

December 5, 2019  
Marubeni Corporation  
ZMP Inc.

Self-Driving Vehicle PoC at Chubu Centrair International Airport Restricted Area

~Verification testing for AI picture recognition and remote control, striving for commercial use by FY2020~

From December 16<sup>th</sup> -18<sup>th</sup>, AiRO Inc. (hereinafter, “AiRO”), a Joint Venture Company of Marubeni Corporation (hereinafter, “Marubeni”) and ZMP Inc. (hereinafter, “ZMP”), will conduct a Proof of Concept (hereinafter, “PoC”) for a self-driving vehicle at Chubu Centrair International Airport.

As demand for air travel dramatically increases, airports and ground-handling companies face two main obstacles: over-capacity airport transportation and a labor shortage for ground handling work. With Marubeni’s expertise in the ground handling business and ZMP’s technical capabilities in the field of self-driving vehicles, the two companies decided to work together to create AiRO.

In this PoC, AiRO will use the same “RoboCar® Mini EV Bus”(\*) as in its previous PoC, and attempt to be the first company in the world to utilize the combination of aircraft recognition and remote control of the Bus to cross the actual taxiways of the aircraft. The Bus is expected to run a route from Terminal 1 International Bus Lounge to the airport parking area and back as a test to see if it could complete the same route while transporting passengers.

AiRO is currently at the last stage prior to the commercialization of its business in airport restricted areas. This PoC will be run to very closely imitate the real practical application of this technology, without the system operator sitting in the bus, and basic movements such as opening and closing of the doors being controlled remotely from a control center. While striving to actualize self-driving buses within restricted areas of airports, Marubeni is also focused on the sale of autonomous vehicles and the provision of additional related services beginning next fiscal year. In doing so, Marubeni will contribute to the resolution of serious problems like the labor shortage in ground handling work at airports.



(\*) The autonomous driving Bus manufactured by ZMP, “RoboCar® Mini EV Bus”

## &lt;Overview&gt;

Duration	December 16 <sup>th</sup> -18 <sup>th</sup> 2019
Location	Chubu Centrair International Airport Terminal 1
Vehicle	RoboCar® Mini EV Bus
Specification	<p>The Bus will run from Terminal 1 International Bus Lounge to airport parking area and back. The test will run under the assumption that the Bus is carrying passengers. Adapted functions are as follows:</p> <ul style="list-style-type: none"><li>• Live Wide-angle camera attached to the terminal catches which aircrafts are moving where within the testing area. This contributes to AI decision making for when the Bus crosses the taxiway.</li><li>• The surroundings of the bus are actively monitored via a control center where the basic functions such of the bus are remotely controlled.</li></ul>

## &lt;Reference&gt;

- March 12, 2019

Self-Driving Vehicle PoC at Chubu Centrair International Airport Restricted Area

The First Ever Self-Driving RoboCar Mini EV Bus in Japan

<https://www.marubeni.com/en/news/2019/release/20190312E.pdf>

- January 24, 2019

Verification Testing of Autonomous Vehicles Within Restricted Areas at Narita International Airport

<https://www.marubeni.com/en/news/2019/release/20190124E.pdf>

- December 7, 2018

Establishment of joint venture for the commercialization of autonomous driving at airport

[https://www.marubeni.com/en/news/2018/release/20181207\\_eng.pdf](https://www.marubeni.com/en/news/2018/release/20181207_eng.pdf)

## &lt;Press Contacts&gt;

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