

Multiway Robotics



**Leading Intelligent Intralogistics
Solution Provider**

Multiway



About Multiway

20+

Industry Applied

40+

Countries & Regions

450+

Patents & Copyrights

1000+

Project Cases

Service Philosophy

We believe that strong R&D and constant innovative capabilities are fundamentals of sustainable growth of the company, furthermore, are the sources of long-term service and insistant empowerment of our customers.



Industry Pioneer and Innovator

Most Innovative Full Product Matrix

- First in the Industry to Design Fully Autonomous Forklifts
- Most Comprehensive Hardware Product Categories in the Industry

Fully Self-developed High-performance Core Systems

- The Only Company in the Industry That Develops Its Own Core Algorithms and Components
- The Only Company in the Industry with a Complete Smart Software Ecosystem

Global Services for the most Application Scenarios

- The Most Capable Company in Tackling High-complexity Scenarios
- One of the Few Companies in the Industry with Global Service Capabilities



Intelligent Transformation from Multiway



The above are some of our partners, in no particular order

Global Network

Headquarters



Factory



USA Office



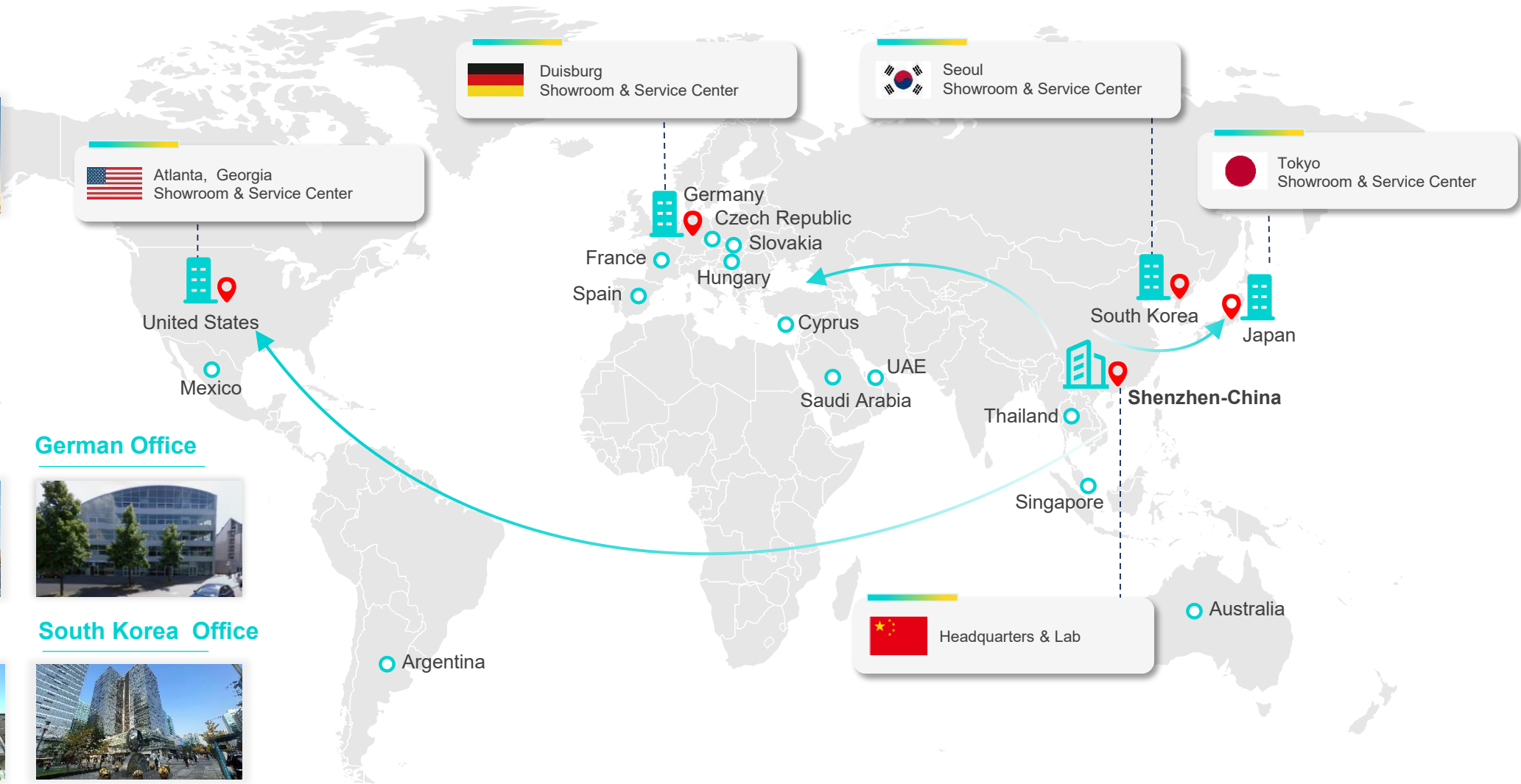
Japanese Office



German Office

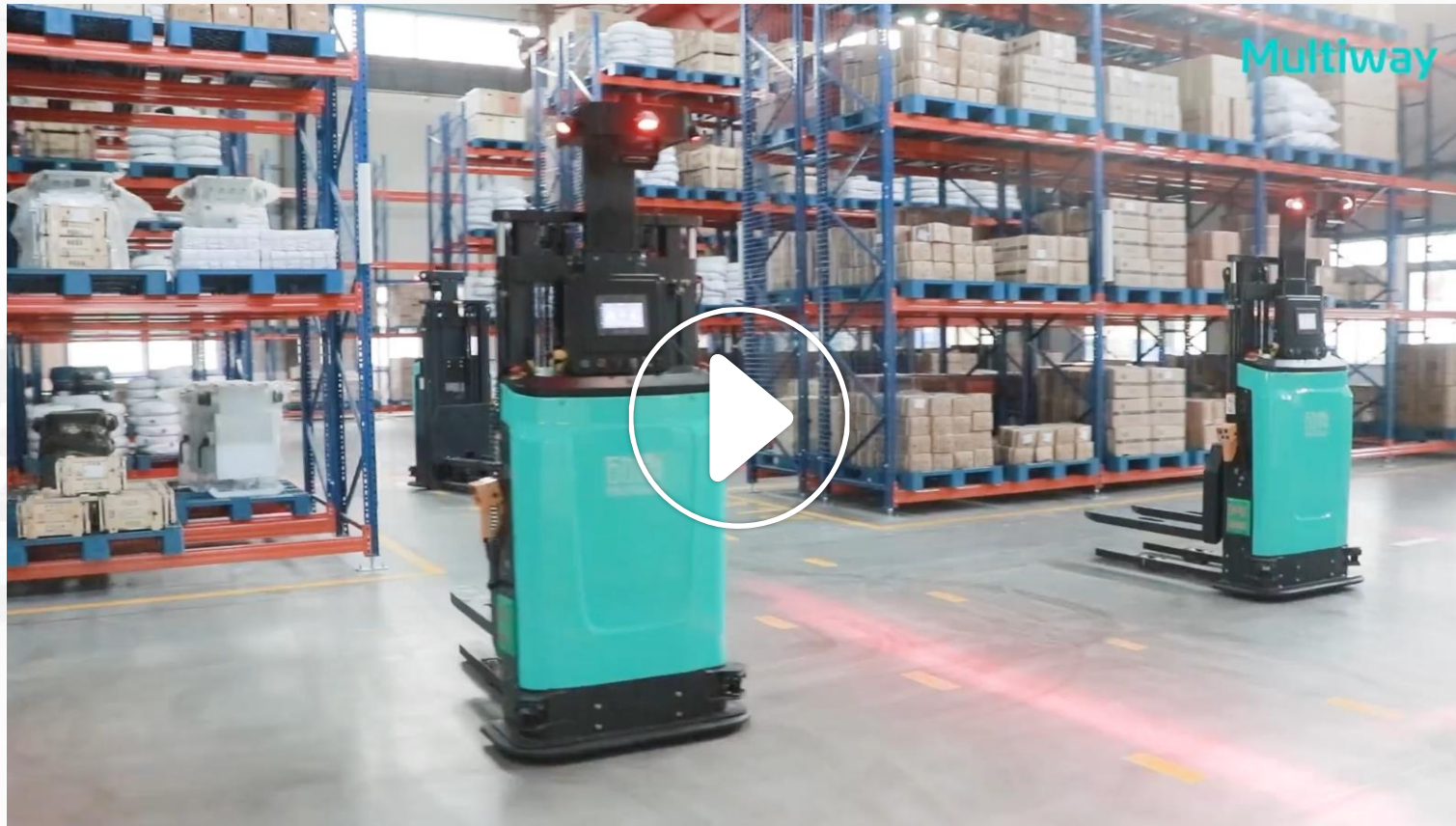


South Korea Office



About Multiway Robotics

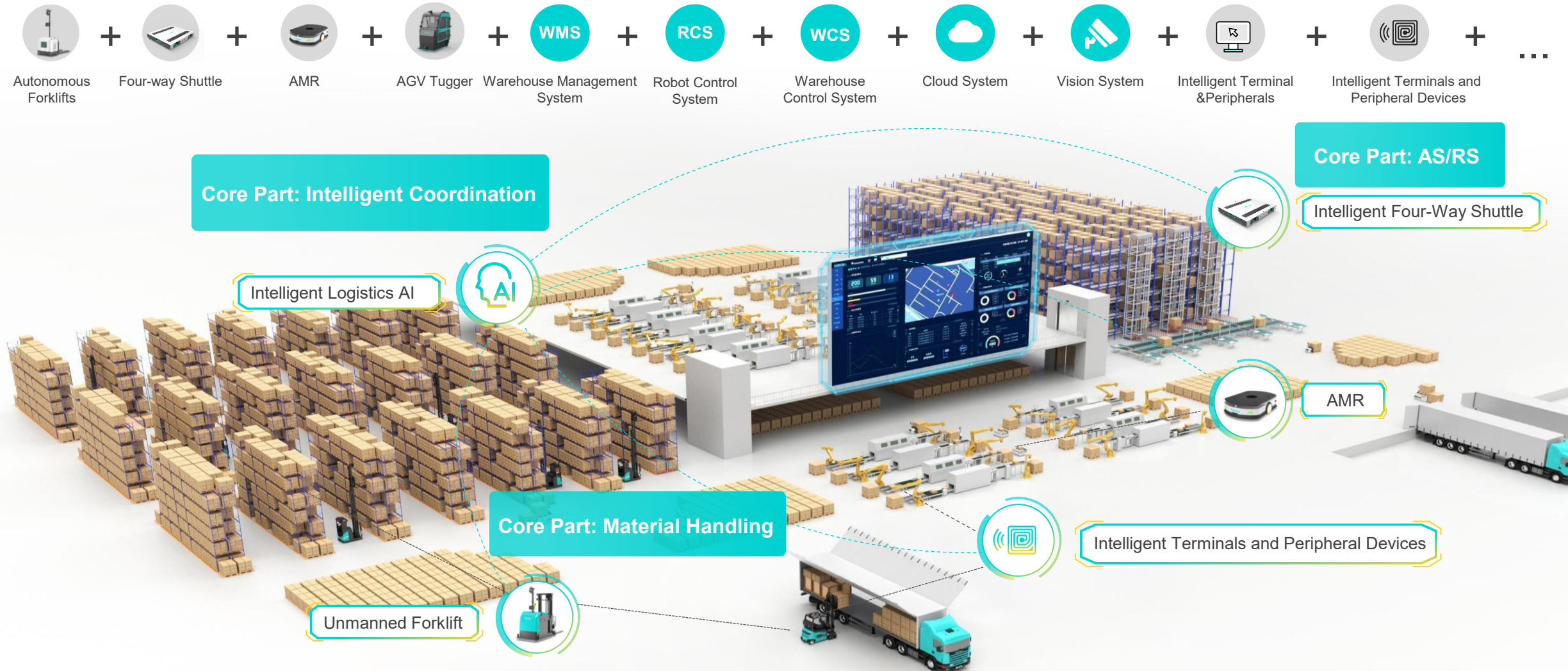
[Watch Video](#)



**More than 1000
benchmark projects
successfully implemented**

Among these customers, more than 40% are well-known companies, including Fortune 500 companies, China's top 500 companies, and industry leaders.

Intralogistics Solution



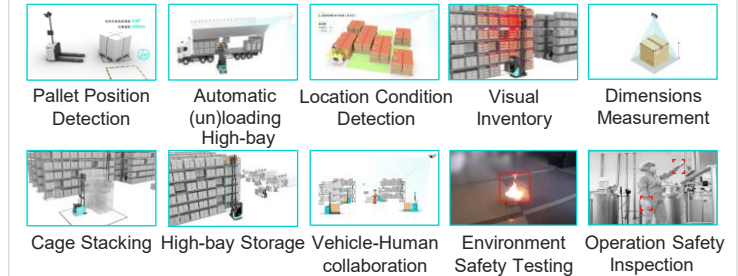
Complete Software Ecosystem for Digitalization and Intelligent O&M (Operations & Maintenance)



Self-developed WMS/WCS

- Covering the entire production process including logistics management, warehouse management, quality inspection, etc.
- Closed-loop of on-site logistics, information flow and decision flow
- Flexible connection with customers' existing systems and equipment to provide incremental value (providing standard interfaces)

Vision Systems

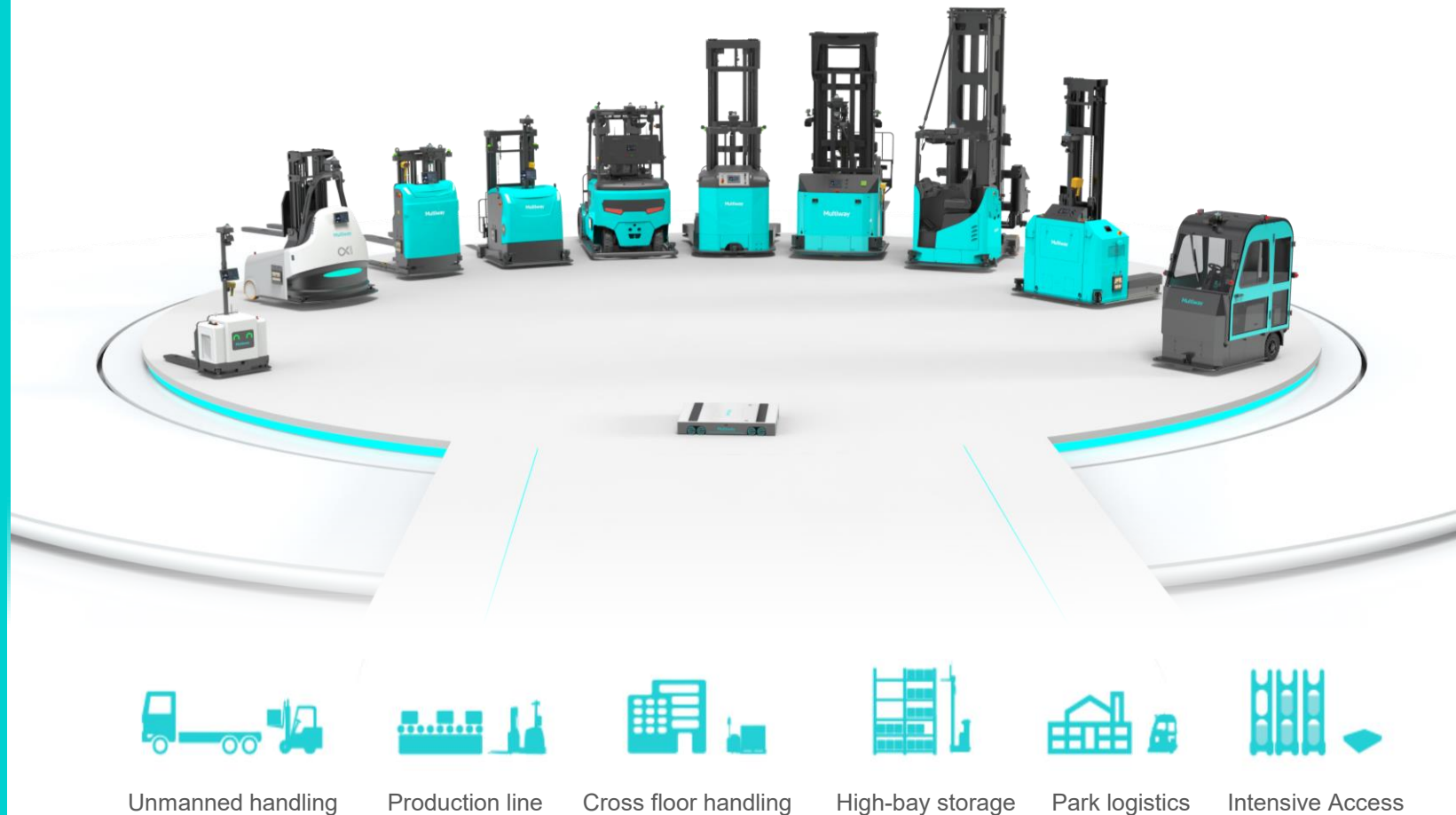


Module-independent on-board System



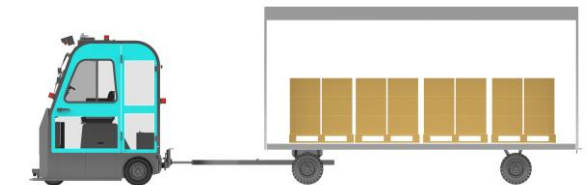
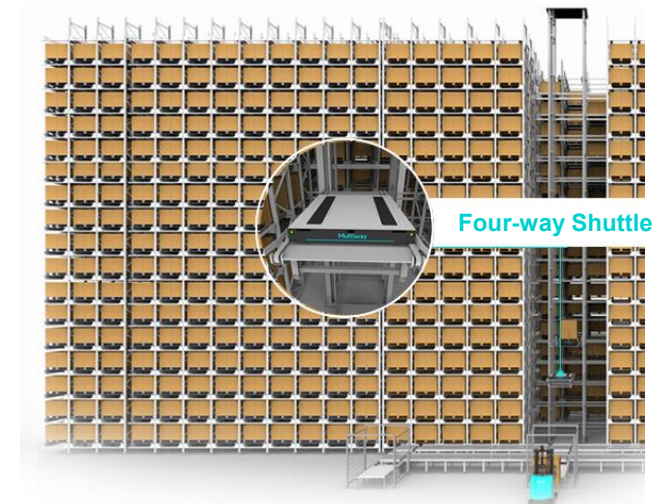
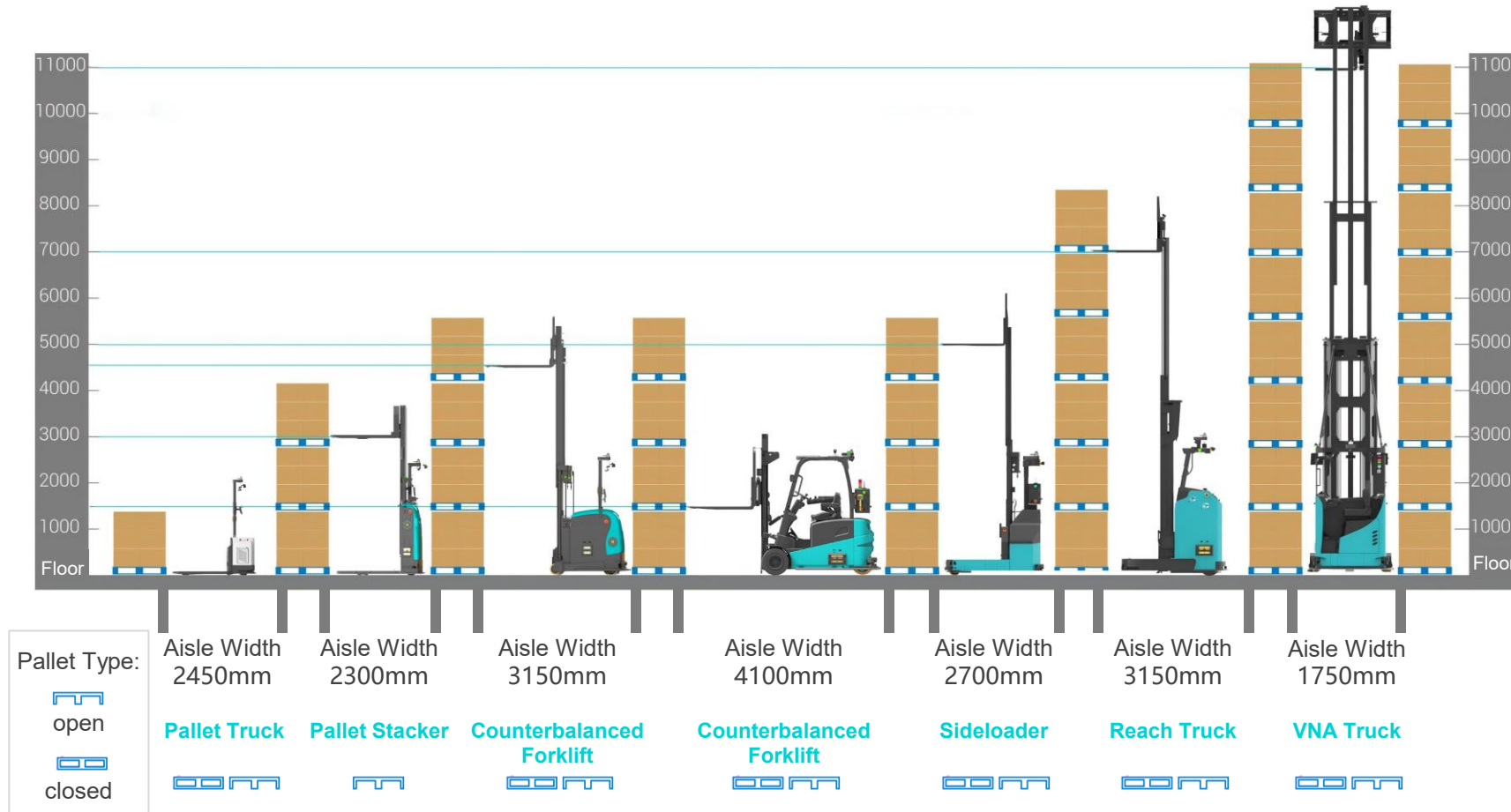
All Categories Product Matrix

Staying innovative, Multiway has developed all categories of intralogistics products, including unmanned forklifts, AMRs and tow tractors.



Leading Intelligent Intralogistics Solution Provider

AGV forklifts are used in scenarios such as transportation outside the warehouse and docking between ASRS warehouses to ensure the smooth movement of materials & information between different processes, and achieve the intelligent flow of the entire factory intralogistics.



AGV Tow Tractor

WeFront X20

Light weight design, low ground-bearing requirement, highly efficient elevator floor changeover, suitable to extremely narrow aisles, and significantly improved space utilization

Fast, flexible, and modular deployment

X20



WeFront X20S

A pioneer pallet truck that can be fully compatible with pallets of different specifications including 4-way pallets, 2-way pallets, and POD pallets in the industry

X20S



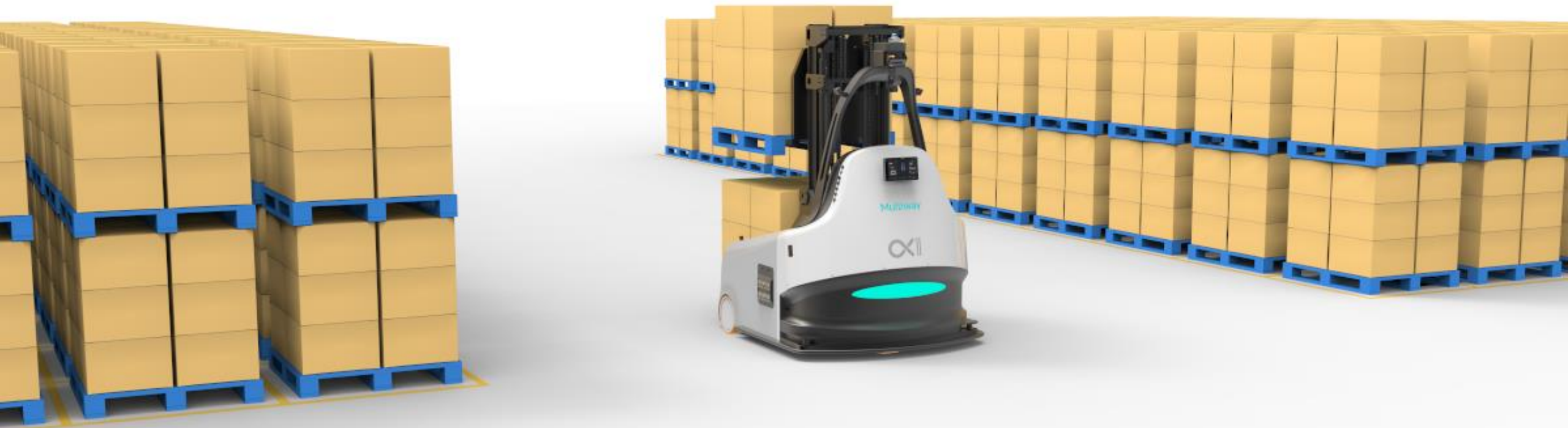
Multiway α2

Industry first patent exclusive

α2

One Time, 2 Pallets

Faster Speed, Higher Efficiency



O Series Omni-directional Side-loading Autonomous Forklift

360° rotation, right-angle turning, and efficient operation in narrow aisles

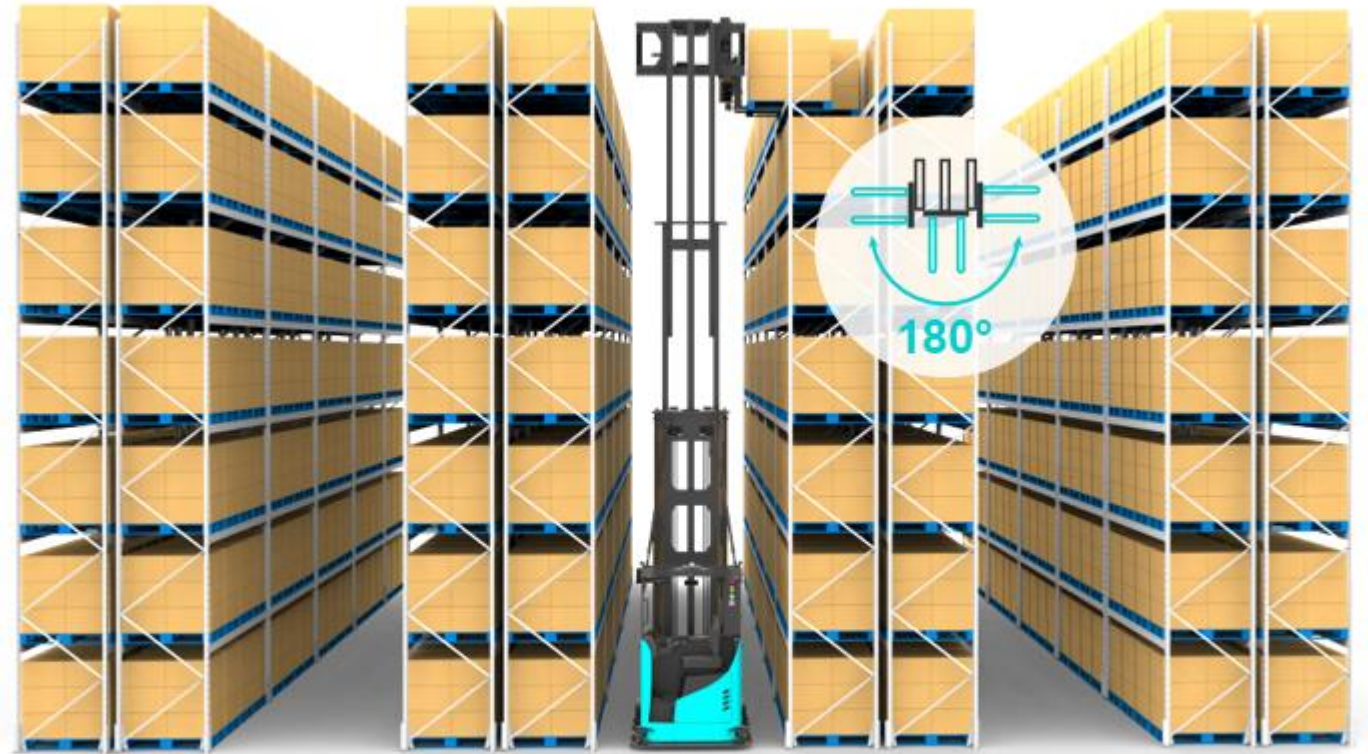
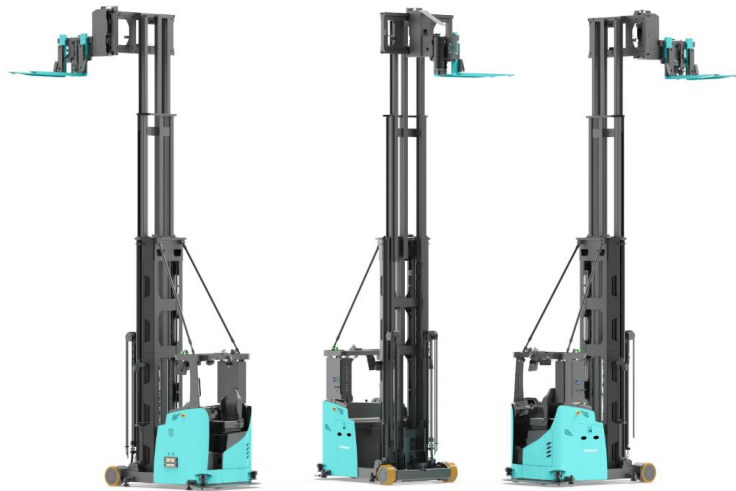
Standardized end-vision system for visual cargo alignr



K Series Three-way Unmanned Forklift

Maximum lift height up to 11m, operate in aisles as narrow as 1.75m

Standardized end-vision system for visual cargo alignment and placement space detection



R Series Reach Truck Unmanned Forklift

Maximum lift height up to 10m

Standardized end-vision system for visual cargo alignment and placement space detection



Placement space detection

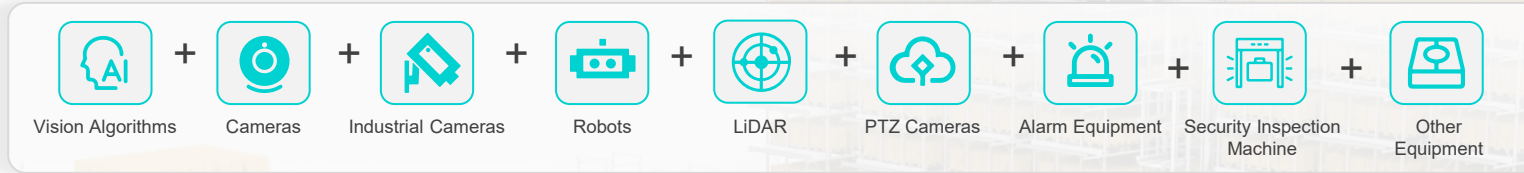
Q Series Tail Compartment Loading Unmanned Forklift

Compatible with wing vans, flatbed trucks, and tail compartment loading; tail ramp support up to 8° incline

Zero-gap placement for maximum loading efficiency



Vision System Multiway Horizons



Visual Inventory

AI object detection
Calculation of full-pallet cargo quantity

High-bay Storage

Cargo unloading space detection
High-precision cargo picking and placing

Cargo Information Recognition

Barcode recognition & Color recognition
Overload detection & Diameter measurement
Width * Height measurement & Contour detection

Cage Stacking

Cage deformation detection & Cargo offset
Stacking safety inspection
Disassembly and stacking at different heights

Vehicle-Human Collaboration

Intruder detection
Path interference detection
Automatic obstacle avoidance

Pallet Position Detection

Pallet position identification without stop
Support pallet deviation of up to 45 degree and 80 cm

Location Condition Detection

Available location detection
Cargo offset detection

Automatic (un)loading

Compatible multiple models (wing door, flat door, tailgate)
Compatible with multiple sizes of cargo (automatic allocation)

Multiway Warehouse Management System MW WMS

Multiway Warehouse Management System enables inventory data management, task management, location management, intelligent report management, and monitoring health status of warehouse equipment. It creates a transparent and convenient warehouse management system, breaking the "black box" status of inventory assets, and provides real-time visibility into inventory and cost occupancy information.

Information
Management

Material
Management

Veichel
Management

3D DigitalTwin

Statistics

Entry

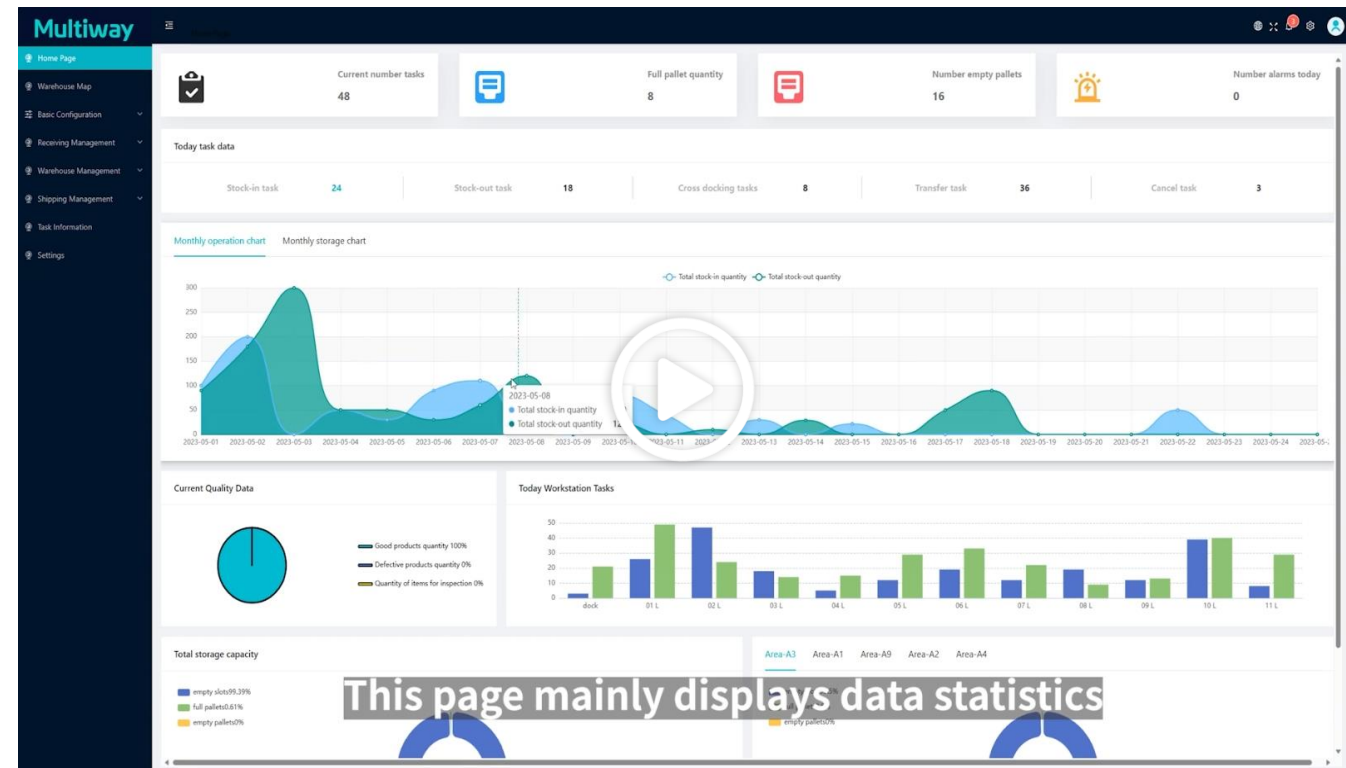
Quality Control

Inventory
Management

Inventory

Delivery

Standard Interfaces



Multiway Robot Control System - MW RCS

Multiway Robot Control System can simultaneously support the collaborative operation of hundreds of vehicles of different models in the same area. It can quickly plan the optimal routes and achieve the overall optimal navigation route planning, thereby completing tasks in the shortest possible time and ensuring the highest operational efficiency.

Map Environment
Construction

Intelligent Task
Arrangement

Optimal Path Planning

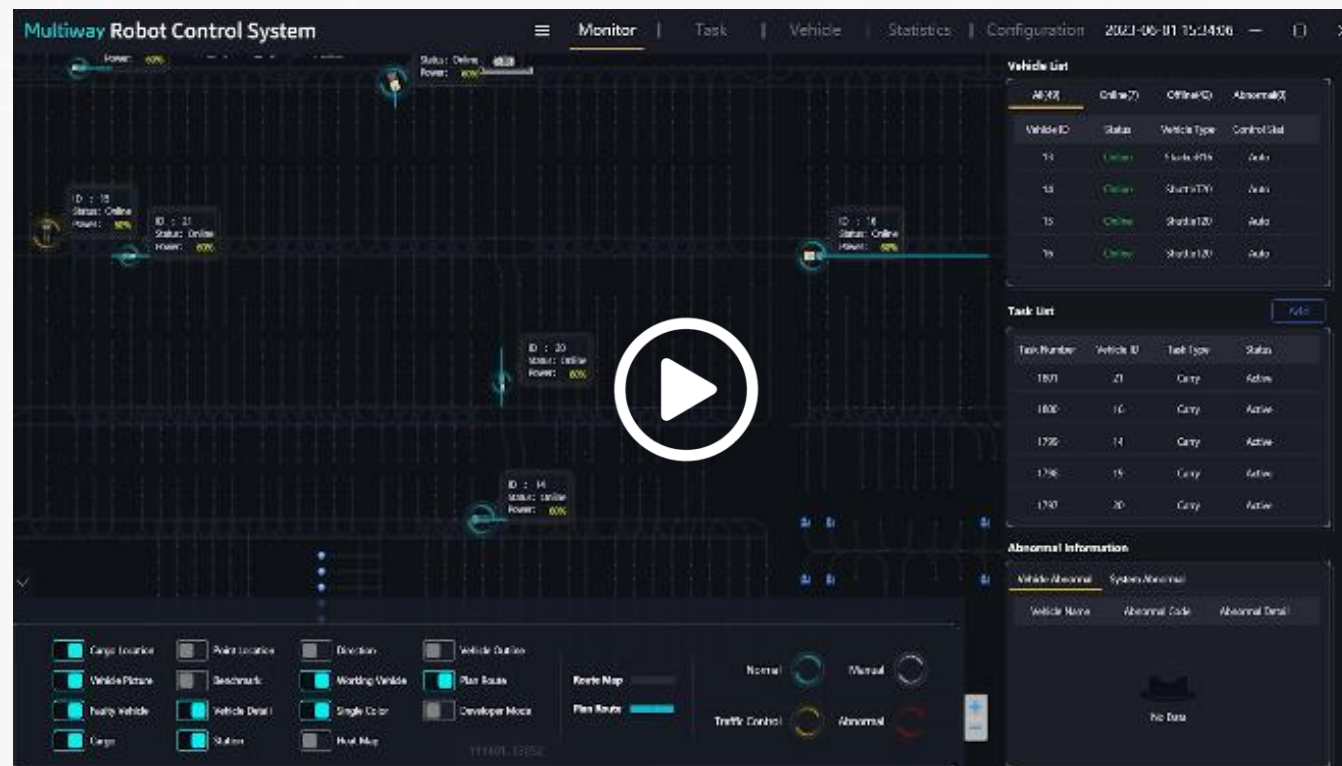
Equipment monitoring
and management

Oncoming Lane
Mitigation

Auto Charge
Management

Intelligent Traffic Control
Scheduling

Vehicle
dispatch nearby



Multiway Warehouse Control System - MW WCS

Multiway Warehouse Control System integrates the management of robots with elevators, automatic doors, conveyors, rollers, robotic arms, and other devices. It connects the system's functional control panels and data centers to enable unified management of all devices and information flows in the entire field.

Conveyors
Docking

Delivery Line
Docking

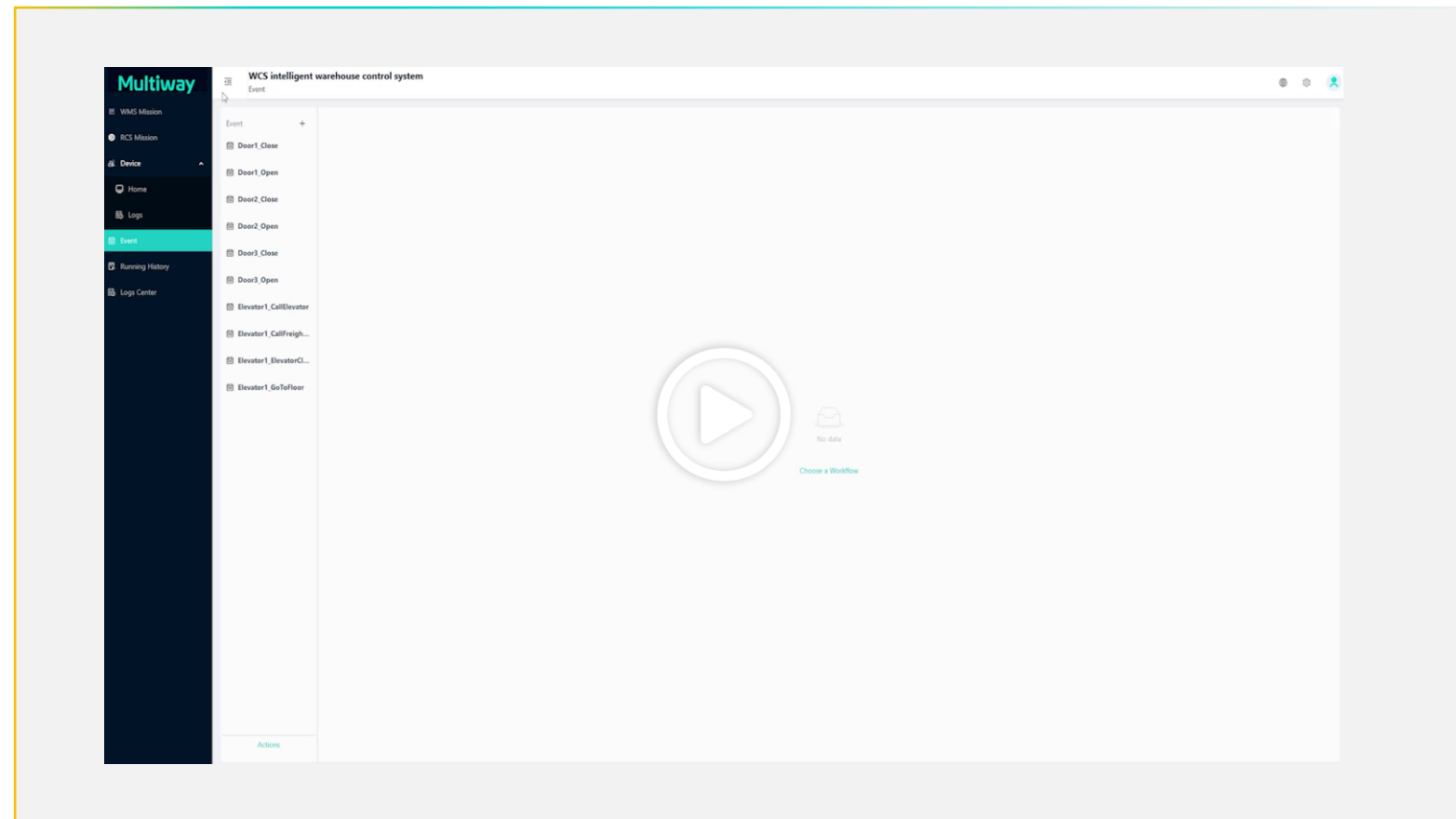
Auto Gate
Docking

Elevator
Docking

Robot Arm
Docking

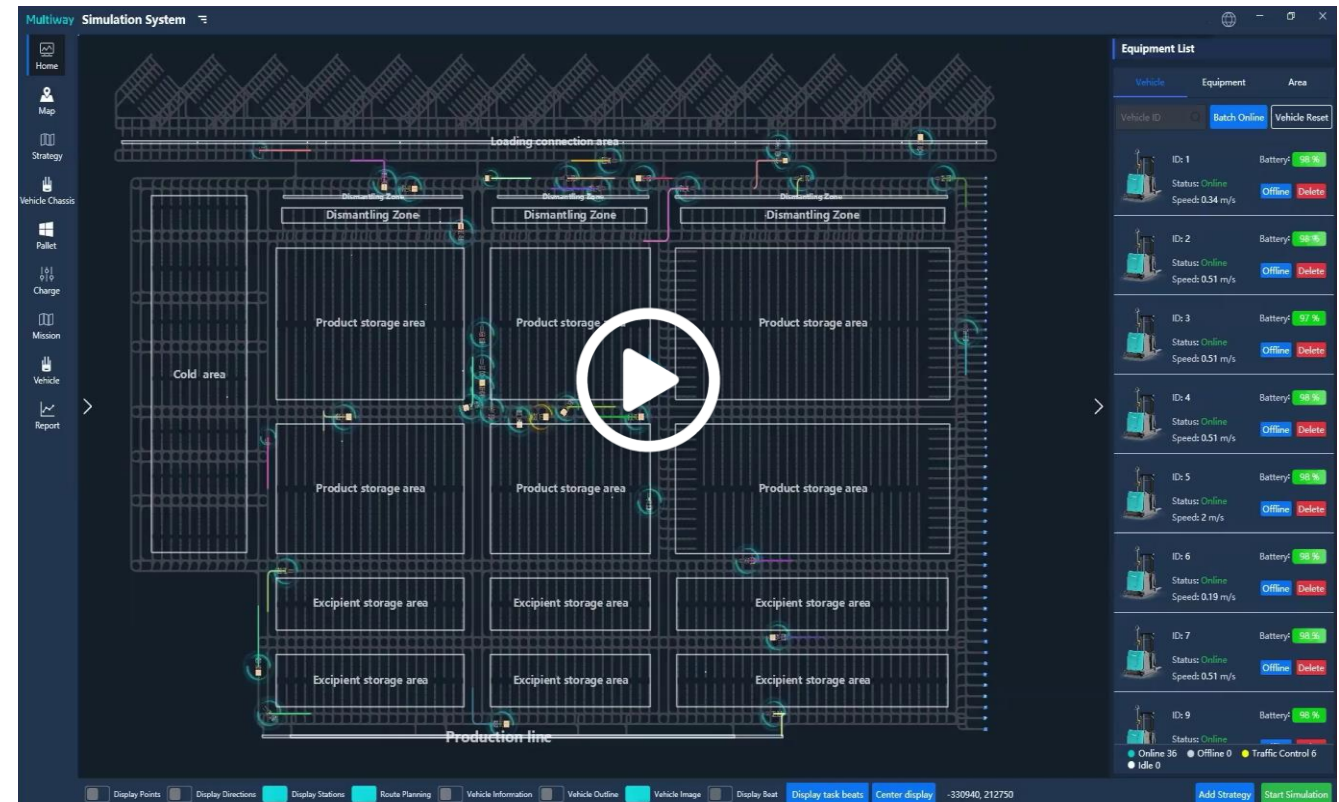
Other
Equipment

Equipment Maintenance



Multiway Simulation

The simulation system combines simulation modeling with robots. It supports traffic simulation of hundreds of vehicles under different scenarios, conducts simulation experiments on robot kinematics, dynamics, and trajectory planning algorithms, which enhances the theoretical analysis and design capabilities of robots, including concept design, product selection, offline programming, collision detection, and more, not only shortens production delivery time, but avoids unnecessary rework.



Model Data Input

Automatic Layout
Analysis

Collision Possibility
Detection

Automatic Path
Generation

Remote On-line
Commissioning

Machine Action
Simulation

Robot Safety Protection

Acoustic + Vision + Physical + Environmental 360° Protection.

Point Cloud Obstacle Avoidance

The forward simulation algorithm can measure the distance to obstacles, autonomously plan the moving speed, ensure the vehicle accelerates and decelerates smoothly without sudden changes in speed.



Note: Based on SE15 model. LiDAR and safety device count may vary by model. Please refer to actual specifications.

Over Temperature Protection



1. The charging station is equipped with a temperature sensing device, which will immediately cut off the power supply if high temperature occurs during charging.
2. The vehicle's charging block is equipped with a temperature sensing device, which will immediately stop charging and send an alarm if high temperature occurs during the charging process.
3. The battery is equipped with a temperature sensing device inside. Whether it is during charging or discharging, as long as high temperature occurs, the battery will alarm. In serious cases, the external power output will be directly cut off.



Overcurrent Protection

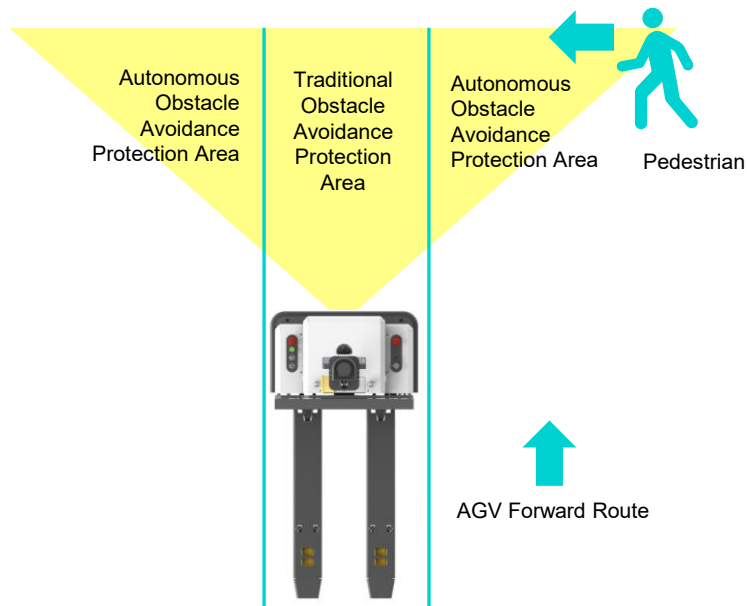
The charging station is equipped with a current detection device. If overcurrent occurs during charging (the output current of the charger is higher than the preset value), the power supply will be cut off immediately.

Robot Safety Protection

Vehicle Safety Precautions

The vehicle-mounted 3D LiDAR can achieve:

1. Identify obstacle types, such as pedestrians, cargo, manual forklifts, AGV forklifts etc.
2. Predict the trajectory of dynamic obstacles in real time to provide decision data for the obstacle avoidance system
3. Intelligent safety decision-making, dynamically decide the safest obstacle avoidance action based on the type of obstacle and trajectory prediction information.



AGV Forklift Safety Precautions

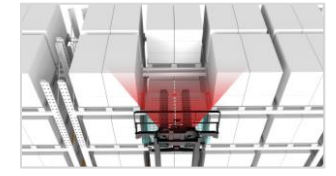
Placement Safety



Placement Location Detection



Placement Space Detection

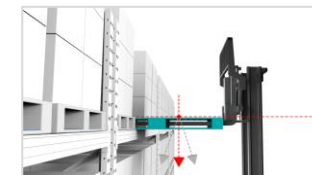


Mast Tilt Detection

Pickup Safety



Pickup Correction



Mast Tilt Detection

Awards, Certifications, and Media Coverage



CE Certification



UL Certification (USA)



KC Certification (Korea)



Main "Little Giant"



National High-Tech Enterprise



ISO 9001 Certified



Enterprise Intellectual Property
Management System Certification



Occupational Health and Safety
Management System Certification



Environmental Management
System Certification



ISO 27001 Certified



German Reddot
Product Design Award



The 11th LT China
Logistics
Innovation Product Award



Selected as the Most
Noteworthy AGV
Company in the World



怡佩克
CAPEK.CN
CAPEK Annual
New Brand Award

Internationally recognized media coverage

AP

Apnews

INSIDER

Businessinsider

MarketWatch

Marketwatch

FN FinanzNachrichten.de

finanznachrichten.de

yahoo/finance

Yahoo

THE
GLOBE
AND
MAIL

Theglobeandmail

barchart

Barchart

DIGITAL JOURNAL

Digitaljournal

NATIONAL POST

Nationalpost

StreetInsider.com
if you're not inside...you're outside

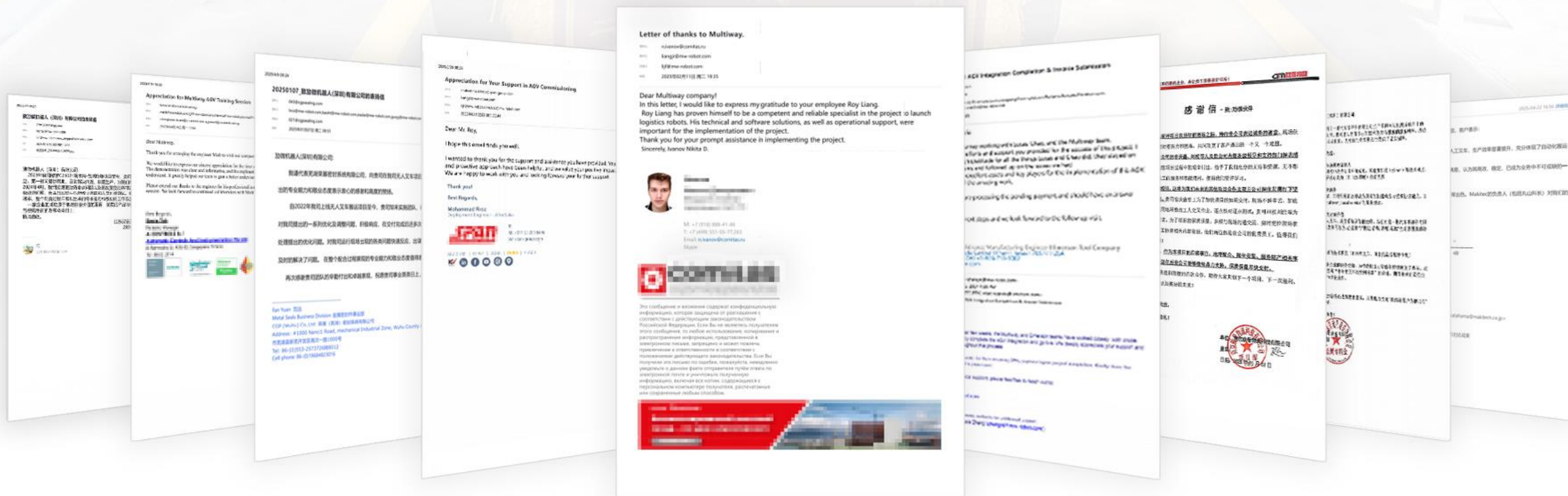
Streetinsider

FINANCIAL POST

Financialpost

CEO.CA

CEO



Cases Studies



Flat-surface Material Handling



Elevator Transfer Between Floors



Conveyor Line Docking



AS/RS Docking



Production Line Docking



High-level Storage at Line-side Warehouse



Long Material Handling



Cage Stacking



High-level Double-deep Picking



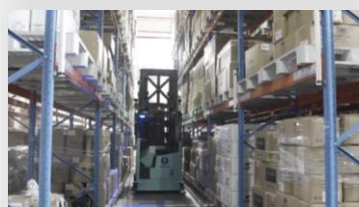
High-bay storage



Heavy handling



Unmanned handling



High-level Storage in Narrow Aisles



Four-way shuttle



Park logistics



Food



Auto



New Energy



Pharmacy



Machining



Construction Material



Printing and Packaging



Home



Chemical



Clothing

Customer Service

On-site Implementation

Resident Engineer
One-on-One Delivery

Quick Response

Worldwide Coverage
Nearby Response Support

24x7 Customer Service

24H Service Hotline

Process System Support

Weekly Based Delivery
Standardized Delivery Process

Remote Upgrade

Iterating Platform
Remote Upgrade

Professional Training

Classroom and Hands-on Training
Program Management Improvement

Contact Us

Offices:

USA · Atlanta | Germany · Duisburg | Korea · Seoul
Japan · Tokyo | China · Shenzhen

Tel: + 86 133 9286 4873

Email: sales@mw-robot.com

Official website: www.mw-r.com

