



Physical AI Infrastructure

for Real-World Robotics

- Reliable Hardware
- Real-World Data
- Remote Teleoperation

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A global system-level infrastructure platform built for Physical AI.

Foundova Robotics is a global infrastructure platform for the Physical AI ecosystem, delivering end-to-end, system-level capabilities across robotics hardware, data intelligence, and teleoperation. Built on three core capability pillars, namely advanced hardware systems, large-scale data acquisition and teleoperation framework, the company has established a vertically integrated technology stack spanning critical actuators joints, robotic arms, teleoperation systems, and wheeled humanoid robots.

The platform supports the complete Physical AI value chain, from robotic hardware development and cross-domain workforce orchestration to the creation of high-quality data assets required for AI training and continuous learning.

Through teleoperation package (GLN)" robot manufacturing facilities and ecosystem partnerships, Foundova Robotics enables rapid technology iteration, scalable deployment, and continuous optimization of autonomous and human-assisted robotic systems. This integrated approach accelerates the advancement of Physical AI and supports the large-scale adoption of intelligent robots across industrial, commercial, and societal applications.

WHJ Series



WHG Series



WHJ



Two-Finger Parallel Gripper



RMG24

RX Series (Standard 6-Axis Force-Torque Sensing)



RM Series



RML Series



ECO Series



Robots



Robot ODM/OEM

Teleoperation Kits

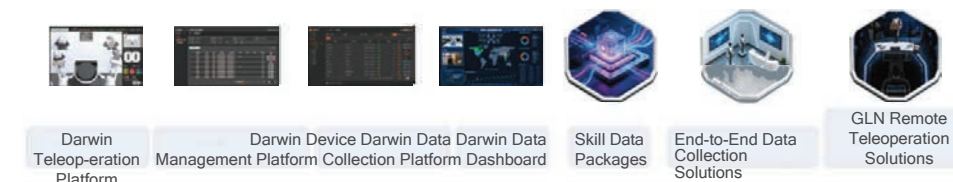


RealDrive Mobile Base



Software Platforms

GLN Remote Teleoperation Solutions





WHJ Series

Ultra-Compact Design Precision in Every Degree of Motion

Designed for robotic arms, robots, grippers,
precision rotary tables, and specialized tools.



High Torque
Density

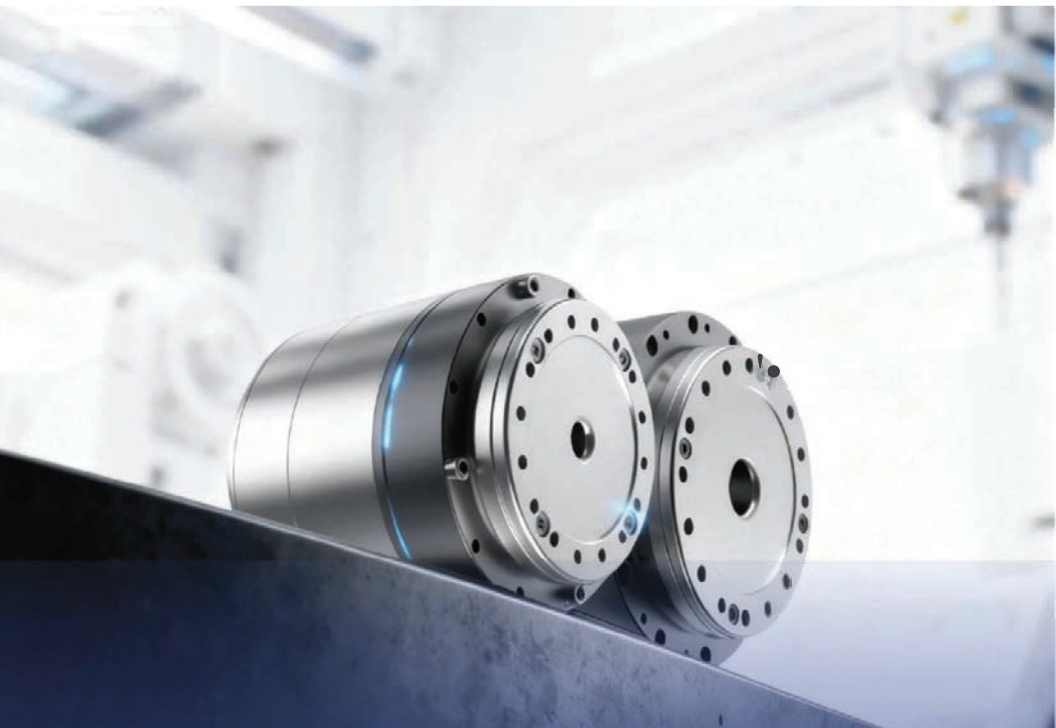


High Reliability



High Precision

					
Model	WHJ03	WHJ10-B	WHJ10-N	WHJ30	WHJ60
Weight (g)	170	455	425	750	1040
Dimensions (Diameter x Length, mm)	33*48	50*73	50*64	60*86.5	70*91
Hollow Bore Diameter (mm)	4	6	8	9	9
Rated Voltage (V)	24/48	24/48	24/48	24/48	24/48
Rated Current (A)	0.4A (48V)	1.6A (48V)	1.6A (48V)	4.9A (48V)	7.9A (48V)
Rated Power (W)	20	78.5	78.5	234	377
Peak Speed (RPM)	60 (48V)	75 (48V)	75 (48V)	75 (48V)	60 (48V)
Rated Torque (N • m)	3	10	10	30	60
Reduction Ratio	100	80	80	80	100
Operating Temperature (°C)	0~ 50	0 ~ 50	0~50	0~50	0~ 50
Incremental Encoder Resolution (bits)	16	16	16	16	16
Absolute Encoder Resolution (bits)	18	18	18	18	18
Brake Type	Soft Brake	Pin Brake	Soft Brake	Pin Brake	Pin Brake
Communication Interface	CANFD	CANFD	CANFD	CANFD	CANFD



WHG Series

High-Performance High-Load Joint Module

Designed for industrial automation, collaborative robots, humanoid robots, semiconductor equipment, and precision machinery applications



High Power
Density



High Rigidity



High Load
Capacity

Product parameters

FOUNDVA

10/64



Model	WHG1410	WHG1730	WHG2060	WHG25120	WHG32240
Weight (g)	800	1308	1770	2816	5700
Dimensions (Diameter x Length, mm)	70*69	80*80	90*92	110*103	142*125
Hollow Bore Diameter	(mm) 9	9	9	16	18
Rated Voltage (V)	24/48	24/48	24/48	24/48	24/48
Rated Current (A)	1.6A (48V)	4.9A (48V)	7.9A (48V)	15.7A (48V)	20.8A (48V)
Rated Power (W)	78.5	234	377	755	1000
Peak Speed (RPM)	75	75	60	45	27
Rated Torque (N · m)	10	30	60	120	240
Reduction Ratio	100	100	100	100	100
Operating Temperature	(°C) 0~50	0~50	0~ 50	0~ 50	0~50
Incremental Encoder Resolution (bits)	16	16	16	16	16
Absolute Encoder Resolution (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



Strong Gripping Force Precise and Stable Grasp of Every Object

Designed for picking, sorting, and handling tasks in industrial automation, commercial services, home applications, data collection, and education scenarios



High Pay-load-to-Weight Ratio
Weight 674 g, Payload up to 5 kg
Payload-to-Weight Ratio up to 10×



High Gripping Force
Maximum Gripping Force
130 N



High Versatility
Rich Interface Protocols
Broad Application Adaptability

Product parameters

FOUNDOVA

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RMG24

Model	RMG 24
Overall Dimensions	112 (L) 60 (W) 167 (H) mm
Stroke	65 mm
Finger Height	80 mm
Weight	674g
Rated / Max Payload	4 kg / 5 kg
Payload-to-Weight Ratio	~ 10
Gripping Force Clamping force	Maximum 130 N
Open/Close Time	0.7 8 s
Position Repeatability	± 0.05 mm
Indicator Light	Supported
Operating Environment	0~50° C 85% RH
Rated Voltage	24 V
Rated/ Peak Current	1.9 / 5.7 A
Rated / Peak Power	45.6 / 136.8 W
Interface/ Link/ Protocol	6-pin Aviation Connector/ RS485 / RS485 Serial Protocol, Modbus -RTU

RX75 Series

Human-Inspired Wrist Design Replicates Human Arm Move- ments with Flexibility

Designed for humanoid robot applications in retail, food service, industrial automation, warehousing, healthcare, and more

Lightweight Design

Humanoid Design

All-in-One Integration

Product parameters

FOUNDIVA

16/64

Model	RX75S -Standard Version		RX75 -Standard Version		RX75 -Vision Version	
Degrees of Freedom (DOF)	7		7		7	
Configuration	Humanoid Configuration		Humanoid Configuration		Humanoid Configuration	
Joint Brake Type	Joints 1-4: Mechanical Brake Joints 5-7: Soft Brake		Joints 1-4: Mechanical Brake Joints 5-7: Soft Brake		Joints 1-4: Mechanical Brake Joints 5-7: Soft Brake	
Working Radius (mm)	691		709		732	
Rated Payload (kg)	5		5		5	
Weight (kg)	8.2		8.2		8.4	
Repeatability (mm)	± 0.2		±0.2		±0.2	
TCP Linear Speed	(m/s)	:S 1.8		:S2.2		:S2.2
Typical Power Consumption	(W)	:S 200		:s 200		:s 200
Peak Power / W		:S 600		:S 600		:S 600
Supply Voltage (V)	DC 20~30V		DC20~30V		DC20~30V	
End-Effector Camera	Optional (GMSL)				D405	
Operating Temperature (°C)	0~45		0-45		0-45	
Force-Torque Sensor	Range	200N / 7N • m		200N/7N•m		200N/7N•m
Force-Torque Sensor Accuracy		0.5%FS		0.5%FS		0.5%FS
Material	Aluminum Alloy/ ABS		Aluminum Alloy/ ABS		Aluminum Alloy/ ABS	

G) Typical Rated Power: average power under rated load during standard run-in procedure

Q) Typical Peak Power: peak power under rated load during standard run-in procedure (instantaneous peak power can reach up to 1000 W under extreme conditions)



RX71

Humanoid Wrist Design

Designed to Replicate Human Arm Motion

Designed for Side-Mounted Dual-Arm Humanoid Robots



Ultra-Lightweight



Humanoid Design



All-in-One Integration

Product parameters

FOUNDIVA

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RX71 -Standard Version

Model

Degrees of Freedom (DOF)

7

Configuration

Humanoid Configuration

Joint Brake Type

Soft Brake

Working Radius (mm)

474 (Including Force-Torque Sensor)

Rated Payload (kg)

1

Weight (kg)

Approx. 3.8 kg (Ex cluding Controller)

Repeatability (mm)

± 0.2

TCP Linear Speed (*mis*)

s 1.8

Typical Power Consumption (W)

s 100

Peak Power *I* W

s 250

Supply Voltage (V)

DC24 V

End-Effector Camera

Optional

Operating Temperature (°C)

0~45

Force-Torque Sensor Range

200N /7N·m

Force-Torque Sensor Accuracy

0.5%FS

Material

Aluminum Alloy/ ABS

G) Typical Rated Power: average power under rated load during standard run-in procedure

Q) Typical Peak Power: peak power under rated load during standard run-in procedure (instantaneous peak power can reach up to 300 W under extreme conditions)



RM Series

Powerful Yet Effortless Ready for Complex Tasks Across Diverse Applications

Designed for new retail, food service, lifestyle services, health-care, and exhibition applications



High Payload



Force Sensing



All-in-One
Integration

Product parameters

FOUNDIVA

20/64



RM65
Standard Version



RM65
Force-Torque Version



RM75
Standard Version



RM75
Force-Torque Version

Model	RM65 Standard Version	RM65 Force-Torque Version	RM75 Standard Version	RM75 Force-Torque Version
Degrees of Freedom (DOF)	6	6	7	7
Configuration	Humanoid Configuration	Humanoid Configuration	Humanoid Configuration	Humanoid Configuration
Joint Brake Type	Mechanical Brakes on Joints 1-3 Soft Brakes 4-6		Mechanical Brakes on Joints 1-4 Soft Brakes 5-7	
Working Radius (mm)	610	627	610	627
Payload (kg)	5	5	5	5
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)	S1.8	S1.8	S1.8	S1.8
Typical Power Consumption (W)	S150	S150	S200	S200
Peak Power Consumption (W)	S600	S600	S600	S600
Base Diameter (mm)	<1>107	<1>107	<1>107	<1>107
Operating Temperature (°C)	0-45	0-45	0-45	0-45
Force-Torque Sensor Range	—	200N/7N·m	—	200N/7N·m
Force-Torque Sensor Accuracy	--	±0.5%FS	—	±0.5%FS
Supply Voltage (V)	DC24V	DC24V	DC24V	DC24V

G) Typical Rated Power: average power under rated load during standard run-in procedure Q) Typical Peak Power: peak power under rated load during standard run-in procedure (instantaneous peak power can reach up to 1000 W under extreme conditions)

RML Series

Extended Reach Break Through Conventional Workspace Limits

Designed for new retail, food service, lifestyle services, health-care, exhibitions, and more

Extended Reach

Force Sensing

Application-Ready

Product parameters

FOUNDIVA

22/64



Model	RML63 -Standard Version	RML63 -Force-Torque Version
Degrees of Freedom (DOF)	6	6
Configuration	Humanoid Configuration	Humanoid Configuration
Joint Brake Type	Mechanical Brakes on Joints 1-4 Soft Brakes 5-6	Mechanical Brakes on Joints 1-4 Soft Brakes 5-6
Working Radius (mm)	900	917
Payload (kg)	3	3
Weight (kg)	10	10.1
Repeatability (mm)	±0.05	±0.05
TCP Linear Speed (m/s)	:S2.8	:S2.8
Typical Power Consumption (W)	:S150	:S150
Peak Power Consumption (W)	:S600	:S600
Base Diameter (mm)	<P107	<P107
Operating Temperature (°C)	0-45	0-45
Force-Torque Sensor Range	—	200N/7N·m
Force-Torque Sensor Accuracy	—	±0.5%FS
Supply Voltage (V)	DC24V	DC24V

G) Typical Rated Power: average power under rated load during standard run-in procedure Qi Typical Peak Power: peak power under rated load during standard run-in procedure (instantaneous peak power can reach up to 1000 W under extreme conditions)



ECO Series

Cost-Effective Choice Precision and Efficiency for Daily Tasks

Designed for new retail, industrial production lines, massage therapy, coffee robots, and healthcare applications



Compact Design



Cost-Effective



Energy Efficient

Product parameters

FOUNDOVA

24/64



Model	ECO65 -Standard Version	ECO65 -Force-Torque Version
Degrees of Freedom (DOF)	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
Weight (kg)	7.8	7.9
Repeatability (mm)	±0.05	±0.05
TCP Linear Speed (m/s)	:S1 .8	:S1 .8
Typical Power Consumption (W)	:S150	:S150
Peak Power Consumption (W)	:S600	:S600
Base Diameter (mm)	<1>107	<1>107
Operating Temperature (°C)	0-45	0-45
Force-Torque Sensor Range	—	200N/7N·m
Force-Torque Sensor Accuracy	—	±0.5%FS
Supply Voltage (V)	DC24V	DC24V

G) Typical Rated Power: average power under rated load during standard run-in procedure Qi Typical Peak Power: peak power under rated load during standard run-in procedure (instantaneous peak power can reach up to 1000 W under extreme conditions)



Model	ECO63 -Standard Version	ECO63 -Force-Torque Version
Degrees of Freedom (DOF)	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)	900	900
Payload (kg)	3	3
Weight (kg)	9.5	9.6
Repeatability (mm)	±0.05	±0.05
TCP Linear Speed (m/s)	≤2.8	≤2.8
Typical Power Consumption (W)	≤150	≤150
Peak Power Consumption (W)	≤600	≤600
Base Diameter (mm)	<1>107	<1>107
Operating Temperature (°C)	0-45	0-45
Force-Torque Sensor Range	—	200N/7N·m
Force-Torque Sensor Accuracy	—	±0.5%FS
Supply Voltage (V)	DC24V	DC24V

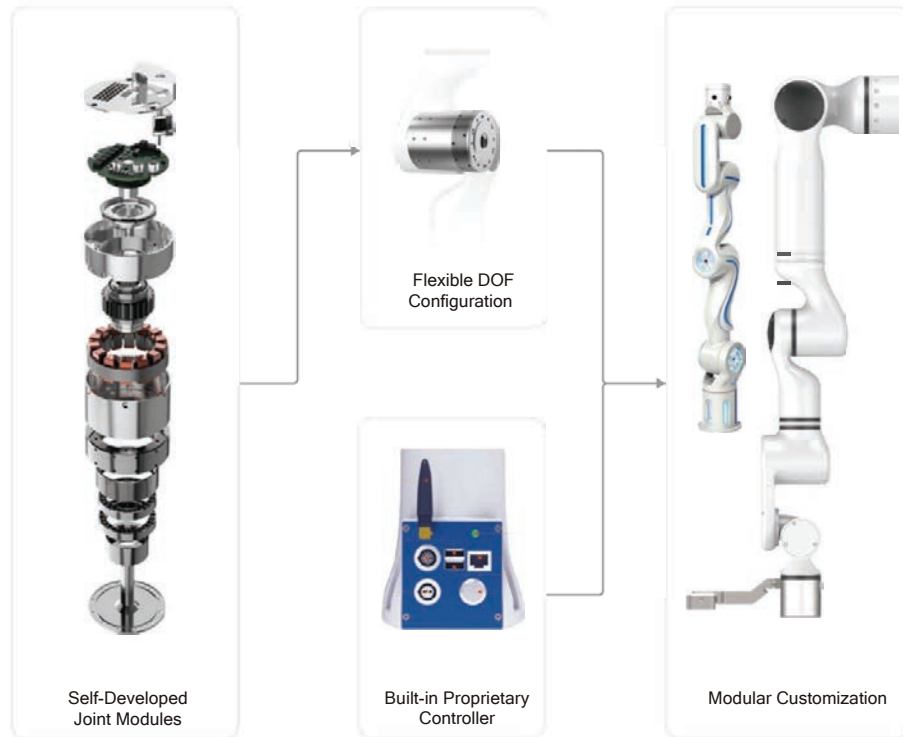
G) Typical Rated Power: average power under rated load during standard run-in procedure

Q) Typical Peak Power: peak power under rated load during standard run-in procedure (instantaneous peak power can reach up to 1000 W under extreme conditions)



Model	ECO62 -Standard Version
Degrees of Freedom (DOF)	6
Configuration	Collaborative Robot Configuration
Joint Brake Type	Mechanical Brakes on Joints 1-6
Working Radius (mm)	355
Payload (kg)	1
Weight (kg)	3.3
Repeatability (mm)	±0.1mm
TCP Linear Speed (m/s)	< 1.3
Typical Power Consumption (W)	≤100
Peak Power Consumption (W)	≤250
Base Diameter (mm)	<1>107
Operating Temperature (°C)	0-50
Force-Torque Sensor Range	—
Force-Torque Sensor Accuracy	—
Supply Voltage (V)	DC24V

® ECO62 instantaneous peak power can reach up to 300 W under extreme conditions



Robotic Arm ODM

Foundova provides comprehensive robotic arm customization solutions based on self-developed core joint modules and motion control technologies. Flexible configurations with 6-DOF, 7-DOF, and other architectures are available to meet high-precision operational requirements across diverse applications. Whether for industrial assembly, scientific research, or human-robot collaboration, customized designs can be delivered with rapid response.

With standardized software interfaces and an open development platform, customers can efficiently integrate customized end-effectors and intelligent algorithms, enabling full-stack customization from hardware to software. Built on a modular design architecture, our solutions balance performance, reliability, and scalability, helping enterprises accelerate their intelligent transformation.

Success Stories

A leading embodied robotics company partnered with Foundova to develop a customized robotic arm featuring 7 degrees of freedom and a 3 kg rated payload. Leveraging our mature control architecture and proven development capabilities, we achieved rapid delivery while meeting stringent requirements for accuracy and operational stability, effectively supporting the customer's mass-production timeline.

An emerging robotics company developing service robots customized a dedicated 7-DOF robotic arm with a 5 kg rated payload. Foundova tailored the design to its structural and operational requirements and completed a pilot production delivery. The arm's collaborative flexibility and payload performance proved highly suitable for real-world service applications, accelerating the customer's product validation process.



Rapid ODM
Professional Delivery



Factory Capacity
Approaching 1 Million Units



Serving Over 8,000
Customers Worldwide



Foldable by Design Ready for Every Scenario

Designed for data collection and training, home services, retail, industrial manufacturing, and more



Foldable Mobile Platform

Efficient Mobility
Multi-Height Operation Coverage



Comprehensive Perception

360° Head Vision
Dual LiDAR Navigation



Modular Quick-Release Design

Fast Maintenance and Upgrades
OTA Remote Management

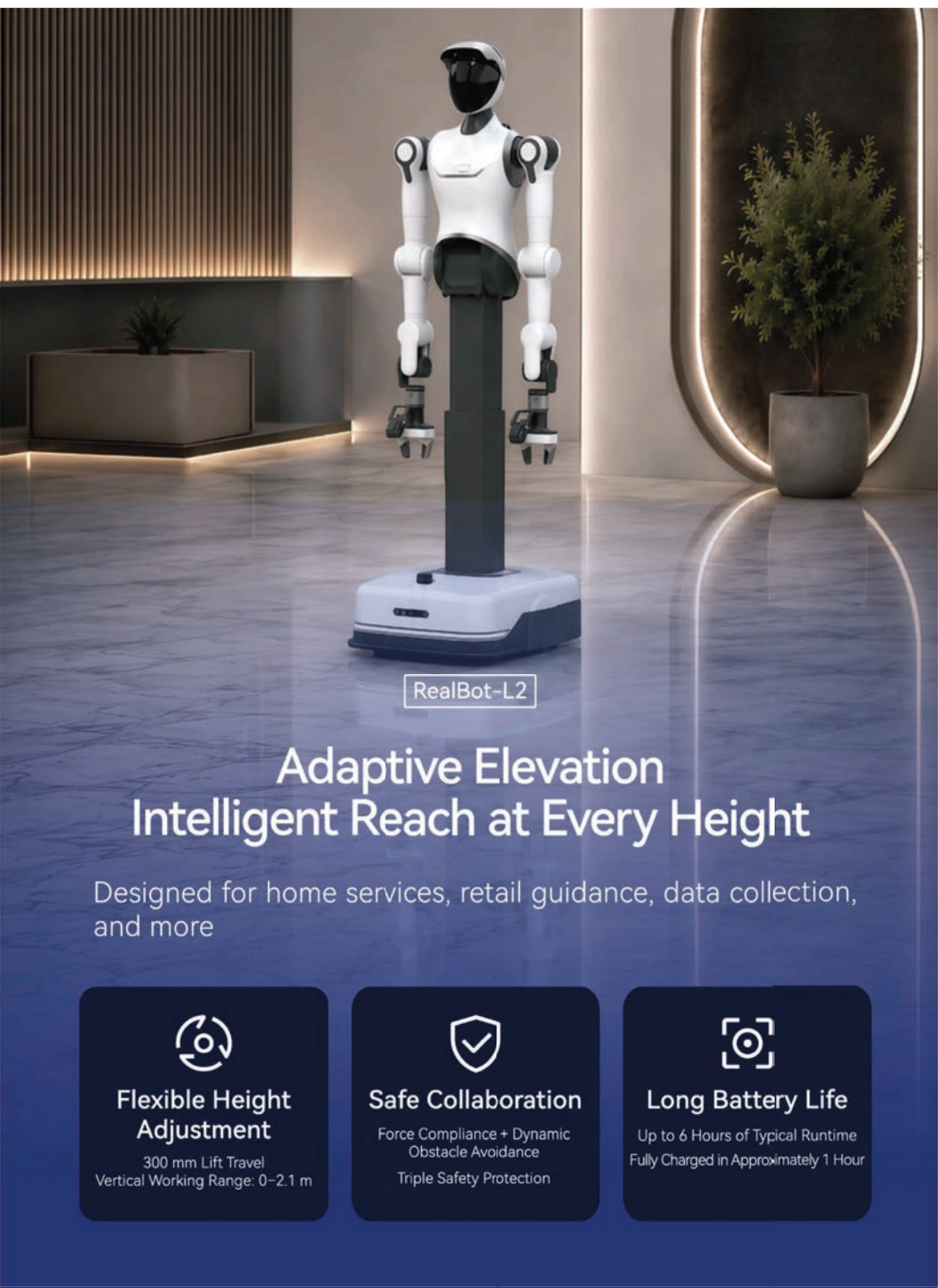
Product parameters

FOUNDIVA

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RealBot-S2

Robot Type	Full-Size Wheeled Dual-Arm Foldable Robot	Degrees of Freedom per Arm	7 DoF
Overall Dimensions	614*552*1700 mm	Force-Torque Sensor Range	200N / 7N·m
Vertical Working Range	0 ~ 2.1 m	Force-Torque Sensor Accuracy	0.5%FS
Lift Travel	0.3m	Arm Span	1778 mm (Excluding End-Effector)
Robot Weight	Approx. 125 kg	End-Effector	Supports Quick Switching Between Two-Finger Parallel Gripper and Five-finger Dexterous Hand
Voice Interaction	Supported (Built-in Microphone Array/ Speaker)	Mobile Base Drive Type	Four-Wheel Steering & Four-Wheel Drive
Total Degrees of Freedom	20 DoF (Excluding Mobile Base and End-Effector)	Mobile Base Speed	0.1 ~ 1.5 m/s
Head Degrees of Freedom	2 DoF (Pitch, Yaw)	Maximum Climbing Capability	8°
Waist Degrees of Freedom	2 DoF (Pitch, Yaw)	Obstacle Crossing Capability	S20mm
Leg Degrees of Freedom	2 DoF (Ankle, Knee)	Mobile Base Functions	SL AM Navigation & Localization / Dynamic Obstacle Avoidance
Main Processor	NVIDIA Jetson AGX Orin 64G	Battery Capacity	48V 20Ah
Head Cameras	1 Stereo RGB Camera + 2 Fisheye Cameras	Supports Manual Charging, Battery Swapping.	
Hand Cameras	RGB-D Camera (Standard) / Monocular RGB Camera (Optional)	Typical Operating Runtime	~6h
Arm Configuration	Humanoid Arm	Communication	Wired, Wi-Fi, 5G (Optional)
Rated Payload per Arm	5 kg/Arm	Display Not Supported (Optional Tablet Available)	



RealBot-L2

Adaptive Elevation Intelligent Reach at Every Height

Designed for home services, retail guidance, data collection, and more



Flexible Height Adjustment

300 mm Lift Travel
Vertical Working Range: 0-2.1 m



Safe Collaboration

Force Compliance + Dynamic
Obstacle Avoidance
Triple Safety Protection



Long Battery Life

Up to 6 Hours of Typical Runtime
Fully Charged in Approximately 1 Hour

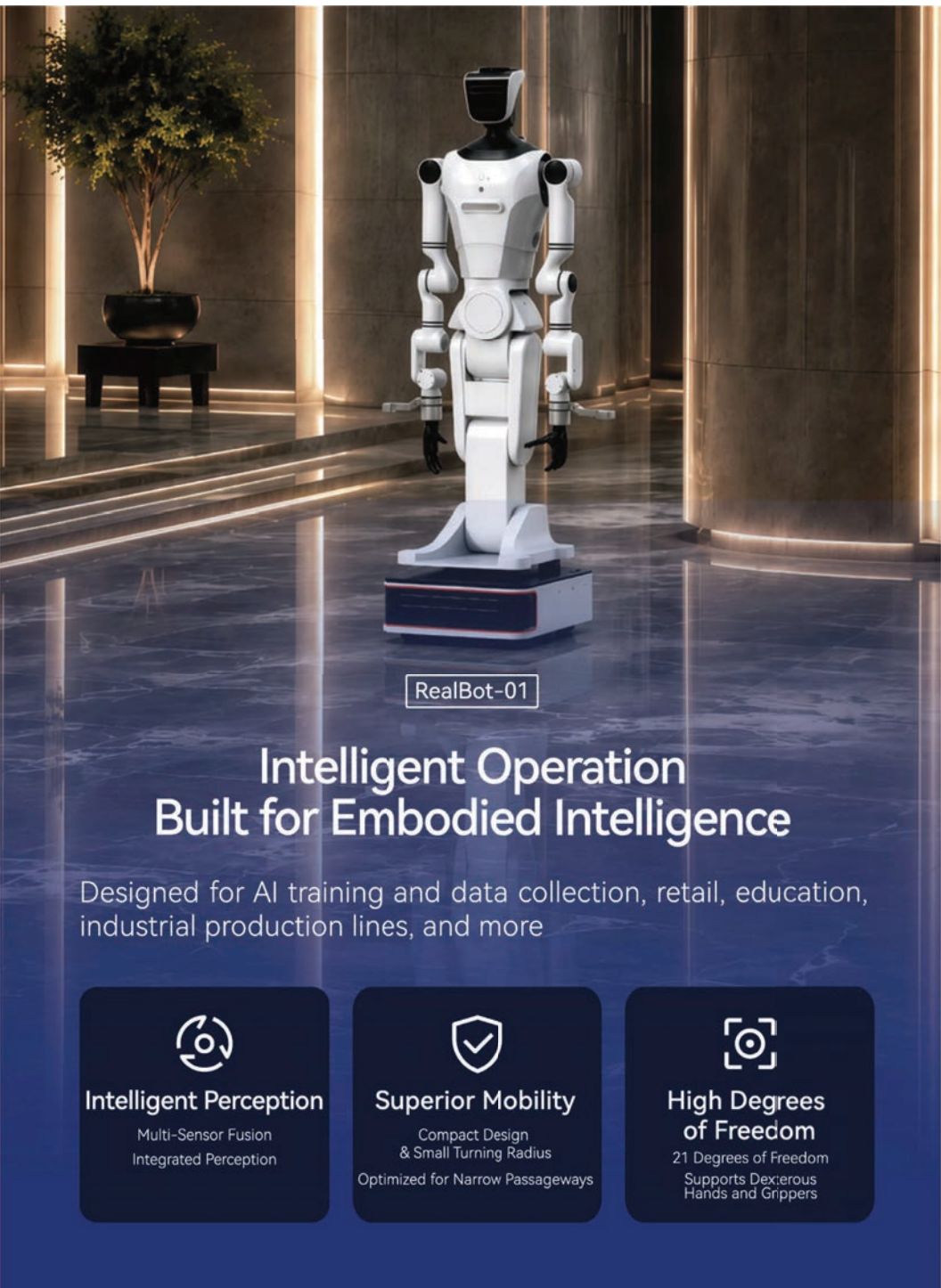
Product parameters

FOUNDIVA

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Rea1Bot-L2

Robot Type	Full-Size Wheeled Dual-Arm Lift Robot	Force-Torque Sensor Range	200N / 7 N·m
Overall Dimensions	650*512*1700 mm	Force-Torque Sensor Accuracy	0.5%FS
Vertical Working Range	0 ~ 2.1 m	Arm Span	1778 mm (excluding end effector)
Lift Travel	0.3m	End-Effector	Supports Quick Switching Between Two-Finger Parallel Gripper and Five-Finger Dexterous Hand
Robot Weight	~120 kg	Mobile Base Drive Type	Differential Drive
Voice Interaction	Supported (built-in microphone array and speakers)	Mobile Base Speed	0.1 ~ 1.0 m/s
Total Degrees of Freedom	17 DoF (excluding mobile base and end effector)	Maximum Climbing Capability	5°
Head Degrees of Freedom	1 DoF (Pitch)	Obstacle Crossing Capability	≤ 15 mm
Waist Degrees of Freedom	1 DoF (Pitch)	Lift System Payload Capacity	≥ 60 kg (including dual arms and payload)
Lift Degrees of Freedom	1 DoF (Lift)	Lift Speed	50 ~ 100 mm/s
Main Processor	NVIDIA Jetson AGX Orin 64GB / RDK S100 (Both Optional)	Mobile Base Functions	SLAM Navigation & Localization / Dynamic Obstacle Avoidance
Head Camera	Stereo RGB Camera (Standard)/ Depth Camera (Optional)	Battery Capacity	48V 20Ah
Hand Camera	RGB-D Camera (Standard)/ Monocular RGB Camera (Optional)	Charging Method	Manual Charging
Arm Configuration	Humanoid Arm	Typical Operating Runtime	~6 h
Rated Payload for Single Arm	5 kg / Arm	Communication	Wired, Wi-Fi
Degrees of Freedom per Arm	7 DoF	Display Not Supported (Optional Tablet Available)	



Intelligent Operation Built for Embodied Intelligence

Designed for AI training and data collection, retail, education, industrial production lines, and more



Intelligent Perception

Multi-Sensor Fusion
Integrated Perception



Superior Mobility

Compact Design
& Small Turning Radius
Optimized for Narrow Passageways



High Degrees of Freedom

21 Degrees of Freedom
Supports Dexterous
Hands and Grippers

Product parameters

FOUNDIVA

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RealBot-01

Overall Dimensions	570mm x 465mm x 1680mm
Turning Radius	690 mm (Zero-Turn Radius)
Working Range	Vertical Reach: 2100 mm Horizontal Reach: 1818 mm (Excluding End-Effector)
Robot Weight	~ 125 kg
Payload per Arm	5 kg
Total Active Degrees of Freedom	21
Travel Speed	0.1 ~ 1.5 m/s
Battery System	40 Ah (BMS Supported)
Charging Time	~ 2 Hours
Vision System	Stereo Depth / RGB Optional
Wide-Angle Cameras	130 °Field of View (3 Cameras Located on the Chest, Rear, and Mobile Base)
LiDAR	Single-Line LiDAR, Detection Range > 40 m (90% Reflectivity)
Voice Interaction Module	Circular 6-Mic Smart Speaker



Dual-Arm Lift Robot

Purposeful Reach Reach Every Working Height

Designed for AI training and data collection, industrial applications, commercial services, home services, research, and education



High-Reach Operation

900 mm Lift Travel
Working Height up to 2400 mm



Multi-Modal Perception

3 Depth Cameras
+ 2 Wide-Angle Cameras
Object Recognition, Grasping
& Environment Monitoring



Open Development Ecosystem

Powered by Jetson AGX Orin
Designed for Research
and Open Innovation

Product parameters

FOUNDIVA

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Dual-Arm Lift Robot

Robot

Overall Dimensions	640mm x 450mm x 1780mm
Turning Radius	450 mm (Zero-Turn Radius)
Working Range	Vertical Reach: 0-2400 mm (Fully Extended) Lateral Reach: 790 mm Beyond Base (Single Side) Forward Reach: 0-690 mm
Robot Weight	~ 157 kg
Payload per Arm	5 kg
Effective Lift Travel	900mm
Travel Speed	1.5 m/s
Battery Runtime	3~4 h
Charging Power Supply	AC 220V ±10% 50Hz
Arm Model	RM65-B-V (Optional: RM75-B-V)
Vision Sensors	Included
End-Effector	CTAG2F90D (Optional)
Operating Environment	5~40 °C



Single-Arm Lift Robot

Unlimited Vertical Reach

Precise and Flexible for Every Task

Designed for industrial production, logistics and warehousing, retail, home services, research, and education



Flexible Operation

Lift Travel ≥ 900 mm
Significantly Expanded Vertical Workspace



Single-Arm Operation

6 DoF · 5 kg Payload
Cost-Effective Solution

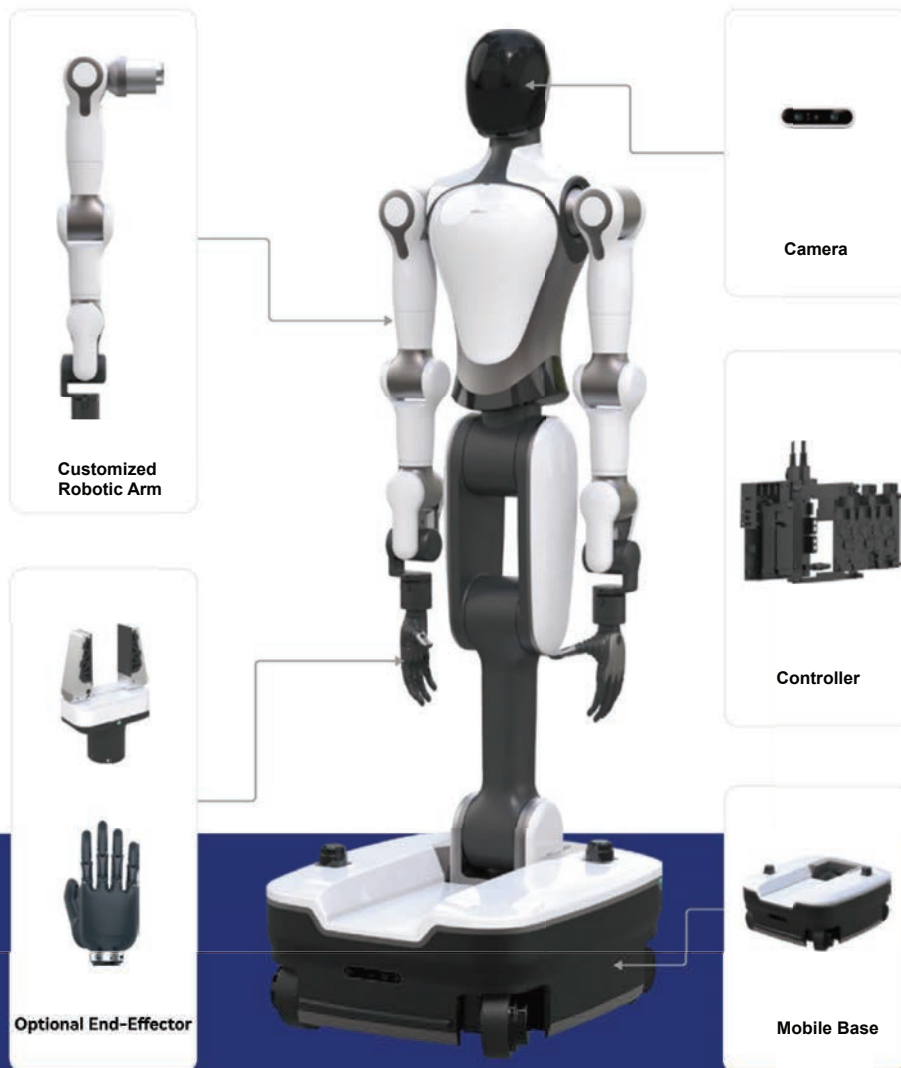


Intelligent Mobile Base

LIDAR + Vision Obstacle Avoidance
Navigate Complex Environments with Ease

Single-Arm Lift Robot Robot

Overall Dimensions	Height: 1605 mm, Diameter: 505 mm
Turning Radius	252.5 mm (in -place rotation)
Robot Weight	~ 100 kg
Payload per Arm	5 kg
Effective Lift Travel	Not Less Than 900 mm
Travel Speed	1 m/s
Battery Runtime	3h
Power Supply	100 ~ 240V AC 50Hz
Working Voltage	DC24V
Arm Model	RM 65-B - V
Positioning Accuracy	$< \pm 5$ cm
Operating Environment	5~40 ·C



Complete Robot ODM

Foundova robots adopt a modular architecture consisting of five major modules: mobile base, torso, vision system, arms, and end-effectors. Standardized interfaces enable independent customization and rapid integration while balancing performance, reliability, and scalability.

Mobile Base: Supports multiple drive configurations, including four-wheel steering & four-wheel drive and differential drive, providing flexibility, mobility, and adaptability across various environments.

Torso: Integrates computing, perception, and interaction capabilities, with support for a wide range of sensor expansions.

Vision System: Industrial-grade vision system featuring low latency, high stability, and strong resistance to interference.

Arms: Powered by self-developed joint modules, offering flexible DOF and payload configurations.

End-Effector: Compatible with grippers, dexterous hands, and industry-specific tools to meet diverse operational requirements.

This modular design enables rapid customization, shortens deployment cycles, and reduces both customization and maintenance costs.



Rapid ODM
Professional Delivery



Factory Capacity
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Serving 8,000+
Customers Worldwide



Robot Integration OEM

Custom Robot Integration

Built on Foundova's self-developed robotic arms, autonomous mobile bases, 3D vision systems, lifting mechanisms, and end-effectors, customized robot solutions can be rapidly developed to meet specific application scenarios and workflow

Secondary Development Services

Based on existing standardized robot platforms, we provide secondary development services, including custom end-effectors, software adaptation, workflow customization, and third-party system integration, enabling rapid deployment into customer operations and precise adaptation to application requirements.

Industry Solution Development

Serving industries such as logistics, unmanned retail, healthcare, intelligent food service, manufacturing, and education, we deliver turnkey solutions covering hardware integration, customized software development, on-site deployment, commissioning, operator training, and maintenance support, helping customers accelerate intelligent automation adoption.



Rapid ODM
Professional Delivery



Factory Capacity
Approaching 1 Million Units



Serving 8,000+
Customers Worldwide



Intuitive Teleoperation Every Action Becomes Training Data

Designed for embodied AI data collection, function validation, home services, and retail applications

High-Fidelity Replication

Zero Domain Gap Data

Full-Body 6D Control

Unified Data Collection for Arms, Grippers, Mobile Base, Lift, Waist, and Head

Ready to Deploy

Plug-and-Play via RJ45 Ethernet Interface

	Teleoperation Kit GLN-RX71	Teleoperation Kit GLN-RX75	Aloha Teleoperation Kit (Compatible with RealBot-01, RealBot-L2, RealBot-S2, and Dual-Arm Lift Robots)
Kit Type	Master Arm	Master Arm	Master Arm
Master Arm Model	RX71	RX75	YDS-DAP-75/ 65/RX7 5S
Force Feedback	Supported	Supported	Not supported
Configuration	Humanoid Configuration	Humanoid Configuration	Master-Slave Configuration
Working Radius	474mm	709mm	599mm
Degrees of Freedom (DoF)	7	7	7
Control Method	Handheld Controller	Handheld Controller	Finger Ring Controller
Angular Resolution	±0.003°	±0.003°	0.088°
Master Arm Weight	3.8kg	7.8kg	Approx. 1.5 kg (including gripper)
Operating Force	Near-Zero Operating Force	Near-Zero Operating Force	Near-Zero Operating Force
Maximum Operating Speed	30RPM	30RPM	110RPM
Actuator Type	Integrated Joint Module	Integrated Joint Module	Bus Servo Motor
Motion Streaming Frequency	100Hz	100Hz	100Hz
Communication Interface	RJ45 Interface	RJ45 Interface	RJ45 Interface / 10 core aviation plug
Operating Voltage	DC24V	DC24V	DC12V
Rated Power	≤ 100W	S200W	84W



Mobile Base - Four-Wheel Steering & Drive

Agile Steering for Complex Scenarios

Applicable to industrial logistics, commercial services, research & education, and embodied AI data collection scenarios



Four-Wheel Omnidirectional Drive

Zero-radius Turning · Lateral Movement
Turning Radius only 413 mm



Full-Scope Perception

Mapping · Dynamic Obstacle Avoidance
· Environmental Perception
360° LiDAR + RGB-D Camera



High-Efficiency Endurance

Battery Life ≥ 6 hours
Hot-swappable battery · Supports automatic recharging

Mobile Base Four-Wheel Steering & Drive

Mobile Base drive type	Four-Wheel Steering & Drive System	LiDAR	Detection range: 0.1-40 m @ 90% reflectivity, single-line 360°
Dimensions	614*552*270mm (including 303 mm LiDAR height)	Contact Sensor	Minimum detection force: 10 N
Weight	~ 65 kg	Battery Capacity	48V 20Ah
Payload Capacity	80 kg	Quick Release Battery	Supported
Wheelbase x Track Width	380mm * 320mm	Number of Batteries	2
Travel Speed	0 ~ 1.5 m/s	Charger Input Voltage	220V
Max Slope	8°	Battery Endurance	≥ 6 h
Obstacle Crossing Capability	≥ 20 mm	Battery Swap	Supported
Turning Radius	413mm	Charging	Supported
SLAM Navigation & Localization	Supported	Light Interaction System	Supported
Dynamic Obstacle Avoidance	Supported	Communication	Gigabit Ethernet (RJ45)
Depth Camera	RGBD Camera	Remote Controller	Handheld controller (supports base motion control)

RGBD Camera

Maximum Depth Resolution
1280 x 800 @30 FPS, aspect ratio 16:10, FOV 90° x 65° ± 3° @ 2 m
Maximum RGB Resolution
1280 x 800 @60 FPS, aspect ratio 16:10, FOV 94° x 68° ± 3°



Mobile Base - Dual-Wheel Differential Drive

Differential Drive for Agile Mobility Across Every Scenario

Suitable for industrial logistics, commercial services, research & education, and embodied AI data collection applications



Dual-Wheel Differential Drive

Highly cost-effective with a compact design for agile operation



Full-Scope Perception

Mapping · Dynamic Obstacle Avoidance
· Environmental Perception
360° LiDAR + RGB-D Camera



Long Endurance

Rated payload 80 kg,
no-load runtime ≥ 6h, 48V 20Ah

Mobile Base Dual-Wheel Differential Drive

Mobile Base drive type	Dual-Wheel Differential Drive	Dynamic Obstacle Avoidance	Supported
Dimensions	650 x 512 x 222 mm (243 mm including LiDAR)	LiDAR	Detection range: 0.1 m ~ 40 m@ 90%, single-line 360°
Weight	~ 60 kg	Physical Collision Sensor Minimum Sensing Force:	10 N
Rated Payload Capacity	80 kg	Battery Capacity	48V 20Ah
Wheel Track	365mm	Hot-Swappable Battery	Not supported
Travel Speed	0 ~ 1 m/s	Number of Batteries	1
Max Slope	5°	Charger Input Voltage	220V
Obstacle Crossing Capability	≤ 15 mm	Battery Endurance	≥ 6 h
Turning Radius	360mm	Light Interaction System	Supported
SLAM Navigation & Localization	Supported	Communication	Gigabit Ethernet (RJ45)
Depth Camera	RGBD Camera	Handheld Wireless Controller	Remote Controller (supports mobile base motion control)

RGBD Camera

Maximum Depth Resolution
1280 x 800 @30 FPS, aspect ratio 16:10, FOV 90° x 65° ± 3° @ 2 m

Maximum RGB Resolution
*** 1280 x 800 @60 FPS, aspect ratio 16:10, FOV 94° x 68° ± 3°

Darwin Teleoperation Platform

The Darwin Teleoperation Platform is an immersive remote operation client designed for frontline teleoperators. Using teleoperation arm controllers together with multi-channel real-time video streams and SLAM localization maps, operators can remotely control robots with precision and safety.

Designed around four core principles-clear visibility, precise control, closed-loop task management, and adjustable parameters-the platform enables operators to perform complex industrial tasks remotely as if they were on-site.

Six Core Capabilities

Multi-Channel Real-Time Video Streaming

Dual-arm views, enhanced forward-facing views, and 360° BEV feeds are displayed simultaneously, delivering a fully immersive teleoperation experience.

Real-Time SLAM Localization Map

Real-time rendering of robot position and movement trajectory provides spatial awareness and supports waypoint-based autonomous navigation with obstacle avoidance.

Closed-Loop Task Workflow

From task assignment and execution to completion and verification, every operation is fully traceable.

Flexible Dual-Mode Operation

Flexibly switch between teleoperation mode and data collection mode to meet different operational requirements.

Dual Control Modes for Precise Operation

Freely switch between controller-based and keyboard-based control to suit different user preferences and scenarios.

Force Feedback & Motion Parameter Adjustment

Customize parameters such as robotic arm/gripper force feedback intensity and mobile base speed.

Immersive Teleoperation, Operate as if On-Site from Miles Away

Suitable for industrial inspection, warehouse operations, remote monitoring, and data collection scenarios



Multi-Channel Real-Time Vision

Dual-arm view + enhanced forward view + 360° BEV for immersive full-screen operation



Precise Map-Based Navigation

Real-time position and path rendering with waypoint navigation and obstacle avoidance



Closed-Loop Task Management

New Task → Execution → Completion
Submission, Full Process Traceability

Darwin Device Management Platform

The Darwin Device Management Platform is a one-stop SaaS platform designed for robotic remote operation scenarios, covering the entire lifecycle from device onboarding and task dispatching to compliance management and multi-tenant operations.

Built around the principles of device manageability, task controllability, compliance traceability, and tenant isolation, the platform enables efficient operations, reduces operational risks, and serves as the foundation for scalable robotic remote work services.

Six Core Capabilities

Full Lifecycle Device Management

Dual-arm views, enhanced forward-facing views, and 360° BEV feeds are displayed simultaneously, delivering a fully immersive teleoperation experience.

Unified Remote Task Scheduling

Task creation, status tracking, and device assignment with full workflow visibility.

Intelligent Compliance Management

Configurable timeout alerts, task verification, and operational constraints to reduce compliance risks.

Granular Device Authorization Management

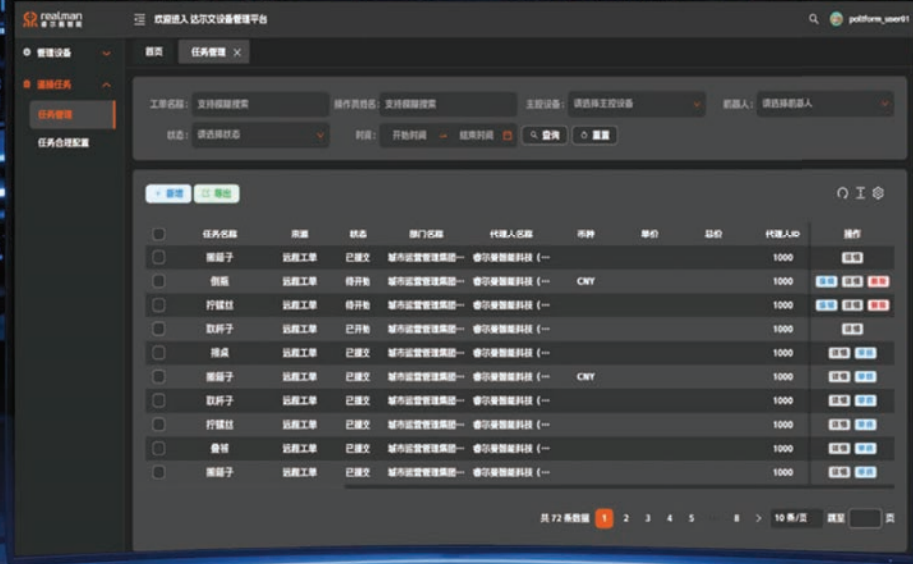
Bind permissions across control terminals, robots, and tenants with fine-grained management at tenant and user levels.

Multi-Tenant SaaS Architecture

Tenant-isolated operations and independently managed organizational structures, supporting B2B2C business models.

Flexible System Configuration

One-stop configuration of users, roles, menus, data dictionaries, and whitelists with granular permission control.



Darwin Device Management Platform

One Dashboard, Full Control of Devices and Tasks

Suitable for remote operations management, multi-tenant administration, device management, and compliance governance scenarios



Complete Device Visibility

Real-time online monitoring with granular access control



Task Visualization

End-to-end task tracking with compliance and timeout alerts



Multi-Tenant SaaS

Tenant-isolated operations with granular permission configuration

Darwin Data Collection Platform

The Darwin Data Collection Platform is a full-chain centralized orchestration platform purpose-built for embodied intelligence data production, integrating collection, quality inspection, format conversion, annotation, review, and delivery into a unified system.

The platform is structured around scenarios, materials, collection items, plans, robots, operators, and shifts, enabling efficient orchestration of medium-to-large data projects under limited operational resources.

Six Core Advantages

Hardware-Data Integration

Foundova self-developed dual-arm robot serves as the platform's reference hardware. From joint torque output and data format definition to hardware synchronization mechanisms and timestamp generation, every aspect is designed with downstream data usability in mind from the very beginning of the hardware development process.

Built-in Data Quality Inspection

MCAP format validation, format conversion, and LeRobot standard validation are seamlessly integrated between the data collection and annotation stages, filtering out corrupted or invalid data before it enters the annotation workflow and significantly shortening issue detection and feedback cycles.

Multi-Tenant Isolated Deployment

The platform provides end-to-end isolation across data, menu permissions, and storage buckets. This architecture enables multiple customers to run data production tasks concurrently on a single platform instance while ensuring complete isolation of data and workflows for security and compliance.

Production-Ready AI Pre-Annotation

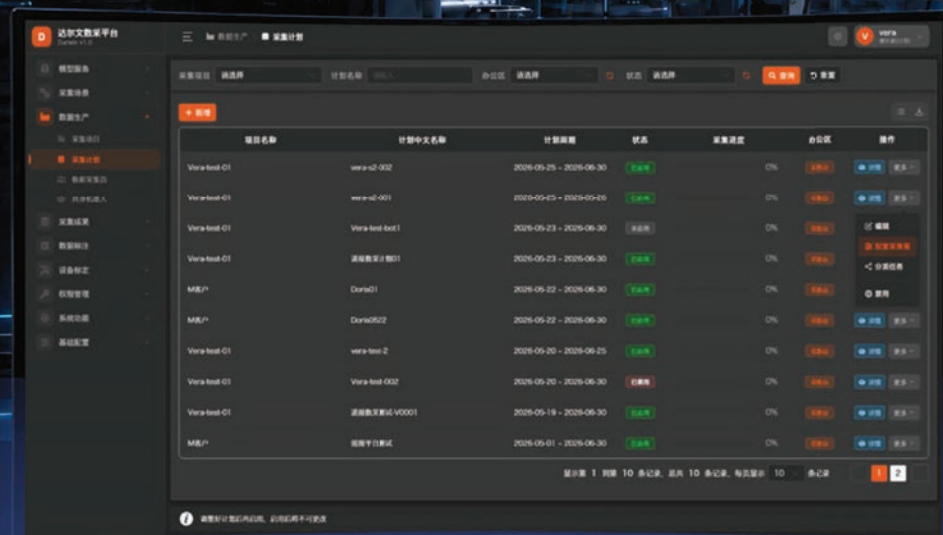
The AI pre-annotation module has been validated across four representative scenarios, with a processing time of 2-5 minutes per data sample and a 95% cross-scenario success rate, demonstrating proven readiness for large-scale data production.

Dual-Network Deployment & White Labeling

The platform supports deployment in both public and private network environments, balancing day-to-day collaboration with sensitive data processing requirements. The user interface can be customized to meet the branding requirements of different enterprises.

Validated by Real-World Operations

Every field definition, state transition, and workflow node has been repeatedly validated and refined through real-world data production scenarios, ensuring the platform's completeness and reliability in practical deployment.



Darwin Data Collection Platform

Every Robot Action Becomes Trainable Data

Suitable for embodied AI data generation, AI model training, multi-tenant data collection services, and robotic R&D testing scenarios



End-to-End Workflow Orchestration

Collection → Quality Inspection → Transformation → Annotation in a unified closed-loop system



Automated Quality Inspection Pipeline

MCAP → LeRobot three-stage validation filters out invalid data before annotation



AI Pre-Annotation Arbitration

Multimodal AI models enable automatic segmentation with up to 95% cross-scenario pass rate

Darwin Data Dashboard

The Darwin Data Dashboard is a global visualization command center designed for enterprise management and operational decision-makers. It integrates multidimensional real-time operational data, presenting robot operation videos, global deployment maps, key metrics, business growth trends, and robot working-hour rankings in a unified view.

Its core value lies in aggregating globally distributed robotic remote operation data in real time, dynamically rendering and structuring it to help managers clearly understand the operational status of cross-border and cross-time-zone "robotic remote operation services", enabling faster and more accurate data-driven decisions.

Six Core Capabilities

Key Metrics Dashboard

Multi-dimensional metrics including total robot working hours, number of robots, cross-time-zone labor distribution, and regional coverage for comprehensive business evaluation.

Global Deployment Visualization

Visualizes global robotic remote operation deployments, clearly presenting cross-continental operational strategy.

Remote Operation Service Growth Trend

Analyzes business fluctuations, supports strategic planning, and displays overall growth curves and trend evolution.

Multi-Dimensional Distribution Analysis

Uses ring and structural charts to analyze distribution of robots and human resources, revealing supply-demand relationships and business composition.

Robot Work Statistics

Monitors operational status, workload, scheduling anomalies, performance, and quality control.

Dual-Channel Video Display

Synchronized dual-view display of robot workspace and operator-side video for real-time situational awareness.





Skill Data Package

Train-Ready End-to-End from Data Collection to Training Delivery

Suitable for industrial manufacturing, retail, commercial office,
and home service scenarios



Multi-Dimensional Data Analysis

Scenario Packaging Scenario × Task
× Version × Five Elements
Standardized organization, ready for
training out of the box



Customized Delivery

Train-ready · Raw+
Delivered for direct use with no
additional processing required



Five-Element Validation

Quantity · Quality · Diversity
· Format · Annotation
datasheet.json validated and
delivered automatically

Skill Data Package

The Darwin Data Dashboard is a global visualization command center designed for enterprise management and operational decision-makers. It integrates multidimensional real-time operational data, presenting robot operation videos, global deployment maps, key metrics, business growth trends, and robot working-hour rankings in a unified view.

Each data package corresponds to a real-world scenario. It can be used for individual skills such as pick, place, and reset, or combined into composite training tasks to accelerate robot learning in practical environments.

Key Advantages

Save Time, Reduce Effort, Lower Cost

A large amount of preprocessing work is completed in advance, including task decomposition, field alignment, schema standardization, quality filtering, and statistics generation, eliminating the need for customers to perform these tasks themselves.

Full Data Traceability

Unique ID naming convention (RM-DATA-Domain-Scenario-Version). Every episode includes quality ratings, inspection results, and traceable source records.

Hardware-to-Data Integration

Foundova self-developed robots serve as the target hardware. Joint torque formats, timestamps, and multi-camera synchronization are designed with downstream usability in mind, which third-party integrations cannot easily achieve.

Growing Vertical Domains

Unique ID naming convention (RM-DATA-Domain-Scenario-Version). Every episode includes quality ratings, inspection results, and traceable source records.

Application Scenarios

Customer Type	Available Package	Typical Requirements
Enterprise AI Teams / Research Labs	Train-ready	Rapid integration into training frameworks with minimal data preprocessing
Large Platform Customers / Dedicated Data Teams	Raw+	Custom cleaning rules, re-annotation, and secondary data governance



End-to-End Data Collection Facility Solution

One-Stop Delivery End-to-End Construction of an Embodied AI Real-World Data Factory

Suitable for industrial logistics, commercial services, home environments, agriculture, power and transportation, security inspection, healthcare, education, and research scenarios



Rapid Deployment

China's First Humanoid Robot Data Training Center Successfully Delivered



Standardized Solution

Standardized from planning and construction to hardware, software, data operations, and commercialization



Integrated Deployment

From 0 to 1 Turnkey Delivery
Complete Delivery, Ready for Operation

Product parameters

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End-to-End Data Collection Facility Solution

When building a data collection facility, customers often face three major challenges: long construction cycles, complex hardware selection, and lack of operational experience. We provide a one-stop solution from 0 to 1, with China's first humanoid robot data training center already successfully delivered.

One-Stop End-to-End Solution

Planning & Preparation

Site planning, functional zoning, task scenario design, equipment lists, and implementation plans.

Facility Construction

Collection area, calibration area, maintenance area, office area, storage area, showroom area, and safety area.

Hardware

RealBot-S2/L2/01, teleoperation equipment, sensors, servers, and networking devices.

Software Platforms

Edge data collection system, task planning platform, data production platform, data quality inspection platform, and data storage platform.

Data Standards

Data collection specifications, annotation standards, quality inspection standards, format standards, and time synchronization standards.

Facility Operations

Personnel organization, training systems, equipment maintenance, collection scheduling, data review, and exception handling.

Data Product Integration

Standard data packages, customized datasets, scenario task libraries, format conversion, and model validation datasets.

Data Commercialization

Data subscriptions, customized data packages, platform services, testing and certification, training competitions, and ecosystem partnerships.

Revenue Model

* Data Services || Standard dataset licensing
+ customized dataset service fees

*Testing & Certification || Technical certification reports
and security grading assessments

* Platform Services || Scenario validation, training, and inference services charged based on task complexity
Ecosystem Operations || Competitions, training programs, technical memberships, and practical training centers



GLN Remote Teleoperation Solution V2

Boundless Perception, Reaching Every Remote Operation Site

Suitable for hazardous environment operations, remote inspection, industrial manipulation, embodied AI data collection, and cross-region remote collaboration scenarios



360° Panoramic Perception

360° head panoramic view + extended forward view for immersive operation experience



Low-Latency & High Reliability

Control command latency ≤ 50 ms
Multi-Level Safety Emergency Stop Protection



Multimodal Data Collection

Video, joints, pose, and commands for full-stack AI training data collection

Product parameters

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GLN Remote Teleoperation Solution V2

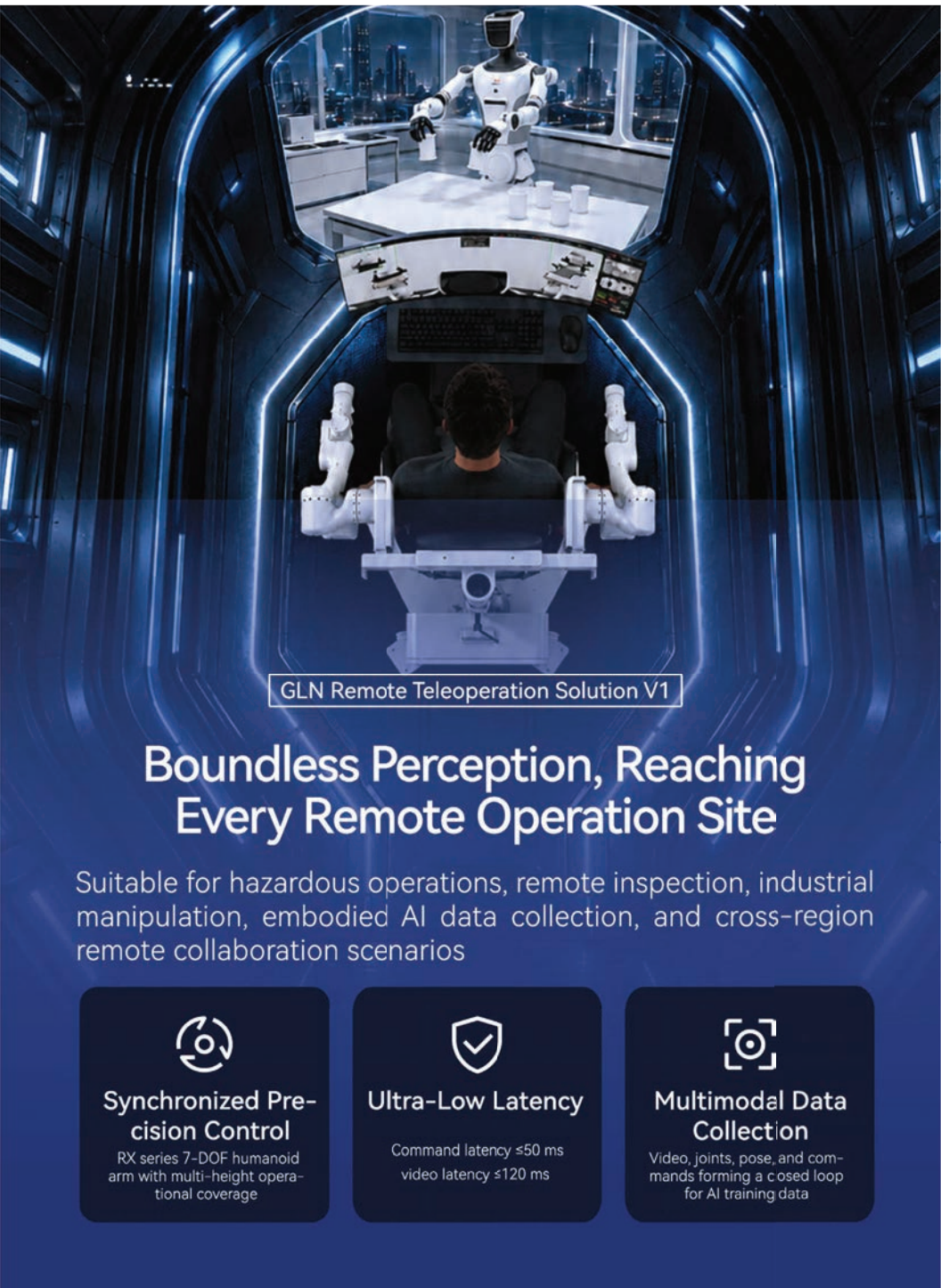
Robot		Teleoperation Device (Optional Local Version)	
Model	RealBot-S2/L2	Main Arm Model	RX71
DOF	20	Main Arm Degrees of Freedom / Configuration	7 / humanoid arm
Height	1.7 m	Arm Span	474 mm
Lift Range	0.3 m	Main Arm Weight	3.8 kg
Weight	~ 125 kg	Lift Range	1.0 m ~ 1.24 m
Single-Arm DOF	7	Max Shoulder Width	401 mm
Payload per Arm	5 kg	Power Supply	AC 220V
Drive Type	Four-wheel steering & four-wheel drive	Power Consumption	≤ 100 W
Mobile Base Dimensions (LxW)	614mm*552mm	Joystick Functions	a. Base forward/backward, rotation, lateral movement b. Arm lift/ rotate/ raise c. Head pitch/yaw control d. Gripper open/close control
Battery Capacity	48V 20Ah		
Runtime	~ 6 h		
Visual Perception	Head 360 °view/ single-arm RGB		

Darwin Teleoperation Software

Video Latency	≤ 120 ms
Command Latency	≤ 50 ms
Force Scaling	0~100%
Base Speed Scaling	0~100%

Software Features

Dual-arm depth view + extended 360 font view	SLAM real-time localization map	Task lifecycle closed loop
Dual-task mode switching	Dual control mode precise operation	Force feedback & motion parameter tuning



GLN Remote Teleoperation Solution V1

Boundless Perception, Reaching Every Remote Operation Site

Suitable for hazardous operations, remote inspection, industrial manipulation, embodied AI data collection, and cross-region remote collaboration scenarios



Synchronized Precision Control

RX series 7-DOF humanoid arm with multi-height operational coverage



Ultra-Low Latency

Command latency ≤ 50 ms
video latency ≤ 120 ms



Multimodal Data Collection

Video, joints, pose, and commands forming a closed loop for AI training data

Product parameters

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GLN Remote Teleoperation Solution V1

Robot		Teleoperation Device (Optional Local Version)	
Model	RealBot-01	Main Arm Model	RX75
DOF	21	Main Arm Degrees of Freedom / Configuration	7 / humanoid arm
Height	1.68 m	Arm Span	709mm
Lift Range	0.3 m	Main Arm Weight	8.2 kg
Weight	~ 125 kg	Lift Range	1.2 m ~ 1.5 m
Single-Arm DOF	7	Shoulder Width Range	0.316 m ~ 0.504 m
Payload per Arm	5 kg	Power Supply	AC 220V
Drive Type	Two-wheel differential drive	Power Consumption	S500W
Mobile Base Dimensions (LxW)	570mm*465mm	Joystick Functions	a. Base forward/backward, rotation, lateral movement b. Arm lift / rotate / pitch control c. Head pitch/yaw control d. Gripper open/close control
Battery Capacity	24V 40Ah		
Runtime	~ 4 h		
Visual Perception	Dual RGB cameras on head / Single RGB camera on hand		

Darwin Teleoperation Software

Video Latency	≤ 120 ms
Command Latency	≤ 50 ms
Force Scaling	0~100%
Base Speed Scaling	0~100%

Software Features

Dual-arm depth view + forward view display	Precise Handheld Control	Force feedback & motion parameter tuning
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