ROBUSTMOTION

Strive to Provide More Precise & Reliable

Maglev Conveyor Systems & Electric Actuators



CONTENT

01 About Robustmotion

02 SoftForce® High-precision Force Control System

03 MagiFloater®

About Robustmotion

Driven by technology and innovation,
RobustMotion pioneers industrial advancements.

We developed the industry-leading MagiFloater®, a cutting-edge planar magnetic levitation system, and provide globally recognized, high-precision electric actuators and intelligent conveyance solutions.



Employees	400+	
Annual Capacity	100K+ sets	
Product Models	200+	
Customers Served	1000+	

HEADQUARTER	|	Foshan
BRANCHES	|	Suzhou / Shenzhen / Nanjing
OVERSEAS NETWORK	|	Hong Kong / Taiwan / Japan / Korea / Thailand / Vietnam / India / Germany / Switzerland / Brazil / USA / Singapore

- National High-tech Enterprise
- National High-tech Small and medium-sized enterprises
- Guangdong Province Specialized and New Enterprise
- Guangdong Province Doctoral Innovation Station

Company Milestones

2015-2018

Developed **the 1st generation of intelligent drive-and-control integrated controller** & electric gripper products

Entered the intelligent actuator system field
Launched linear actuator series

2019-2020

Joined Foxconn's Digital Eco-Partnership Network

Recipient of GGII Annual Best Product Award for two consecutive years

Launched more electric grippers series

Successfully developed the **industry's first high-precision force control system**, with force control accuracy reaching up to ±0.01N

2021-2022

Certified **National High-Tech Enterprise** (NHTE)

SoftForce® precision force control technology advances to version 3.0, reaching 10kHz processing frequency

Serving over 1,000 clients worldwide

2023

Secured strategic investment of nearly hundred million RMB, led by **Bosch Ventures**

Launched MagiFloater®, China's first planar maglev transport system

Designated as Guangdong Province "Specialized and Innovative Enterprise"

2023 Robot System Integrator Quality Supply Chain Enterprise

Released revolutionary cost-effective EGB electric gripper series, replacing traditional pneumatic solutions

Relocated to new RM Technology Center, expanding production capacity 10-fold

2024

MagiFloater® won **"Technical Innovation Product of the Year"** at the 10th CAPEK Awards among other industry honors

Co-authored China's first Magnetic Levitation Industry White Paper

Total shipments grew 100%; global sales network expanded to 10+ countries across three continents

CEO Anjie Huang received "CMCD Motion Control Pioneer Award"

2025 – Present

Secured nearly hundred million RMB financing, led by **Jiangsu Yida Capital** (State-owned)

Annual revenue grew over 100%

Participated in formulating two national standards for maglev; published group standard for Magnetic Levitation Conveyance Systems

Awarded CMCD Most Competitive Brand in Motion Control; OFweek Most Competitive Enterprise

Established Guangdong Province Doctoral Innovation Station

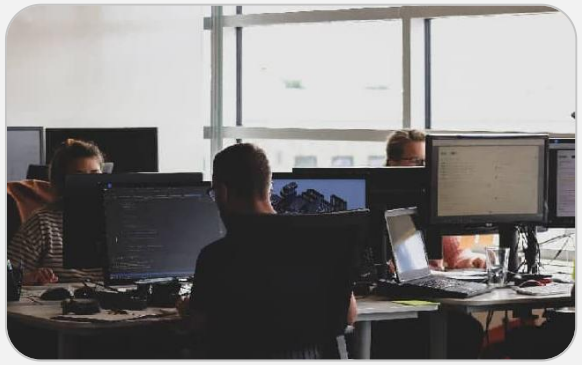
Cross-disciplinary Innovation R&D Team

Chief Scientist
Professor Song Aiguo (and his doctoral team)



- Among Global Top 2% Scientists
- Pioneer in Chinese Haptics Research
- Professor and PhD Supervisor, School of Instrument Science and Engineering, Southeast University
- National Science Fund for Distinguished Young Scholars Recipient
- Chinese Youth Science and Technology Award Winner
- National Talent Project candidate
- Outstanding National Science & Technology Worker
- Distinguished Professor of Jiangsu Province, Chair Professor at Southeast University

Elite R&D Team with Exceptional Talent
Core Algorithms, Electronic, Mechanical Engineering, Product R&D





- ASML
- TU Eindhoven
- Southeast University
- Shanghai Jiao Tong University
- Harbin Institute of Technology
- South China University of Technology
- .....

100+ Patents

15%+ R&D Investment

30%+ R&D Professionals

50%+ Engineering Professionals

Industry Awards and Reputation

60+
Industry Awards & Honors



- 2024 CAPEK Innovative Product of the Year
- 2023 Scientific & Technical Award, Guangdong Robotics Association
- 2023 Outstanding Supply Chain Enterprise in Robot System Integration
- 2023 CMCD Award in Motion Control
- 2022 Leading Entrepreneur, Suzhou Industrial Park
- 2022 Best Robot End-Effector Compatibility Award, China
- 2022 Outstanding Supplier Award for Robot End-Effectors
- 2019-2023 GGII Golden Globe Award.....

20+
Industry Association Memberships



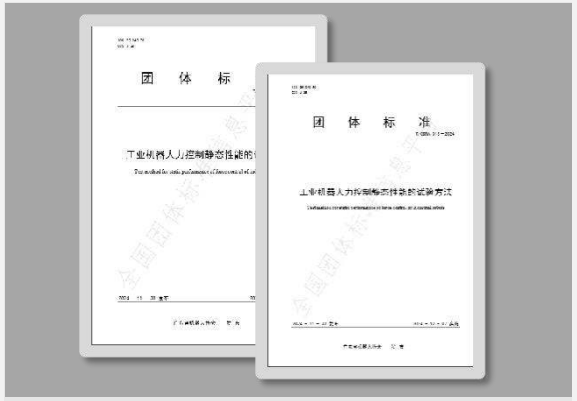
- Member of Force Haptic Perception and Interaction Professional Committee of China Instrument and Control Society
- Member of CAMETA（PI·China）
- Member of China Motion Control Industry Alliance
- Member of CLPA
- Member of Guangdong Robotics Association
- Board Member of GAMDI
- Member of Suzhou Robot Industry Association
- Member of National Robotics Industry-Education Integration Community.....

4
Industry Reports Contributions



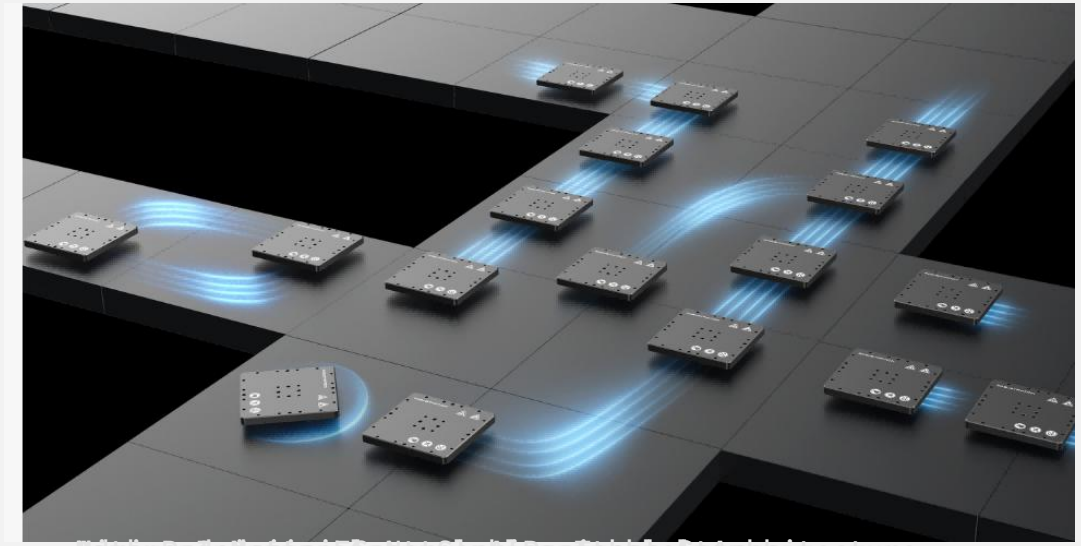
- 2026 Robotics Industry Engine, Empowerment & Development Blue Book
- 2024 White Paper on the Industrial Development of Magnetic Levitation Flexible Conveying Systems
- 2023 Blue Book on the Innovative Development of the Smart Manufacturing Industry
- 2022 Blue Book on the Development of Robot Applications in the Semiconductor Industry
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4
National/Industry Standards Formulation



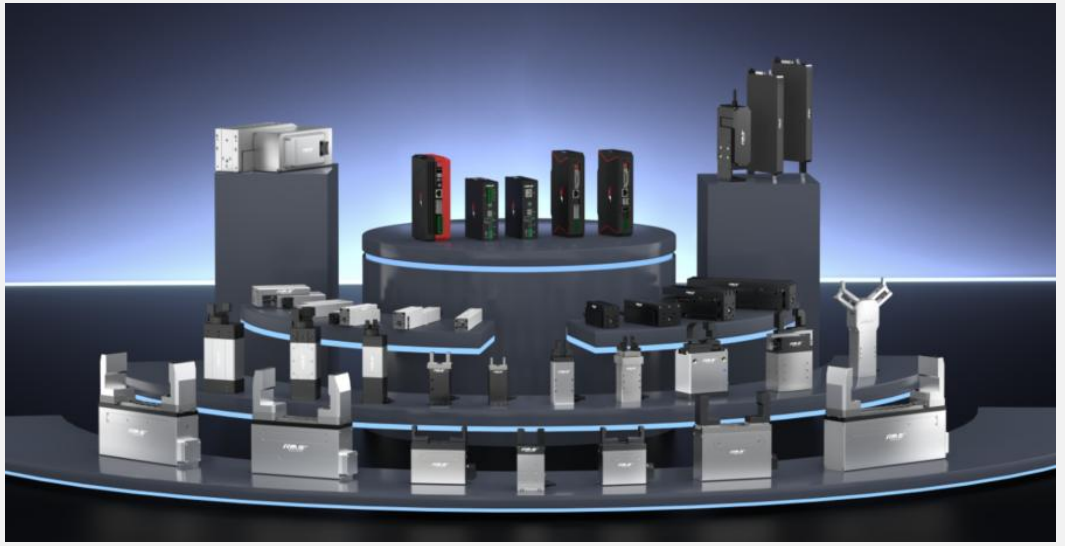
- T/GDRA 013—2024
  Test Method for Static Performance of Force Control of Industrial Robots
- T/CIET 1629—2025
  Technical Requirements for Magnetic Levitation Transport Systems"
- .....

Core Products



MagiFloater®

Planar Maglev Intelligent Conveyor System



Intelligent Electric Actuators

Electric Grippers | Rotary Grippers | Lithium Battery Grippers | Electric Linear Actuators | Linear-Rotary Actuators

Proprietary Core Technology

- **Advanced Motion Control Algorithms & Architecture AI Intelligent Scheduling**
- **High-Precision Force Sensing Technology Maglev Drive & Precision Force Control**
- **Native Industrial Network Protocol Stacks Native Development**
- **Precision Mechatronic Design & Process Integration**

Actuators - Complete Portfolio, One-Stop Solutions

ROBUSTMOTION

01



SoftForce®Electric Actuators

- Industry-Leading Technology
- Closed-loop ForceControl
- Data Acquisition Features

No.1

National Sales Leader in
Precision Force Control Actuators

02



Intelligent Electric Actuators

- Advanced Motion Control
- Intelligent & Reliable
- 100+ Models Available

1000+

Multi-Industry Applications
100,000+ Annual Volume

03



Economic Electric Actuators

- Alternative to Pneumatic Grippers
- Cost-effective
- Outperforms Pneumatic Grippers

SAVE

43%

Lower Total Cost of Ownership (TCO),
Compared to Traditional Cylinders

Product Overview

Intelligent Electric Actuator Series

Electric Gripper Series



- RM-EGB — Compact Electric Finger
- RM-MGBD — Micro Gripper Double Claws
- RM-GBM — Micro Gripper (ITG)
- RM-GB — Servo Gripper
- RM-GBTD — Tri-proof Gripper (IP67)
- RM-MFGB — Long-stroke Gripper (IP55)
- RM-RGM — Servo Rotary Gripper (ITG)

Linear Actuator Series



- RM-NPLA/FPLA — Micro Platform type Linear Actuator
- RM-WRPLA — Wide Platform type Linear Actuator
- RM-SLA / RM-RLA — Straight/Folding Linear Actuator
- RM-PLA / RM-RPLA — Straight/Folding Platform-type Linear Actuator

Direct-drive Actuator Series



- RM-ZR / ZRS — Direct-drive Actuator
- RM-PVCS — Direct-drive Micro Platform-type Actuator

Flexible	Intelligent	Reliable	Multi-Action
■ Adaptive Gripping/ Pressing ■ Compliant Gripping/ Pressing ■ Grip/Press Confirmation	■ Auto Pass/Fail Inspection ■ Auto ID/OD Measurement ■ Zone Output	■ Power-off Self-lock/Hold ■ Drop Detection ■ Stable Force Output	■ Bi-directional Force Control ■ Torque Homing Mode ■ Multi-Protocol Host Support ■ **Multi-point Combined Motion Control**

SoftForce® Electric Actuator Series

SoftForce® Electric Gripper Series



- RM-MGBD-F — SoftForce® Micro Gripper-Double Claws
- RM-GB-F — SoftForce® Servo Gripper

SoftForce® Linear Actuator Series



- RM-NPLA-HF — SoftForce® Micro Platform-type Linear Actuator
- RM-SLA-HF — SoftForce® Straight Linear Actuator
- RM-RLA-HF — SoftForce® Folding Linear Actuator
- RM-PLA-HF — SoftForce® Straight Platform Linear Actuator
- RM-RPLA-HF — SoftForce® Folding Platform Linear Actuator
- RM-WRPLA-F — SoftForce® Wide Platform-type Linear Actuator

SoftForce® Direct-drive Actuator Series

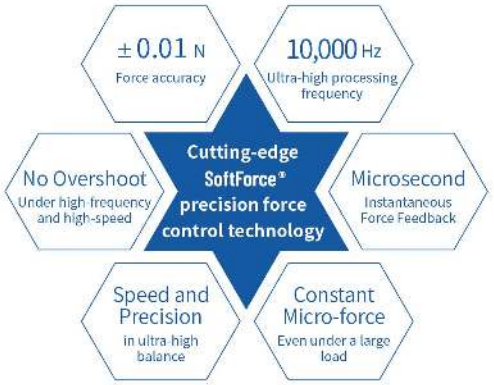


- RM-PVCS-F — SoftForce® Direct-drive Micro Platform-type Actuator

SoftForce® Electric Tightening System



- RM-TS — SoftForce® Servo Nutrunner



Precision Transfer	Precision Assembly
Precision Pressurization	Precision Inspection
Ultra-precise Workpieces	Deformable Workpieces
Fragile Workpieces	High-value Workpieces

Leading Integrated Motion Control System

ROBUSTMOTION

Broad Protocol & Motor Support

Supports major industrial fieldbuses and mainstream motor types.

Smart Force-Position Control

Precision force-position tuning with real-time motion feedback.

High-Performance Servo Control

Precise, reliable, delivers optimal servo performance.

Easy Integration

Rich interfaces, simple deployment.

Preset control functions

Ready to use out of box.

Ultra-Fast Response

Microsecond-level response time for instant motion command execution.



Drive-and-control Integrated Controller

Precision Motion Control Technology & Software Platform

ROBUSTMOTION

Multi-point Command Control

- Simultaneously adjust parameters like pushing force, position, speed, and acceleration/deceleration; the actuator can flexibly perform more complex motion combinations.
- No code required, form-based programming greatly simplifies teaching.

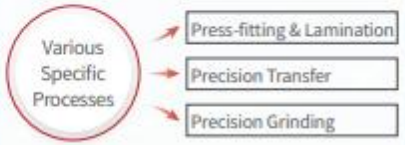
Force-Position-Time Data Acquisition and Analysis

- Collect process data in real-time or offline, simultaneously generating force-time and force-position graphs to aid in process quality optimization.

Automatic Process Judgment System

- Through mass data acquisition and analysis, combined with AI algorithms, it automatically judges the OK/NG of process quality.

Customized Process Package



Multiple Mainstream Communication Methods

- Supports host computers with various protocols;
- Natively supports most mainstream protocols on the market, no gateway required (requires selection of external controller model).

Secondary Development

- Provides SDK and complete APIs, supporting programming languages and system environments including but not limited to Labview, C#, C++, Python, etc.

RMS Debugging Software Platform



Manufacturing Excellence

Full-Cycle Quality Control

- IQC/IPQC/OQC Full Coverage
- 100% Automated Final Inspection
- Traceable Production Data



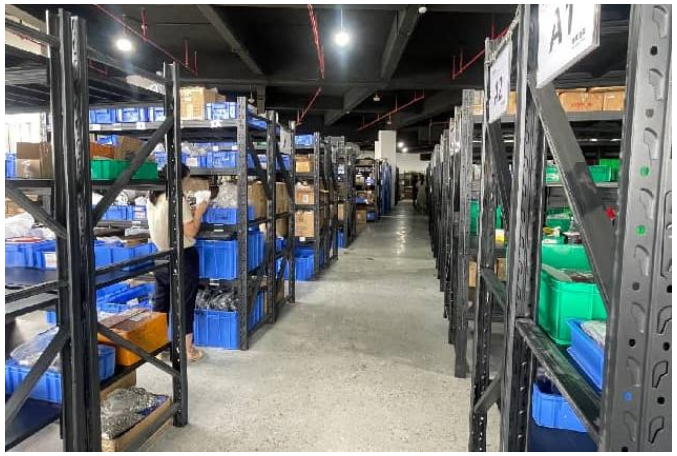
Production Capacity & Delivery Assurance

- 10,000㎡ Production Facility
- Digital MES Management
- Standardized Operating Procedures

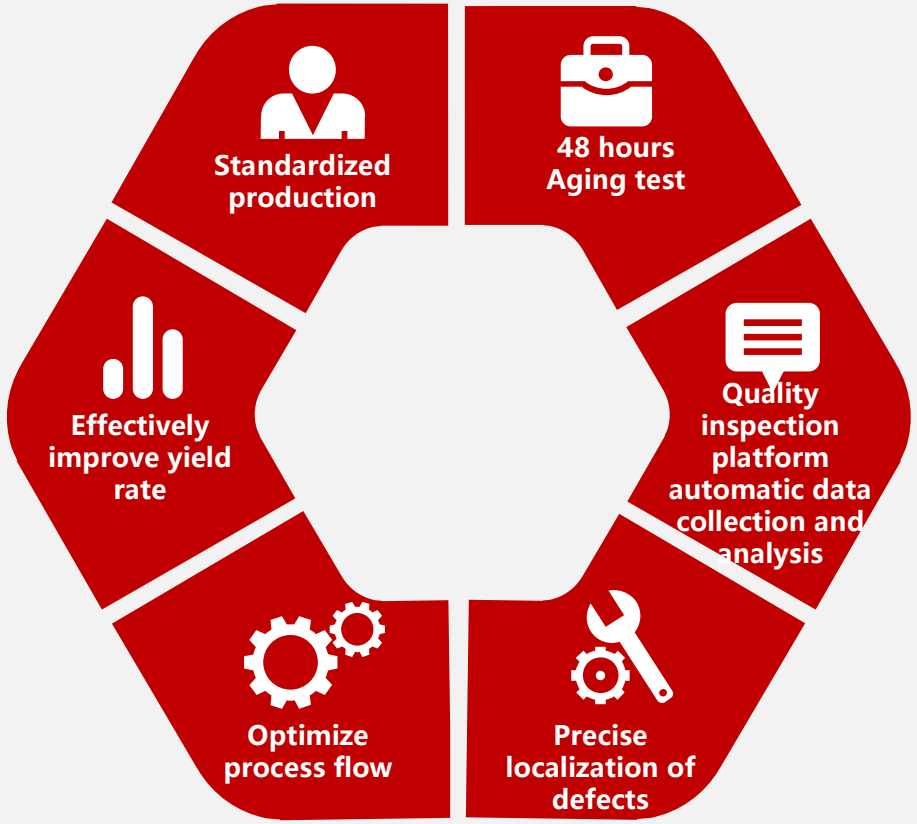


Supply Chain Management & Assurance

- Core Components Self-Developed
- Key Supplier Qualification Audits
- Standard Products with Safety Stock for Fast Delivery



Premium Quality Standards





ISO9001
Quality Management System



IPMS
Intellectual Property Management System



CE



RoHS



Certified High-Tech Products:
Guangdong Province Recognition

Professional Customer Support

Pre-sales



Online Product selection consultant



Process solutions technical consulting

In-sales

TEST

Process/ sample testing



Online/offline usage training



On-site support

After-sales

7x24

Online customer service

In-Time

Quick response in after-sales support

VIP Customer Service (Fast Service Channel)

- Product project evaluation/customization
- Specific Detailed Process Simulation
- AnalysisOn-Site Customer Testing
- Inspection and Delivery
- Deliver training
- Support for Small-Batch Trials
- On-Site Production Line Service
- 7x24 Hour Rapid Response
- Localized Spare Parts Inventory
- Key Production Line Field Trials

Broad Industry Applications



3C Electronics



Semiconductor



Lithium Battery



Biomedical



Automotive Assembly



Intelligent Equipment

Trusted by Industry Leaders

ROBUSTMOTION

3C Electronics

FOXCONN · HUAWEI · BOZHON 博众 · 领益智造 LY iTECH · 舜宇光学科技 SUNNY OPTICAL TECHNOLOGY · 德龙激光 DelphiLaser

New Energy

CATL 宁德时代 · CALB · LEAD 先导 · UW 联赢激光 UNITED WINNERS · 赢合科技 YINGHE TECHNOLOGY

Biomedical

华大基因 BGI · KEYA MEDICAL 科亚医疗 · MicroPort · Bioscience 博奥赛斯 · NAYO LAB

Auto Assembly

Mercedes-Benz · BMW · SUNWODA 欣旺达 · molex · BOSCH

Semiconductors

CYG 长园 · HSET 大族半导体 · HISILICON · SMIC · NAURA 北方华创

CONTENT

01 About Robustmotion

02 SoftForce® High-precision Force Control System

03 MagiFloater®


ROBUSTMOTION
ROBUSTMOTION - SoftForce®
The Cutting-edge High-precision Force Control System

Pioneer in Force Control, Setting Industry Benchmarks

2019

Launched SoftForce®1.0

500Hz Processing Rate



GGII Golden Globe Award (2019)

2021

Advanced to SoftForce®3.0

10,000HzProcessing Rate



Awarded Innovation Technology Award of 2022

2023

Certificated as "National Leading Technology"



Official Announcement of Expert Review Results

The 1st China Force and Haptic Committee was established



CEO Appointed to Executive Committee

Exceeding Hundreds of Industrial Force Control Applications



Multi-axis Precision Force Control Technology Wins 2023 CMCD Award

2024

Leading the Development of Force Control Standards



Group Standard: Industrial Robot Force Control - Static Performance Test Methods

Industry-leading High-precision Force Control Technology

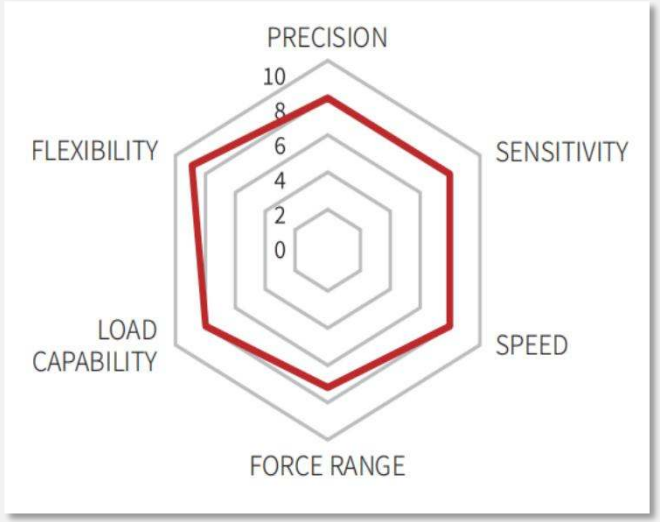
RobustMotion Originality

SoftForce® precision force control technology

±1‰ / ±0.01N

10,000Hz processing frequency

- High Force Control Precision
- High Compliance
- High-Speed and High Load Capacity
- Overload Resistance
- High Sensitivity



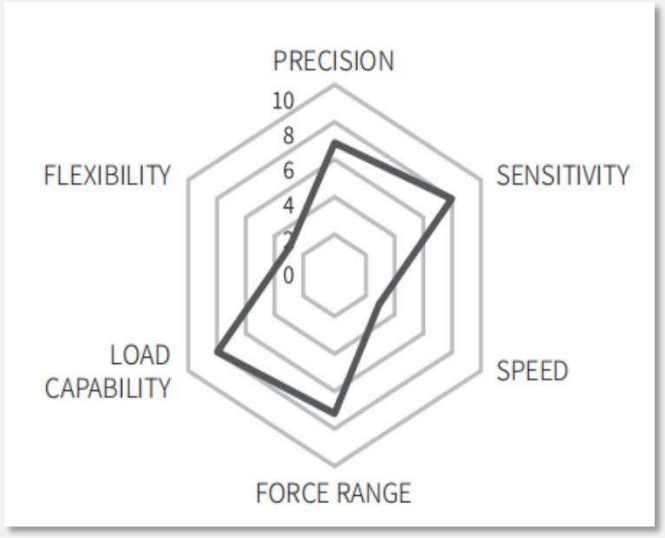
Common Actuators

Conventional Sensor-Based Force Control

±1%

Force Accuracy

- Hard to control, overshoot



Common Actuators

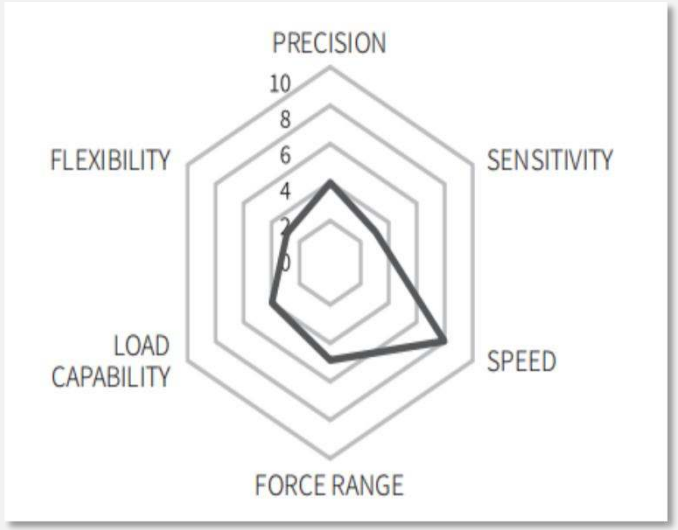
(Includes RobustMotion Intelligent Electric Actuator)

Current Loop Force Control

±5-15%

Direct-drive Force Control ±3-5%

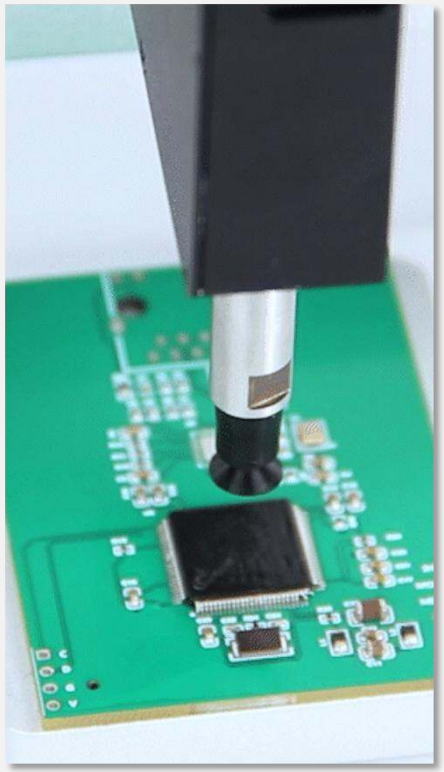
- High Speed with Limited Force Precision and Overshoot Issues



Industry-leading High Precision Force Control Technology

Faster

10,000Hz Processing for Enhanced Performance



Softer

Dynamic compliant force control



More Precise

Force control accuracy ±0.01N



More Accurate

High-Speed Operation without overshoot



Core Value of SoftForce® Precision Force Control

ROBUSTMOTION

1 Higher Yield Protect High-Value Components

±0.01N force accuracy, microsecond real-time force feedback & soft-landing technology, eliminating impact damage and batch variance.

2 Speed & Precision Faster Cycle Time

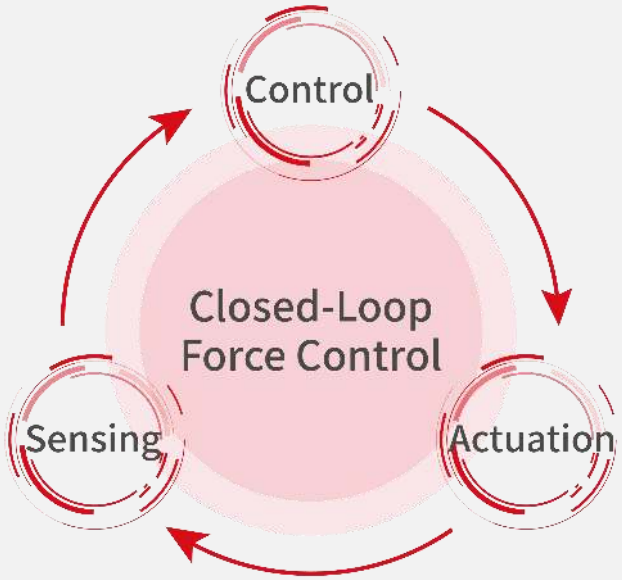
Proprietary force-position-velocity hybrid control delivers both high speed and high precision, improving cycle time and line efficiency.

3 Real-Time Data Full Traceability

Real-time force, displacement, and time data logging for 100% quality monitoring and traceability.

4 Highly Integrated Easy Commissioning

complex system, delayed response, difficult integration, long commissioning, high maintenance.



Powered by SoftForce® Efficient Force Control Algorithm

Industry-Leading SoftForce® Precision Force Control Solving Industrial Force Control Challenges

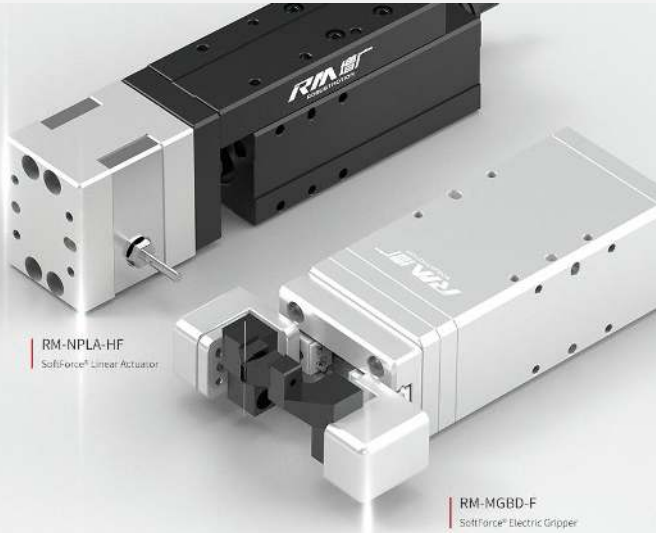
Force Accuracy ±0.01N

Control Frequency: 10kHz

High-Speed Instant Force Feedback

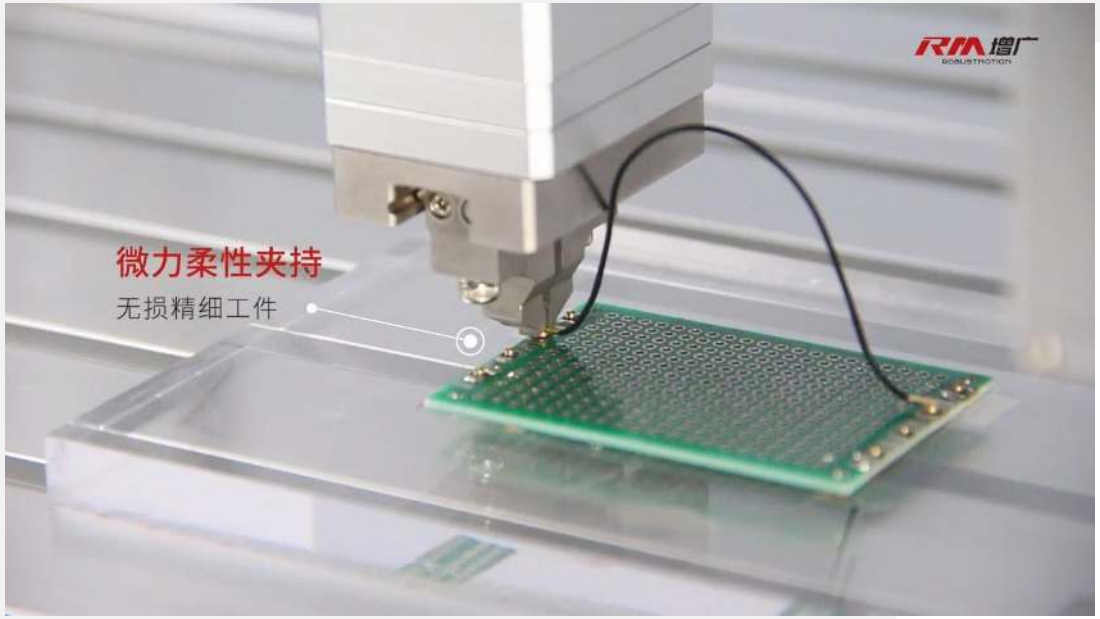


Online/Offline Force-Displacement Data Logging



More Precise | More Intelligent | More Reliable | More Compatible

Applications in 3C Electronics



- IPEX connector assembly in mobile phone manufacturing remains largely manual due to component size.
- The AI-powered Force Control System uses vision positioning for precise automated assembly, completing each operation within 6 seconds, reducing labor costs.
- Real-time force monitoring enables data-driven process analysis and optimization.



RM-MGBD-F
SoftForce® Electric Gripper

+



RM-RPLA-HF
SoftForce®Linear Actuator



RMS Software Platform

High-Precision Force Control for Precision Manufacturing

Precision Pressure-holding

Precision Pressure-holding and Pre-bending of FPC Flexible Cables



- FPC flexible cables (also known as flexible circuit boards) are widely used inside smartphones, AI glasses, smart wearables, etc. FPCs have irregular shapes, are small, thin, lightweight, and have complex internal structures. Their pre-bending process requires the actuator to have a constant output force accuracy and for the end-effector to be high-temperature resistant.
- Typical Application: Using multiple sets of RobustMotion® SoftForce® Linear Actuators (RM-RPLA-HF Series) in conjunction with electric grippers and custom fixtures, it is possible to apply precise, constant pressure-holding to the entire irregular flexible cable simultaneously. This ensures one-time forming without spring-back and without damaging the internal structure.

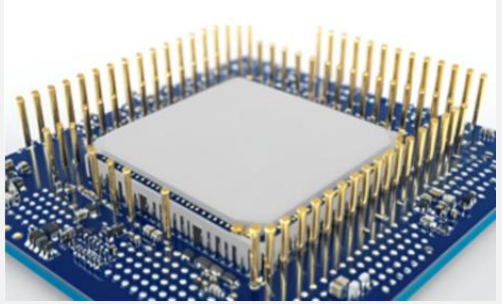
Precision Force Control Pressure-holding for Hot Bar Soldering Pads



- Commonly used in force control pressure-holding processes for mold soldering pads in heating and soldering stations or die-cutting automation equipment in industries like 3C electronics and automotive electronics.
- Typical Configuration: A group of 4 RobustMotion® SoftForce® Linear Actuators, carrying a soldering head heated to a specific temperature, apply a constant pressure of 45N±0.5N to the soldering pads for 90 seconds. Consistent spacing between soldering points is required to ensure high consistency of the pressure-holding process.

Precision Press-fitting

Precision Press-fittingFlexible Press-fitting of PINs for Automotive Electronic Pressure Sensors



- Excessive pressure during PIN press-fitting can cause bending, while insufficient pressure leads to poor contact. It is necessary to provide adjustable and precise pressure within the 300-700N range for different PINs, which is difficult for traditional solutions to balance with efficiency and quality.
- Typical Configuration: Using a RobustMotion® SoftForce® Linear Actuator (RM-RPLA-HF Series), the force value can be programmed via software to apply different constant pushing forces for various PINs. This ensures consistent press-fitting quality and eliminates the need for frequent actuator changes due to different product specifications, thus reduces costs and line changeover time.

Precision Press-fitting of PCB Connector Terminals



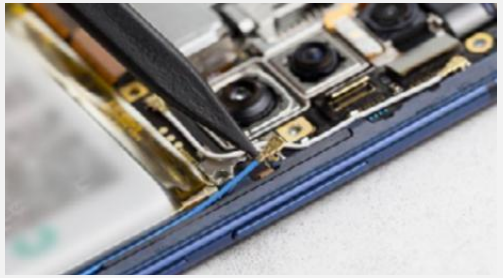
- Press-fitting of PCB connector terminals is a critical process in electronics manufacturing. Excessive pressure can damage wires or insulation layers, leading to short-circuit risks; insufficient pressure results in a weak connection, potentially causing cold joints or high resistance.
- Typical Application: Using a RobustMotion® SoftForce® Linear Actuator (RM-NPLA-HF Series), its integrated design incorporates a high-precision force sensor for real-time feedback and precise output force control. It ensures dual precision of both position and output force, significantly improving the process yield rate of press-fitting and the reliability of the final product.

3C/ Semiconductor | **Optics / Optoelectronics** | **Automotive Manufacturing** | **Lithium Battery New Energy** | **Bio-technology & Medical Care** | **More**

High-Precision Force Control for Precision Manufacturing

Precision Transfer / Assembly

IPEX Coaxial Connector Terminal – Self-aligning Precision Force Control Press-fitting



- In consumer electronics assembly, such as for mobile phones, press-fitting processes for components like IPEX coaxial connector terminals still rely heavily on manual labor.
- Typical Application: Using a RobustMotion® SoftForce® multi-axis actuator module, it receives vision signals and uses a rapid positioning algorithm to accurately identify and locate tiny press-fitting targets, completing the entire set of actions within 6 seconds. This not only significantly boosts production efficiency but also markedly reduces reliance on manual labor and associated costs. The RMS software collects and records the force-position curve for each press-fit in real time, providing powerful data support for quality traceability and continuous process optimization.

Non-destructive Gripping and Flexible Transfer of Precision Components



- High-value, multi-size, and fragile components like chips and optical lenses face dual challenges of precision and flexibility. For example, in the automotive lens production line of a large optoelectronics company, lens sizes range from 2.1mm to 17.8mm, with numerous types.
- Typical Application: Using a RobustMotion® SoftForce® Electric Gripper (RM-GB-HF Series), its high-precision force control capability allows for rapid, non-destructive gripping. It can easily handle micro-lenses of different thicknesses and sizes, achieving efficient and damage-free flexible transfer.

Precision Inspection / Testing

Precision Force Control Pressure Test for Smartwatch Band Spring Clasps



- The inspection of watch band spring push-buttons has always relied on manual operation, which carries a risk of misjudgment. There has been no automated solution available on the market.
- Typical Application: Using a SoftForce® Micro Platform-type Linear Actuator (RM-NPLA-HF Series), it can output a precise, constant force for pressing. It collects the deformation data of the clasp and automatically compares it with a standard force curve. The software system then automatically determines OK/NG. In conjunction with the software platform, a precise and rapid inspection process can be completed, with accuracy higher than manual inspection, significantly improving the inspection accuracy of the watch bands.

Automated Testing of Laptop Screen Touch Functionality



- Testing screen touch functionality requires precisely simulating a finger's "tap-and-swipe" action to verify if the touch function in all areas of the screen is intact.
- Typical Application: Using a SoftForce® Micro Platform-type Linear Actuator (RM-NPLA-HF Series) with a custom stylus tip attached. It utilizes precise force control to touch the screen with a set force value to "wake up" the touch point. Once the force stabilizes, it coordinates with an external motion platform to perform rapid horizontal sliding, achieving high-efficiency, high-repeatability quality inspection.

3C/ Semiconductor | **Optics / Optoelectronics** | **Automotive Manufacturing** | **Lithium Battery New Energy** | **Bio-technology & Medical Care** | **More**

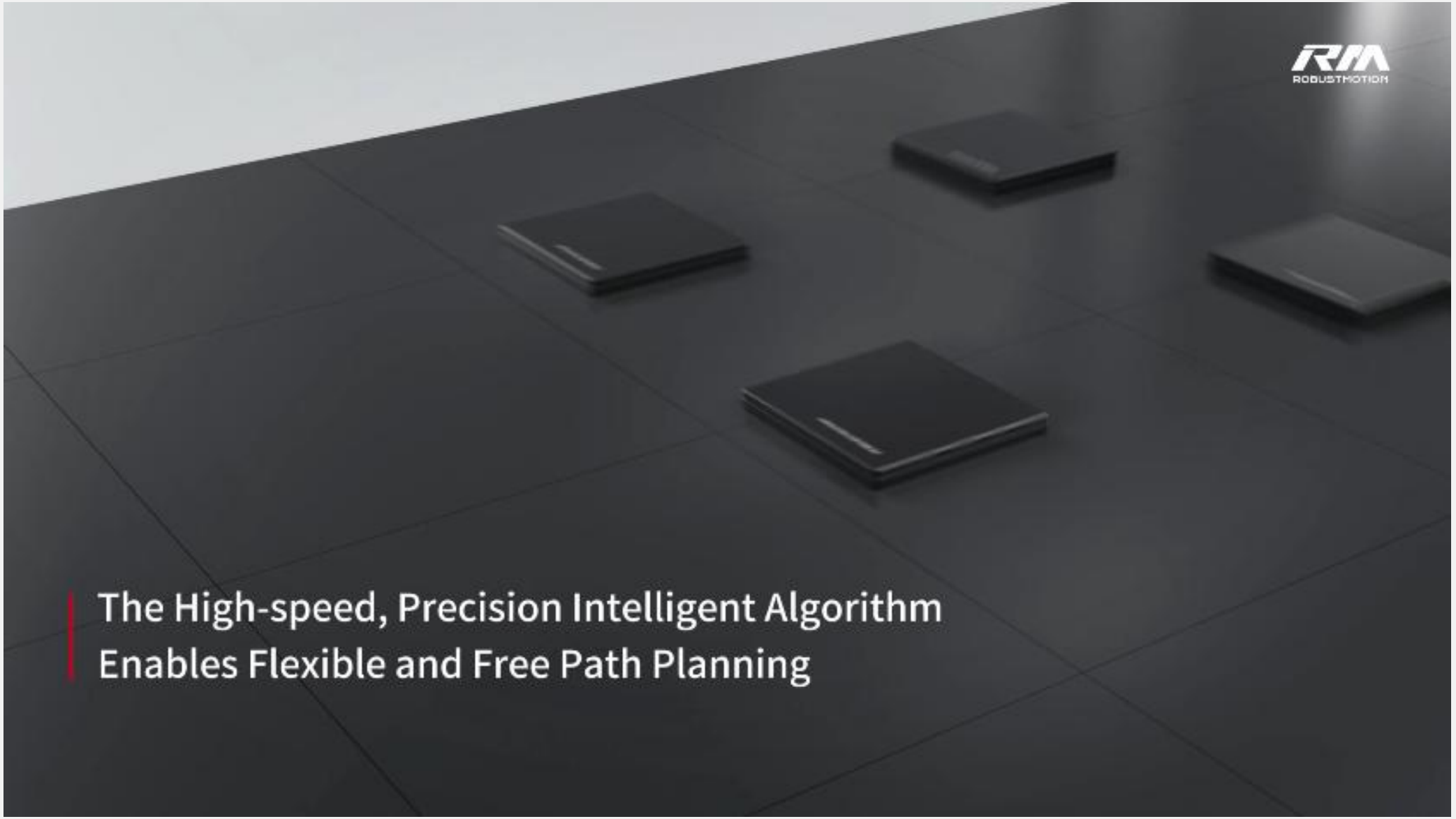
CONTENT

01 About Robustmotion

02 SoftForce® High-precision Force Control System

03 MagiFloater®

Floating Without Rails



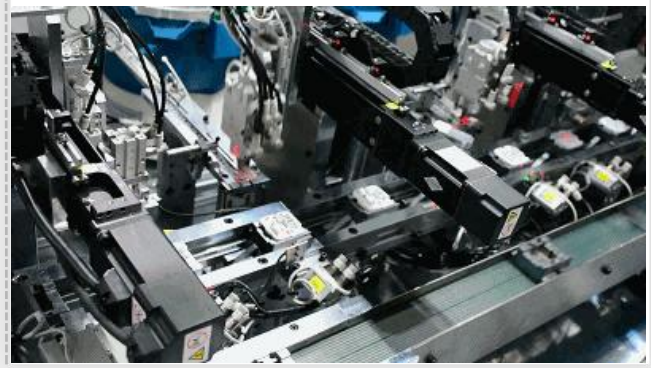
Evolution Trend in Industrial Production Lines

ROBUSTMOTION

Traditional Manual Production Line



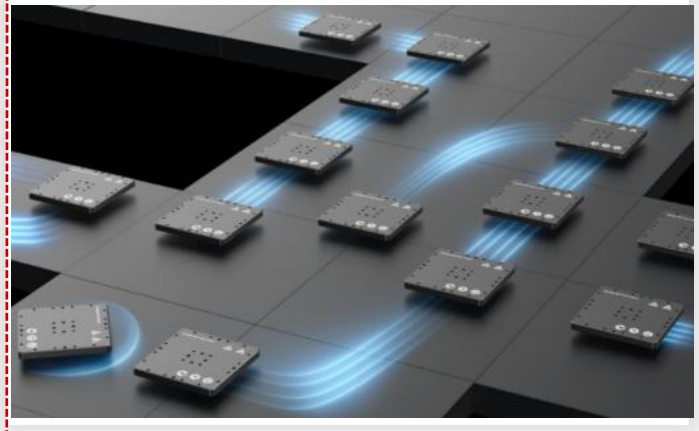
Automated Production Line



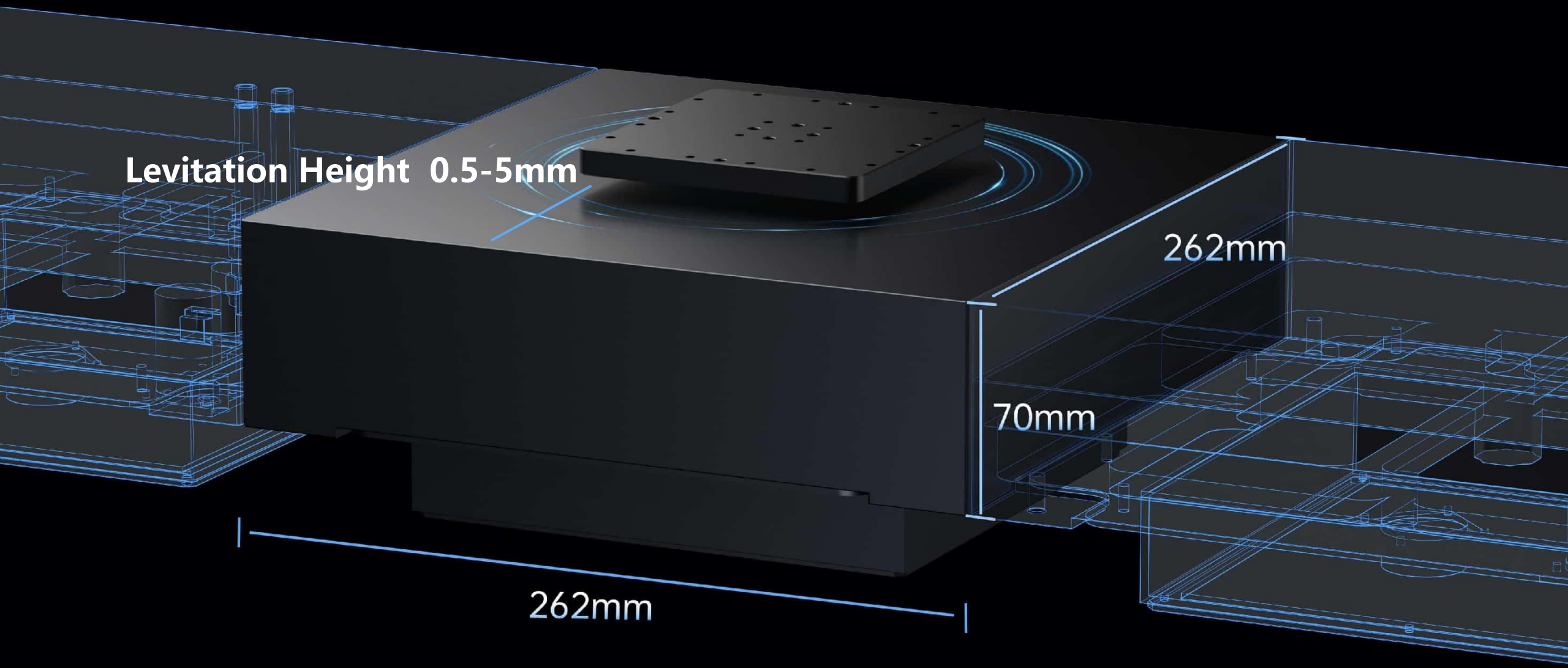
Magnetic Loop Track System



6-DOF Planar Maglev Production Line



Minimalist Design



SYSTEM COMPONENTS

ROBUSTMOTION

Planar Stator

Modular Design
Fast & Flexible Assembly

Planar System
Limitless Layouts on Demand

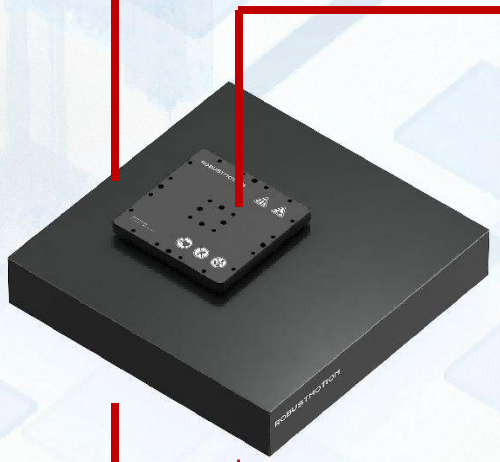
Transmission-Free
Simplified Mechanical Design

Highly Integrated
Built-in Electronic and Communication Module



Dimensions: 262*262mm

Stator Power: 400W



Planar Mover

Passive Mover
Freedom from Fixed Tracks

Contactless Motion
Zero Wear, Hygienic Design

6-DOF
High-Speed, High-Precision Motion

Multi-Mover Sync & Async
Synchronous & Independent Movement Controlled individually



Dimensions: 104*104mm

Levitation Height: 0.5-5mm
Recommended Payload: < 600g

UnLoaded Acceleration: 1.5G
Tilt Angles: ±2°

Integrated Drive & Power Control

Massive Synchronous
Mover Control Technology

256 Units Planar Stators
Supported by a Single Controller

High Precision
Maglev Control Algorithm

High Performance
Efficient Real-time Compensation



Multi-protocol Communication:
EtherCAT，Ethernet/IP，CC-LINK，PROFINET etc.

MagiFloater Aladdin™ Planning System

One-Click Path Planning
Instant Complex Path Generation

Virtual Commissioning & Simulation
60% Faster Line Deployment

AI-Powered Scheduling
Real-time Dynamic Path Optimization

Open & Extensible
Seamless Integration with Mainstream Control Systems



SDK & Language Support: Python，C#/C++，JavaScript etc.
Comprehensive API & Code Samples.

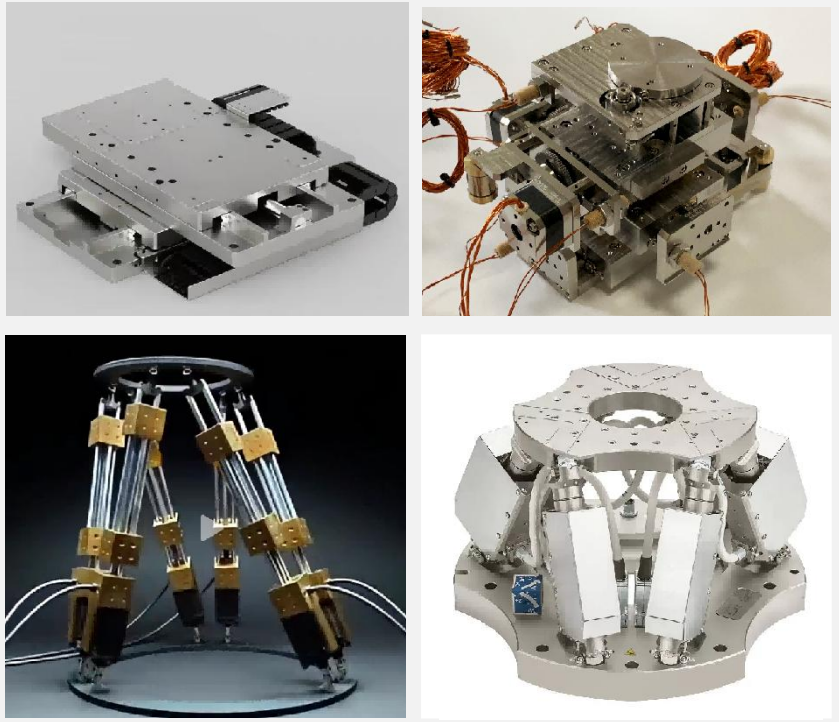
MagiFloater® vs Conventional Precision Stages



MagiFloater®

- Integrated Minimalist Structure
- Naturally Decoupled DOF, Free Control
- Zero Mechanical Wear — Unlimited Lifespan

VS



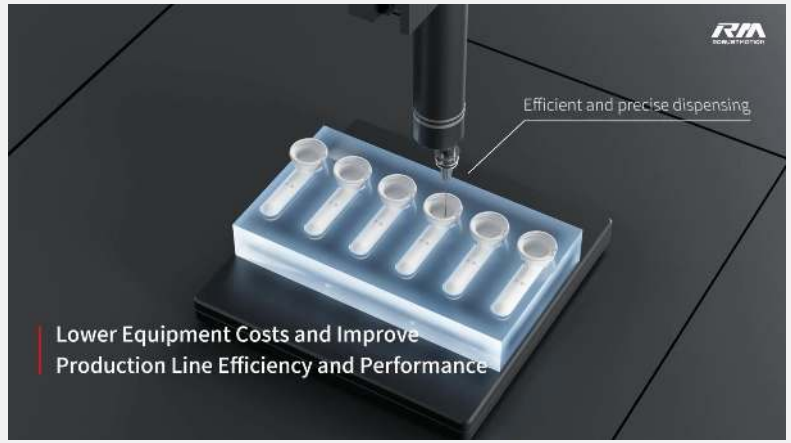
XY / 4-Axis / 6-Axis Precision Positioning Stage

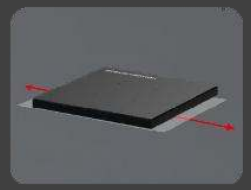
- Stacked/Parallel Complex Structure
- Motion Coupling, Complex Algorithms
- Mechanical Wear, Limited Lifespan

6-DOF Precision Motion for Complex Processes

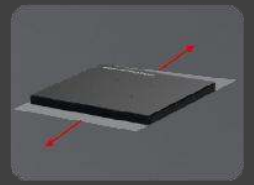








X-Axis

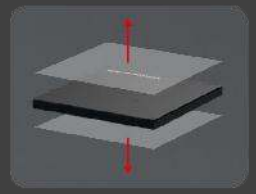


Y-Axis

- Dynamic 2D Motion Control
- High-Speed Response & Movement
- Custom path programming
- Matrix-Based Product Flow

Precision positioning | Less Maintenance

Sync/async motion

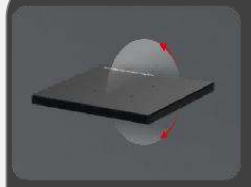


Z-Axis

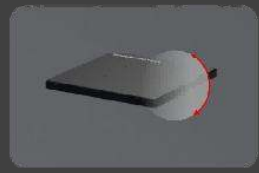
- Levitation Height: 0.5-5mm
- Zero Contact, Zero Friction, Zero Wear
- Precise force control
- Vertical lift capability for assembly integration

Contactless | Frictionless

wear-free | clean production



X(R)-Axis



Y(R)-Axis



Z(R)-Axis

- Multi-Axis Tilt
- Forward/Reverse High-Speed Rotation
- Stable Speed Control

Enhanced Design Flexibility

Active Process Coordination

Parameters

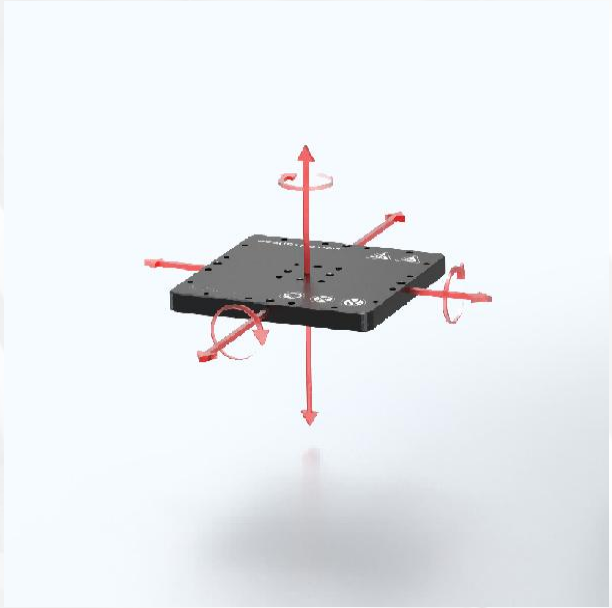
MFT-PS
Planar Stator

- **Size:** 262*262 mm
- **Input Voltage:** 24VDC±10%
- **Power:** 400W
- **Cooling:** Water Cooling



MFT-PM
Planar Mover

- **Size:** 104x104 mm
- **Max Load:** 600g
- **Levitation height:** 0.5-5mm
- **Position Accuracy:** ±0.02mm
- **Max. No-load Acceleration:** 1.5G
- **Rotation Range**: ±15°
- **Tilt Angle**: ±2°



Customer Beneifits

ROBUSTMOTION

Traditional Production Line

Fixed Path & Static Stations

Beneifits Brings by MagiFloater

Transfer-Process Integration, defined by software

	Traditional Production Line	Beneifits Brings by MagiFloater
When Process Changes	• Fixed linear flow with static workstations. • Process changes require hardware modifications.	Planar Maglev with actuators/tooling delivers: • Reduced capital investment • Optimized line count • Lower inventory levels • Enhanced production flexibility
When Layout Changes	• Layout changes require complete system redesign, like **RAILWAY.**	Adjusting stator positioning by software and simple carrier tool changes can reform the production line layout, like **HIGHWAYS.**
High-Precision Required	• Critical precision assembly requires micron-level accuracy, which is beyond robotic capabilities.	Planar Maglev delivers sub-micron precision at high-speed cycle rates.
High-grade Cleanliness Required	• For high-grade laboratory environments, clean-room robots are expensive investments.	Contactless design minimizes contamination and clean-room equipment costs in medical applications.

- Reduces Investment Costs
- Simplifies Design Complexity
- Meets Process Requirements

Redefining Interlligent Flexible Manufacturing

ROBUSTMOTION

Streamlined Production

- Simplified Overhead Mechanics
- Software-Defined Paths
- Software-Configured Changeovers
- Modular, Plug-and-Play Design

50%
Footprint Reduction

Cost-Efficient

- Contactless, Wear-Free, Longer Lifespan
- Significantly fewer mechanical parts
- Drastically Reduced Maintenance
- Increased Space Utilization

30%
CAPEX Reduction

Flexible Manufacturing

- Mixed-Model Production
- Rapid Response to High-Mix, Low-Volume
- Changeover: Days to Hours
- Dynamic Real-time Path Optimization
- On-Demand Production, Less Waste

70%
Inventory Cycle Reduction

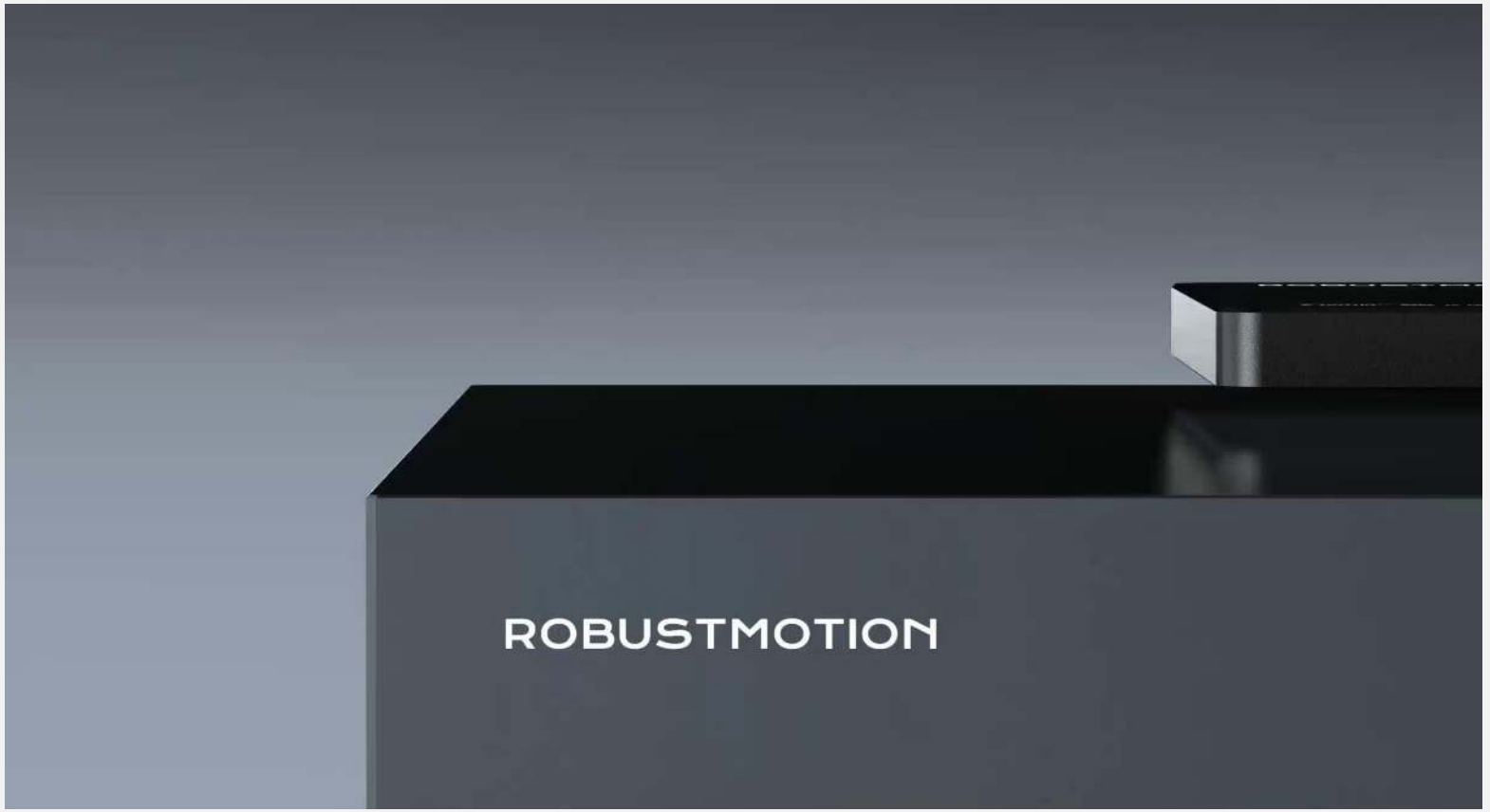
Enhanced Productivity

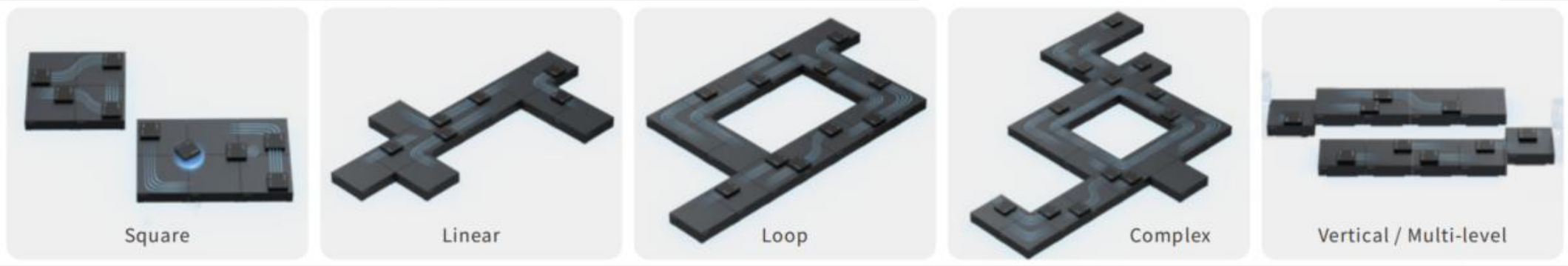
- Automated Overtake & Bypass
- Auto Obstacle Avoidance, Bottleneck Clearance
- Smart Merge & Divert, Optimized Flow
- Stable Precision, Consistent Quality

30-50%
Throughput Increase

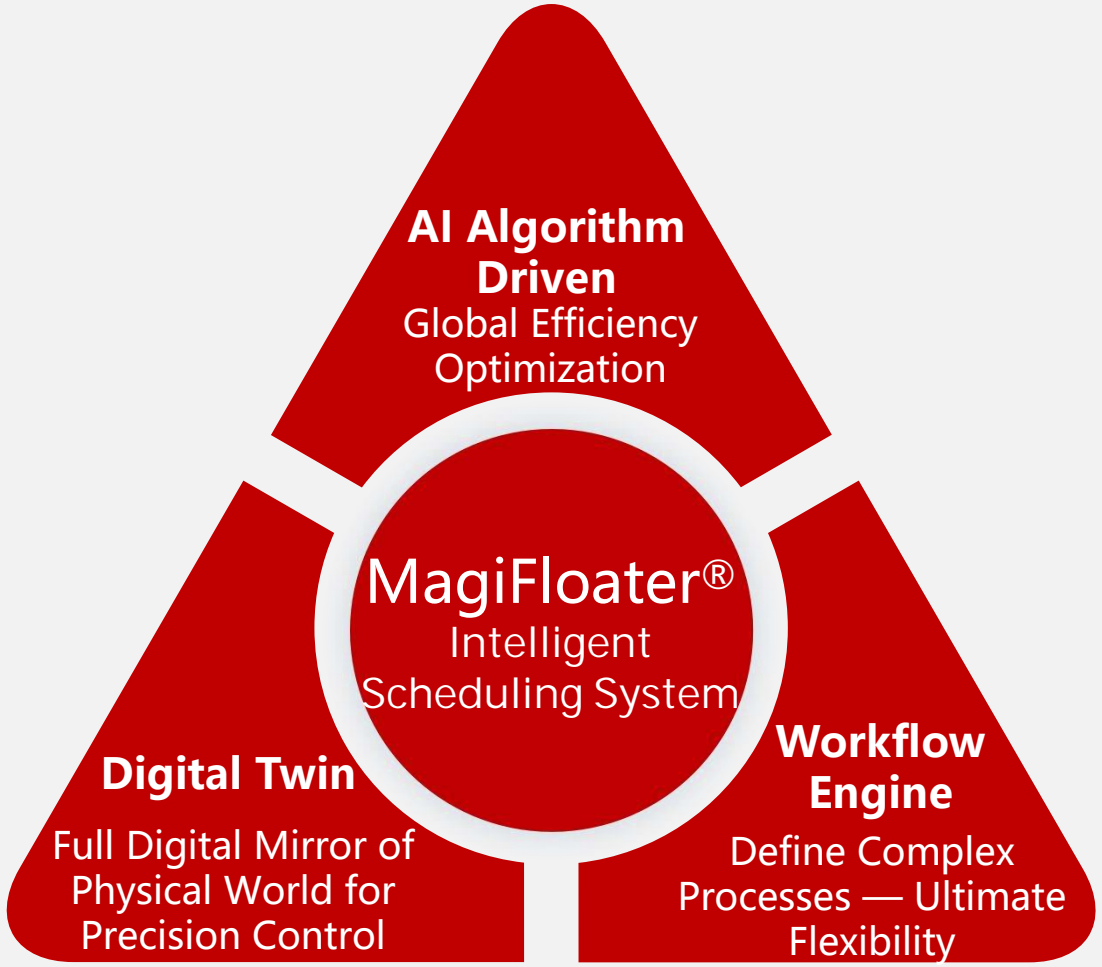

Embodying Next-Gen
Flexibility and Intelligence

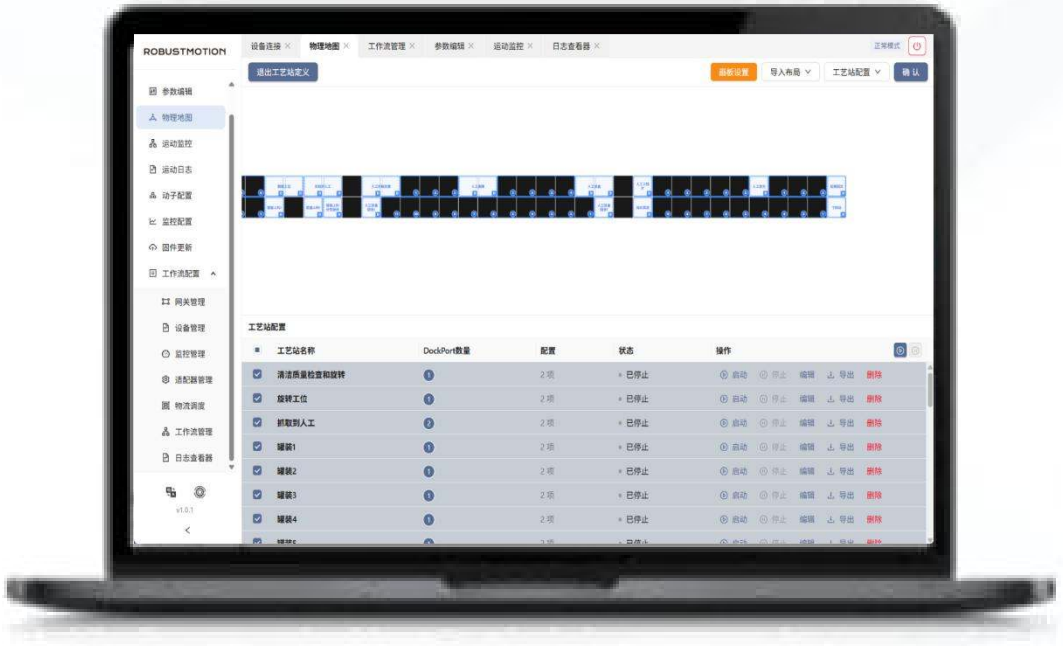
Flexible & Reconfigurable Layouts





Intelligent Scheduling System — The Brain of Flexible Lines





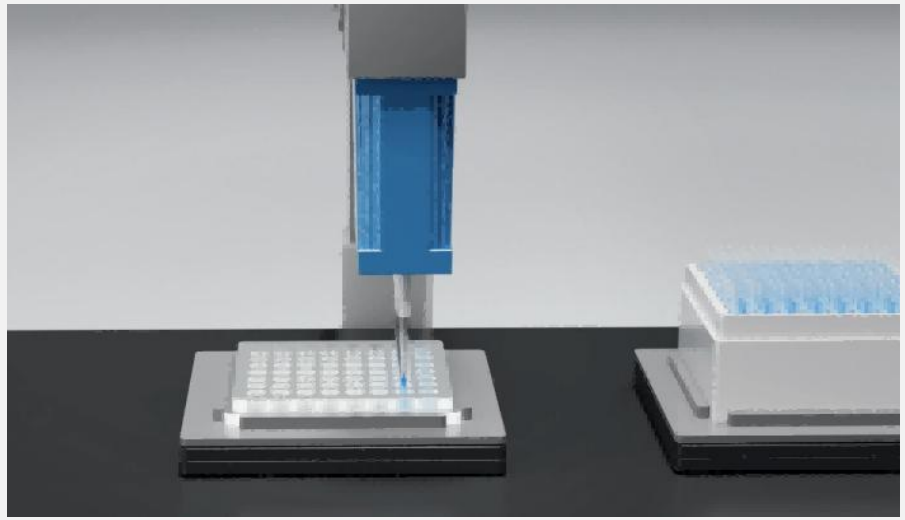
MagiFloater®Intelligent Scheduling System

Intelligent Path Planning

- **Dynamic Route Optimization**
- **Dynamic Obstacle Evasion**
- **Dynamic Flow Distribution/Consolidation**



Applications



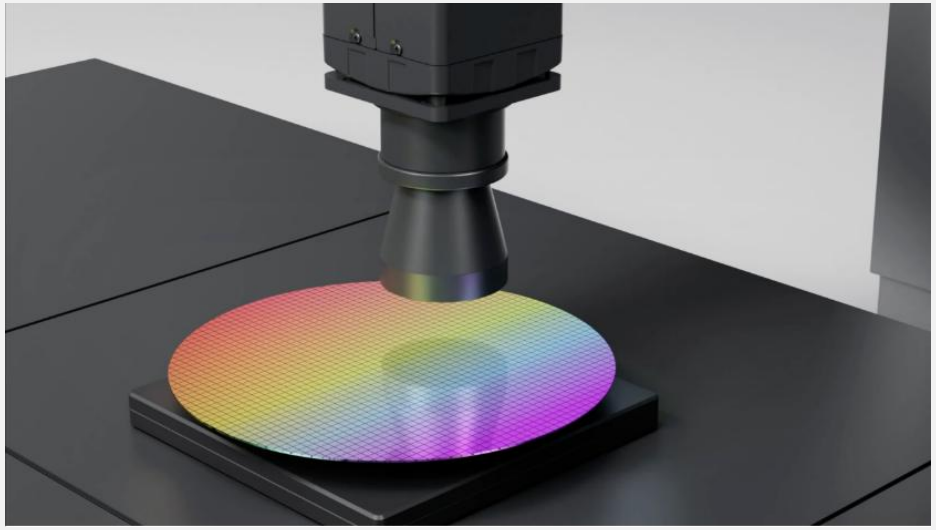
Biopharma - Clean Manufacturing | Sample Transfer | Aseptic Fill-Finish



FMCG/F&B - Flexible Mixed Lines | Fill-Pack Operations | Label & QC Systems



3C & Battery Industry - Dynamic Transfer | Precision Assembly | Dispensing | QC



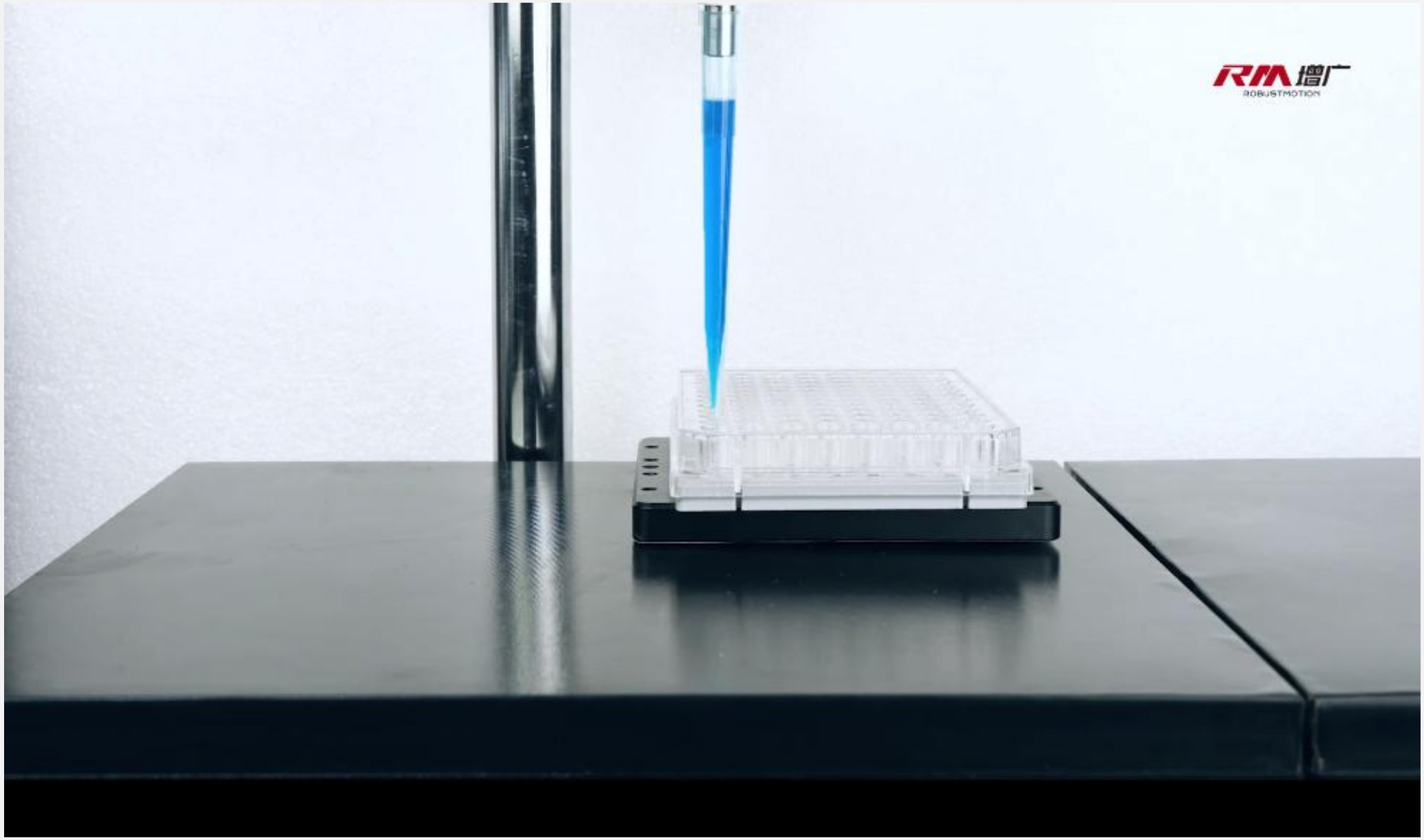
Semiconductor & Optics - Precision Positioning | Metrology | Vacuum Handling

Applications





Applications



LEADING MAGNETIC LEVITATION CONVEYOR SYSTEM& ELECTRIC ACTUATORS



ADAPTIVE FOR THE NEW FLEXIBLE PRODUCTIVITY

- 6-DOF Precision Motion
- Contactless Magnetic Levitation
- Unified Processing and Transmission
- Intelligent Path Planning
- Minimalist Mechanical Structure
- Modular Structure for Any Layout



Thank you!

www.rmaxis.com/en