



To the Press and Whom it May Concern

August 10th, 2018  
ZMP Inc.

**Japan's Largest Exhibition for Material Handling & Logistics**  
**ZMP will exhibit at Logis-Tech Tokyo 2018**  
**— "Self Moving" mode CarriRo on display —**  
**— New CarriRo Delivery, the personal delivery robot on display —**

ZMP Corporation (Bunkyo Ward, Tokyo, Representative Director: Hisashi Taniguchi) will exhibit new products and services that make use of our robot technology and autonomous driving technology at "Logis-Tech Tokyo 2018" which will be held from September 11 (Tuesday) to September 14 (Friday) at Tokyo Big Sight, East Hall 1-6 · 8.

Since its launch in 2016, the logistics support robot CarriRo has been equipped with the electric drive mode and the follow-up karugamo mode (following mode), which improves productivity while reducing the load of workers. It is used widely in logistics warehouses, factories, hotels, and so on.

In response to the needs of companies with problems like labor shortage and increasing labor cost, we are introducing the "Autonomous Moving Mode" which is equipped with the function to run automatically. We will start receiving orders prior to product shipment in November this year. You can see CarriRo running automatically using landmark seals on the floor.



CarriRo 「Autonomous Moving Mode」 and Landmark seal

In addition, we will exhibit the pre-mass production model of autonomous delivery home delivery robot CarriRo Delivery for the first time with a fully remodeled design, size, user interface etc for real service. Robot main body improves adaptability to driving environment by making it smaller than previous model. According to the needs of the customers, it can be replaced with lockers of various box size and number. By enriching "facial expression" as a point of contact with users, we have evolved communication means with surroundings. On the IT side, users' applications that can be settled from ordering products, can release key by QR code reading, shop apps that support order management at shops, product loading to each locker, we are planning to provide a remote monitoring system that can manage position / status and remote control in case of emergency.



**【Exhibition Information】 Logis-Tech Tokyo 2018**

Schedule dates: September 11 (Tue) - 14 (Fri) 2018 10: 00-18: 00 (till 17:00 on the last day)

Venue: Tokyo Big Sight East Hall 1-6 · 8 Booth No: 2-201

Official website: <http://www.logis-tech-tokyo.gr.jp/>

※ Admission is free for those who pre-register from official website.



### 【Logistics Support Robot CarriRo®】

CarriRo is a bogie type logistic support robot that has a drive mode that allows operation with a joystick and a karugamo mode that automatically tracks a beacon (transmitter), and is a product that began selling in August 2016. Utilizing the function of CarriRo, it is possible to raise the productivity of transportation up to about 3 times at the maximum. It is also possible to substitute a belt conveyor or AGV (automatic guided vehicle) by improving the efficiency of picking operations in warehouses and logistics centers, or by using them for inter-process conveyance in factories. Moreover, since the work load is greatly reduced, it becomes possible for women and elderly people to carry out the transportation work which was regarded as hard labor so far, so it can be used for expanding workers and promoting employment.

【Product Web URL】 <https://www.zmp.co.jp/carriro/>

【Video】 <https://youtu.be/aBSwF8SvfcU>

【Price】 CarriRo 2018 model (following mode) 5 years lease 28,000 yen per month(excluding tax) / 1 unit]

CarriRo autonomous movement model 5 years lease 52,000 yen per month (excluding tax) / 1 unit]

< Specifications >

Body weight: 55 kg

Traction force: 250 N (300 kg equivalent)

\* It depends on the road condition and the situation of the bogie.

Size: Width 61 cm × depth 91 cm × height 24 cm

\* Handle part 96 cm

Charging time: 2.5 hours

Maximum loading load: 150 kg

Operating time: 8 hours \* It may be different depending on operating conditions

Maximum speed: Maximum speed 6 km

※ Although the above specifications of "Autonomous Movement" model are basically assumed to be the same as the 2018 model (following mode), there is a possibility of change in the future.

### 【Delivery Robot CarriRo ® Delivery】

CarriRo Delivery is an autonomous delivery home delivery robot applying autonomous driving technology. Robot main body, shopper / store application, IT service will be packaged and planned to be offered.

<http://www.zmp.co.jp/products/carriro-delivery>

< Specifications >

Power: Electric

Speed: Maximum speed 6 km

Size: width 65.4 × length 96.2 × height 95.6

Drive: 4 wheels (rear wheel drive)

Operating time: about 12 hours

Charging time: up to 4 hours

Maximum loading capacity: 50 kg

Level difference 5 cm

【Contact】



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【ZMP Inc.】

<http://www.zmp.co.jp/>

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RoboCar® 1/10



RoboCar® MV2



RoboCar® MiniVan



CarriRo®



CarriRo® Delivery

“Robot of Everything” Under the mission of autonomous driving, creating a safe, enjoyable and convenient lifestyle for all kinds of people. ① ADAS (Advanced Driving Support), Autonomous Driving development platform RoboCar® series as well as Sensor system ② RoboTest®, Support for development such as Autonomous Driving for mobile body manufacturers (automobiles, commercial vehicles, construction machinery, agricultural machinery, distribution conveyance equipment, outdoor work machines, etc) ③ We are developing and selling logistic support robot CarriRo® Auto Taxi. Also, we are conducting demonstration experiments on technologies and services on public roads toward realization of Auto Taxi® in 2020. We began demonstration experiments on Home delivery robot, CarriRo® Delivery aiming for Japan’s first pedestrian walk from 2017. ZMP will continue to provide products and services that impress the world.