Logistics Automation Solutions

Optimized for Picking & Sorting

TWINNY

TWINNY, a Specialist in Autonomous Logistics Robots

Logistics Automation Solutions

Analyzes product characteristics, environment, and operational scenarios
of logistics centers to maximize efficiency
with TWINNY's AI-based autonomous, customized logistics automation solution

Brand-matching wrapping design

Cargo boxes customized to item properties

Implementation Benefits

01 **Immediate Deployment Without Infrastructure Changes**

Utilizes existing infrastructure and workflows without modification

02 **Short Installation Period**

Deployment completed within an average of 3 weeks, with no operational downtime

03 **Improved Picking Accuracy**

Reduces picking errors and omissions to enhance operational quality

04 **Optimized Picking Routes**

Minimizes unnecessary movement by optimizing routes based on order data

05 **Reduced Workforce, 64% Labor Cost Reduction**

Replaces repetitive tasks, enabling workers to focus on higher-value work

Core AI Technologies

Order Distribution Optimization

Analyzes orders to match optimized SKUs and locations, and consolidates invoices to maximize processing speed

Obstacle Recognition Technology

Enables robots to detect and accurately avoid forklifts without reflective tape using forklift avoidance technology

Multi-Robot Control

Enables multiple robots to plan routes without bottlenecks, ensuring stable operation even in noisy environments

Picking Solution

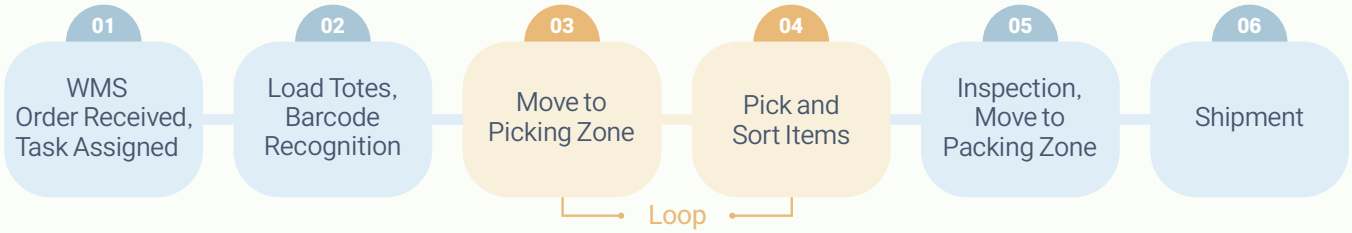
A logistics picking solution that deploys autonomous mobile robots
to support picking operations and automate item transport,
tailored to order characteristics and operational conditions of logistics centers

Total Picking Scenario for Single Orders

Batch picking of multiple orders combined with AMRs
reduces worker travel distance and increases picking density

Multi-Order Picking Scenario for High-Mix Orders

Uses order-based totes to perform picking and sorting simultaneously,
ensuring both accuracy and productivity

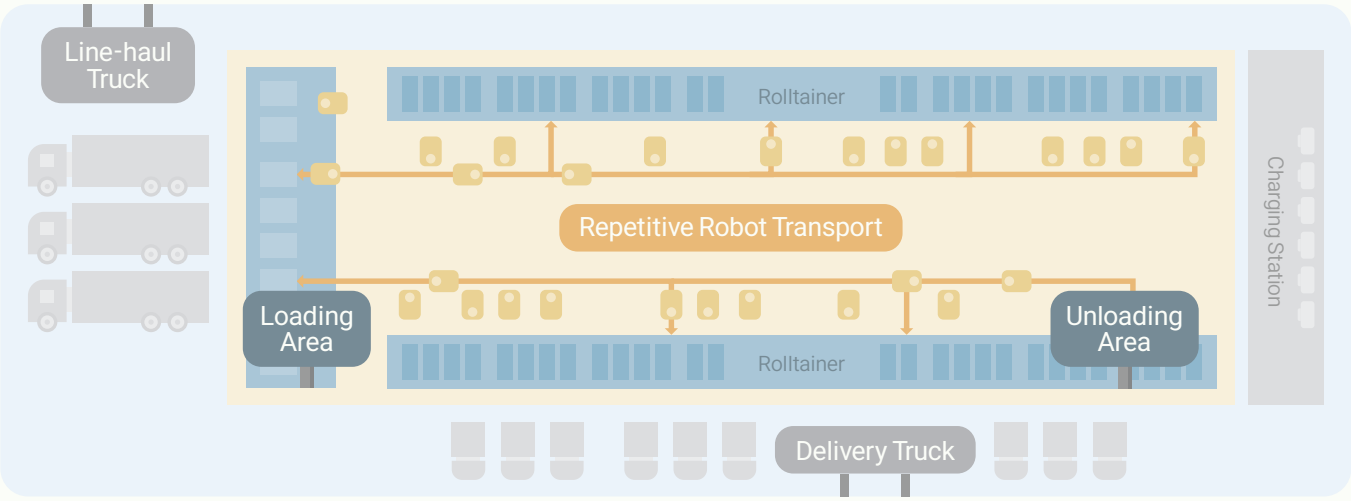


Returns·Inbound Scenario

Standardizes inbound and returns processes
through barcode-based automatic navigation

Sorting Solution

A logistics sorting solution that uses autonomous robots to automatically sort and transport inbound cargo, loading parcels into designated roll containers for each delivery zone.



Sorting Scenario for Large-Scale Hub Centers

Automates parcel movement through real-time sorting of same-day and early-morning deliveries by destination zone.

01 Line-Haul Unloading (Pallet Unloading)

02 Load Parcels onto the Robot for Sorting Operations

03 Robot Performs Primary & Secondary Sorting and Delivery Zone Allocation

04 Delivery Drivers Arrange Parcels in Delivery Sequence

05 Vehicle Loading

* Steps 2–3: Performed by Robots

* Steps 4–5: Drivers Only Arrange Parcels and Load Vehicles

Eliminates Sorting Tasks for Delivery Drivers

Replaces manual sorting with robots to reduce driver workload

Improved Working Environment

Reduces worker fatigue from repetitive tasks and ensures a safer workplace

Flexible Deployment Structure

Unlike conveyor systems, enables easy relocation to maximize space efficiency

Detailed Specifications

Basic Specifications

Size	696 x 546 x 1,509 mm
Shelf Size	500 × 509 mm
Safety Device	3D LiDAR, 2D LiDAR, Bumper
Payload	100 kg
Speed	Max. 1.5 m/s
Network	Wi-Fi, LTE

Battery Performance

Battery	29.4 V, 54 Ah
Charging Hours	Under 3hours
Operating Hours	Max. 8hours

Use Cases

Seamless Autonomous Navigation, Anywhere

Operates flawlessly in all environments and conditions,
even when handling diverse materials and complex situations

Mezzanine

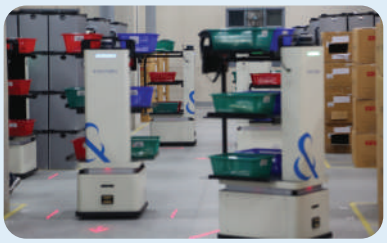
B2B —— Apparel
High-Mix, Low-Volume ——
Multi-Order Picking ——

AGABANG & COMPANY 아가방앤컴퍼니

High Rack

B2C —— Cosmetics
Low-Mix, Low-Volume ——
Total Picking ——

STL START TODAY



Lightweight Rack

B2C —— Apparel
High-Mix, Low-Volume ——
Multi-Order Picking ——

AGABANG & COMPANY 아가방앤컴퍼니

High Rack

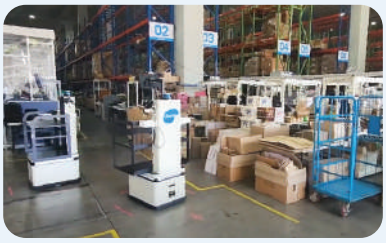
B2B —— Cosmetics
Low-Mix, High-Volume ——
Total · Multi-Order Picking —

YONGMA LOGIS

High Rack

B2B —— Pharmaceuticals
Low-Mix, High-Volume ——
Multi-Order Picking ——

PICO Innovation



High Rack

B2C — Health Supplements
Low-Mix, Low-Volume ——
Total Picking ——

Charm 참물류

Deployment Examples

Immediate Deployment, Immediate Impact!
Our proven solution has already demonstrated its effectiveness across numerous enterprises.

LX Pantos · CJ OLIVENETWORKS · DP WORLD · STL · YONGMA LOGIS
AGABANG & COMPANY 아가방앤컴퍼니 · Charm 참물류 · PICO Innovation · 빅커피 COFFEE · HEARIDA

Website Youtube

Website
twinny.ai

Email
salescontact@twinny.ai

Contact
HQ | +82.42.716.1558
Product Inquiries | +82.42.866.8232

Address
90, Gajeongbuk-ro, Yuseong-gu, Daejeon, South Korea

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