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Product Selection Manual

MTBF 50000H Hours

ROHS/Reach Compliance Certified

RealMan Group

Sales@realman-robot.com
https://www.realman-robotics.com

RealMan Group is a system-level infrastructure platform company built for the era of embodied intelligence.

RealMan Group is a system-level infrastructure platform company positioned for the era of embodied intelligence.

With “hardware + data + Global Labor Network (GLN)” as its three foundational capability flywheels, the Group establishes an integrated development framework spanning from actuation joints to robotic manipulators and complete robotic systems, from cross-temporal and cross-spatial labor capability reconstruction networks to data assets, and from global robot superfactories to an open ecosystem architecture.

Through continuous technological iteration and capability scaling of embodied intelligence, RealMan Group accelerates the realization of its vision of deploying robotics to serve human society.

Products & Services

As a system-level infrastructure platform company for the era of embodied intelligence, RealMan has, since its founding in 2018, continuously driven technological innovation in embodied-motion robotic arms and precision, high-durability joint modules. Its self-developed integrated joint modules now exceed an annual production capacity of 100,000 units. The robotic arms have obtained CR L3 certification, with an average MTBF of 50,000 hours, providing a solid foundation for stable and continuous robot operation. RealMan's business footprint spans Asia, Europe, North America, and South America, serving over 8,000 enterprise customers worldwide through partnerships with dozens of leading global enterprises and institutions.

MTBF 50000H Hours

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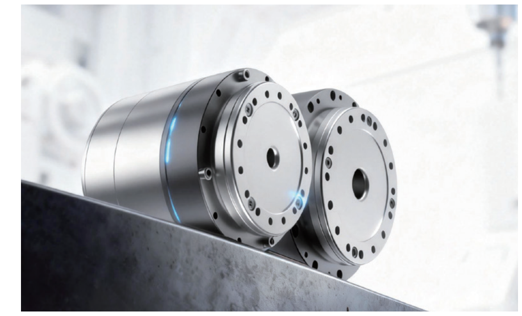

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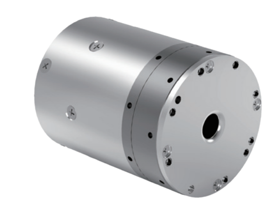
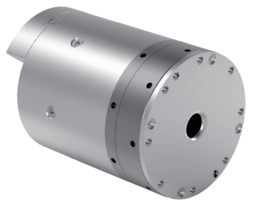
WHJ Series

Precision in Compact Form
Precise Control at Every Degree

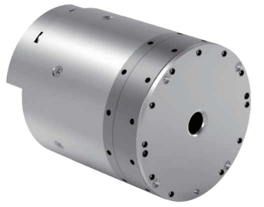
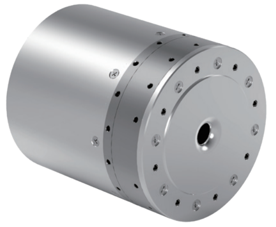
All-scenario compatibility:
supports various robotic arms, robotic systems, grippers, precision rotary tables, and specialized tools.

- High Torque Density
- High Reliability
- High Precision

		
Model	WHJ10-B	WHJ10-N
Unit Weight (g)	455	445
Dimensions (Diameter × Length mm)	50*73	50*64
Hollow Shaft Diameter (mm)	8	8
Rated Voltage (V)	24/48	24/48
Rated Current (A)	1.3A（48V）	1.3A（48V）
Rated Power (W)	63	63
Peak Speed (RPM)	75（48V）	75（48V）
Rated Torque (N·m)	10	10
Gear Ratio	80	80
Operating Temperature (°C)	0 ~ 50	0 ~ 50
Incremental Encoder (bits)	16	16
Absolute Encoder (bits)	18	18
Brake Type	Pin-Type Brake	Spring-Applied Brake
Communication Interface	CANFD	CANFD

Model	WHJ03	WHJ30
Unit Weight (g)	170	750
Dimensions (Diameter × Length mm)	33*48	60*86.5
Hollow Shaft Diameter (mm)	4	9
Rated Voltage (V)	24/48	24/48
Rated Current (A)	0.4A（48V）	2.8A（48V）
Rated Power (W)	40	137
Peak Speed (RPM)	60（48V）	75（48V）
Rated Torque (N·m)	3	30
Gear Ratio	100	80
Operating Temperature (℃)	0 ~ 50	0 ~ 50
Incremental Encoder (bits)	16	16
Absolute Encoder (bits)	18	18
Brake Type	Spring-Applied Brake	Pin-Type Brake
Communication Interface	CANFD	CANFD

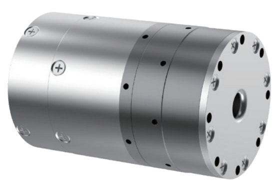
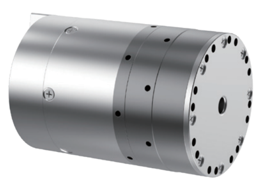
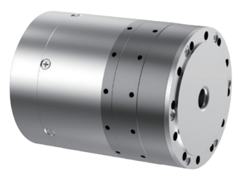
Model	WHJ60	WHJ120
Unit Weight (g)	1040	2300
Dimensions (Diameter × Length mm)	70*91	88*109
Hollow Shaft Diameter (mm)	9	16
Rated Voltage (V)	24/48	24/48
Rated Current (A)	5.3A（48V）	30
Rated Power (W)	264	720
Peak Speed (RPM)	60（48V）	30
Rated Torque (N·m)	60	120
Gear Ratio	100	100
Operating Temperature (℃)	0 ~ 50	0 ~ 50
Incremental Encoder (bits)	16	16
Absolute Encoder (bits)	18	18
Brake Type	Pin-Type Brake	Electromagnetic Brake
Communication Interface	CANFD	CANFD

WHJ Torque Series

Joint-Level Force Sensing Master Every Interaction

Comprehensive Force Control Solutions: Precision assembly, grinding & polishing, collaborative collision detection, flexible grasping, and c ross-platform robotic compatibility.

- High-Precision Force Sensing
- Dynamic Force Closed-Loop Control
- Compliant Interaction

Model	WHJ10 Torque Version	WHJ30 Torque Version	WHJ60 Torque Version
Unit Weight (g)	489	820	1121
Dimensions (Diameter × Length mm)	50*78	60*101	70*106
Hollow Shaft Diameter (mm)	8	7	9
Rated Voltage (V)	24	24	24
Rated Current (A)	4	11	14
Rated Power (W)	90	256	336
Peak Speed (RPM)	37.5	37.5	30
Rated Torque (N·m)	10	30	60
Gear Ratio	80	80	100
Operating Temperature (°C)	0 ~ 50	0 ~ 50	0 ~ 50
Incremental Encoder (bits)	16	16	16
Absolute Encoder (bits)	18	18	18
Brake Type	Spring-Applied Brake	Pin-Type Brake	Pin-Type Brake
Communication Interface	CANFD	CANFD	CANFD

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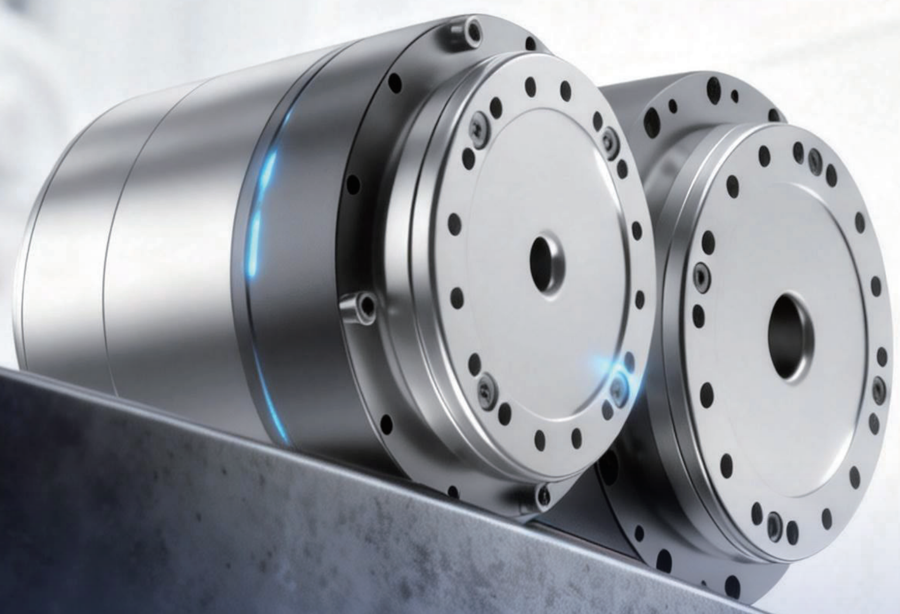
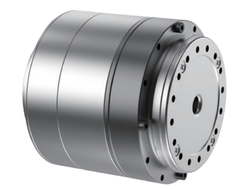
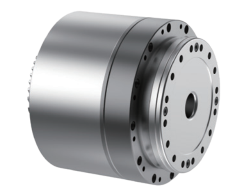
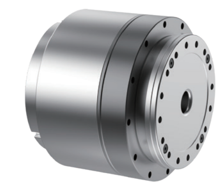


WHG Series

High-Performance Robotic Power Modules

Suitable for industrial automation, collaborative robots, humanoid robots, semiconductors, and precision equipment applications

- High Power Density
- High Rigidity
- High Precision

					
Model	WHG1410	WHG1730	WHG2060	WHG25120	WHG25240
Unit Weight (g)	800	1308	1770	2816	5773
Dimensions (Diameter × Length mm)	70*69	80*80	90*92	110*103	142*127
Hollow Shaft Diameter (mm)	9	9	9	16	18
Rated Voltage (V)	24/48	24/48	24/48	24/48	24/48
Rated Current (A)	1.5	3	6	13	18
Rated Power (W)	73	155	287	611	873
Peak Speed (RPM)	75	75	60	45	27
Rated Torque (N·m)	10	30	60	120	240
Gear Ratio	100	100	100	100	100
Operating Temperature (℃)	0 ~ 50	0 ~ 50	0 ~ 50	0 ~ 50	0 ~ 50
Incremental Encoder (bits)	16	16	16	16	16
Absolute Encoder (bits)	18	18	18	18	18
Brake Type	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Communication Interface	CANFD	CANFD	CANFD	CANFD	CANFD

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RM Series

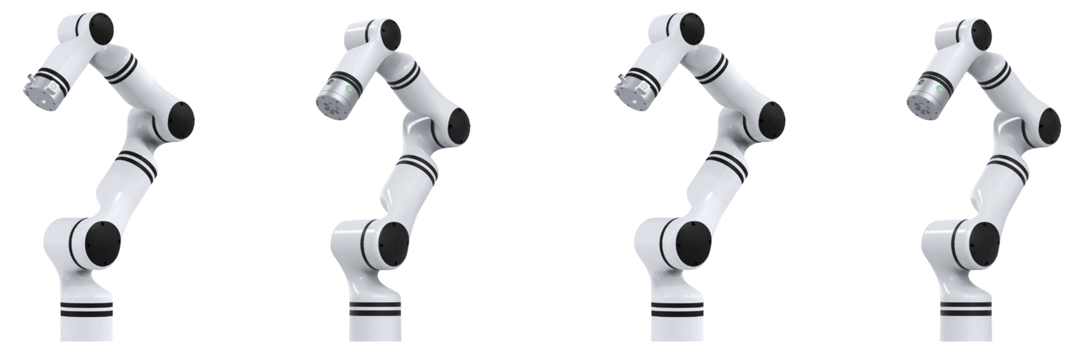
Lightweight Yet Powerful, Handles Complex Scenarios with Ease

Suitable for new retail, food & beverage, lifestyle services, healthcare, and exhibition applications`

High Payload

Force Sensing

Integrated Design



Model	RM65 Standard Version	RM65 Six-Axis Force Version	RM75 Standard Version	RM75 Six-Axis Force Version
Degrees of Freedom	6	6	7	7
Configuration	Humanoid Configuration	Humanoid Configuration	Humanoid Configuration	Humanoid Configuration
Joint Brake Type	Mechanical Brakes on Joints 1–3 Spring-Applied Brakes on Joints 4–6	Mechanical Brakes on Joints 1–3 Spring-Applied Brakes on Joints 4–6	Mechanical Brakes on Joints 1–4 Spring-Applied Brakes on Joints 5–7	Mechanical Brakes on Joints 1–4 Spring-Applied Brakes on Joints 5–7
Working Radius (mm)	610	627	610	627
Payload (kg)	5	5	5	5
Net Weight (kg)	7.2	7.3	7.8	7.9
Repeatability (mm)	±0.05	±0.05	±0.05	±0.05
TCP Linear Speed (m/s)	≤1.8	≤1.8	≤1.8	≤1.8
Typical Power (W)	≤150	≤150	≤200	≤200
Peak Power (W)	≤900	≤900	≤1000	≤1000
Base Diameter (mm)	ϕ107	ϕ107	ϕ107	ϕ107
Operating Temperature (℃)	0-45	0-45	0-45	0-45
Six-Axis Force Range	——	200N/7N·m	——	200N/7N·m
Six-Axis Force Accuracy	——	±0.5%FS	——	±0.5%FS
Power Supply (V)	DC 24V	DC 24V	DC 24V	DC 24V

RML Series

Extended Reach, Beyond the Standard Work Radius

Suitable for new retail, food & beverage, lifestyle services, healthcare, and exhibition applications

- Large Working Radius
- Force Sensing
- Application-Grade

Model	RML63 Standard Version	RML63 Six-Axis Force Version
Degrees of Freedom	6	6
Configuration	Humanoid Configuration	Humanoid Configuration
Joint Brake Type	Mechanical Brakes on Joints 1–4 Spring-Applied Brakes on Joints 5–6	Mechanical Brakes on Joints 1–4 Spring-Applied Brakes on Joints 5–6
Working Radius (mm)	900	917
Payload (kg)	3	3
Net Weight (kg)	10	10.1
Repeatability (mm)	±0.05	±0.05
TCP Linear Speed (m/s)	≤2.8	≤2.8
Typical Power (W)	≤150	≤150
Peak Power (W)	≤900	≤900
Base Diameter (mm)	ϕ107	ϕ107
Operating Temperature (℃)	0-45	0-45
Six-Axis Force Range	——	200N/7N·m
Six-Axis Force Accuracy	——	±0.5%FS
Power Supply (V)	DC 24V	DC 24V

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ECO Series

High Cost-Performance Choice, Precise, Efficient Basics

Suitable for new retail, industrial production lines, massage therapy, coffee robotics, and medical applications

Compact-Class

Economical Model

Low Energy Consumption

Model	ECO65 Standard Version	ECO65 Six-Axis Force Version
Degrees of Freedom	6	6
Configuration	Collaborative Robot Configuration	Collaborative Robot Configuration
Joint Brake Type	Mechanical Brakes on Joints 1–6	Mechanical Brakes on Joints 1–6
Working Radius (mm)	610	610
Payload (kg)	5	5
Net Weight (kg)	7.8	7.9
Repeatability (mm)	±0.05	±0.05
TCP Linear Speed (m/s)	≤1.8	≤2.8
Typical Power (W)	≤150	≤150
Peak Power (W)	≤900	≤900
Base Diameter (mm)	ϕ107	ϕ107
Operating Temperature (℃)	0-45	0-45
Six-Axis Force Range	——	200N/7N·m
Six-Axis Force Accuracy	——	±0.5%FS
Power Supply (V)	DC 24V	DC 24V

		
Model	ECO63 Standard Version	ECO63 Six-Axis Force Version
Degrees of Freedom	6	6
Configuration	Collaborative Robot Configuration	Collaborative Robot Configuration
Joint Brake Type	Mechanical Brakes on Joints 1–3 Spring-Applied Brakes on Joints 4–6	Mechanical Brakes on Joints 1–3 Spring-Applied Brakes on Joints 4–6
Working Radius (mm)	900	900
Payload (kg)	3	3
Net Weight (kg)	9.5	9.6
Repeatability (mm)	±0.05	±0.05
TCP Linear Speed (m/s)	≤2.8	≤2.8
Typical Power (W)	≤150	≤150
Peak Power (W)	≤900	≤900
Base Diameter (mm)	ϕ107	ϕ107
Operating Temperature (℃)	0-50	0-50
Six-Axis Force Range	——	200N/7N·m
Six-Axis Force Accuracy	——	±0.5%FS
Power Supply (V)	DC 24V	DC 24V

	
Model	ECO62 Standard Version
Degrees of Freedom	6
Configuration	Collaborative Robot Configuration
Joint Brake Type	Mechanical Brakes on Joints 1–3 Spring-Applied Brakes on Joints 4–6
Working Radius (mm)	355
Payload (kg)	1
Net Weight (kg)	3.3
Repeatability (mm)	±0.05
TCP Linear Speed (m/s)	< 1.3
Typical Power (W)	≤100
Peak Power (W)	≤250
Base Diameter (mm)	ϕ107
Operating Temperature (℃)	0-50
Six-Axis Force Range	——
Six-Axis Force Accuracy	——
Power Supply (V)	DC 24V

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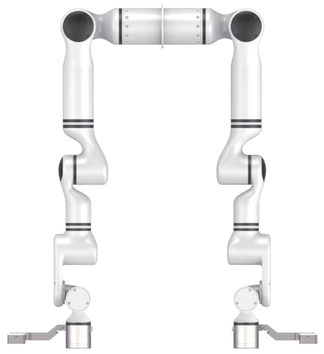
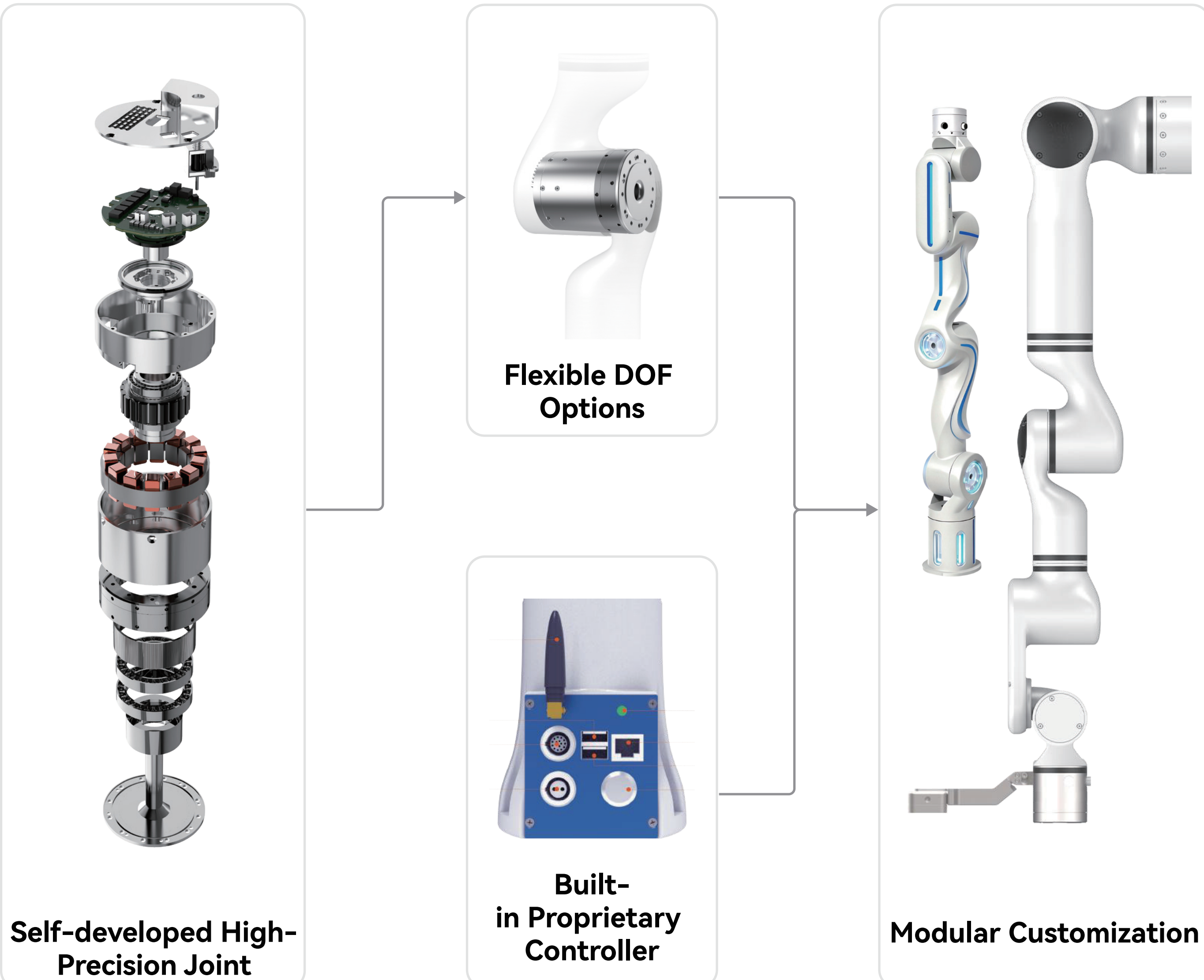
RX Series

Humanoid Wrist Design, Mirrors Human Arm Motion

Suitable for side-mounted dual-arm collaborative operations, widely applicable in retail, food service, industry, warehousing, and medical humanoid applications

- Lightweight Design
- Human oid Form
- Integrated Design

		
Model	RX75 Standard Version	RX75 Vision Version
Degrees of Freedom	v7	7
Configuration	Humanoid Configuration	Humanoid Configuration
Joint Brake Type	Mechanical Brakes on Joints 1–4 Spring-Applied Brakes on Joints 5–7	Mechanical Brakes on Joints 1–4 Spring-Applied Brakes on Joints 5–7
Working Radius (mm)	719	732
Payload (kg)	5	5
Net Weight (kg)	8.9	8.9
Repeatability (mm)	±0.1	±0.2
TCP Linear Speed (m/s)	≤1.8	≤2
Typical Power (W)	≤200	≤200
Peak Power (W)	DC20~30V	DC20~30V
Base Diameter (mm)	——	D405
Operating Temperature (℃)	0-45	0-45
Six-Axis Force Range	200N/7N·m	200N/7N·m
Six-Axis Force Accuracy	0.5%FS	0.5%FS
Power Supply (V)	Aluminum Alloy / ABS	Aluminum Alloy / ABS



Robotic Arm ODM

RealMan provides comprehensive customized robotic arm solutions. Based on self-developed core joints and motion control technologies, it supports flexible configuration of 6-axis, 7-axis and other DOF structures to meet high-precision operation requirements in different scenarios. Whether industrial assembly, scientific research experiments, or human-robot collaboration applications, personalized designs can be quickly responded to.

Case Story

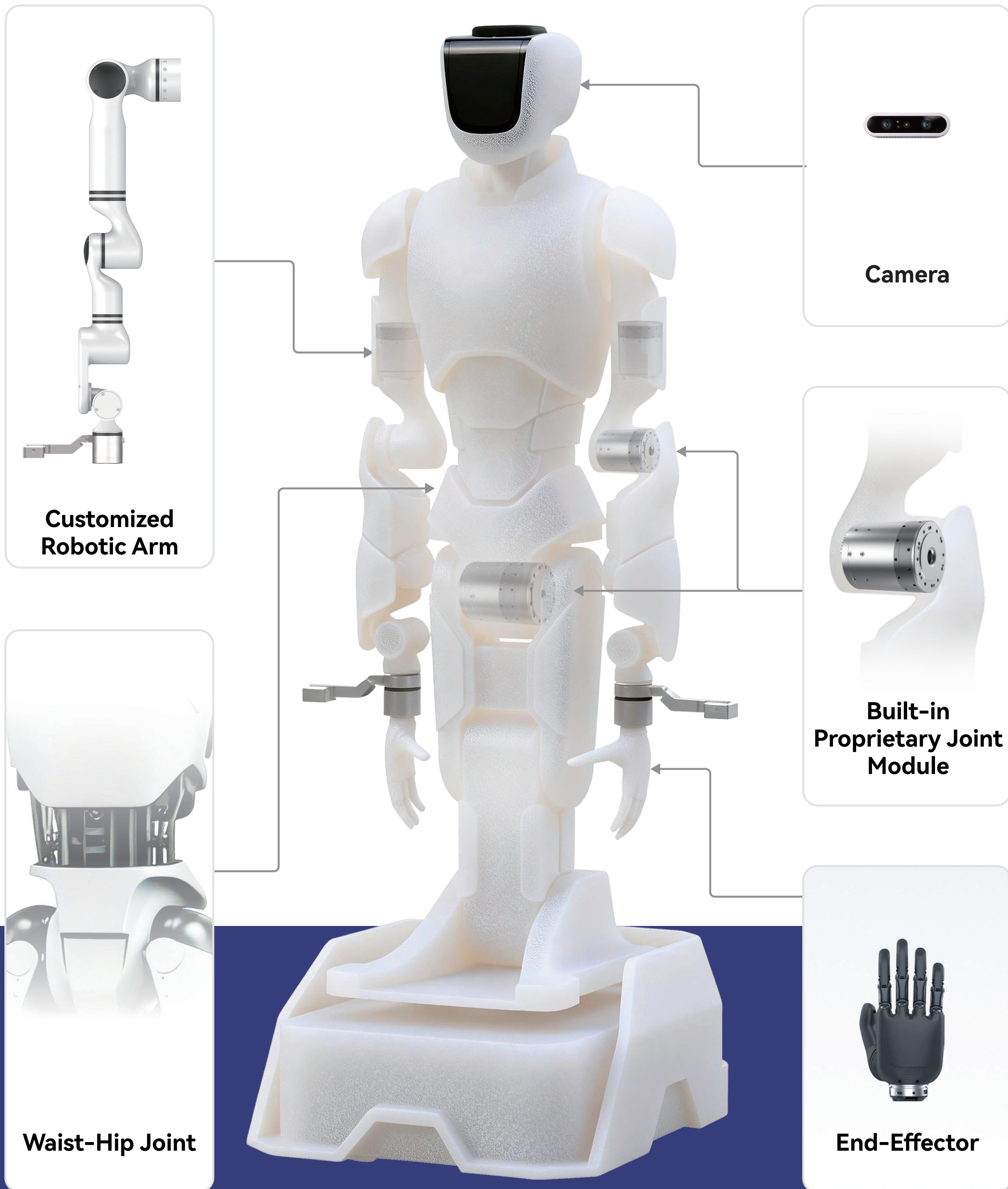
A leading domestic embodied robotics enterprise required a customized robotic arm with 7 degrees of freedom and 3kg rated payload for its self-developed model and chose to cooperate with our company. Relying on mature production lines, we achieved rapid batch delivery. Product accuracy and operational stability simultaneously met standards, efficiently matching the customer's mass production pace, and gained high praise for reliable quality and delivery efficiency.

A domestic emerging robotics manufacturer customized a dedicated robotic arm with 7 degrees of freedom and 5kg rated payload for service scenario deployment. Our company precisely matched its structural configuration and operational requirements, completed small-batch delivery, and ensured that arm flexibility and payload performance perfectly adapted to scenario operations, helping customers quickly advance product deployment testing.

Fast ODM
30-Day Delivery

Factory Capacity Nearly
1 Million Units

Serving Over
8,000+ Customers



Complete Robot ODM

RealMan robots adopt a modular architecture divided into four major modules: chassis, legs, torso, and arms. Standardized interfaces enable independent customization and rapid integration, balancing performance, stability, and scalability.

- Chassis: Supports multiple mobility configurations, adaptable to various scenarios;
- Torso: Integrated core for computing, perception, and interaction; su pports flexible sensor-suite configuration.
- Arms: Built on proprietary joint modules, supporting multiple degrees of freedom and configurable specifications for precision tasks.
- Camera: Core vision sensor with GMSL interface as standard—low latency, strong anti-interference performance, and high reliability; industrial-grade stability with no frame drops.
- Endx-Effector:
  Compatible with mainstream grippers and dexterous hands from leading vendors such as Zhixing BrainCo , and OYMotion .

This design enables rapid response to differentiated requirements, shortens delivery cycles, and reduces customization and maintenance costs.

Fast ODM
30-Day Delivery

Factory Capacity Nearly
1 Million Units

Serving Over
8,000+ Customers

RealBOT Robot

Overall Dimensions:	570mm×465mm×1680mm
Turning Radius:	690mm (in-place rotation)
Working Range:	Max vertical reach: 2100mm | Horizontal reach: 1818mm (excluding end effector)
Total Weight:	Approx. 125kg
Single Arm Payload:	5 kg
Total Active DOF:	21
Movement Speed:	0.1 m/s ~ 1.5 m/s
Battery & Endurance:	40AH (with BMS management system)
Charging Time:	~2 hours
Vision System:	Dual stereo depth / RGB optional
Wide-Angle Cameras:	130° field of view (3 units located on chest, back, and base)
LiDAR:	Single-line laser, detection range >40m (90% reflectivity)
Voice Interaction Module:	Circular 6-mic smart speaker (optional)

RealBOT is a comprehensive embodied intelligence development platform designed to accelerate innovation in embodied AI. It integrates advanced full-body motion control, multi-dimensional perception, and precise manipulation capabilities, providing an ideal hardware platform for researchers and developers.

Main Applications: AI training & data collection, new retail, education, industrial production lines, etc.

Dual-Arm Vertical Lift Robot

Overall Dimensions:	640x450x1780mm
Turning Radius:	450mm (in-place rotation)
Working Range:	Vertical: 0–2400mm (fully extended) | Lateral: single side extends 790mm beyond chassis | Forward: 0–690mm
Total Weight:	Approx. 157kg
Single Arm Payload:	5 kg
Effective Lifting Stroke:	900mm
Movement Speed:	1.5m/s
Endurance:	3~4h
Charging Power Supply:	AC 220V ±10% 50Hz
Robot Arm Model:	RM65-B-V (optional: RM75-B-V)
Vision Sensor:	Yes
End Effector:	CTAG2F90D (standard gripper)
Operating Temperature:	5~40℃

The platform supports wireless teleoperation development, dual-arm data collection and model training, as well as autonomous inspection and task execution across various scenarios, covering industrial, commercial, household and research applications.

Main Applications: AI training & data collection, new retail, education, industrial production lines, etc.

Core Capabilities: Full-body motion control, multi-dimensional perception, precise manipulation.

Single-Arm Vertical Lift Robot

Overall Dimensions:	Total height 1605mm; Diameter 505mm
Charging Power Supply:	100-240V AC 50Hz
Total Weight:	Approx. 100kg
Single Arm Payload:	5 kg
Effective Lifting Stroke:	≥900mm
Movement Speed:	1m/s
Endurance:	3h
Power Supply:	DC24V
Robot Arm Model:	RM65-B-V
Positioning Accuracy:	< ±5cm
Turning Radius:	252.5mm
Operating Temperature:	5~40℃

The robot autonomously plans and executes inspection and operation tasks across diverse scen arios, enabling broad applications in industrial, commercial, home, and research settings.

Main Applications: New retail, logistics, etc.

Core Capabilities: Full-body motion control and precise manipulation.

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60,000 Trajectories per Day

Scalable Delivery

Training–Grade Alignment

Hardware–Level Synchronization

71D Base State

Complete Data Modalities

Real-World Multimodal Trajectory Data for Embodied Model Training

Delivery Components / Training Value

Multi–View Vision
1280x720, 30FPS, Multi–view fusion / Hand–eye learning
Visual Perception

71D Base State
High–dimensional proprioception, directly used for BC / control learning
Base Perception

Atomic Skill Segmentation
Supports skill learning / hierarchical strategy / stage evaluation
Skill Segmentation

Quality Evaluation
Selected high–quality data, steadily improve the upper limit
Quality Control

Camera Parameters
Reprojection consistency, 3D / simulation alignment
Vision Calibration

Task/Episode Metadata
Sampling ratio, statistical analysis, reproducible experiments
Metadata

Batch Versioned Delivery
Version number / change log / traceable, convenient for regression comparison
Delivery Standard

Scaled Production Capacity
60,000+ per day, supports continuous data supply and incremental completion
Batch Delivery

Mainstream Format Delivery
MCAP/HDF5/LeRobot, quickly access toolchain
[redacted]

Real Dual–Arm Operation Trajectories
Covers complex collaboration and long–duration tasks
[redacted]

Value Proposition

We deliver train-ready real-world trajectories featuring multi-view observations with state-action closed loops, combined with atomic skill segmentation and quality evaluation. Supports mainstream formats for rapid integration into training and evaluation pipelines.

Requirement Collection – Task Fields and Action Space Alignment
→ **Solution Customization** – Variable Matrix and Coverage Rate Target
→ **Collection Implementation** – Scaled Production Scheduling | Multi–View Collection
→ **Data Processing** – Alignment/Cleaning/Segmentation
→ **Data Delivery** – MCAP/HDF5/LeRobot
→ **Iterative Optimization** – Increased Collection and Rebalancing

Scan to Access Open Dataset

Open Dataset (partial) : RealSource World