RAINBOW ROBOTICS

RAINBOW ROBOTICS
COMPANY PROFILE
English

WE TOUCH THE CORE

www.rainbow-robotics.com

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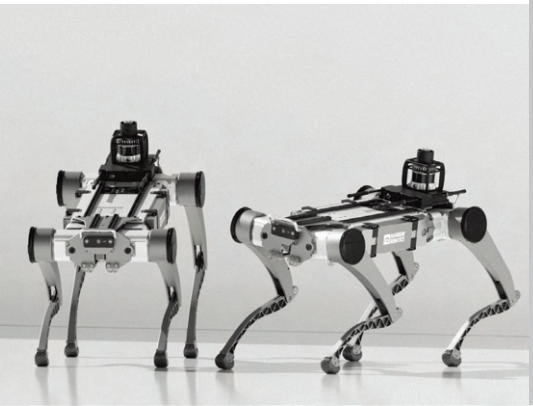

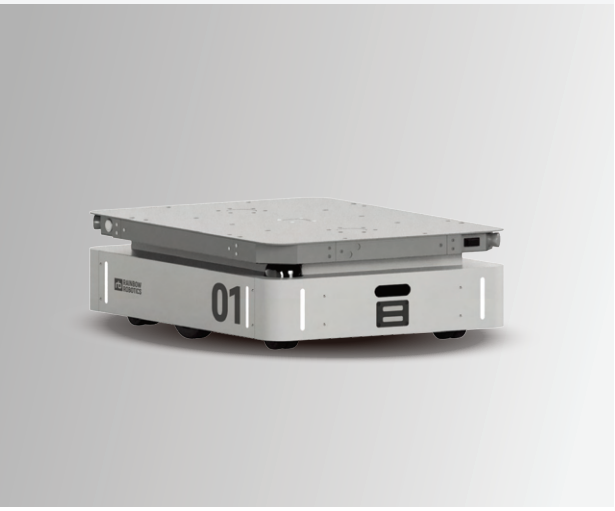

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Chapter 1

Introduction to Rainbow Robotics

01. Company Overview

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Company Overview

Rainbow Robotics is a South Korea–based robotics company that develops key components in-house—such as precision actuators, control systems, and perception software—and delivers robot platforms and automation solutions.

'We touch the core'

Rainbow Robotics will become a company that leads the robotics field with unrivaled technological capabilities.

Founder	Prof. Jun-Ho Oh
CEO	Jung-Ho Lee
Founded	February 10, 2011
IPO Date	February 3, 2021
Headquarters	8, Jiphyeon Jungang 3-ro, Sejong-si, Republic of Korea
AI Research Lab	206, 27 Geumto-ro 80beon-gil, Sujeong-gu, Seongnam-si, Gyeonggi-do
Website	www.rainbow-robotics.com

History

Leading the change through technology
and robotics to enrich human life

2026.04 | Relocation to new headquarters in Sejong Tech Valley

2026.02 | Opening of Pangyo AI Research Center(2nd Pangyo, Gyeonggi)

2026.01 | Business restructuring and expansion

2025.12 | Awarded "$3 Million Export Tower" at the 62nd Trade Day

2025.11 | RBQ Series: Korea Top 10 Mech-Tech Winner

2025.04 | Launch of RBQ quadruped robot AI demonstration project

2025.02 | Partnered in Samsung AI Humanoid R&D

2025.01 | Launch of RBM Mobile Robot series

2024.12 | Investment by Samsung Electronics

2024.09 | Contract with Korea Astronomy and Space Science Institute

2024.08 | Launch of Mobile Dual-Arm Robot RB-Y Series

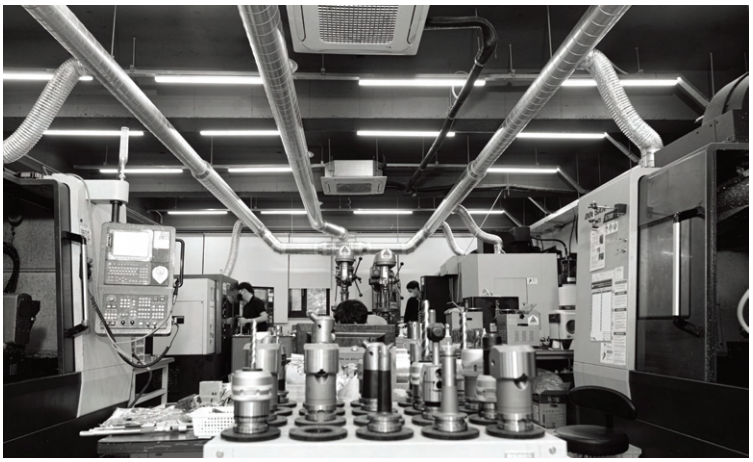
2024.03 | Supplied collaborative robot drilling automation solution to KAI

2023.12 | Awarded "$2 Million Export Tower" at the 60th Trade Day

2023.04 | Establishment of U.S. Sales Corporation (Schaumburg, Illinois)

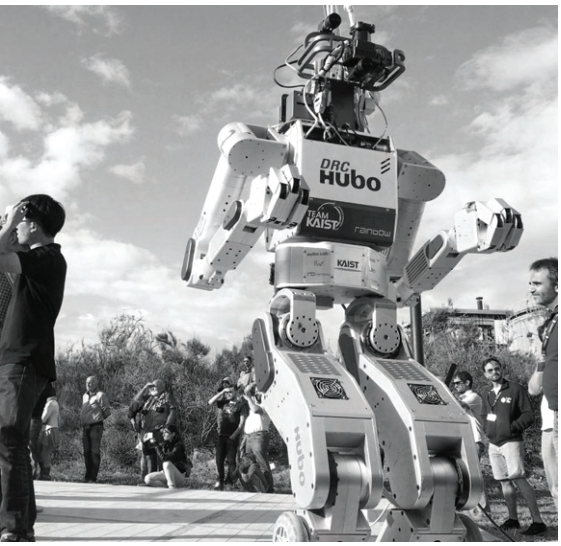
2023.01 | Increased investment from Samsung and subsidiary inclusion

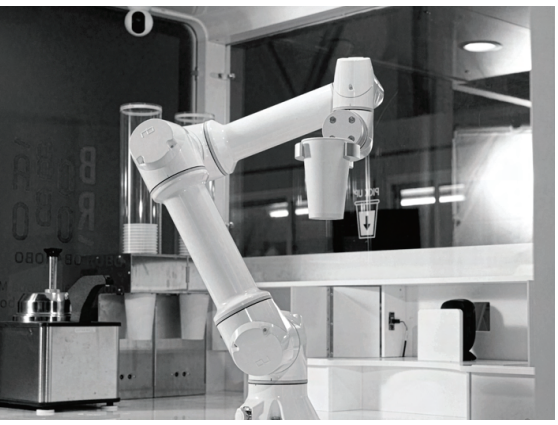
2022.12 | Awarded "$1 Million Export Tower" at the 59th Trade Day

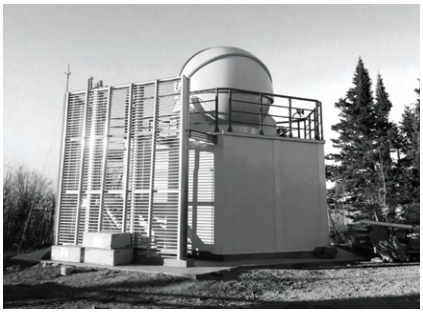


2022.10	17th Korea Robot Awards - Presidential Commendation
2021.03	RB-N Series NSF Certification (NSF/ANSI 169)
2021.02	Listed on KOSDAQ (277810)
2020.08	Delivery of inner gimbal actuator assembly to LIG Nex1
2020.04	ISO 9001:2015 Quality Management System Certification
2019.07	Launch of Collaborative Robot RB Series
2018.02	PyeongChang 2018 Humanoid Service Provider
2017.07	Venture capital investment of KRW 10 billion
2016.04	Presidential Creation Medal, Science & Technology
2016.02	Delivery of mount & actuator to LIG Nex1
2015.12	Export of DRC-HUBO + to U.S. Naval Research Laboratory
2015.09	KASI Space Surveillance Mount Operation
2015.06	1st place at DARPA Robotics Challenge Finals
2014.01	Venture company certification
2013.09	Export of HUBO II to Google Inc. USA
2011.12	Export of HUBO II to MIT et al., supported by U.S. NSF
2011.05	Establishment of corporate research institute
2011.02	Founded as Rainbow Co., Ltd. (now Rainbow Robotics Co., Ltd.)

***KOSDAQ** : Trading board of Korea Exchange (KRX) in South Korea established in 1996.







Certifications

1. RB Series

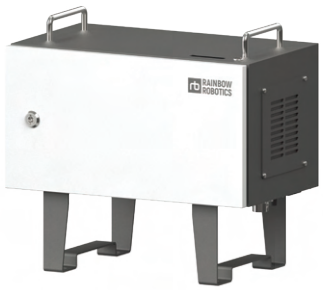
- Safety certified (CE, NRTL, KCs) through global certification body TÜV SÜD, ensuring robot stability (ISO 13849-1, PL d, Cat.3, and ISO 10218-1, ISO/TS 15066)
- Quality assurance systematized and proceduralized through Quality Management System certification (ISO 9001)

Cert. Type	Product	Applied Standards	Certifying Body
NRTL/CSA	Motor, drive-	UL 61800-5-1:2012/R:2021-02 CSA C22.2 No. 274:2017	TÜV SÜD
	Industrial Robot	CSA Z434:2014 UL 1740:2018/R:2020-11 NFPA 79:2021	
CE AOC	Motor, drive-	EN 61800-5-1:2007/A1:2017	
	Industrial Robot EMCD	EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61000-3-3:2013/A1:2019 EN 61000-6-2:2005 EN 61000-6-4:2007/A1:2011 EN IEC 61000-3-2:2019	
		EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61000-3-3:2013/A2:2021 EN 61000-6-2:2005 EN 61000-6-4:2007/A1:2011 EN IEC 61000-3-2:2019/A1:2021	
	Industrial Robot MD	EN 60204-1:2018 EN ISO 10218-1:2011 EN ISO 12100:2010 Machinery Directive 2006/42/EC	
Functional Safety	Robot Safety Unit	IEC 61508-1:2010 (SIL 2) IEC 61508-2:2010 (SIL 2) IEC 61508-3:2010 (SIL 2) EN 62061:2005/A2:2015 (SILCL 2) EN ISO 13849-1:2015 (Cat. 3, PL d) EN ISO 10218-1:2011 ISO TS 15066:2016 IEC 61800-5-2:2016	
KCs (Autonomous Safety Confirmation)	Industrial Robot	-	Korea Occupational Safety and Health Agency

2. RBN Series

- The RBN Series has received NSF (National Sanitation Foundation) certification for safe and hygienic use in the F&B; market, and is designed for use as a single product without the need for jackets or additional devices.

Cert. Type	Product	Applied Standards	Certifying Body
NSF	Collaborative Robot Arm	NSF/ANSI 169: Special purpose food equipment and devices	NSF International



RB Series

RBN Series

Patents

- An intellectual property management company that differentiates itself in performing intellectual property management activities
- 17 domestic patents and 12 pending patents, 36 foreign patents, 12 pending trademarks, 11 domestic trademark registrations, and 7 foreign trademark registrations

Major patents in S. Korea and other countries

Patent Name	Registration No.
REAL-TIME CONTROL SYSTEM, REAL-TIME CONTROL DEVICE AND SYSTEM CONTROL METHOD	US 11,135,719 B2
REAL-TIME DEVICE CONTROL SYSTEM HAVING HIERARCHICAL ARCHITECTURE AND REALTIME ROBOT CONTROL SYSTEM USING SAME	US 10,857,672 B2
GPOS-CONNECTED REAL-TIME ROBOT CONTROL SYSTEM AND REAL-TIME DEVICE CONTROL SYSTEM USING SAME	US 10,864,635 B2
STATOR COIL WINDING MACHINE	US 11,368,075 B2
SERIES ELASTIC ACTUATOR, METHOD FOR CONTROLLING SERIES ELASTIC ACTUATOR AND SYSTEM THEREOF	US 11,431,222 B2
DEVICE FOR BRAKING DRIVE SHAFT	EP 3756837 B1
リアルタイム制御 システム、リアルタイム制御装置及びシステムの制御方法	JP 6836585
GPOS連動型リアルタイムロボット制御システム及びこれを用いたリアルタイムデバイス制御システム	JP 6771027
階層的なアーキテクチャを有するリアルタイムデバイス制御システム及びこれを用いたリアルタイムロボット制御システム	JP 6938473
实时控制系统、实时控制装置及统控制方法	CN 108025436 B
具有分层架构的实时设备控制系统及利用其的实时机器人控制系统	CN 108136578 B
스테이터 코일 권선 장치	KR 10-2235169, 10-2256187, 10-2280446, 10-2280447, 10-2280448
구동축 브레이킹 장치	KR 10-2235169
계층적 아키텍쳐를 갖는 실시간 디바이스 제어 시스템 및 이를 이용한 실시간 로봇 제어 시스템	KR 10-2235168
스텝 기반 실시간 디바이스 시스템 제어 방법, 디바이스 시스템 제어 장치 및 스텝 기반 디바이스 제어 시스템	KR 10-2235167
실시간 로봇 시스템, 로봇 시스템 제어 장치 및 로봇 시스템 제어방법	KR 10-2235166

Awards

- The following cases represent public recognition of Rainbow Robotics' R&D outcomes.

Year	Awards	Awarding Organizations
2025	USD-Three Million Export Tower	Ministry of Industry, Trade and Energy
2023	USD-Two Million Export Tower	Ministry of Industry, Trade and Energy
2022	USD-One Million Export Tower 2022 Korea Engineering Prize (Director Oh Jun-ho) 17th Korea Robot Award (CEO Lee Jeong-ho) 29th Korea Impact Award (World's first NSF-certified collaborative robots, RB-N Series)	Ministry of Industry, Trade and Energy Korean Academy of Science and Technology Ministry of Industry, Trade and Energy Ministry of Science and ICT
2018	Selected as Top 100 Future Technology Stars to lead S. Korea (CEO Lee Jeong-ho)	Korean Academy of Science and Technology
2016	Ho-Am Prize (Director Oh Jun-ho) Changjo Medal of Order of Science and Technology Merit (Director Oh Jun-ho)	The Ho-Am Foundation Ministry of Science, ICT and Future Planning
2015	DARPA Robotics Challenge Finals 1st	DARPA

Chapter 2

Business Domain and Main Products

Core Technology

1 **Real-time operating system**

Controlling all of the robot's movements to achieve the objective

2 **Imaging sensors to detect the external environment visually**

Sensors in autonomous vehicles

3 **Inertial sensors to measure the inclination of the ground and robot**

Measuring and detecting motion

4 **Redundant robot arms to perform various tasks**

Able to be operated even in an undefined environment with more than 6 degrees of freedom

5 **Adaptive robot hands capable of gripping various objects**

Gripping any object shape

6 **Transformable robot legs capable of biped walking / wheel driving transformation**

A ground vehicle capable of achieving multiple purposes

7 **Drive controller and speed reducer to drive each joint**

Internalization of motor and decelerator technology, which are the main driving components

8 **Real-time operating system**

Controlling all of the robot's movements to achieve the goal

Business Domain

As a company specializing in robot platforms with preeminent technology, Rainbow Robotics devotes steadfast efforts to commercialize robots by securing innovative technology with continuous R&D and selling cost-effective excellent robots.

Collaborative Robots

Mobile Robots

Dual-Arm Mobile Manipulator

Quadruped Robot

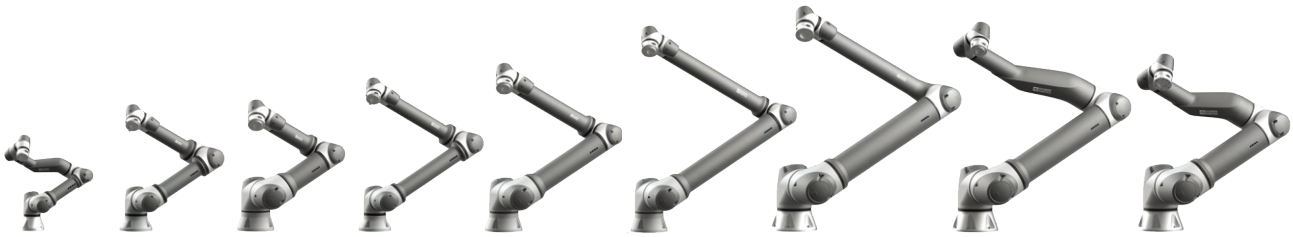
Robotic Automation

Collaborative Robots

RB Series

Rainbow Robotics' RB series cobots feature 6-axis robotic arms, developed using our exclusive technology. With multiple options available (RB3-730, RB5-850, RB16-900, RB3-1200, RB10-1300, RB20-1900), these cobots cater to diverse needs in various work environments. Our RB cobots undergo thorough testing and inspection by TÜV SÜD, a globally renowned certification body. They are certified with NRTL, CSA, CE and KCs, meeting the following standards.

- ISO 13849-1, Cat.3, PL d
- ISO 10218-1
- ISO/TS 15066



RB3-730 RB5-850 RB16-900 RB3-1200 RB10-1300 RB6-1700 RB20-1800 RB20-1900 RB30-1400

RB Series Line-up

- RB3-730
- RB5-850
- RB16-900
- RB3-1200
- RB10-1300
- RB6-1700
- RB20-1800
- RB20-1900
- RB30-1400

Range of Applications

- Packaging
- Welding
- Assembly
- Quality inspection
- Adhesion spreading
- Picking and placing
- Laser marking
- UT welding
- Injection molding
- Photography and video shooting
- CNC machine tending
- 3D scanning

Key Features

- **High performance & competitiveness through in-house core compone**
  - In-house developed reducers, brakes and controllers • High competitiveness in performance durability and cost structure
- **User-centric proprietary software**
  - Intuitive UI for easy programming and task setup by anyone
- **Global safety standards compliance**
  - TÜV SÜD, CE, KC, ISO certifications for various industries and countries
- **High-DOF precision control based on humanoid technology**
  - Minimized task deviation with precise motion quality
  - Structure satisfying precision, repeatability, and scalability

The world's first NSF-certified Collaborative Robots

RBN Series

The RBN Series has been certified by NSF International for safe and hygienic use in the food and beverage industry.
Designed for standalone operation, the RBN Series requires no protective jackets or external accessories.
The RBN Series is available in three models: RB5-850EN, RB3-1200EN, and RB10-1300EN
and is suited for demanding F&B environments such as high-temperature deep fryers and high-pressure espresso machines.

RB5-850EN

RB3-1200EN

RB10-1300EN

RBN Series lineup

- RB5-850EN
- RB3-1200EN
- RB10-1300EN

F&B Applications

- Unmanned robot cafés & bars
  (programmable recipes: bubble tea, cocktails, craft coffee, and more)
- Ice cream robots, waffle-making robots
- Chicken preparation robots
- Automated noodle cooking robots, and more

Key Features

• NSF Certified
- Certified to NSF/ANSI 169 standards for Special Purpose Food Equipment and Devices
- Approved for food production facility use

• Food-safe Cobot
- Coated with non-toxic, food-grade paint
- Certified for use in food production environments
  (Food Zone – No Direct Contact)
- Successfully passed impact tests, with no harmful substances detected upon impact.

• Durable Components
- Rust-resistant SUS fasteners and connection components
- Proven durability through extensive validation in real manufacturing environments.

• Enhanced User Experience
- IP66 protection eliminates the need for protective jackets.

Compact Autonomous logistics Robot

RBM-S100 Series

Rainbow Robotics' small sized logistics robot features in-house developed core components and software, enhancing overall product quality. Despite its compact size, it offers the highest payload capacity in its class, maximizing operational efficiency across diverse environments. In addition, a 3D LiDAR option is available, reflecting the latest industry

RBM-S100a

RBM-S100b

Range of Applications

- Warehouse Management
- Fulfillment Facilities
- Transportation Hubs
- Hospitality Industry
- Medical Institutions

Key Features

- Hardware
  - Adjustable tray height for on-site customization
  - Durable, premium exterior made of metal materials
- Safety
  - Equipped with sensors for obstacle detection and collision avoidance (2×2D LiDAR, 2×3D cameras)
  - Capable of detecting obstacles as low as 5 cm above the ground
- Localization
  - Core components and software are fully designed and developed in-house
- Additional
  - Smallest footprint and highest payload capacity in its class (Based on internal research of logistics robots)

Product Specifications

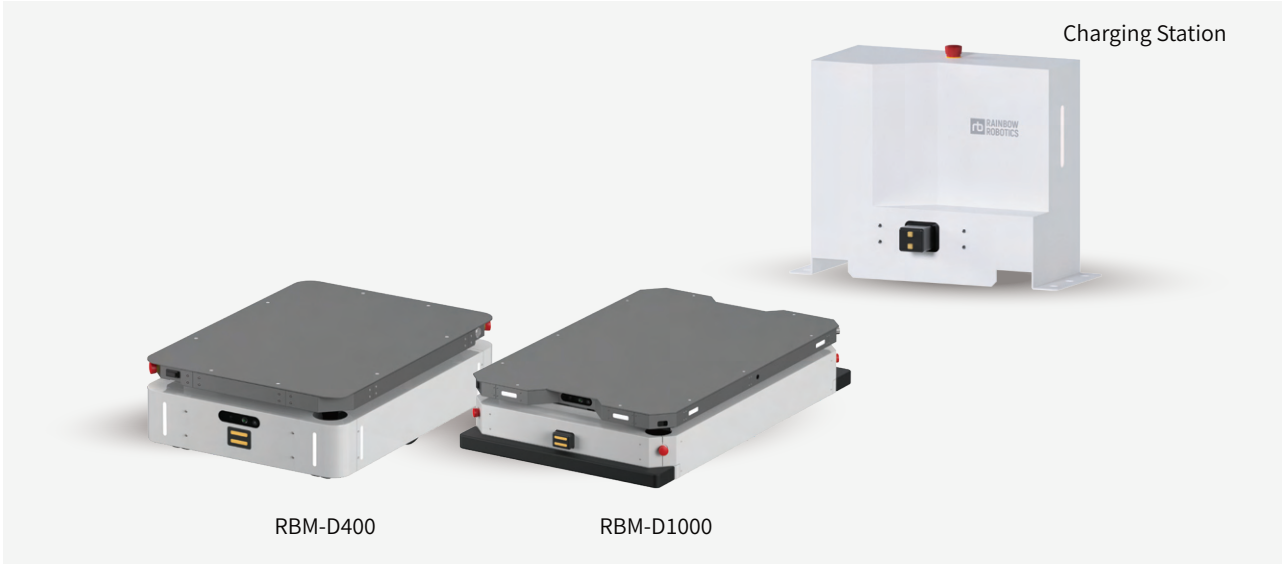
	RBM-S100a	RBM-S100b
Size (mm/WxDxH)	510x510x1250	680x710x1250
Weight	Approx. 50kg	Approx. 70kg
Payload Capacity	120kg	100kg
Sensors	2D LiDAR x 2, 3D Camera x 2	2D LiDAR x 2, 3D Camera x 2
Driving Speed	up to 1.2m/s	up to 1.2m/s
Tray Load Capacity (mm)	345x450x200(150)	365x565x300
Display	10.1in (1280x800)	10.1in (1280x800)
Number of Trays	1 (expandable)	2 (expandable)
Network	WIFI	WIFI
Continuous Operating Time	10 hrs optional 3D LiDAR supported	10 hrs optional 3D LiDAR supported

※ Some specifications may change for performance improvements.

Autonomous Mobile Robot for Manufacturing

RBM-D Series

The Autonomous Mobile Robot (AMR) developed by Rainbow Robotics is suitable for various fields such as logistics automation, manufacturing, disinfection, security, and customer service.



Range of Applications

- Fulfillment
- Last Mile delivery
- Manufacturing Automation
- Cleaning and Disinfection Autonomous Security
- Customer Service

Key Features

- Hardware
  - Durable and luxurious design with a metal exterior
  - Compact design relative to load capacity, suitable for various work environments
- Safety
  - Equipped with sensors for obstacle detection and collision prevention (2*2D LiDAR, 1*3D camera)
  - Brake installed for emergency stop
  - Edges are chamfered and rounded for worker safety
- Software
  - Robot control available anywhere on-site with a smartphone via web-based UI
  - Optimal path navigation using various SLAM and obstacle avoidance algorithms
- Scalability
  - Offers options for mounted devices (lifts, conveyors, etc.) compatible with AMRs
- Localization
  - Core components and software designed and manufactured with in-house technology

Product Specifications

	RBM-D400	RBM-D1000
Size (mm)	600x800x240	800x1100x300
Weight	70kg	150kg
Payload	400 kg	1,000 kg
Max Speed	1.2 m/s	1.2 m/s
Drive	Differential (Active Wheel x 2, Caster x 4)	Differential (Active Wheel x 2, Caster x 4)
Wheel Size	Drive (150 mm) x 2 Caster (75mm) x 4	Drive (150 mm) x 2 Caster (75mm) x 4
Sensor	2D Lidar x 2, 3D Depth Camera x 1, Floor OR (Option)	2D Lidar x 2, 3D Depth Camera x 1, Floor OR (Option)
Battery	50V 25Ah - 14S5P	50V 50Ah - 14S10P
Charging	Charging Station or Adapter Jack	Charging Station or Adapter Jack

※ Some specifications may change for performance improvements.

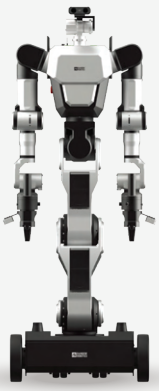
	Charging Station
Size (mm)	320x180x375 (WxDxH) mm
Charging	Built-in 450w charger

Dual-Arm Mobile Manipulator

RBY Series

Rainbow Robotics' RB-Y1 is a next-generation humanoid mobile robot featuring two 7-DOF arms and a single 6-DOF leg, mounted on a wheeled platform. This configuration allows it to overcome the workspace and mobility limitations of conventional single-arm cobots and stationary industrial robots, making it more stable and versatile than bipedal robots in real-world industrial environments.

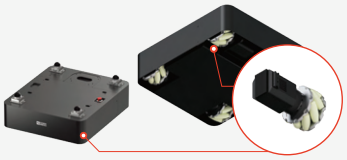
Developed based on Rainbow Robotics' core technologies from humanoid robot research, RB-Y1 provides an open and adaptable platform optimized for AI integration, supporting various sensors and development tools.



RB-Y1

RB-Y2 *Upcoming

Tele-op. Device
(Leader Arm #Reverse Direction)



Mecanum Type Options

※ Vision camera is not included

Key Features

- Collecting the robot's physical data through the teleoperational master arm
- High stability, precision, and durability, ensured by applying cobot technology
- Options : wrist F/T sensor, electric gripper, LiDAR
- Offer Ros,Python, C++, Library and Robot Model (URDF,MCUR)

Product Specifications

RB-Y1	
Size (mm)	600x690x1400 (WxDxH)
Battery Capacity	50V, 25Ah (1,270Wh)
Mobile Operation Velocity	1.5m/s
Power Supply Voltage and Frequency	48VDC
Arm Repeatability	< ±0.05mm
Exterior Materials	Aluminum
Arm Payload Capacity	3kg (per arm)
Arm Range of Motion	640(to wrist) + hand [mm]
Weight	Total : 130kg Upper body : 38kg (Arms 11kg x 2, Torso 16kg) Lower body : 42kg Mobile base : 50kg
Degrees of Freedom	Total : 26 DOF Arms : 7 DOF x 2 Legs : 6 DOF Wheel : 1 DOF x 2 Neck : 2 DOF Grippers(fingers) : 1 DOF x 2 (optional accessory)

Tele-op.Device (Master Arm)	
Size (mm)	350x100x600 (WxDxH)
Input Voltage	12VDC
Interface	RS-485
Weight	3.8kg
Degrees of Freedom	Total : 14 DOF Arms : 7 DOF x 2 (Same configuration as the robot body)

Mecanum Type Options	
Size (mm)	600x695x204 (WxDxH)
Weight	90kg
Payload Capacity	300kg
Driving Speed	1.5m/s
Max. Negotiable Step Height	Less than 5 mm
Options	2D Lidar, 3D Lidar

※ Some specifications may change for performance improvements.

Quadruped robot

RBQ Series

The RBQ series is a quadruped robot that can perform various tasks in an atypical complex environment. It is a platform that can walk rough and field areas and which can be equipped with various sensors such as lidar and cameras. It can also be used for crime prevention patrols, detection of dangerous objects, transport of goods, safety inspection, etc

RBQ-10

Range of Applications

- Air defense
- Industrial applications
- Disaster response
- Firefighting and rescue
- Defense applications
- Military reconnaissance
- Logistics and cargo handling

Core Technologies

- Environmental Awareness
  - Equipped with depth camera and 3D LiDAR
  - In-house developed PTZ camera module
- Autonomous Driving/Charging
  - Autonomous driving function through scheduling
- Walking Algorithm
  - Robust walking algorithm based on dynamics, customizable for various environments
- Interface
  - Provides various interfaces for external equipment compatibility and research platform use
- Actuators
  - company itself developed motors, reducers, and controllers
  - Dustproof and waterproof with fanless hardware design

Key Features

- moving on uneven terrain, such as steps and stairs
- 24/7 unmanned operation with autonomous driving and automatic charging
- Real-time transmission of video and sensor data
- Currently developing a quadruped robot for counter-terrorism operations
- Used as a research platform by institutions such as ETRI, KHNP, and KETI

Product Specifications

RBQ-10	
Size (cm)	98x43x62 (WxDxH)
Weight	42kg
Payload	15kg
Operating hours	2 hours (Up to 4 hours)
IP grade	IP54
Speed	9 km/h (Max 14km/h in Driving Mode)
Step walking ability	Max. 25cm
Max. Climbing ability	Longitudinal Slope 45%, Lateral Slope 20%
Battery	Swappable / Independent Charging / Auto-charging Support
Internal Sensors	IMU / (RGB + Depth) x 2 / Depth x 4 / 3D LiDAR(Optional)
Communication	IMU / (RGB + Depth) x 2 / Depth x 4 / 3D LiDAR (Optional)
Monitoring Sensors	4K Visual Image & Thermal Camera
External Interface	54 V, 12 V, CAN (1 ch), Gigabit LAN x 3

※ Some specifications may change for performance improvements.

Astronomical observation equipment with precision robot control technology

RST Series

An astronomical observation mount is an ultra-precision pointing device for observing outer space objects, i.e. planets, stars, and satellites, from the ground. Rainbow Robotics has developed an astronomical mount based on humanoid robot technology, and unlike conventional mounts, it does not use weights, offering excellent portability. We also develop and supply large mounts for research and special purposes. The mount type, load capacity, speed, acceleration, precision, and driving method are determined based on the intended use. We have a history of developing mounts with load capacities ranging from 200kg to 500kg, which have been supplied to observatories, research institutions, and defense industry companies.

RST-135 RST-135E RST-300 *Large Mount

A lineup of mounts for astronomical observation

- RST-135
- RST-135E
- RST-300

Range of Applications

- Mobile observation
- Remote observatory
- Educational observatory
- For defense industry
- satellite tracking, etc.

Key Features

- No need to add weights
- Ultra-light and compact
- Wave gear reducer (harmonic drive)
- CNC machining
- Wi-Fi
- GPS receiver
- Built-in home sensor

Product Specifications

	RST-135	RST-135E	RST-300
Body weight	3.3 kg (7.3 lb)	3.4 kg (7.5 lb)	8.5 kg (18.7 lb)
Size (mm/WxDxH)	144x131x195	144x131x205	183x175x279
Mount weight (with no weight)	13.5kg (30 lb)		30kg (66 lb)
Mount weight (with weight)	18kg (40 lb)		50kg (110 lb)
Maximum speed	1,800x (7.5 deg/sec)		1,200x (5deg/sec)
Output stage encoder	X	Built into the rightscension axis Product by UK-based Renishaw	X
Cycle error	-	±2.5 arcsec	-
Input power	DC 12V ~ 16V		
Recommended telescope	Up to 8-inch or 5-inch reflector		Up to 14-inch or 7-inch refractor

※ The large mount is available as a custom-made product.Please contact us separately for inquiries.
※ Some specifications may change for performance improvements.

Automation SI Performed Directly by the Robot Manufacturer

Robotic Automation Solution

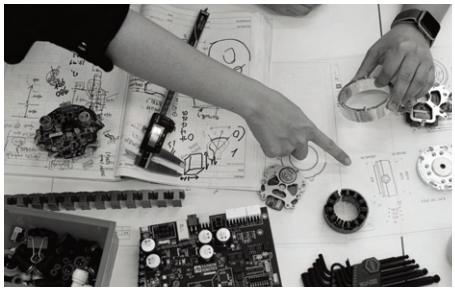
Rainbow Robotics provides SI solutions covering the entire robot automation process — from process analysis to system design, construction, and stabilization — based on collaborative robots, mobile robots, and special robot platforms.

Integrated Capabilities of a Full-Stack Robot Manufacturer

Rather than simply installing robots, the goal is to integrate robots into actual processes tailored to the site environment and workflow. Rainbow Robotics possesses automation capabilities spanning planning, construction, and operations, grounded in fundamental robot technology and field experience.

01 **Automation Solutions Based on Fundamental Robot Technology**
Turnkey solutions integrally designed from system planning to construction encompassing all areas of robot, technology including mechanism design drive/control, and robot operating software

02 **Robot Operation System Design Based on Field-Verified Experience**
SI projects utilizing in-house collaborative robots, mobile robots and special robots verified through repeated operation in actual industrial sites



03 **Automation Considering Safety Standards and Human-Centered Design**
Safety logic, control structure, and system configuration reflecting robot motion characteristics and work environments, accounting for potential on-site risks

04 **Scalable Automation Solutions Across Platforms**
Integrated design of vision, grippers, safety devices, and peripheral facility systems based on diverse robot lineup offering flexible turnkey automation for process expansion and long-term operation

Rainbow Robotics
ONE-STOP ROBOT SOLUTION

1 **On-site System Planning**
Analyze site environment and process flow to define automation goals and scenarios

2 **Robot & Automation System Design**
Design automation system structure including robot platform, control method, and peripheral equipment

3 **Integrated System Construction**
Integrated construction from robot installation, control logic, to system linkage

4 **Data Management & Analysis**
Collect and analyze operational data to improve efficiency and quality

5 **Stabilization & Operation Support**
Sustainable automation operation support including training, maintenance, and expansion

Fields of application

Collaborative Robots - RB Series

CNC machine tending
- CNC operation
- Input and discharge of processed products, etc.

Welding

Packaging
- Automated packaging process
- Product / box packaging, etc.

Injection molding
- Automated injection process
- Collection of injection products, etc.

Assembly
- Plastic, wood, metal, furniture assembly, etc.

Picking and placing
- Manufacturing automation process
- Loading / unloading, etc.

Quality inspection
- 3D scanning
- Machine vision inspection
- Defect inspection, etc.

Logistics
- Logistics automation
- Transport and loading
- Palletizing

Adhesive / application
- Application of adhesives, finishes, adhesives, chemicals, etc.
- Quarantine system

F&B
- Unmanned cafe platform
- Soft ice cream
- Kitchen cooking
- Cleaning kitchen utensils

Education
- R&D
- Training at educational institutions, etc.

Photographing
- 3D facial scanning
- Video and photo shooting

Mobile Robot - RBM Series

Café
- Serving coffee and beverages
- Guidance to a table, etc.

Restaurant
- Guidance to a table, etc.
- Food Serving
- Clearing table function

Internet cafe
- Guidance to a desk
- Food serving and clearing table functions

Mart
- Promotional function
- Transport of goods

Hospital
- Guidance to a patient room
- Convenience functions such as various kinds of guidance

Hotel
- Serving function
- Various guidance functions

Fulfillment

Load / Pallet Handling

Manufacturing automation

Autonomous security

Customer service

Dual-Arm Mobile Manipulator - RBY Series

Assembly

Pick and Place

AI Research

CNC machine tending
- CNC operation
- Input and discharge of processed products, etc.

Logistics
- Logistics automation
- Transport and loading
- Palletizing

F&B
- Unmanned cafe platform
- Soft ice cream
- Kitchen cooking
- Cleaning kitchen utensils

Quadruped robot

Military sector
- Surveillance, reconnaissance, dangerous object detection, etc.

Fire-fighting safety

Safety inspections
- Safety inspection of piping, narrow passages, etc.

Security patrols
- Constant patrol, risk detection, and alarms

Convenience functions
- Convenience functions such as serving and guidance

Logistics functions
- In-plant parts transfer, last-mile logistics within an apartment complex, etc.

Precision Pointing Mount

For military purposes
- Satellite observation and tracking
- Close-range defense system
- High-resolution image acquisition
- Radar for collecting information

For astronomical observation
- Unmanned stargazing
- Astronomical photography

Rainbow Robotics Robot Platform Line-up

RB Series | RBQ Series | RBY Series | RBM Series

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