest time of year

Labor

- Training has been significantly reduced from about 2 weeks to 2 days
- Employees previously walking 10+ miles a day now pick in ergonomic, operator friendly workstations

Density

- Storage height grew from ~5 feet to 17 feet — an increase of 240% vertical storage
- Using the same storage footprint, the number of unique SKUs increased 43% with room to grow

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