



Free Robot Rental Service for Tenants of ORIX-developed Logistics Facilities Two New Robots Now Available, Including Automated Transport Robots

TOKYO, Japan – April 12, 2019 – ORIX Corporation (“ORIX”) and ORIX Rentec Corporation (“ORIX Rentec”) announced that they have expanded the line-up of logistics robots that can be rented free of charge by tenants at logistics facilities developed by ORIX.

Two new robots will be made available: the Latent Mobile Robot, an automated transport robot manufactured by Hangzhou Hikvision Digital Technology Co., Ltd. (“HIKVISION”), and the CarriRo® AD (Autonomous Moving Model), a cart-type logistics support robot manufactured by ZMP Inc. (“ZMP”).

Launched in May 2018, the free rental service enables tenants of ORIX logistics facilities to use logistics robots free of charge for six months. The service both allows tenants to verify the benefits of using robots and encourages them to promote warehouse automation. The addition of these two new robots caters to usage scenarios for which there was strong demand: moving palettes and display shelves and moving large amounts of cargo altogether. The line-up of robots available at ORIX logistics facilities now comprises 10 models from 9 manufacturers.



Latent Mobile Robot by HIKVISION



CarriRo® AD by ZMP

In recent years, there has been growing demand for large-scale and highly functional logistics facilities that can cater to continually evolving supply chains and the expanding e-commerce market. In addition, issues such as labor shortages due to a decreasing birthrate and an aging population as well as rising logistics costs have led to an increased need to improve productivity at logistics facilities. According to an opinion poll of logistics facility users*, the two most desirable technologies and functions are “automated guided vehicles and logistics robots” and “automation equipment.” Moreover, as facilities begin to deteriorate with age, approximately 70 percent of companies are considering consolidating or reorganizing their logistics bases.

ORIX is engaged in the development of cutting-edge logistics facilities. At the same time, by providing a one-stop service that supports each tenant’s needs—including proposing the use of suitable robots, carrying out benefit simulations, and assisting system establishment— ORIX and ORIX Rentec intend to generate new added value for ORIX’s logistics businesses.

* “Tenant opinion poll regarding logistics facilities use 2019,” conducted by CBRE.

■ Overview of the Latent Mobile Robot

The Latent Mobile Robot is suited to transporting cargo on pallets or display shelves. The robot is capable of maneuvering beneath a special-purpose display shelf, and lifting and transporting the shelf in its entirety; by reading the QR code that has been attached to each shelf, the robot is able to transport the shelf to the appropriate location. The Latent Mobile Robot is available in two models—with maximum loading capacities of 600 kg and 1,000 kg respectively—and can be expected to improve productivity by reducing both workloads and working hours. In addition, the HIKVISION robot operation management system can be linked with existing warehouse management systems; this enables information regarding warehouse storage, retrieval, and inventory conditions to be gathered in real time and shared with the robots, so enabling the robots to be used with greater efficiency.

Model	MR-Q3C-LE600C1(H)	MR-Q7C-LH1000C2(H)
Body weight	140kg	300kg
Outer dimensions	Width 65cm, depth 94cm, height 25cm	Width 81.9cm, depth 113.7cm, height 32.5cm
Maximum loading capacity	600kg	1,000kg
Maximum speed (when fully loaded)	1.5m/s	1.2m/s
Operating time	8 hours (subject to change according to operating conditions)	

■ Overview of the CarriRo® AD

The new CarriRo® AD takes the existing CarriRo® cart-type logistics support robot and adds autonomous moving functions. In addition to basic functions such as the “Karugamo mode” (following mode), in which the robot responds to beacons and automatically tracks and follows a human worker or other preceding CarriRo®, the new CarriRo® AD also includes an Autonomous Moving Mode. Routes can be established simply by attaching stickers at intervals of 10 meters or less, while robots can be told which routes to use via tablet terminals, enabling them to be used flexibly according to the prevailing work conditions. Moreover, since CarriRo® AD can be made to drag cargo through the use of hooks, prospective users can continue to use the same cargo equipment—existing facilities therefore do not have to be updated, so enabling easy implementation of the robots.

Body weight	55kg
Outer dimensions	Width 61cm, depth 91cm (96cm including the handle), height 24cm
Maximum loading capacity	150kg
Maximum speed (when fully loaded)	6km/h (in drive mode or following mode), 3km/h (in autonomous moving mode)
Operating time	8 hours (subject to change according to operating conditions)

■ About Free Logistics Robot Rental Service

The free logistics robot rental service is jointly provided by ORIX, which has worked on developing logistics facilities since 2002, and ORIX Rentec, which launched its “RoboRen” robot rental service in 2016. Tenants can choose from among 10 models of robots from 9 manufacturers—primarily automated transport robots that support logistics operations—according to their individual usage scenarios, and can use the robots for six months free of charge; this includes any system development costs needed to deploy the robots. ORIX and ORIX Rentec also offer packages with information on effective use of tenant space, as well as detailed information on robot use and benefit simulations.

Target Facilities

Facility Name	Nearest Interchange	Completion Date	Total Floor Space
Hasuda I Logistics Center	5 km from Kuki IC	February 2018	34,753 m ²
Atsugi II Logistics Center	3.1 km from Atsugi IC	July 2018	32,909 m ²
Hasuda II Logistics Center	5 km from Kuki IC	March 2019	26,072 m ²
Matsubushi Logistics Center	14 km from Misato-nishi IC	March 2019	77,372 m ²
Hirakata II Logistics Center	4 km from Hirakata-higashi IC	January 2020(planned)	57,311 m ²

* As developmental progress is made, updates for sequential facilities will be made

* Application for Hasuda I Logistics Center, Atsugi II Logistics Center and Hasuda II Logistics Center has been closed (As of April 12, 2019)

Target Equipment

Manufacturer	Item Name	
Nidec-Shimpo Corporation	Target Guided Autonomous Transfer Robot	THOUZER
Sharp Corporation	Automatic Transport Robot	Smart AGV TYPE-A
Nidec-Shimpo Corporation	Automatic Transport Robot	S-CART 100
OMRON Corporation	Automatic Transport Robot	LD-90
INNOPHYS CO., LTD.	Power Assistance Suit	Muscle Suit® (Stand-alone type)
FANUC CORPORATION	Human Collaboration Robot	CR-35iA
Amano Corporation	Cleaning Robot	RcDC
Geek+ Inc.	AI-equipped Automatic Transport Robot	EVE
ZMP Inc.	Logistics Support Robot	CarriRo® AD *
Hangzhou Hikvision Digital Technology Co., Ltd.	Automatic Transport Robot	Latent Mobile Robot *

* NEW



THOUZER



Smart AGV



S-CART 100



LD-90



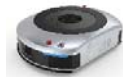
Muscle Suit®



CR-35iA



RcDC



EVE



Latent Mobile Robot



CarriRo® AD

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About ORIX:

ORIX Corporation (TSE: 8591; NYSE: IX) is a financial services group which provides innovative products and services to its customers by constantly pursuing new businesses.

Established in 1964, from its start in the leasing business, ORIX has advanced into neighboring fields and at present has expanded into lending, investment, life insurance, banking, asset management, automobile related, real estate and environment and energy related businesses. Since entering Hong Kong in 1971, ORIX has spread its businesses globally by establishing locations in 38 countries and regions across the world.

Going forward, ORIX intends to utilize its strengths and expertise, which generate new value, to establish an independent ORIX business model that continues to evolve perpetually. In this way, ORIX will engage in business activities that instill vitality in its companies and workforce, and thereby contribute to society. For more details, please visit our website: <https://www.orix.co.jp/grp/en/>

(As of September 30, 2018)

Caution Concerning Forward-Looking Statements:

These documents may contain forward-looking statements about expected future events and financial results that involve risks and uncertainties. Such statements are based on our current expectations and are subject to uncertainties and risks that could cause actual results that differ materially from those described in the forward-looking statements. Factors that could cause such a difference include, but are not limited to, those described under “Risk Factors” in the Company’s annual report on Form 20-F filed with the United States Securities and Exchange Commission and under “(4) Risk Factors” of the “1. Summary of Consolidated Financial Results” of the “Consolidated Financial Results April 1, 2017 – March 31, 2018.”