FOUNDOVA

Physical AI Infrastructure

for Real-World Robotics

- Reliable Hardware
- Real-World Data
- Remote Teleoperation

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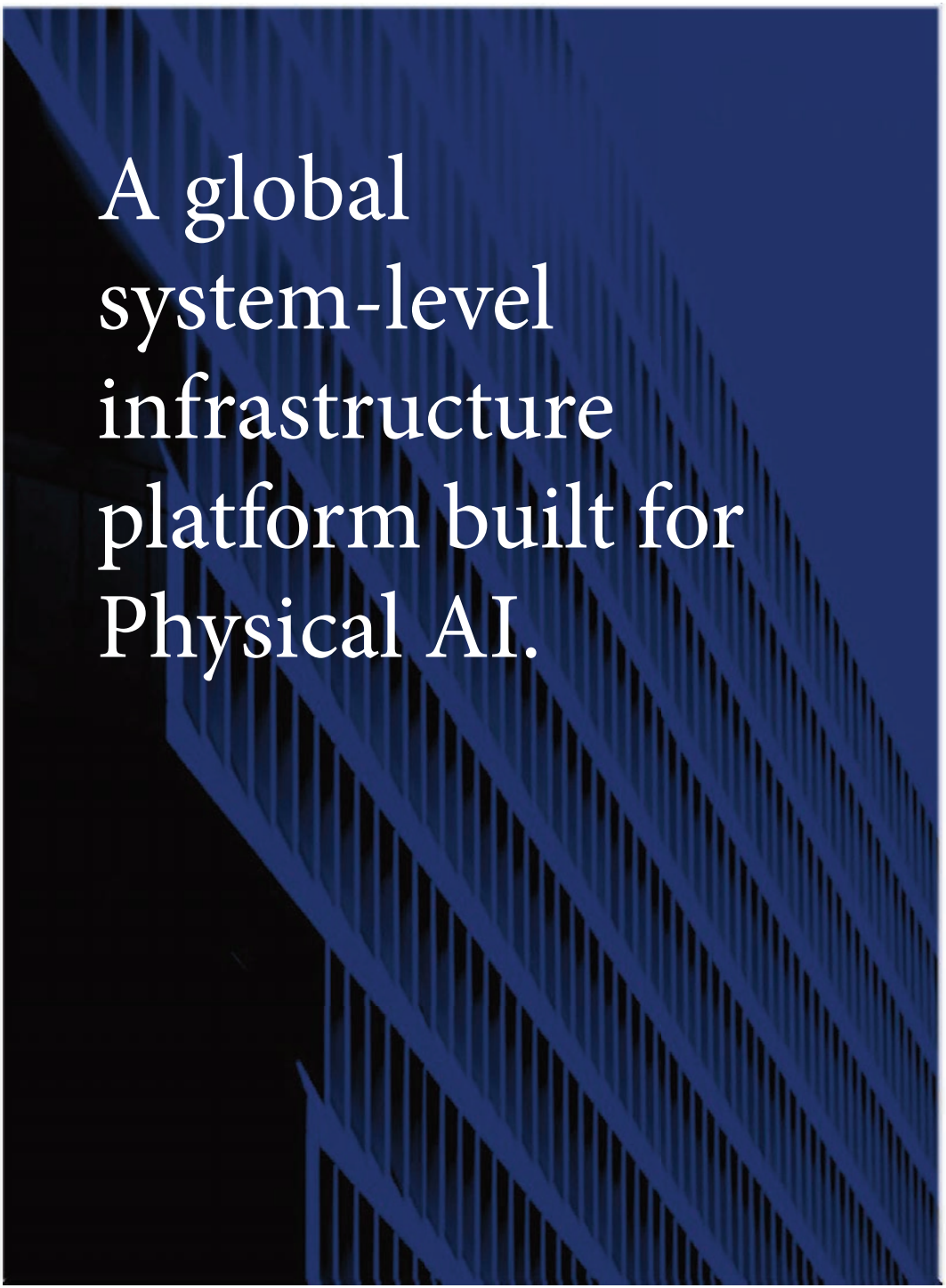

A global system-level infrastructure platform built for Physical AI.

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

WHJ03 | WHJ10-B | WHJ10-N | WHJ30 | WHJ60

WHG Series

WHG1410 | WHG1730 | WHG2060 | WHG25120 | WHG32240

WHJ

WHJ10 | WHJ30 | WHJ60

Two-Finger Parallel Gripper

RMG24

RX Series (Stan dard 6-Axis Force-Torque Sensing)

RX75S Standard Version | RX75 Standard Version | RX75 Vision Version | RX71 Standard Version

RM Series

RM65 Standard Version | RM65 6-Axis Force Version | RM75 Standard Version | RM75 6-Axis Force Version

RML Series

RML..63 Standard Version | RML63 6-Axis Force Version

ECO Series

EC065 Standard Version | ECO65 6-Axis Force Version | EC063 Standard Version | EC063 6-Axis Force Version | ECO62 Standard Version

Robotic Arm ODM

Custom RoboticArms

Robots

RealBot-S2 | RealBot-L2 | RealBot-01 | Dual-Arm Lift Robot | Single-Arm Lift

Robot ODM/OEM

Complete Robot System Integration & Industry Robot Systems Customization Solutions | Secondary Development Services

Teleoperation Kits

Remote Teleoperation Kit GLN-RX71 | Remote Teleoperation Kit GLN-RX75 | Aloha Teleoperation Kits

RealDrive Mobile Base

Four-Wheel Steering & Four-Wheel Drive Base | Differential Drive Mobile Base

Software Platforms

Darwin Teleop-eration Platform | Darwin Device Management Platform | Darwin Data Collection Platform | Darwin Data Dashboard

GLN Remote Teleoperation Solutions

Skill Data Packages | End-to-End Data Collection Solutions | GLN Remote Teleoperation Solutions

Product parameters

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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)	O~ 50	0 ~ 50	0~50	0~50	O~ 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

FOUNDOVA

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

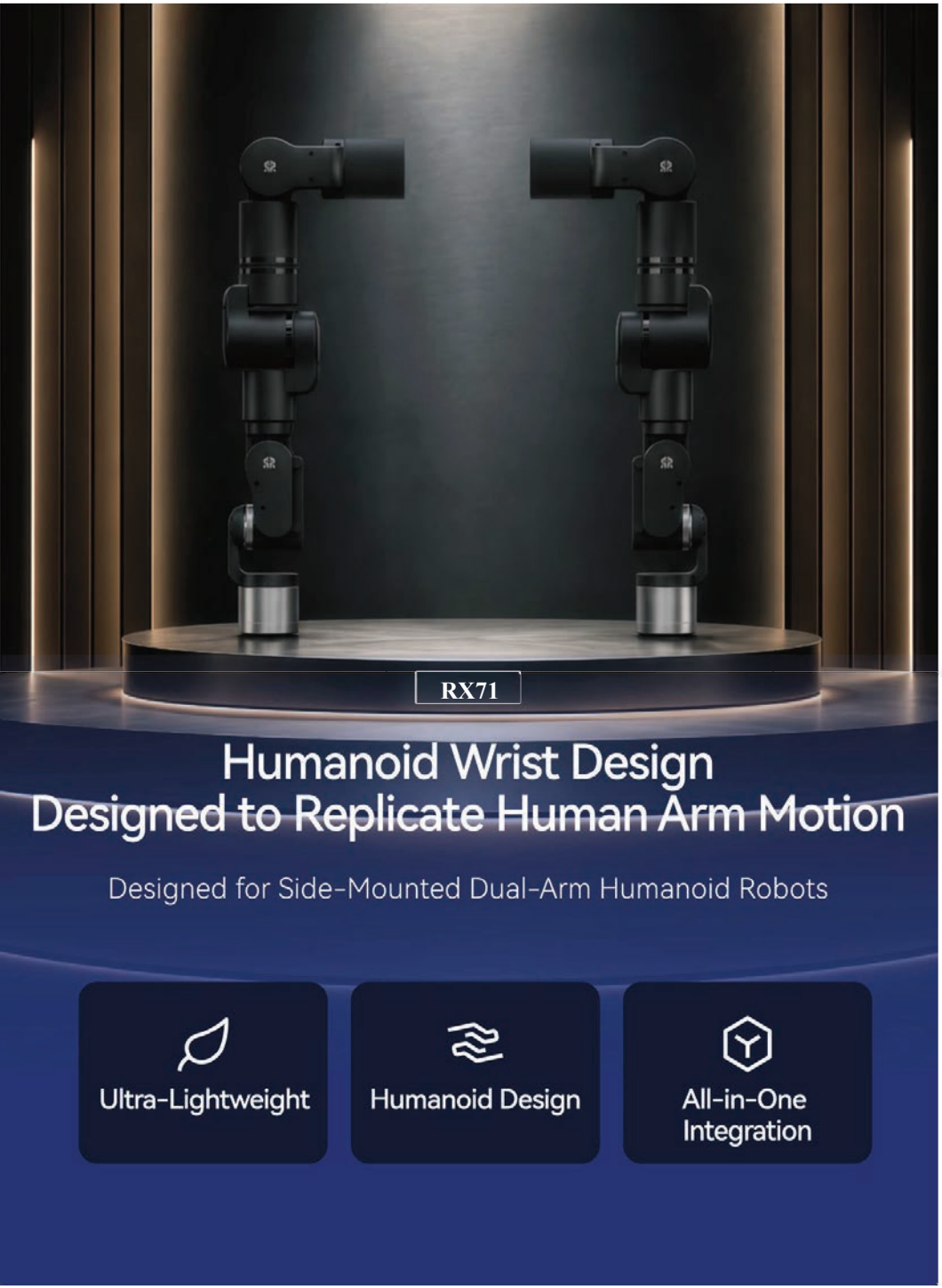
RMG24

Parallel Two-Finger Gripper

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

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



Product parameters

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Model	RX71 -Standard Version
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
Qi Typical Peak Power: peak power under rated load during standard run-in procedure (instantaneous peak power can reach up to 300 Wunder extreme conditions)

Product parameters

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

Product parameters

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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 Wunder extreme conditions)

Product parameters

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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

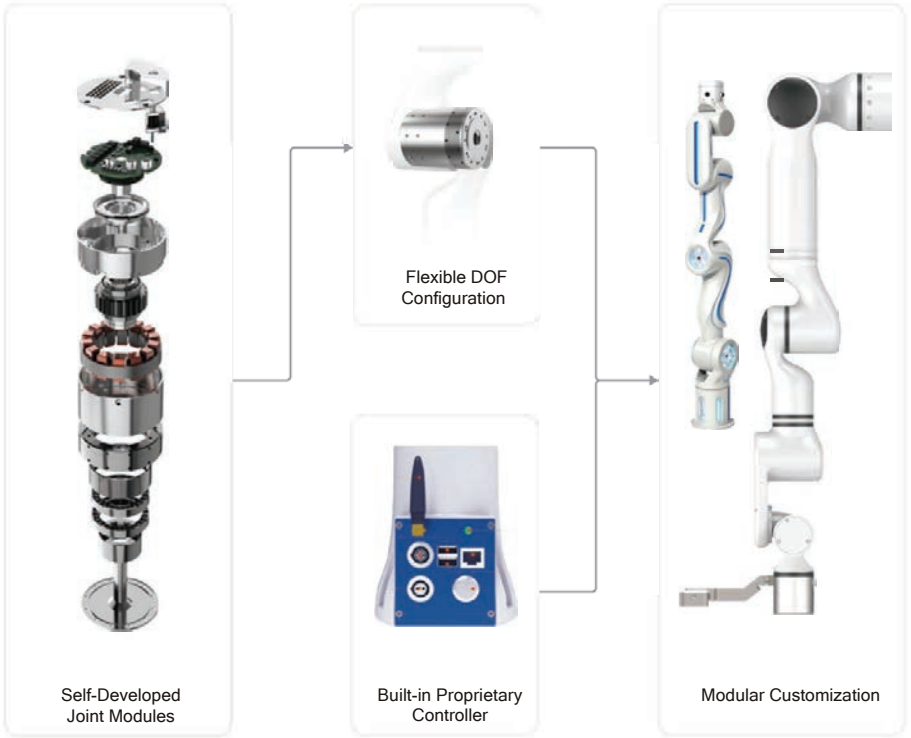
G) Typical Rated Power: average power under rated load during standard run-in procedure Qi Typical Peak Power: peak power under rated load during standard run-in procedure (instantaneous peak power can reach up to 1000 Wunder extreme conditions)

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 Wunder 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 Wunder 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

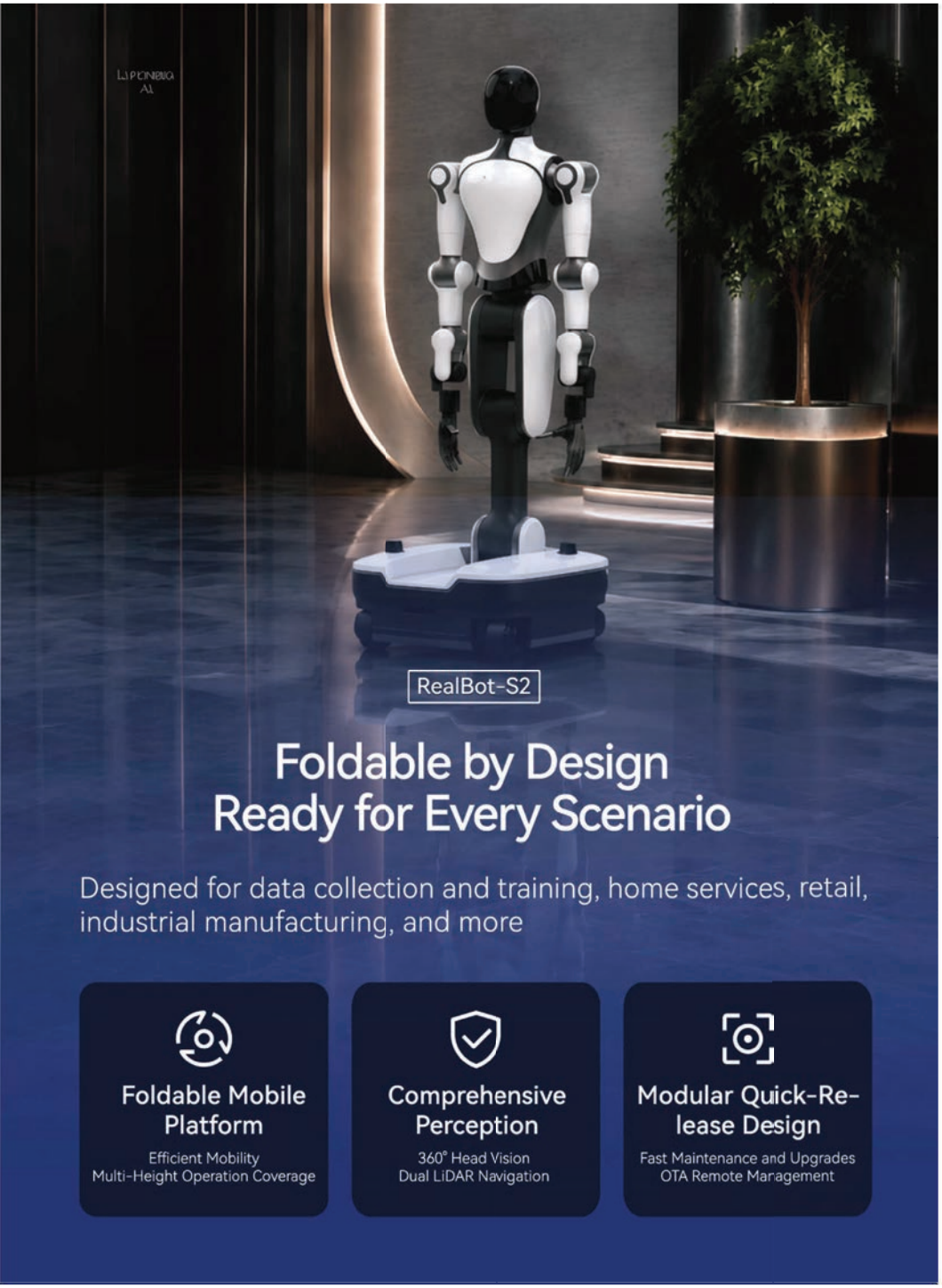
A leading embodied robotics company partnered with Foundova to develop a customized robotic arm featuring 7 degrees of freedom and a 3 kg rated payload. Leveraging our mature control architecture and proven development capabilities, we achieved rapid delivery while meeting stringent requirements for 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

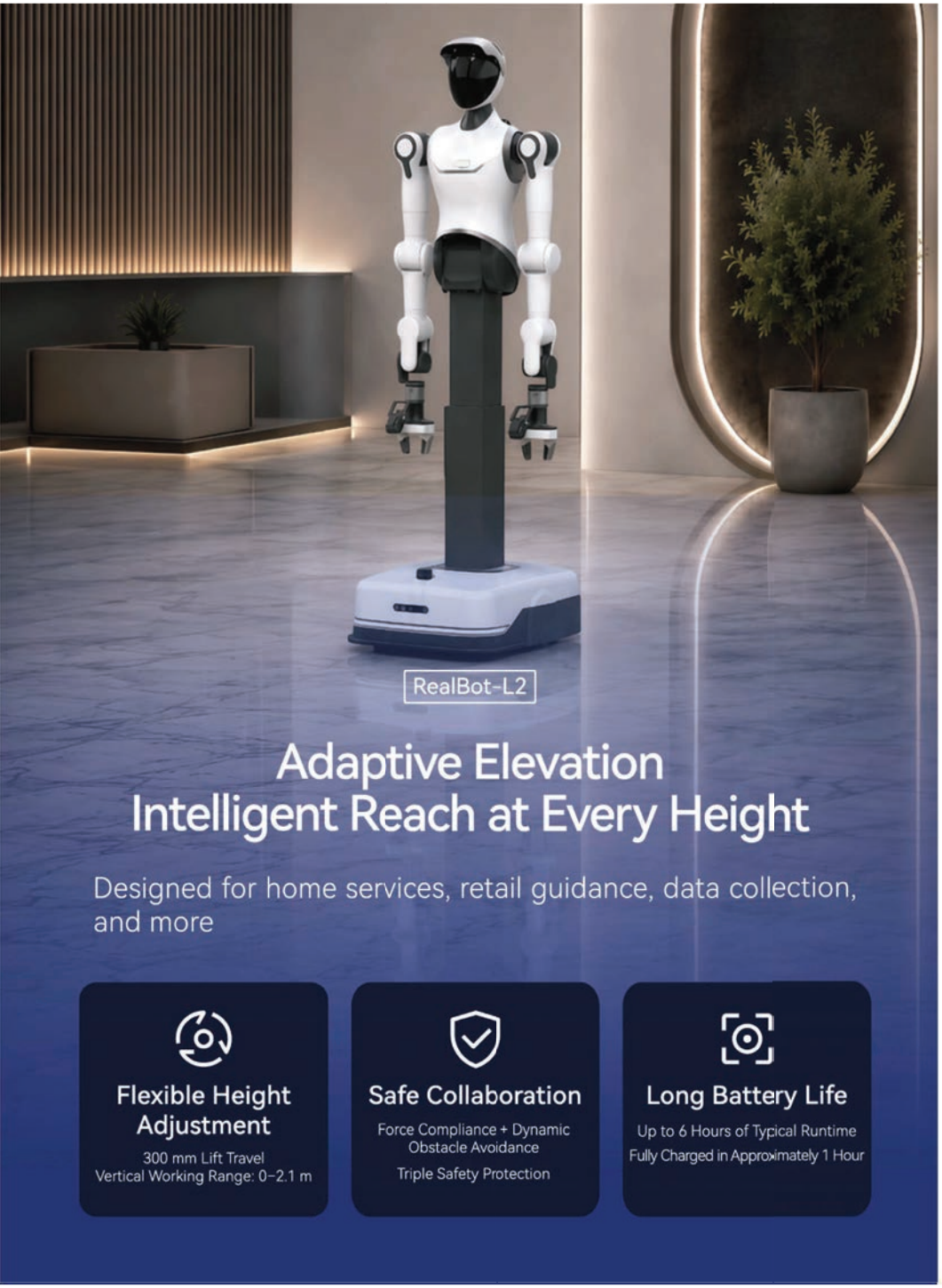
Serving Over 8,000 Customers Worldwide



RealBot-S2

Robot Type	Full-Size Wheeled Dual-Arm Foldable Robot
Overall Dimensions	614*552*1700 mm
Vertical Working Range	0 ~ 2.1 m
Lift Travel	0.3m
Robot Weight	Approx. 125 kg
Voice Interaction	Supported (Built-in Microphone Array/ Speaker)
Total Degrees of Freedom	20 DoF (Excluding Mobile Base and End-Effector)
Head Degrees of Freedom	2 DoF (Pitch, Yaw)
Waist Degrees of Freedom	2 DoF (Pitch, Yaw)
Leg Degrees of Freedom	2 DoF (Ankle, Knee)
Main Processor	NVIDIAJetson AGX Orin 64G
Head Cameras	1 Stereo RGB Camera + 2 Fisheye Cameras
Hand Cameras	RGB-D Camera (Standard) / Monocular RGB Camera (Optional)
Arm Configuration	Humanoid Arm
Rated Payload per Arm	5 kg/Arm

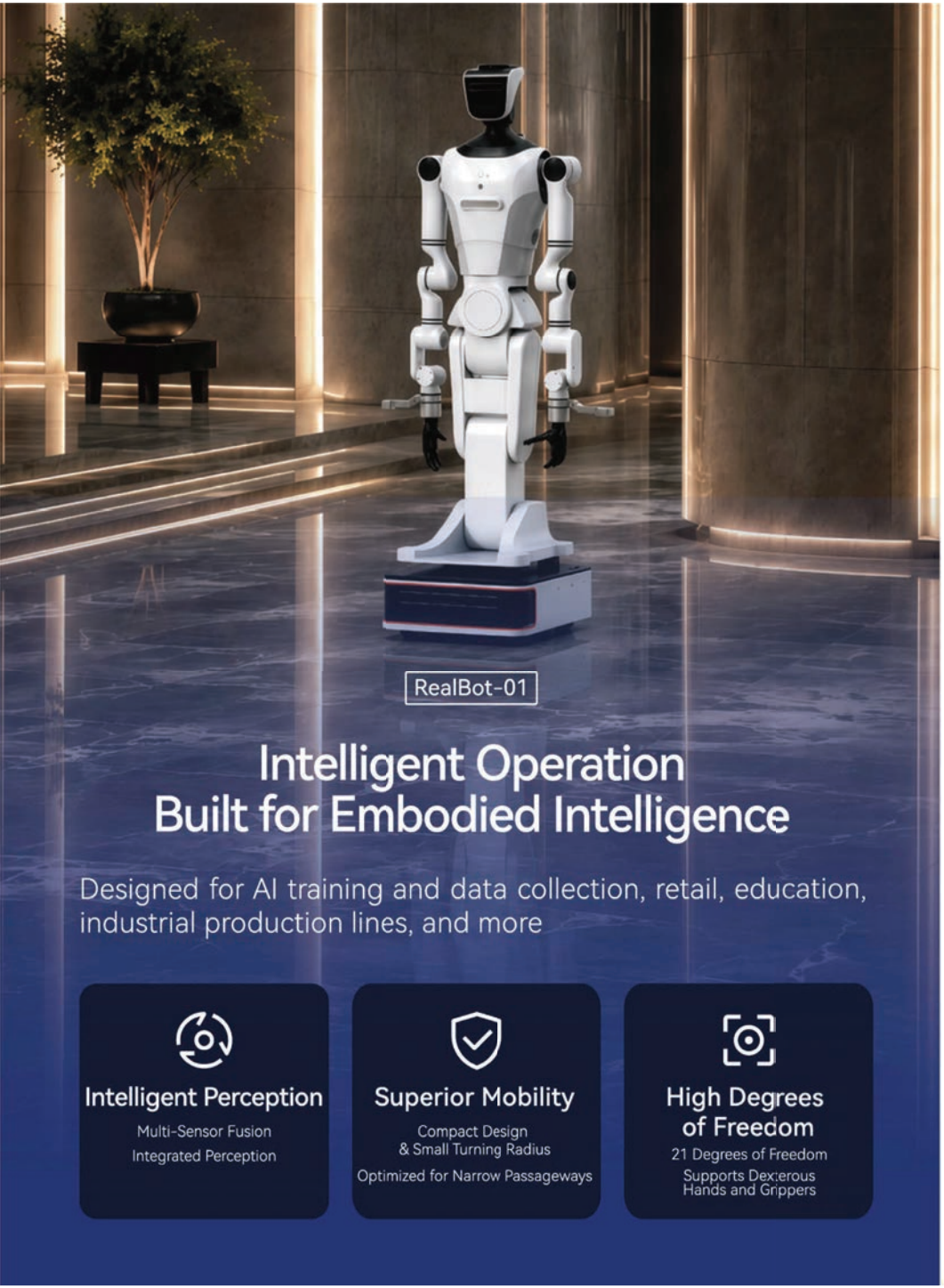
Degrees of Freedom per Arm	7 DoF
Force-Torque Sensor Range	200N / 7N·m
Force-Torque Sensor Accuracy	0.5%FS
Arm Span	1778 mm (Excluding End-Effector)
End-Effector	Supports Quick Switching Between Two-Finger Parallel Gripper and Five-finger Dexterous Hand
Mobile Base Drive Type	Four-Wheel Steering & Four-Wheel Drive
Mobile Base Speed	0.1 ~ 1.5 m/s
Maximum Climbing Capability	8°
Obstacle Crossing Capability	S20mm
Mobile Base Functions	SL AM Navigation & Localization / Dynamic Obstacle Avoidance
Battery Capacity	48V 20Ah
	Supports Manual Charging, Battery Swapping.
Typical Operating Runtime	~6h
Communication	Wired, Wi-Fi, 5G (Optional)
	Display Not Supported (Optional Tablet Available)



Rea1Bot-L2

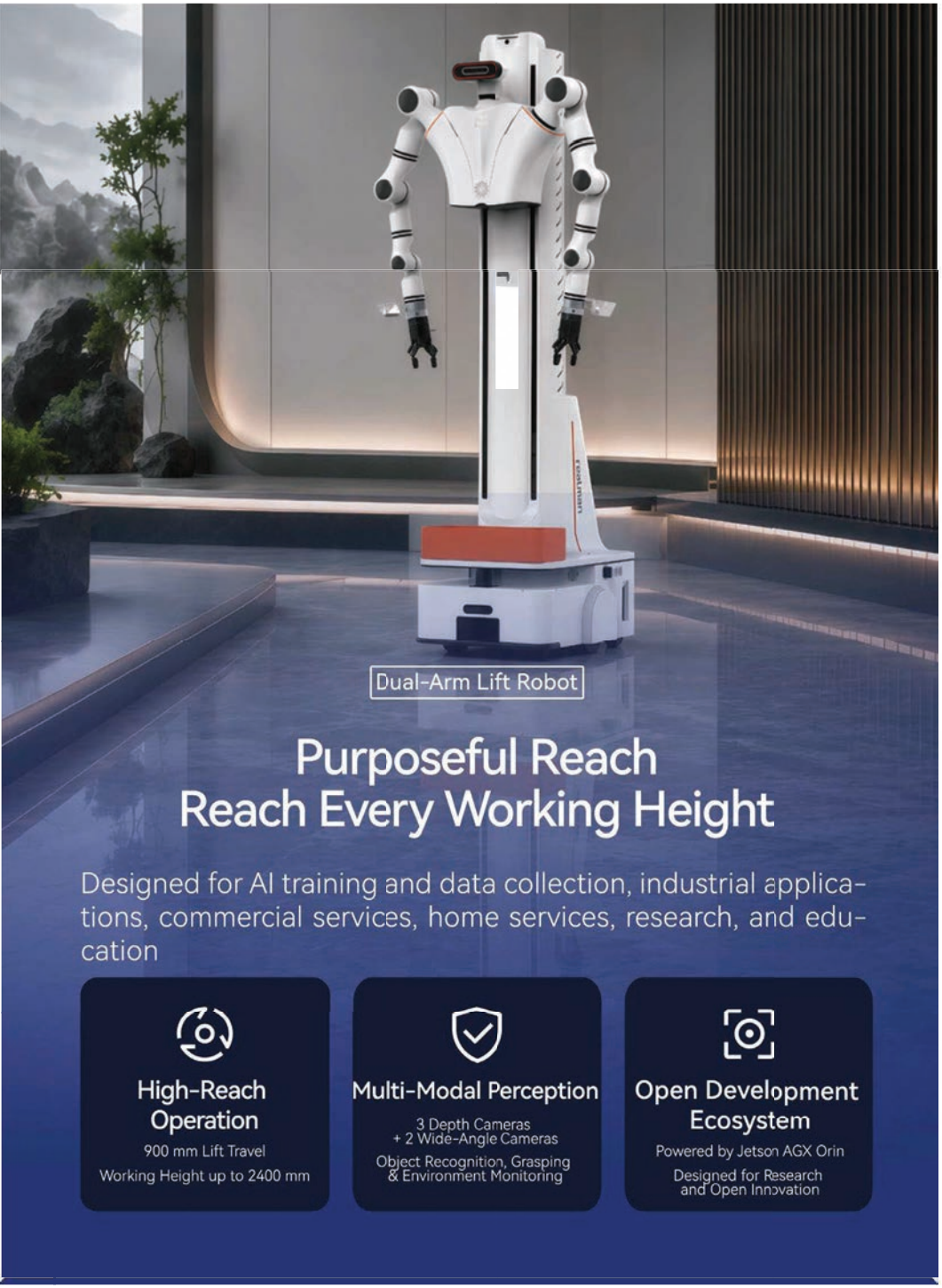
Robot Type	Full-Size Wheeled Dual-Arm Lift Robot
Overall Dimensions	650*512*1700 mm
Vertical Working Range	0 ~ 2.1 m
Lift Travel	0.3m
Robot Weight	~120 kg
Voice Interaction	Supported (built-in microphone array and speakers)
Total Degrees of Freedom	17 DoF (excluding mobile base and end effector)
Head Degrees of Freedom	1 DoF (Pitch)
Waist Degrees of Freedom	1 DoF (Pitch)
Lift Degrees of Freedom	1 DoF (Lift)
Main Processor	NVIDIAJetson AGX Orin 64GB / RDK S100 (Both Optional)
Head Camera	Stereo RGB Camera (Standard)/ Depth Camera (Optional)
Hand Camera	RGB-D Camera (Standard)/ Monocular RGB Camera (Optional)
Arm Configuration	Humanoid Arm
Rated Payload for Single Arm	5 kg / Arm
Degrees of Freedom per Arm	7 DoF

Force-Torque Sensor Range	200N / 7 N·m
Force-Torque Sensor Accuracy	0.5%FS
Arm Span	1778 mm (excluding end effector)
End-Effector	Supports Quick Switching Between Two-Finger Parallel Gripper and Five-Finger Dexterous Hand
Mobile Base Drive Type	Differential Drive
Mobile Base Speed	0.1 ~ 1.0 m/s
Maximum Climbing Capability	5°
Obstacle Crossing Capability	:S 15 mm
Lift System Payload Capacity	≥ 60 kg (including dual arms and payload)
Lift Speed	50 ~ 100 mm/s
Mobile Base Functions	SLAM Navigation & Localization / Dynamic Obstacle Avoidance
Battery Capacity	48V 20Ah
Charging Method	Manual Charging
Typical Operating Runtime	~6 h
Communication	Wired, Wi-Fi
Display	Not Supported (Optional Tablet Available)



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

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

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	< ± 5cm
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
Approaching 1 Million Units

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

Product parameters

	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	s 100W	S200W	84W

Mobile Base Four-Wheel Steering & Drive

Mobile Base drive type	Four-Wheel Steering & Drive System
Dimensions	614*552*270mm (including 303 mm LiDAR height)
Weight	~ 65 kg
Payload Capacity	80 kg
Wheelbase x Track Width	380mm * 320mm
Travel Speed	0 ~ 1.5 m/s
Max Slope	8°
Obstacle Crossing Capability	::.20 mm
Turning Radius	413mm
SLAM Navigation & Localization	Supported
Dynamic Obstacle Avoidance	Supported
Depth Camera	RGBD Camera

LiDAR	Detection range: 0.1-40 m @ 90% reflectivity, single-line 360°
Contact Sensor	Minimum detection force: 10 N
Battery Capacity	48V 20Ah
Quick Release Battery	Supported
Number of Batteries	2
Charger Input Voltage	220V
Battery Endurance	≥ 6 h
Battery Swap	Supported
Charging	Supported
Light Interaction System	Supported
Communication	Gigabit Ethernet (RJ45)
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

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	s 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.

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.

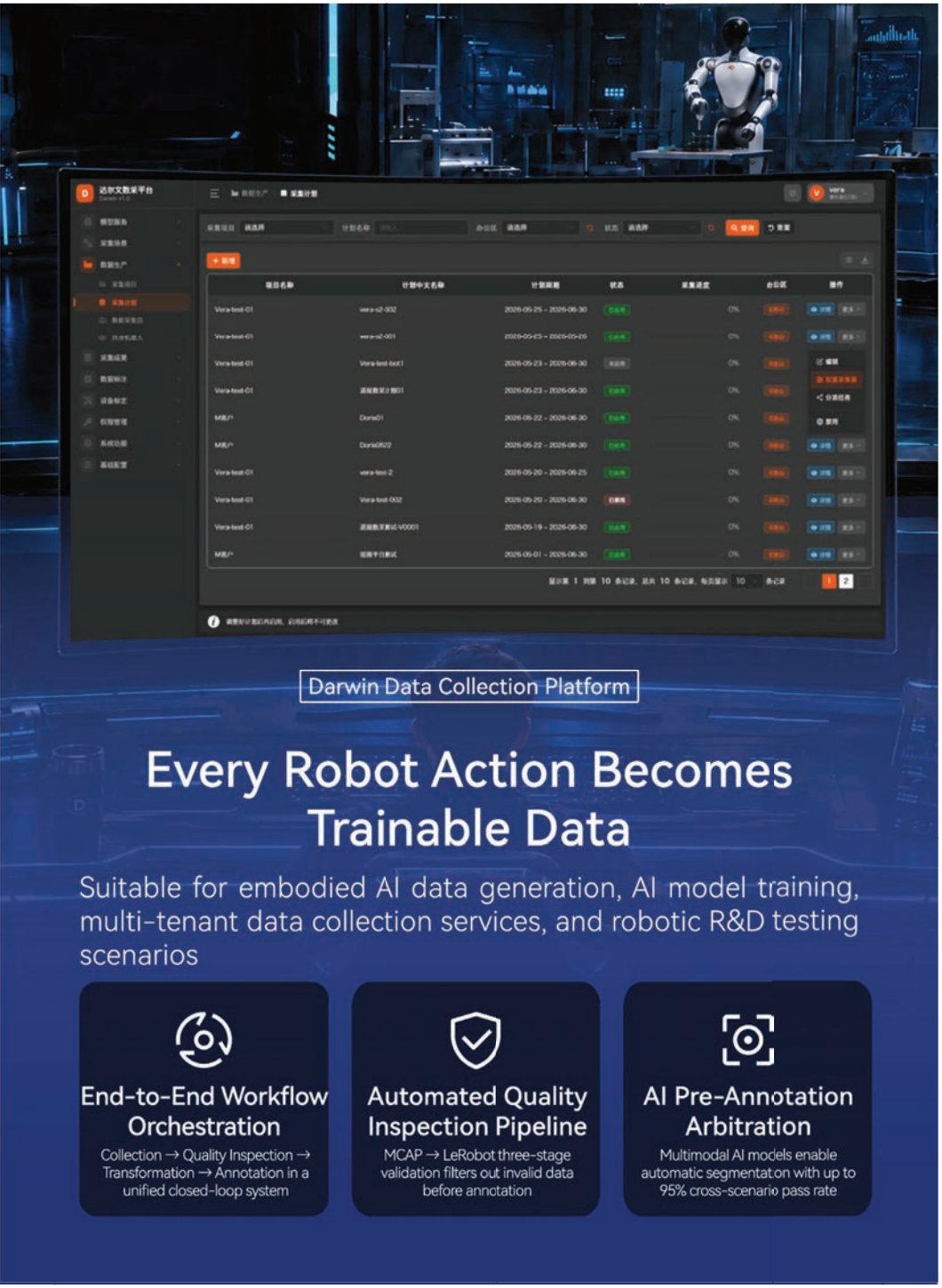
Unified Remote Task Scheduling
Task creation, status tracking, and device assignment with full workflow visibility.

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 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

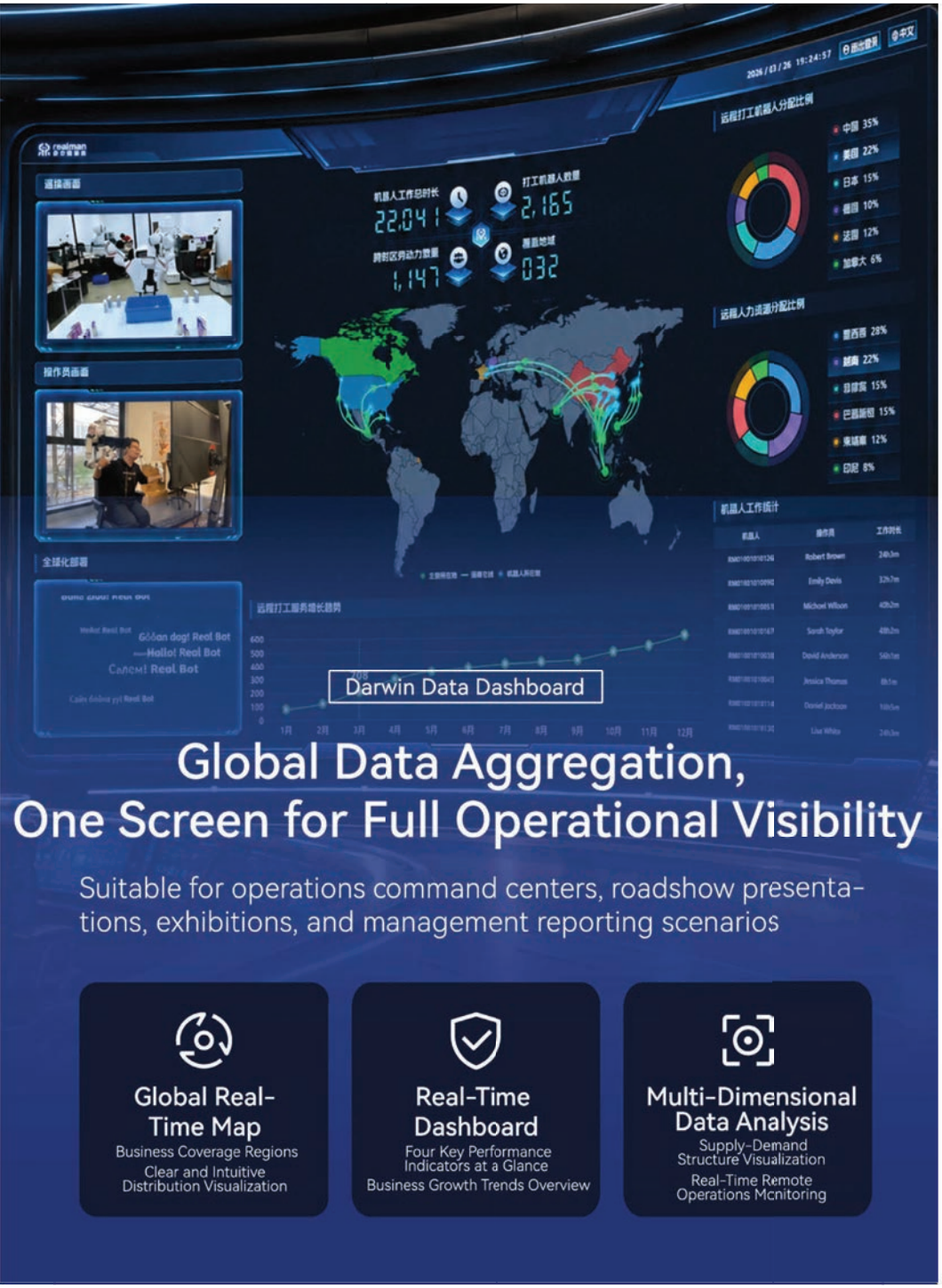
The AI pre-annotation module has been validated across four representative scenarios, with a processing time of 2-5 minutes per data sample and a 95% cross-scenario success rate, demonstrating proven readiness for large-scale data production.

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 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

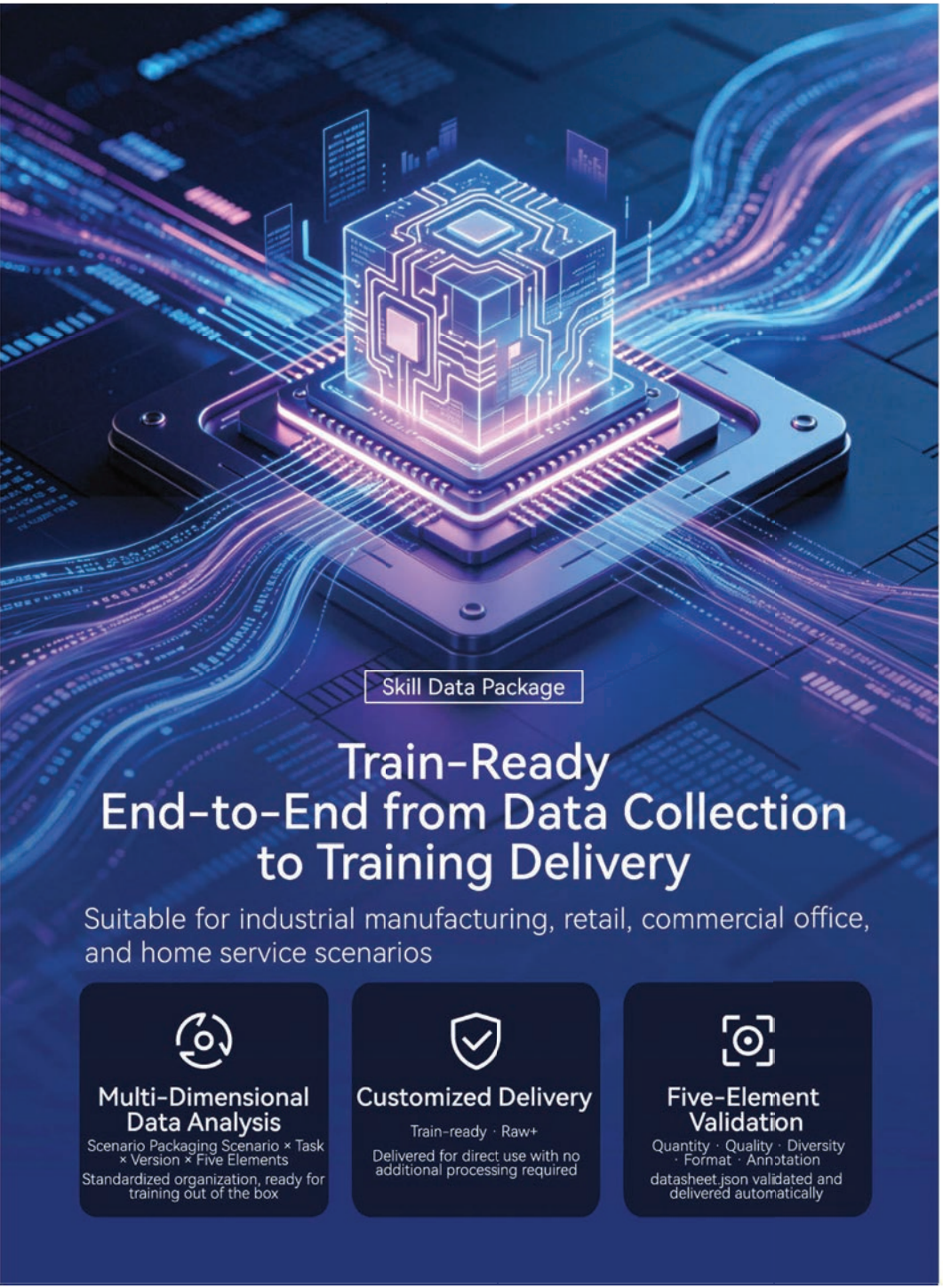
Uses ring and structural charts to analyze distribution of robots and human resources, revealing supply-demand relationships and business composition.

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

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

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 O 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

Robot	
Model	RealBot-S2/L2
DOF	20
Height	1.7 m
Lift Range	0.3 m
Weight	~ 125 kg
Single-Arm DOF	7
Payload per Arm	5 kg
Drive Type	Four-wheel steering & four-wheel drive
Mobile Base Dimensions (LxW)	614mm*552mm
Battery Capacity	48V 20Ah
Runtime	~ 6 h
Visual Perception	Head 360 ◦ view/ single-arm RGB

Teleoperation Device (Optional Local Version)	
Main Arm Model	RX71
Main Arm Degrees of Freedom / Configuration	7 / humanoid arm
Arm Span	474 mm
Main Arm Weight	3.8 kg
Lift Range	1.0 m ~ 1.24 m
Max Shoulder Width	401 mm
Power Supply	AC 220V
Power Consumption	s 100W
Joystick Functions	a. Base forward/backward, rotation, lateral movement b. Arm lift/ rotate/ raise c. Head pitch/yaw control d. Gripper open/close control

Darwin Teleoperation Software	
Video Latency	s 120ms
Command Latency	s 50ms
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 F	rce feedback & motion parameter tuning

GLN Remote Teleoperation Solution V1

Robot	
Model	RealBot-01
DOF	21
Height	1.68 m
Lift Range	0.3 m
Weight	~ 125 kg
Single-Arm DOF	7
Payload per Arm	5 kg
Drive Type	Two-wheel differential drive
Mobile Base Dimensions (LxW)	570mm*465mm
Battery Capacity	24V 40Ah
Runtime	~ 4 h
Visual Perception	Dual RGB cameras on head / Single RGB camera on hand

Teleoperation Device (Optional Local Version)	
Main Arm Model	RX75
Main Arm Degrees of Freedom / Configuration	7 / humanoid arm
Arm Span	709mm
Main Arm Weight	8.2 kg
Lift Range	1.2 m ~ 1.5 m
Shoulder Width Range	0.316 m ~ 0.504 m
Power Supply	AC 220V
Power Consumption	S500W
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

Darwin Teleoperation Software	
Video Latency	s 120ms
Command Latency	s 50ms
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