

**SEER Robotics**

**Build Your Own Robot  
Fleet Within Days**



SEER  
仙工智能

# CONTENTS

**01**

**SEER Robotics Introduction**

**02**

**One-Stop Robot-Building Solution  
Based on the SRC Controller**

**03**

**Robot Model Library  
Based on the SRC Controller**

**04**

**System Software**

**05**

**Case Studies**

# 01

**SEER Robotics  
Introduction**

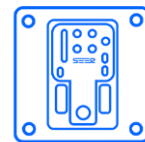




## Build Your Own Robot Fleet Within Days

- Global leader of robot autonomy solutions.
- Powered by the world's leading SLAM technology, the localization and navigation accuracy reaches up to  $\pm 2\text{mm}$ , with ultra-high consistency.
- Founded by the hall-of-fame RoboCup world championship team.
- With core technology 100% proprietary R&D, SEER Robotics obtained 400+ intellectual property and certification.
- SEER Robotics has raised multiple series funding from several strategic investors such as IDG, SaifPartners, Prologis, ECOVACS and etc.

### Product Portfolio



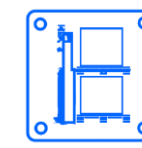
Robot Controllers



Components



Robots



System Software

### Service Areas



Semiconductor



3C



Lithium



Photovoltaic



Auto



PCB



Textile



Medical



# S Development Process

## Project Customization Stage

## Standard Controller Stage

## Product Diversification Stage

# V1.0

# V2.0

# V3.0



### 2013

- 1st RoboCup world champion.

### 2015

- Formation of a start-up team to undertake customised laser SLAM-related projects.

### 2017

- Founder Zhao Yue served as external tutor at SJTU and led students to win the 2017 RoboCup world champion.

### 2018

- The first domestic company to achieve  $\pm 5\text{mm}$  accuracy in laser SLAM mobile robot positioning.

- Launched Full-functional robot controller SRC-2000 and AMB Series Chassis.

### 2019

- Overcame multiple laser SLAM technology difficulties.

### 2020

- Completed A round financing from industry parties and investment institutions such as GLP, Ecovacs and China Growth Capital.
- Launched the world's first Safety-function robot controller SRC-3000FS.

### 2021

- Received A+ round financing from IDG Capital.
- First overseas exhibition in Korea-Robot World, marking the start of overseas expansion.
- Full range of software hit the market

### 2022

- Set up customer-oriented and process-oriented organization of continuous learning.
- Received B round financing from SAIF Capital, Haolan Capital, and IDG Capital.
- Pioneered the commercialization of 3D SLAM technology.
- Published the world's first robot controller blue book.

### 2023

- Launched innovative 2D Natural Feature Location and improved positional accuracy to  $\pm 2\text{mm}$ .
- Launched Safety-functional controller SRC-3000FS and SRC-2000-F(S) specially for forklifts.
- SEER Robotics Testing Center completed.
- Products and services covered over 50 countries and regions worldwide.
- Launched the Entry-level robot Controller SRC-880.

### 2024

- Established a subsidiary in Germany.
- Launched the world's leading 3D Natural Feature Location technology.
- Launched 3 R&D projects, Project Mars I, Project Lucky I, and Project FalconInWind I.

# S World Champion Team

The founding team has lifted three RoboCup world trophies representing China in Robocup 2013 , 2014 & 2017.



RoboCup Medal



Champion Team



RoboCup Trophy

## A Round



ChinaGrowthCapital  
华 创 资 本



## A+ Round



IDG 资本  
IDG Capital Partners

## B Round

(Valuation ¥2.4 billion)

SAIFpartners

IDG 资本  
IDG Capital Partners







# Industry Strength



400+ Intellectual Property, Certification, Honor.



## 200+

Product Certification



## 200+

Intellectual Property



## 100+

Invention



## 200+

Honor

SRC-3000FS is the first controller product in the world that has passed SGS TÜV SAAR functional safety certification.





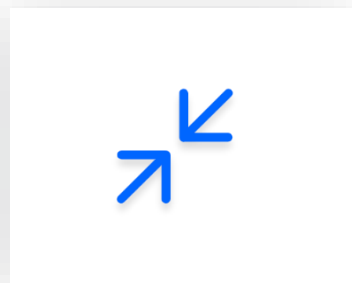
# R&D Philosophy: Standardized Products, Customized Applications



Regular  
Standard  
Products



Notepad



Greatest  
Common Divisor



Robot



No modifiable  
No customisable

Standard  
products  
defined by  
SEER Robotics



Word Excel PPT



Least Common  
Multiple



Roboshop  
SRC Controller



**Powerful**  
**Easy to use**  
**Open platform**  
**Self creation**



# Product Matrix



## Business Scenarios

Platform Inbound/Outbound   Racking   Count   Line-side Inbound/Outbound   Material Request   Loading Unloading   Process Flow   Sorting and Packing   Connection and Transportation   ...

ERP

MES

MOS

APS

SCM

SCADA

## Digital System Software

M4 QuickStore

M4 QuickLight

Meta-Map · Robot Visualization Map

Meta-Map Pro · 3D Robot Visualization Map

M4 QuickGo

M4 QuickFleet

RDS

Meta-World · 3D Digital Twin

## Robots (Partners)



## Robot Controllers and Components



SRC-880



SRC-2000-I(S)



SRC-2000-F(S)



SRC-3000FS



SRC-3000FS  
(Forklift)



## Configuration and Debugging Tool

Roboshop

One-stop  
Implementation  
Tool

RoboCare

One-stop Log  
Visualization  
Analysis Tool



# Product Strategy: One Brain, One Chain

## Partners Robot Types 100+

- Base AMR
- Lifting AMR
- Reach Truck
- One Fork Truck
- Stack Truck
- Pallet Truck
- Counterbalance Truck
- Cleaning Robot
- Arm Robot
- CartonTransfer Robot
- .....

## Partners Component Types 120+

- Laser
- Camera
- Safety Device
- Drive
- Sensor
- Servomotor
- Battery
- Charging Station
- .....



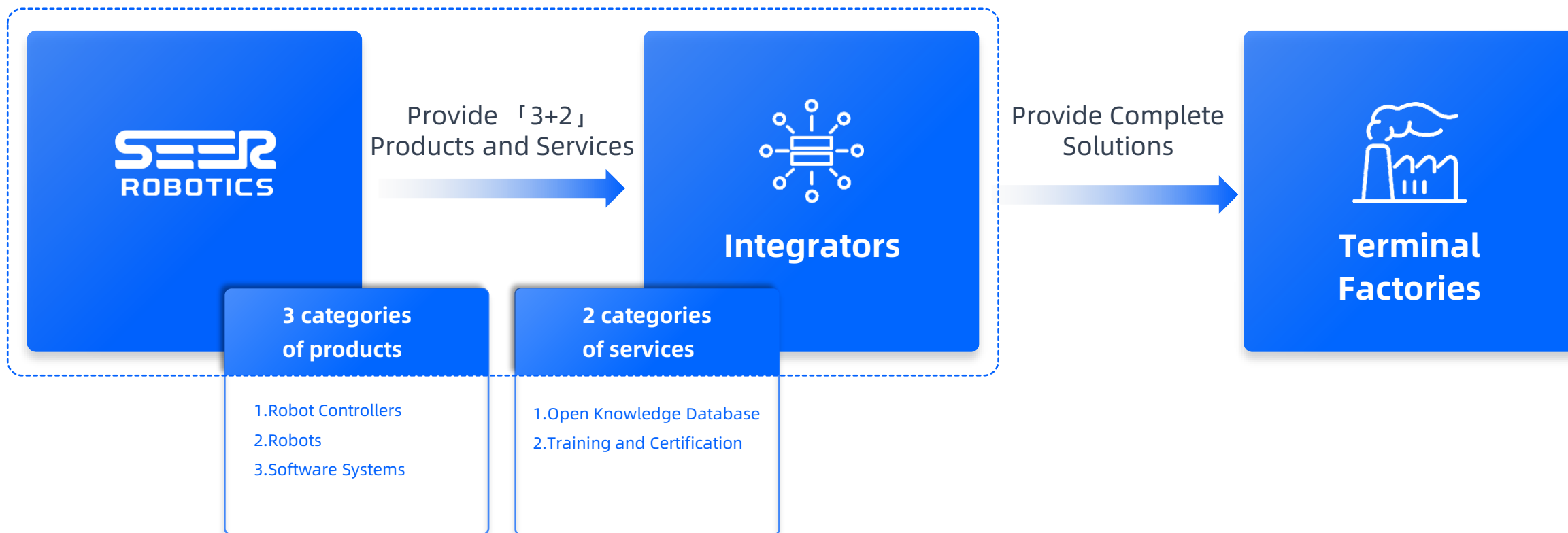
M4 | RDS | Meta  
Roboshop | RoboCare



# Business Model: 3+2



A close partner of intelligent manufacturing integrators, SEER Robotics provides product portfolio with robot controllers and digital software as core competence.




# Development Model: Globalisation

  
**2000+**  
Global Partners

  
**50+**  
Countries and  
Regions Served



  
**40%**  
Total Proportion of  
Overseas Business

  
**100+**  
Overseas Department  
Staff Size  
Global business coverage

China / Hong Kong, China / Taiwan, China / Germany / Indonesia / USA / Philippines / South Korea / Japan / Thailand / Malaysia / India / Vietnam / Brazil / Canada / Turkey / Romania / Italy / Mexico / Chile / Spain / Argentina / Singapore / Saudi Arabia / Czech Republic / Slovakia / Columbia / Morocco / France / UK / Poland / Hungary ...





# Global Partners



1200+ integrators/robot manufacturers partners, 1500+ customers, 2000+ upstream and downstream industry chain partners.



# 02

## One-Stop Robot-Building Solution

SEER Robotics offers one-stop solutions for building robot based on the core SRC controller, aimed at empowering robot manufacturers with a 「Controller + Software + Components」 ecosystem.

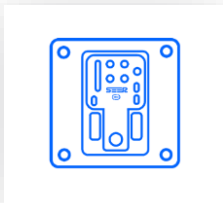
Our diversified products can greatly improve the building efficiency and competitiveness of customers, driving towards a future where you build your own robot fleet within days.



# One-Stop Robot-Building Solution: Easier to Build Robot Fleet



## 1. Fast • Systematic Robot-Building Support



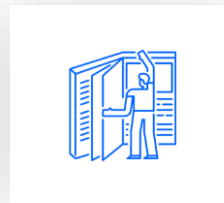
Robot Controllers



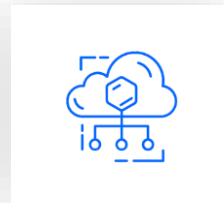
One-stop Implementation Tool Roboshop



Software and hardware kit



Model Selection Guide and Commissioning Manual



Training Courses and After-Sales Services



Iterative Software Update Service

## 2. Powerful • Comprehensive Function Library



Map editing



Model editing



Localization module



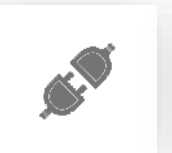
Navigation module



Differential motion model



Peripheral extension function



API



Visible operation

Basic Functions



Optimized skidding detection and solving strategy



Laser SLAM navigation



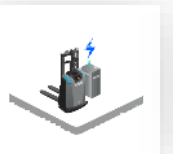
2 m/s speed



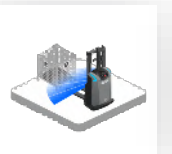
Double computing power



Pallet recognition



Automatic charging



Pallet recognition



AI QR code recognition

Optional Functions





# One-Stop Robot-Building Solution: Easier to Build Robot Fleet



## 3. Effortless • Diverse Component Library

### Perception



### Execution



### Power



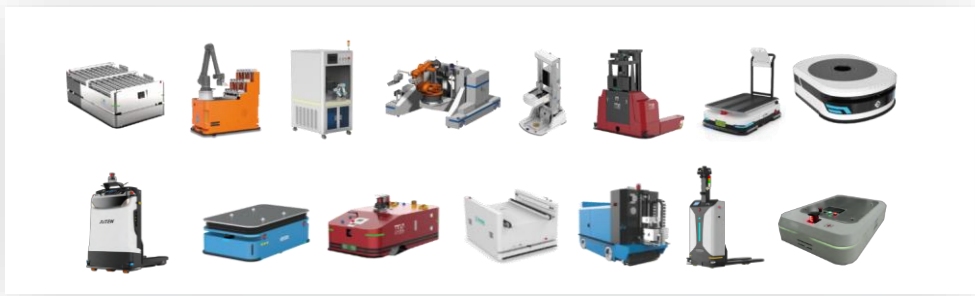
### Robot Platform



### Peripheral Components



## 4. Reliable • Rich Robot-Building Solutions



## 5. Professional • All-encompassing Repository



All-encompassing Repository



Comprehensive FAQ Documentation



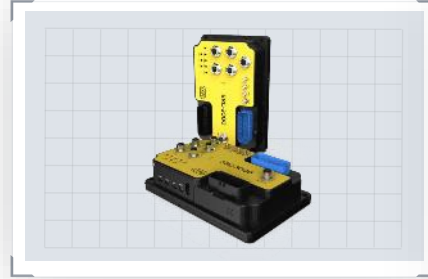
Multilingual Documentation

## Safety Controller for Autonomous Forklift SRC-3000FS



- Forklift-specific, stable performance.
- Automatic route optimization, accurate and stable.
- Functional safety design, integrated safety PLC.
- CE and UL certified, matches the needs of customers in Europe and America.

## World's First Safety AMR Controller SRC-3000FS



- Highly integrated construction, more compact.
- Simpler electrical connection and smaller size.
- Functional safety design.
- High-performance 8-core ARM processor, optimal memory configuration.

## Specified Controller for Autonomous Forklift SRC-2000-F(S)



- It integrates all kinds of special functions of forklift, enabling rapidly building AMR and fast delivery.
- It can meet the needs of carry forklifts, stacker forklifts, counterbalanced forklifts and three-way forklifts.
- $\pm 2$  mm high accuracy, accurate and stable.

## General-purpose AMR Controller SRC-2000-I(S)

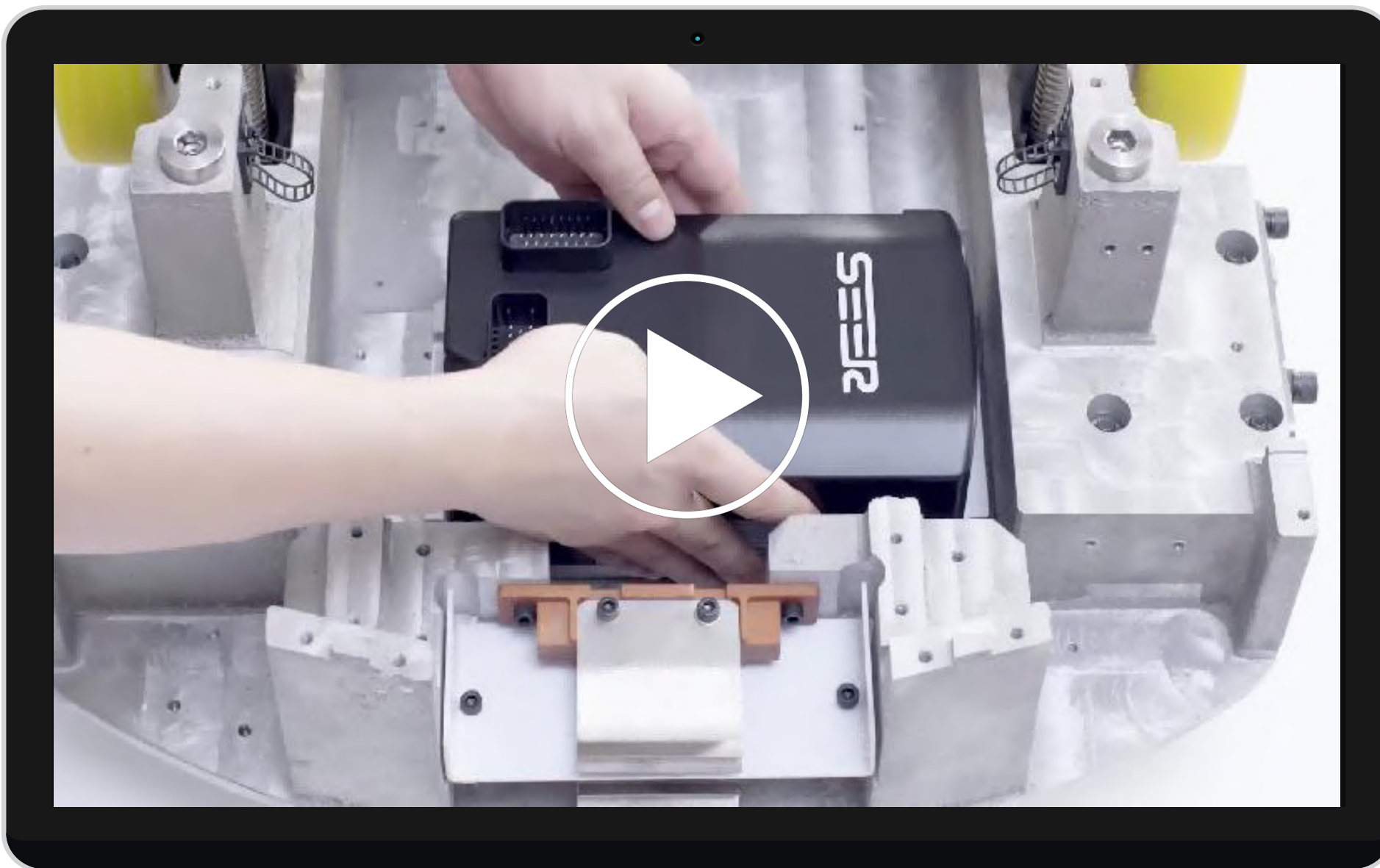


- Overall basic functions and rich optional functions.
- Single steering wheel motion model is supported.
- Rich external interfaces and communication buses are provided.

## Entry-level AMR Controller SRC-880



- Redefine the concept of value for money, the ultimate choice for differential drive vehicles.
- Dual-band high-power Wi-Fi, upgraded to Wi-Fi 6.
- Experience the perfect 2+1 combination: dual Laser and single obstacle avoidance camera.



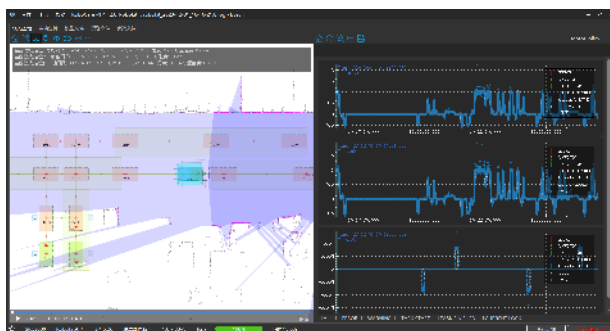


# One-stop Log Visualization Analysis Tool **RoboCare**

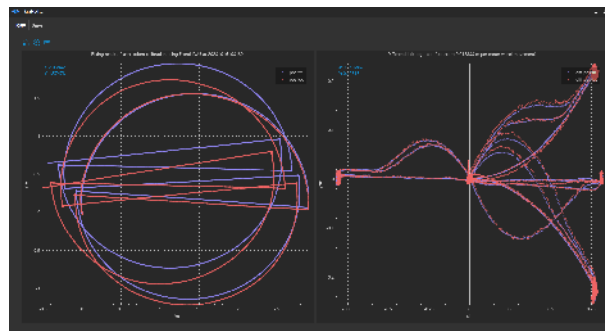


Fast positioning and full analysis, empowering integrators and making implementation more efficient.

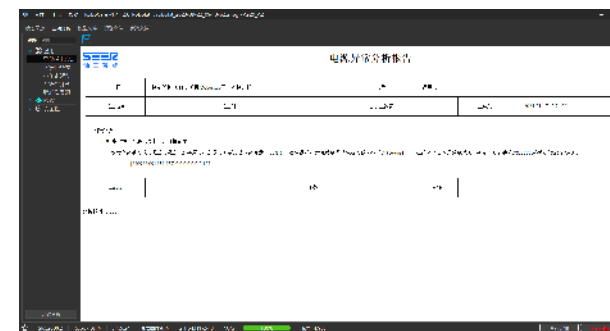
## Spatio-temporal scene visualization



## Data Charting



## Automated analyses





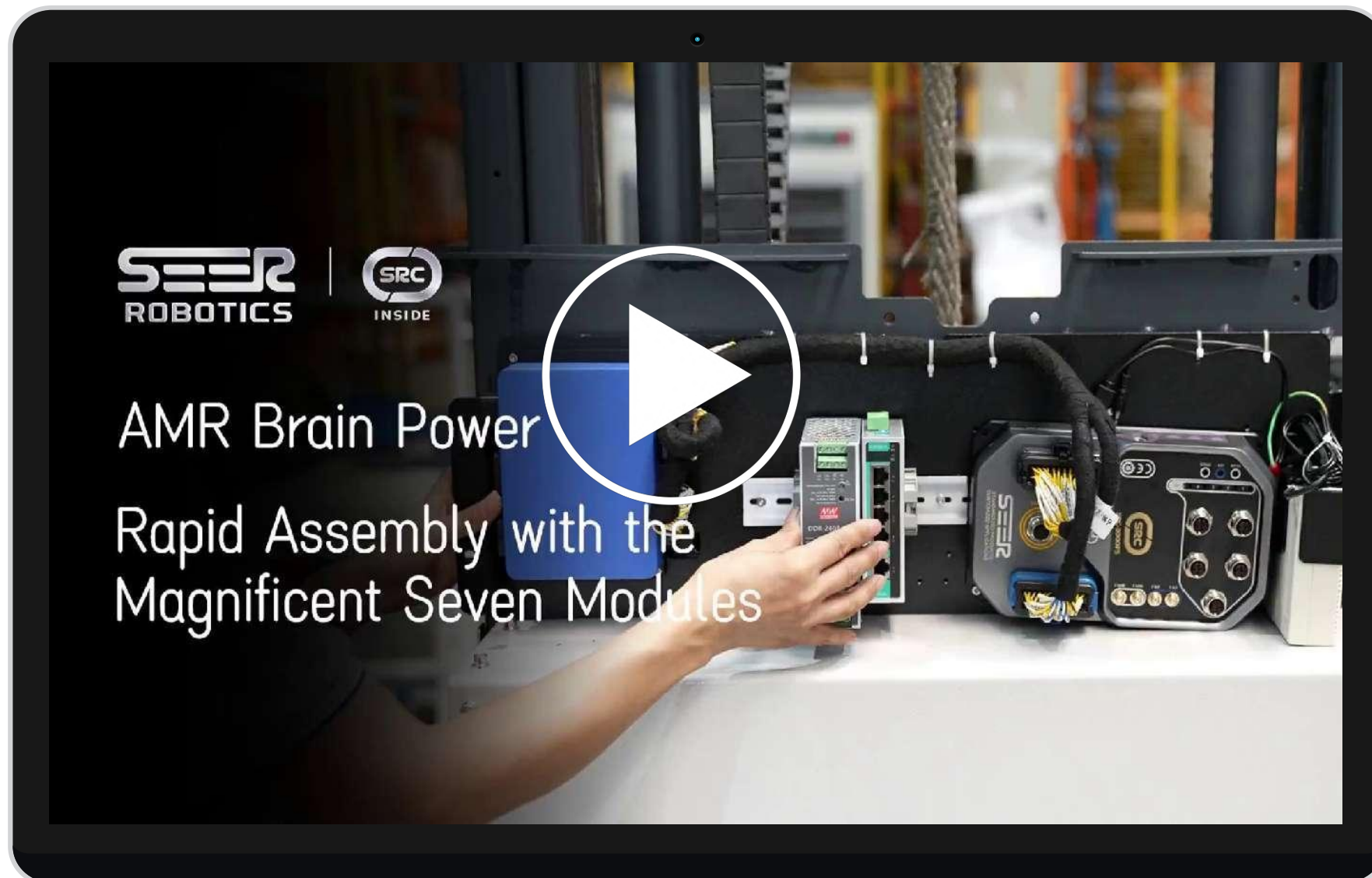


# **S** SRC Series Core Controllers: **[ Eight Steps ] to build a Base AMR**





# SRC Series Core Controllers: [ Seven Modules ] to build a Stack Truck

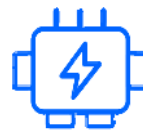




Perception  
Module



Motion  
Module



Power  
Module



Robot  
Platform

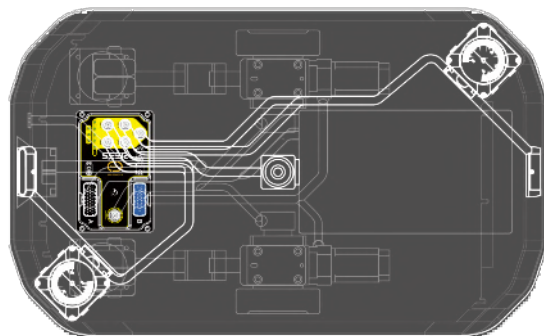


Peripheral  
Component

## Perception Module

Navigation lasers, 3D obstacle avoidance cameras, QR code cameras, etc.

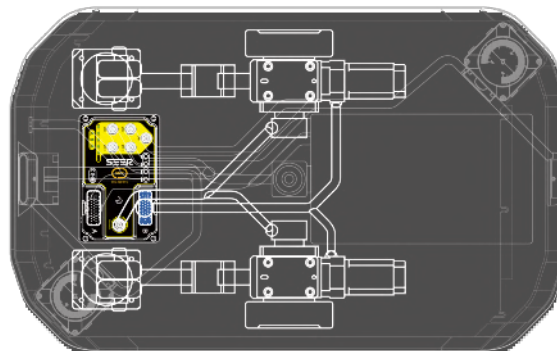
Achieve high-precision positioning information input (with an error of  $\pm 2$  mm).



## Motion Module

Motion modules, various upper motion modules, etc.

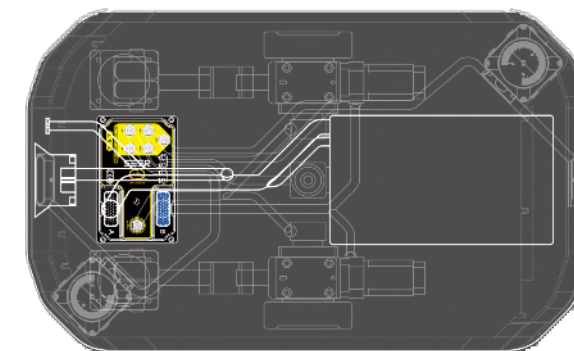
Accomplish the movement and upper assembly motion operations in various scenarios.



## Power Module

Modular battery, Automatic charging port, etc.

Realize the management of power information.





## Lifting Assembly SLM-DJ3010-A



- Quick Configuration, Out-of-the-box.
- Designed with 3 sets of material detection photoelectric sensors.

## Roller Assembly SLM-DR1534-A



- Simple Configuration, Anti Off-Center Ability.
- Customizable Lifting Height: 50~150 mm.

## Modular Battery SBP-48V23AHL5



- Based on the plug-and-play method, 1~5 battery packs can be automatically connected in parallel.
- Each battery is insured for \$6 million.
- With CE / UL / ISO / FCC and other global certifications.

## 2D Navigation Lidar SLS-1F50



- 50 m scanning radius.
- 360° panoramic view.
- -20°C to 55°C: working temperature range
- IP66: stronger protection

## Navigation Laser H1



- Sweeping frequency 30 Hz, faster collection frequency.
- Detection distance from 0.1 m to 40 m, wider viewing angle.
- Weight 280 g, lighter design.

## Obstacle Detection Laser C2



- Weight 130 g, lighter design.
- Detection distance from 0.05 m to 25 m, wider viewing angle.
- Power consumption less than or equal to 3 W, smaller consumption.

# 03

## **Robot Model Library Based on the SRC Controller**

SEER Robotics based on highly integrated SRC controller, has built rich Robots, including base AMR, lifting AMR, reach truck, one fork truck, stack truck, pallet truck, counterbalance truck, cleaning robot, arm robot, cartontransfer robot and so on.



# How to Choose a Right Robot in Different Scenarios?



Step 1. Select the appropriate in accordance with the standard load type.

## Load Type

## Robot Type

Rack

Lifting AMRs



Material Box

Cartontransfer Robots



Tray / Pallet

Customized Robots



Material Cage

Trucks



Step 2. Select corresponding standardized solutions in accordance with application scenarios.

## Application Scenarios and Solutions

### Application Scenarios

Obstacles with pits or other surfaces that can't be scanned by lasers.

### Solutions

Optional 3D camera | Obstacle avoidance and detours.



### Application Scenarios

The material cage has no load limit and no fixed posture.

### Solutions

Rack laser recognition or Optional 3D camera | Automatic recognition and adjustment



### Application Scenarios

Racks need to remain at a constant angle relative to the ground.

### Solutions

Select a jacking robot with spin functionality | Omnidirectional Lifting AMR.

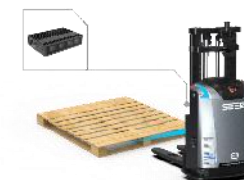


### Application Scenarios

The pallet/tray has no load limit and no fixed posture.

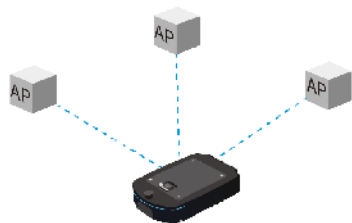
### Solutions

Optional 3D camera | Automatic recognition and adjustment.

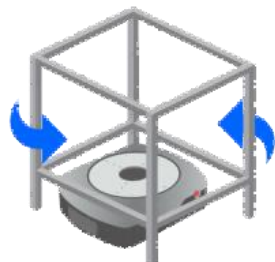




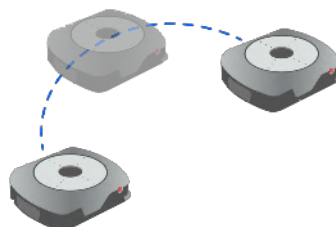
# Powerful Robot Functions, Ideal for Various Requirements



Wi-Fi roaming



Lifting and moving



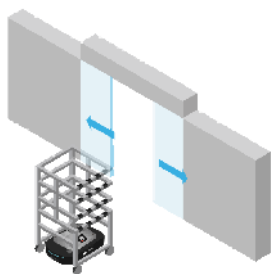
Skid detection



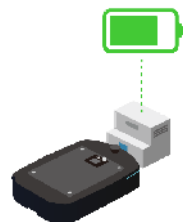
Depot collaboration



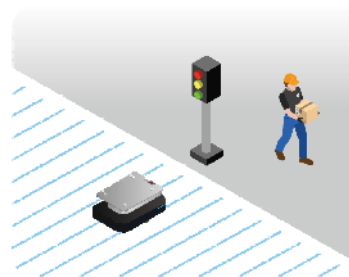
Laser SLAM



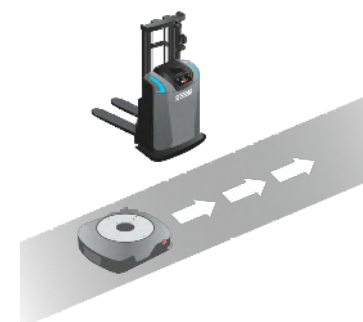
Access to elevators,  
automatic doors



Battery level  
management



Intersection  
traffic control



Multiple robot brands  
running in the same plant



Others





 Load Range: 1.4-3T

 High Performance

 AI Deep Learning

 Full Range Safety Protection



- SEER Stack Truck
- SEER Pallet Truck
- SEER Counterbalance Truck
- SEER Reach Truck
- SEER One Fork Truck





 Load Range: 300-1500kg

 Compact Size, Powerful Performance

 High Flexibility, 360° Rotation

 More Powerful Algorithms



- SEER Base AMR
- SEER Lifting AMR



# Lifting Robot: **AMB-1000JS**







# 04

## System Software

SEER Robotics System Software is comprised of M4 QuickStore, M4 QuickLight, M4 QuickGo, M4 QuickFleet, Fleet Management System (RDS), Visualization Product Series, which allows for digital industrial logistics.

# M4 QuickStore

The most powerful business brain for 「automated」 logistics.







# M4 QuickStore: Realizes One-stop Management



M4 QuickStore integrates RCS, WCS, and WMS functions in one, which reduces the cost of system connection and maintenance, and breaks the data silos between multiple systems.

## Fleet Management System (FMS / RCS)

Solve the problems of robot management and waybill management.



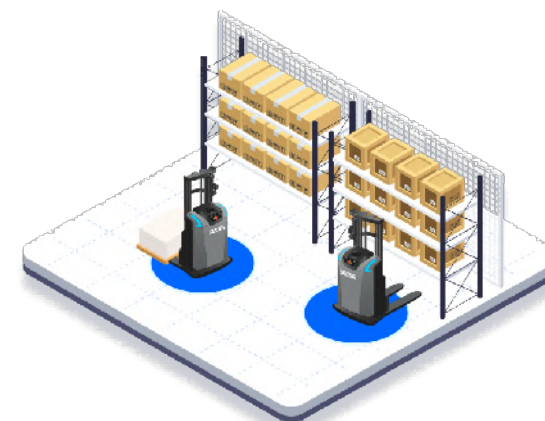
## Warehouse Control System (WCS)

Manage various devices that work with robots.



## Warehouse Management System (WMS)

Deal with warehouse operations like inbound and outbound.





# M4 QuickStore: Effortlessly Master Complex Business Scenarios



Great for automated logistics and fit the different customized requirements.

## Diversity Process Templates

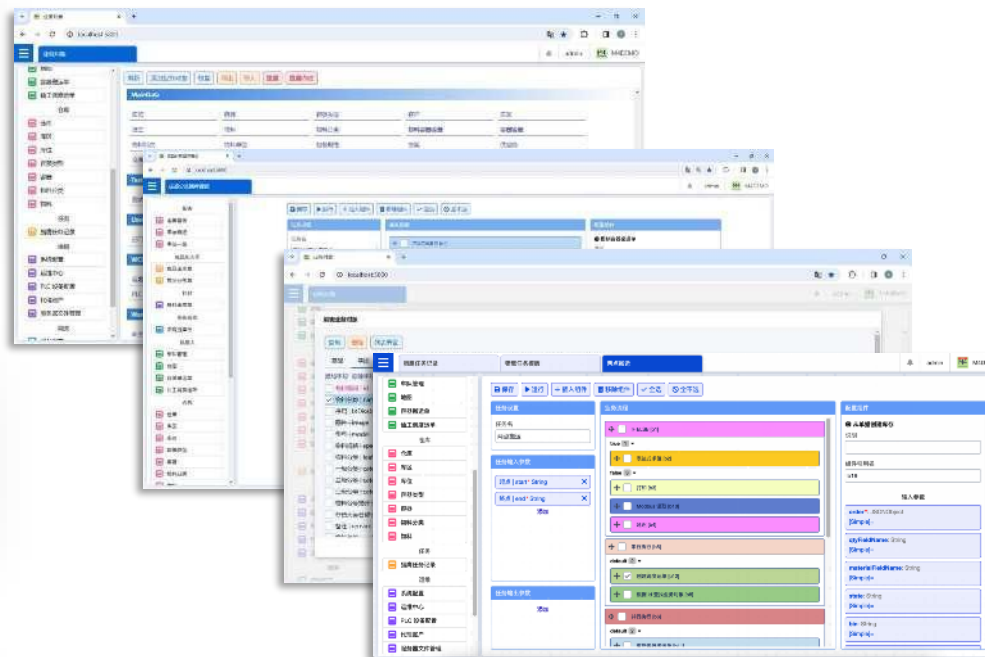
Rich system options cover various business operations such as inventory management, inbound and outbound, container binding, etc. Users can customize business process templates easily.

## Customized Interface Configuration

90% of the fields and function buttons can be configured as needed, such as the header and row.

## Low-Code Process Engine

Users can through simple drag-and-drop operations to realize complex business flow configurations. And through point-to-point handling, realize loop/parallel processing, multi-point material handling, etc.



## Multi-language Script Customized Development

Open to customize development based on standard products, and support customized development based on Web API, JavaScript, Python, Golang, etc.

## Multi-Terminal Management

Support the use of multiple terminals, like mobile phone, tablet, and industrial control computer, etc. Users can orchestrate tasks on mobile devices.

## One-to-many Coordinated Management

Support the scheduling of multiple robots of the same or different brands and support multiple types of devices.





# M4 QuickStore: Accelerate the Intelligent Upgrade of Automated Logistics

**1~3 months**

Rapid Deployment

**2~3 times**

Increase Efficiency

**80%+**

Labor Savings

The low-threshold, high-usability advantages of M4 QuickStore help users achieve high-efficiency, high-return automated logistics upgrades.

**1~2 years**

Swift ROI

**50+**

Integrators

# M4 QuickGo

Manage the robot by a cellphone to embrace intelligent robot dispatching.



## Control Vehicle Directly

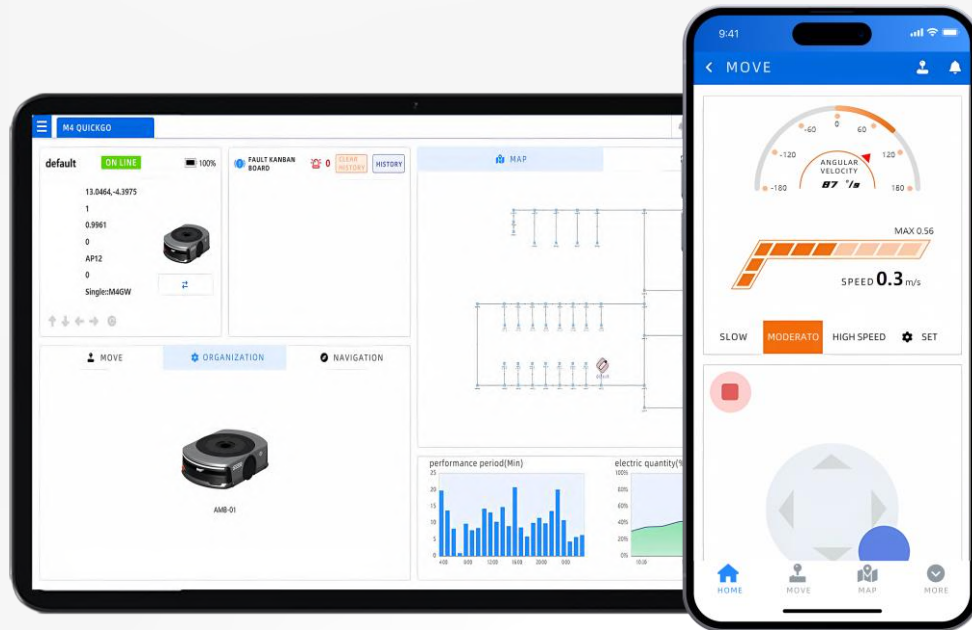
Control the open-loop movement of vehicles (forklifts, lifting robot, etc.) and the assembly of robots (forklift fork, lifting, etc.).

## Map and Path Navigation

Navigate the robots to a specific point with one-click and real-time updates on navigation progress.

## Single-vehicle Falcon Task

Extend more scenarios with a low-code process engine to respond to business process rigidity and change risks.



## Unified Interface Management

Provides a friendly interface to check real-time status about robots, waybills, navigation, etc., and manage them uniformly.

## Waybill of Single-vehicle

Specify multiple steps in a waybill, and specify a target point and action in each step.

## System/Equipment Integration

Interface with upper-level systems, like MES, WMS, WCS, etc., and interact with PLC equipment, such as roller lines, elevators, etc.

# S Product Superiority



Directly installed in controller, without additional servers, or industrial controllers, with excellent value for money.



M4 QuickGo has a virtual rocker to provide a smooth game-like vehicle control experience.



Phones, tablets, and other devices can access QuickGo by scanning the QR code or a data cable.



M4 QuickGo can be applied in multiple scenarios, such as program trial or validation, multi-vehicle scenarios without traffic control, complex scenarios of loading, unloading, transport, etc.

M4   
QuickGo

# RDS

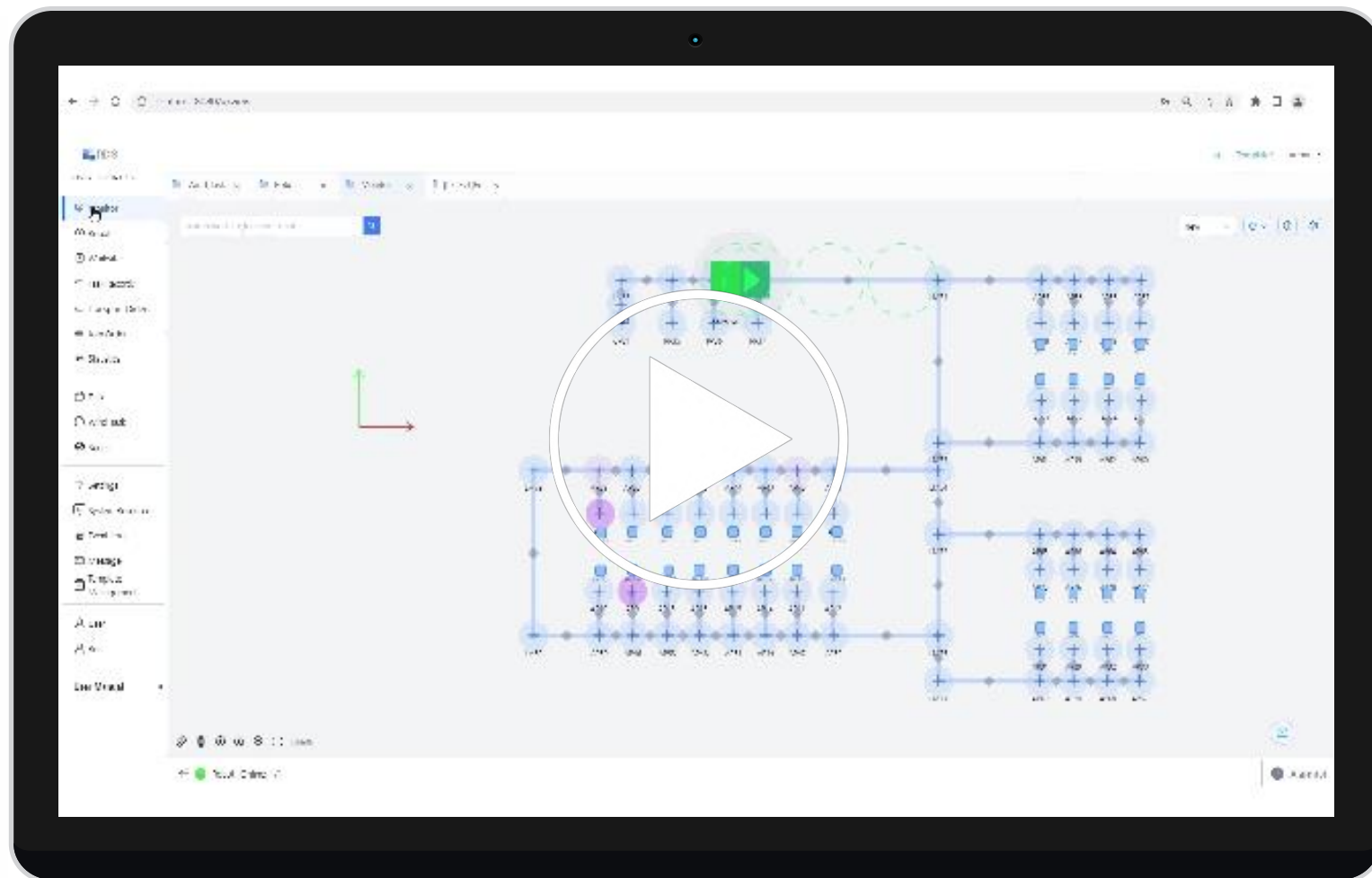
Fleet Management System







- Dynamic global collaborative planning despite environmental changes.
- Low code engine + online scripting, customize your own system.
- What you see is what you get, overall policy for business and dispatching.
- Thousands of project inspections, support for hundreds of AMRs.
- Free ride, pre-order, free of 「no-load anxiety」.
- Intuitive, interactive, user friendly.
- Hot Standby, data synchronization within seconds.
- 30+ Statistical dimensions, 100+ Script preset methods.



# Visualization Product Series

Meta-Map | Meta-Map Pro | Meta-World

Visualization Product Series are designed with data visualization technology at its core, specifically tailored for the intelligent digitalization of factories.

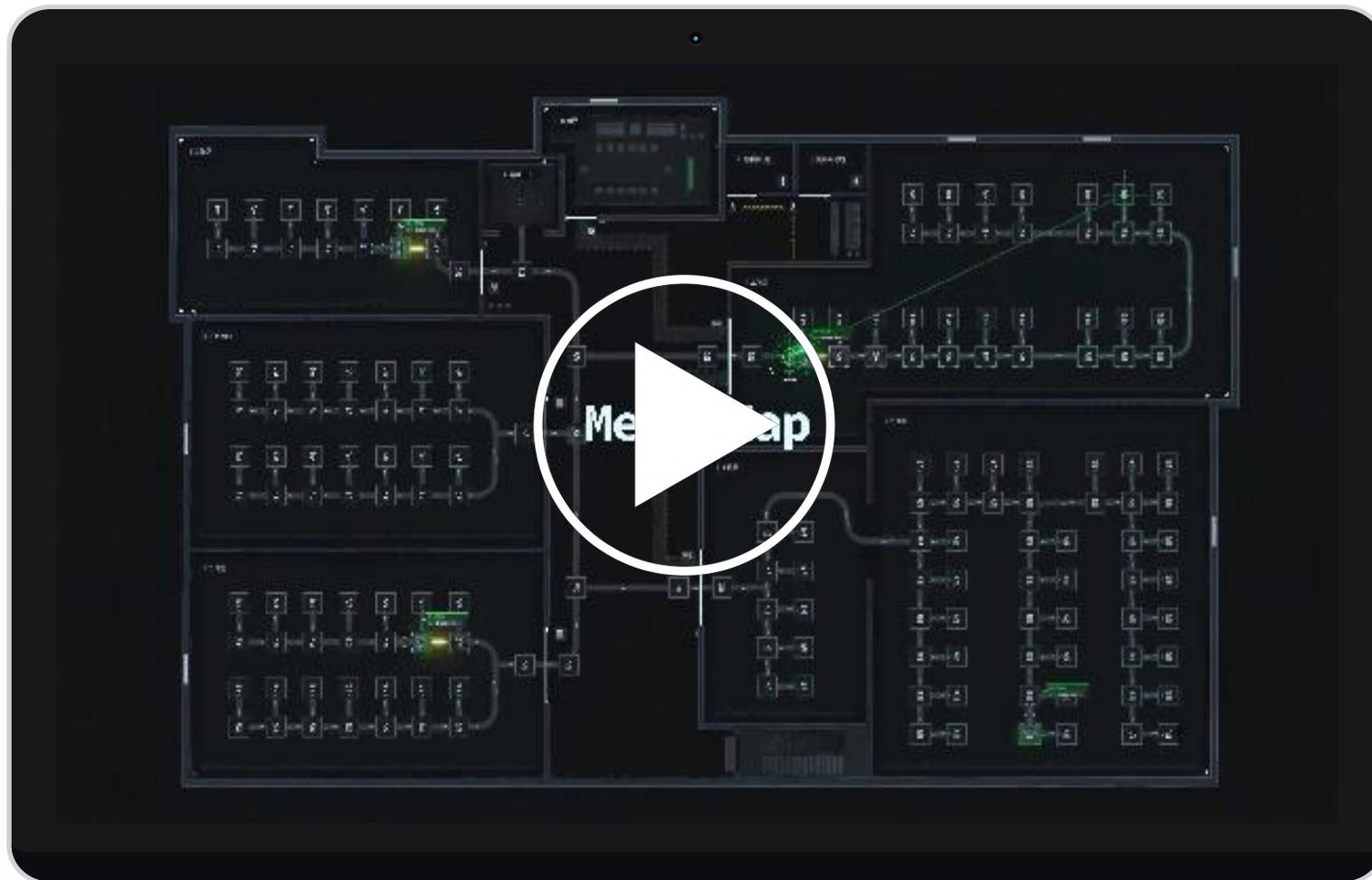




## Meta-Map

### Robot Visualization Map

- Full dynamic monitoring, rapid response to on-site situations.
- Global scene visibility, a 2D map displaying the overall environment.
- Real-time data feedback, and fleet status can be checked at any time.
- Target precise locking and display its operation route clearly.



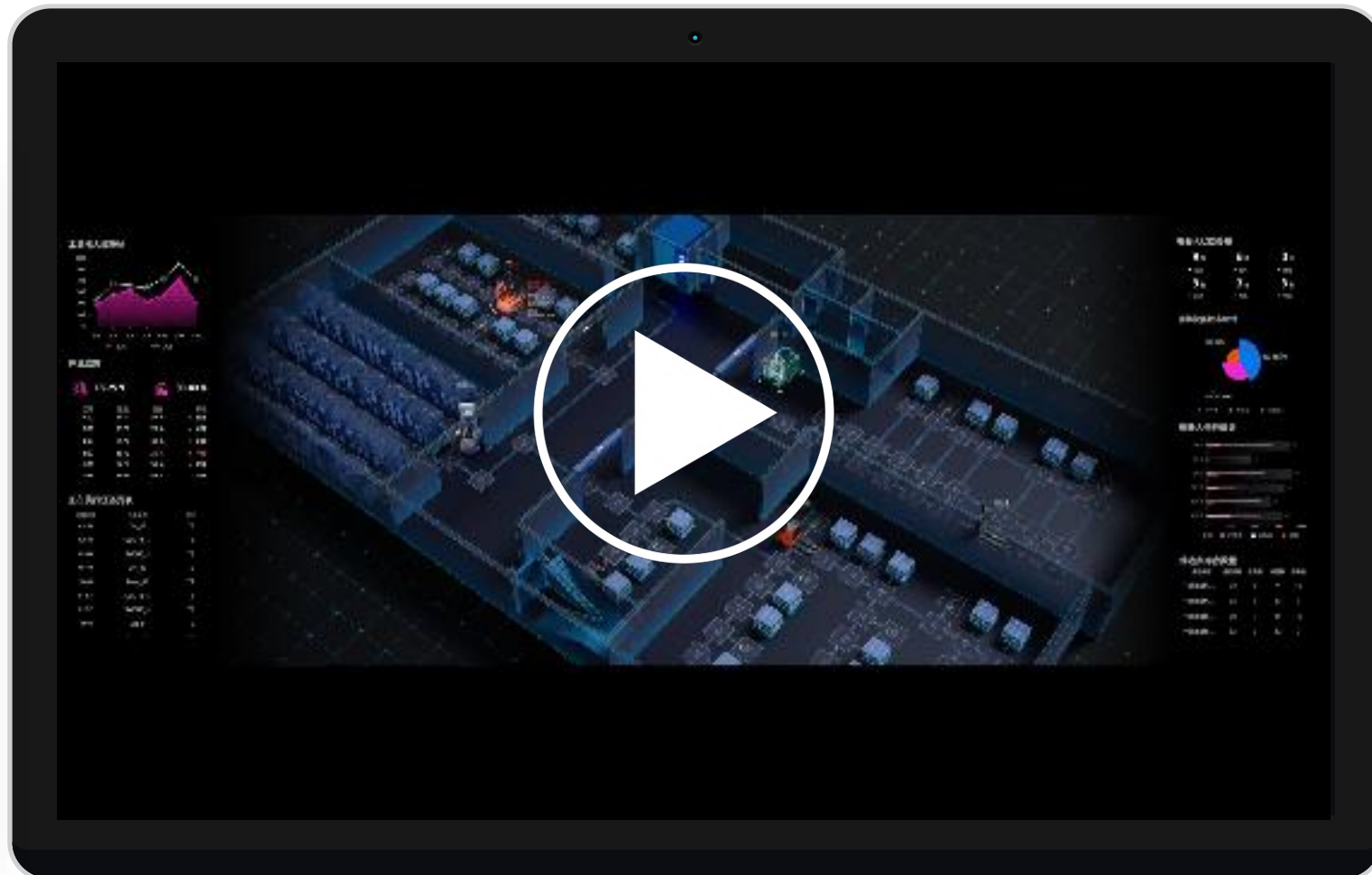


## Meta-Map Pro

### 3D Robot Visualization Map

- Creating 3D scenes, comprehensive build digital logistics.
- Interactive 3D simulation provides an immersive gaming experience.
- Fine-grained restoration of business flow, synchronized display of robot operation details.
- Full linkage visualization monitoring, real-time tracking of task progress.

\*Meta-Map Pro requires high-performance hardware support.







## Meta-World

### 3D Digital Twin

- Digital twin, precision replication at 1:1 scale.
- Technological film style visual effects.
- Intelligent monitor, real-time data response.
- A gamified interactive twin factory.

\*Meta-World requires high-performance hardware support.



**05**

**Case Studies**





# Case Studies: SEER Robotics Solution for Semiconductor Industry





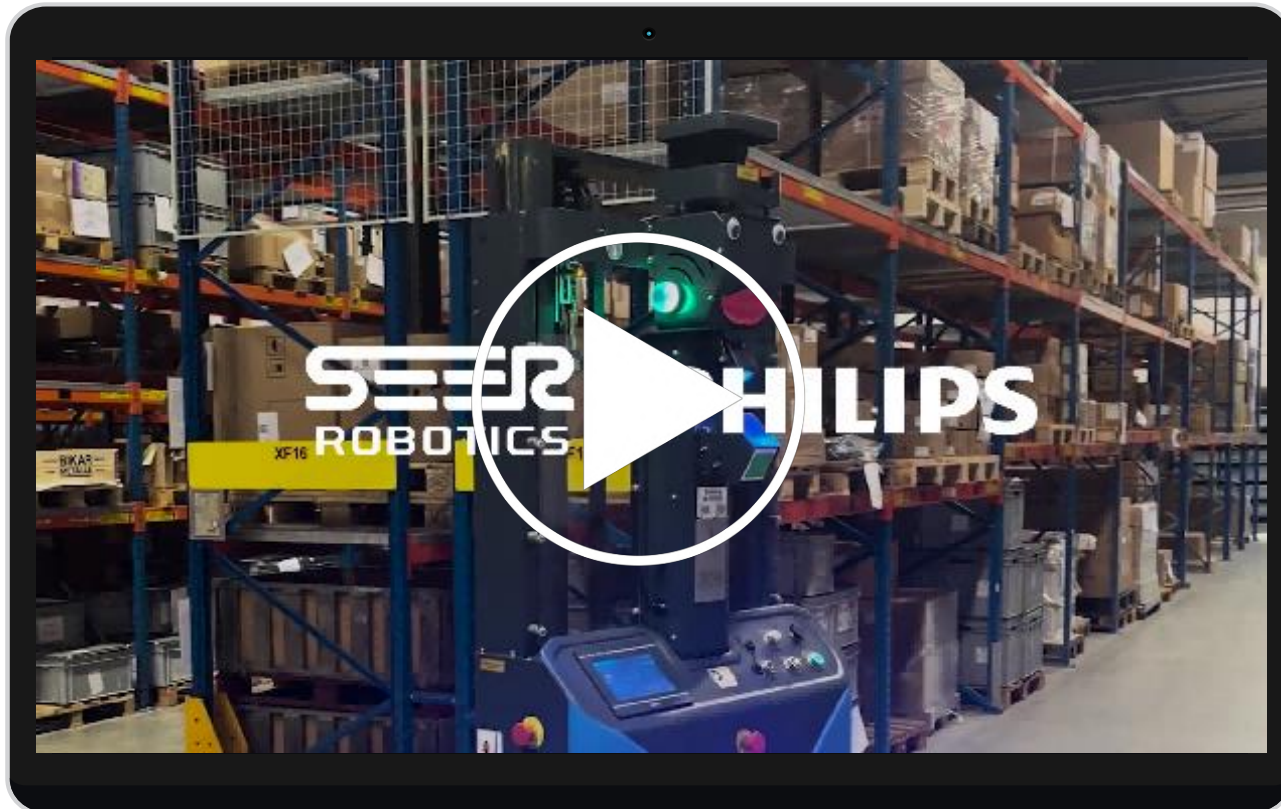
## Highlight

- RDS enables flexible robots dispatch through intelligent traffic control.
- Opening up the whole process of the packaging production line.



Product Portfolio: Base AMR + Counterbalance Truck SFL-CPD15-T





## Highlight

- Efficient Interactive Operations.
- Rotational Charging for Continuous Operation.
- Comprehensive Safety Assurance.
- Customized PDA for Quick Orders.



Product Portfolio: Stack Truck SFL-CDD14-CE



## Highlight

- Laser SLAM navigation, trackless autonomous operation.
- Efficient integration of lifting, handling and stacking workflows.



Product Portfolio: Stack Truck SFL-CDD14-CE



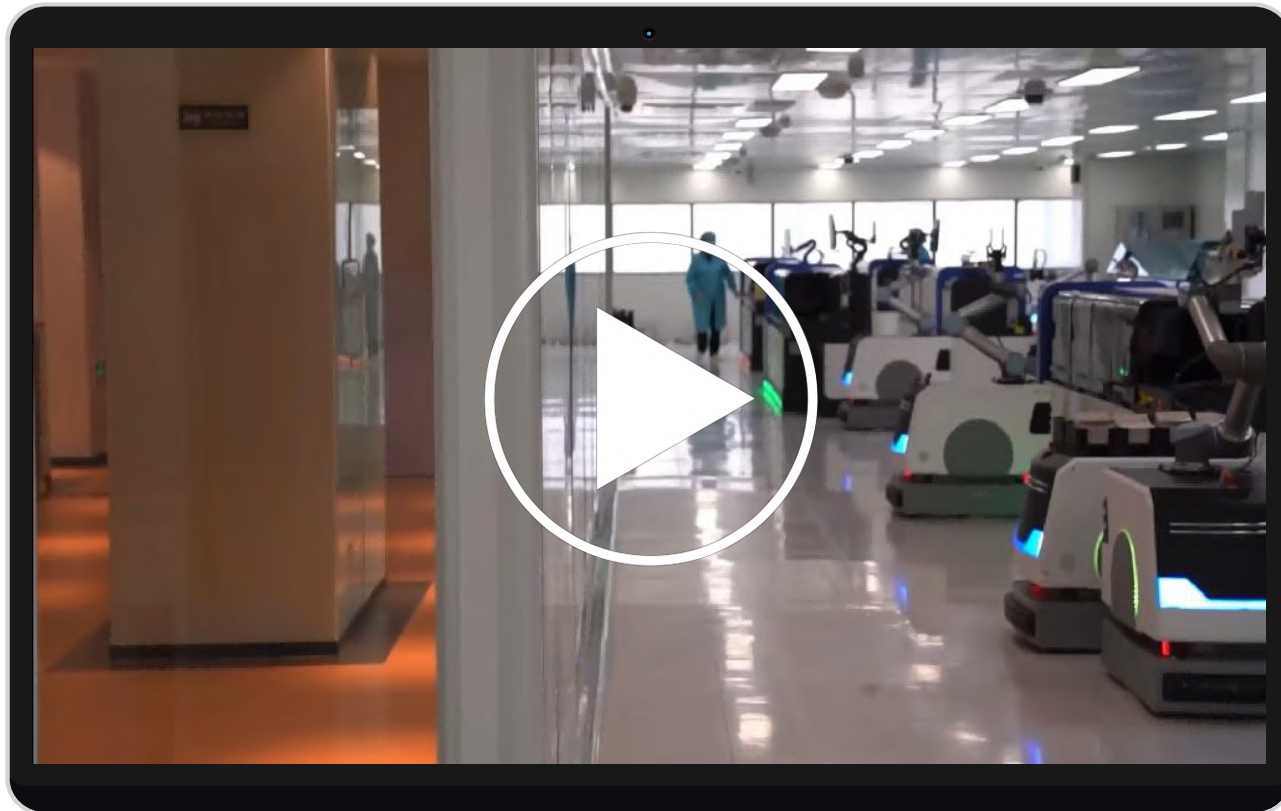
## Highlight

- AMR installs low-level laser scanner for total protection.
- Vision AI solution enables real-time warehouse, cargo intelligence detection.

Product Portfolio: Counterbalance Truck SFL-CPD15-T







## Highlight

- Based on SRC controller, the robot hand, eye and body achieve unified management.
- End positioning accuracy up to  $\pm 0.5\text{mm}$ .



Product Portfolio: SRC-2000 Controller (Customized Robot) + Composite Robot





# Case Studies: State Grid Corporation of China

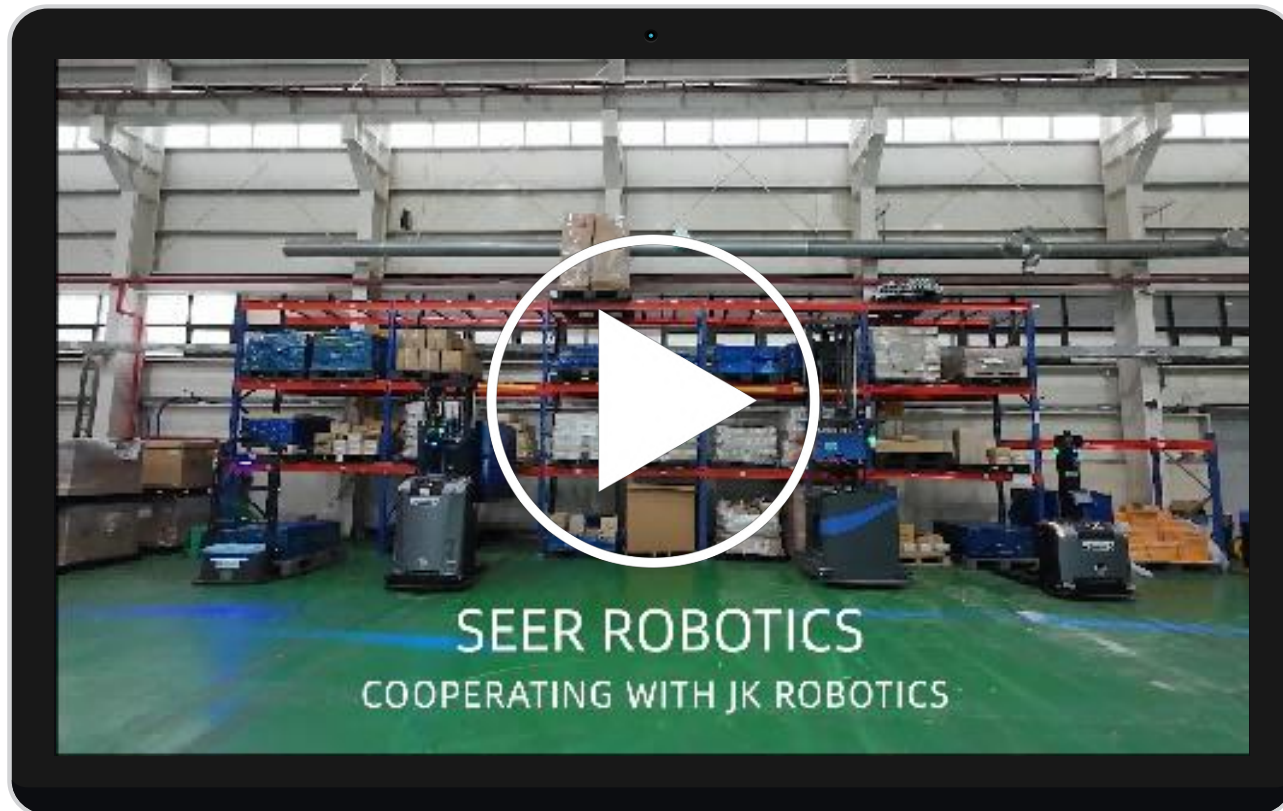


## Highlight

- Based on SRC controller off-standard robot realizes 3T heavy lifting.
- Laser SLAM navigation without changing the existing environment.



Product Portfolio: SRC-2000 Controller (3T Customized Lifting AMR) + Lifting AMR

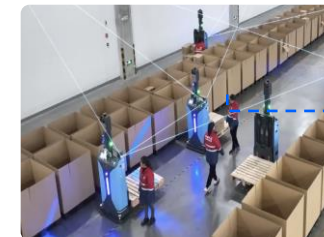
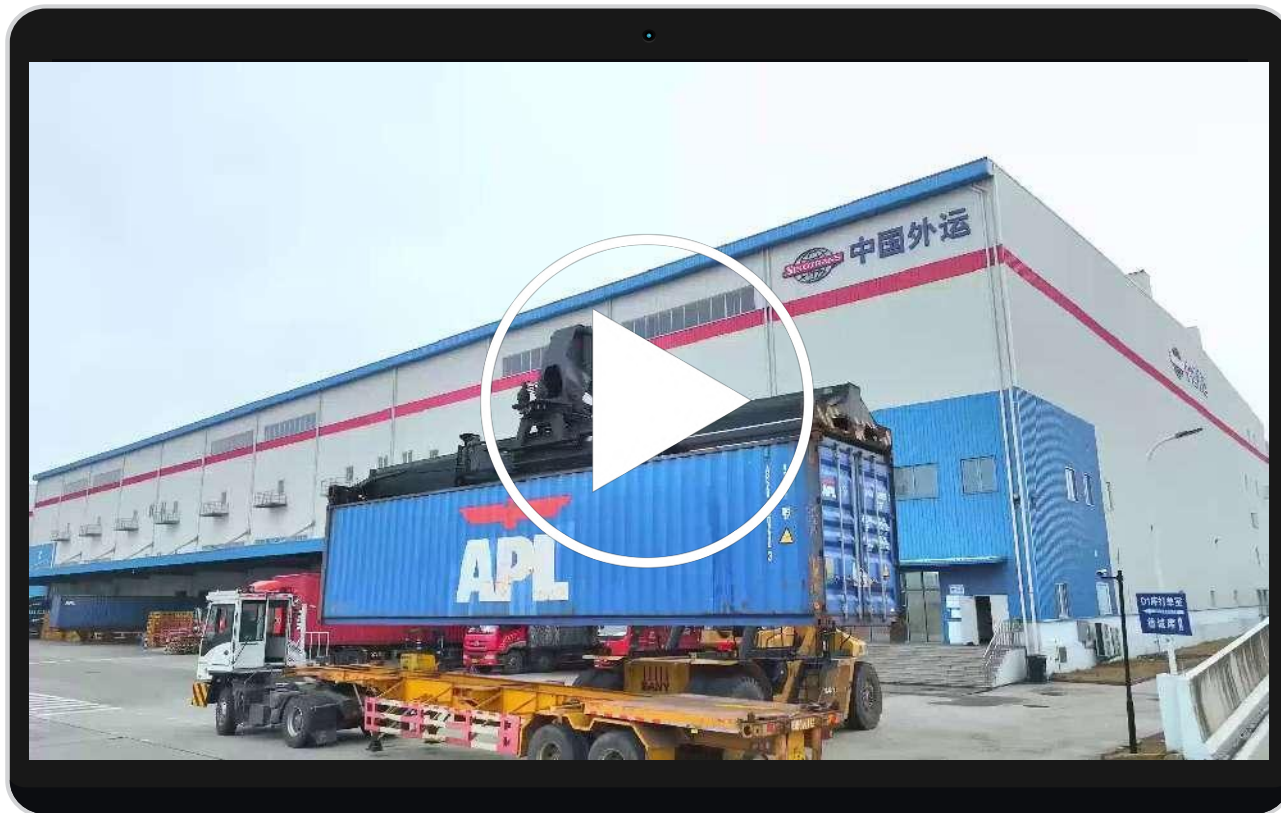


## Highlight

- Multi-type robots interaction, unified scheduling operations.
- Multi-scenario coverage of vertical storage and roller conveying.



Product Portfolio: Lifting AMR + Truck + CartonTransfer Robot



## Highlight

- SFL-CDD14 small slewing radius for hassle-free travelling in dense environments.



Product Portfolio: Stack Truck SFL-CDD14





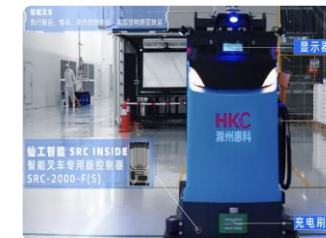
## Highlight

- AMB-300JZ supports all-round shelf recognition, and automatically corrects deviation after recognition.
- Customised map auto-update function.



Product Portfolio: Lifting AMR AMB-300JZ



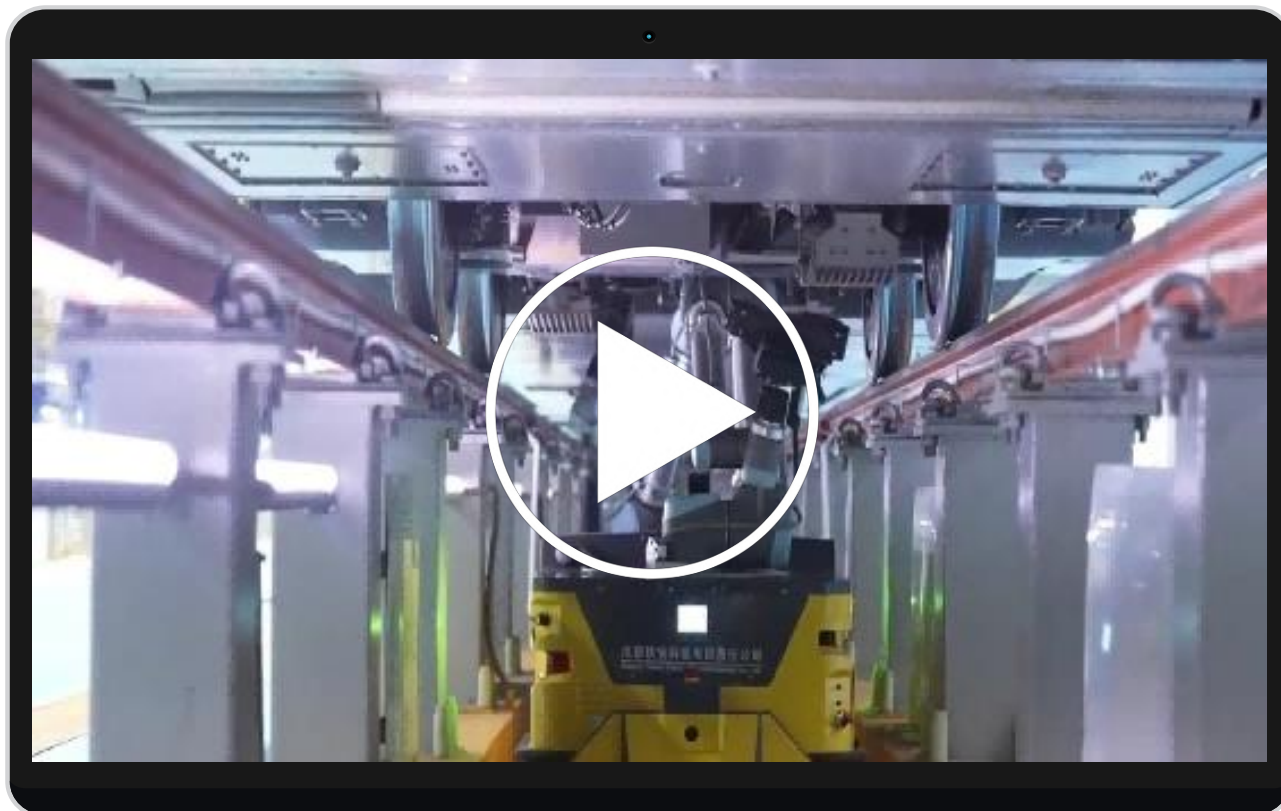


## Highlight

- SRC controller with RDS solves cross-district and cross-process freight forwarding problems.



Product Portfolio: SRC-2000 Controller



## Highlight

- LIDAR navigation for precise positioning, accurate scanning and comprehensive inspection.
- Inspection of eight carriages in just 40 minutes.



Product Portfolio: SRC-2000 Controller (Composite Intelligent Detection Robot)



# Shanghai Seer Intelligent Technology Corporation.

Build your own robot fleet within days.



[contact@seer-group.com](mailto:contact@seer-group.com)



WhatsApp: +86-18321029192



[www.seer-group.com](http://www.seer-group.com)