

August 18, 2025

Maxell, Ltd.

Maxell's All-Solid-State Battery Modules Installed in Industrial Robots at Subaru Plant - Test Operations Began in August



Power module equipped with Maxell's All-Solid-State Batteries Industrial Robot Equipped with All-Solid-State Batteries
(Power Module Installed at the Location Indicated by the Red Circle*¹)

The power modules utilizing the ceramic-packaged all-solid-state batteries, “PSB401010H,” manufactured by Maxell, Ltd. (President and Representative Director: Keiji Nakamura / hereinafter “Maxell”) have been installed as the power sources in the industrial robots and the controllers of Subaru Corporation (Representative Director, President and CEO: Atsushi Osaki / hereinafter “Subaru”), and test operations began at the Oizumi Plant, Subaru’s engine and transmission production site in the Gunma Manufacturing Facility, in August. With the test operations at Subaru as a starting point, Maxell aims to expand the application of its all-solid-state battery modules to Subaru and other manufacturing companies.

In the automobile manufacturing process, industrial robots typically use primary batteries (single-use type) to provide power backup for memory and real-time clocks (RTCs) in the event of power outages. These primary batteries generally require replacement every 1 to 2 years, leading to disposal as industrial waste.

Maxell has developed an all-solid-state battery power module utilizing the ceramic-packaged all-solid-state batteries, PSB401010H, rechargeable batteries that can be used repeatedly as power sources even in the harsh manufacturing environment. By operating equipment with these all-solid-state battery power modules, which are expected to have a battery life exceeding 10 years with high safety^{*2}, it becomes possible to reduce the labor required for

battery replacement in industrial robots, PLC^{*3}s, etc., as well as to reduce the disposal of used batteries.

By installing Maxell's all-solid-state batteries in the industrial robots used at the Oizumi Plant in Subaru's Gunma Manufacturing Facility, it is expected that industrial waste and battery replacement work will be reduced, by taking advantage of the batteries' long battery life of more than 10 years.

To address various social issues, Maxell will continue to leverage its Analog Core Technologies to develop reliable, high-performance all-solid-state batteries and modules for applications in the areas where existing batteries cannot be used, focusing on four key features: long lifetime, high heat resistance, high output, and high capacity.

- *1 Power Module Installed at the Location Indicated by the Red Circle: The battery cover was removed for photos used in this release. The cover is installed during operation to ensure safety.
- *2 high safety: see details on Maxell's all solid-state batteries web page.
https://biz.maxell.com/ja/rechargeable_batteries/allsolidstate.html
- *3 PLC: Programmable Logic Controller

Trademarks

All company and product names mentioned herein are trademarks or registered trademarks of their respective companies.

All-solid-state battery webpage

https://biz.maxell.com/en/rechargeable_batteries/allsolidstate.html

Contacts

New Business Producing Division Div., Maxell, Ltd.

https://biz.maxell.com/en/rechargeable_batteries/inquiry_form_input1.html