

March 29, 2023
NEXTY Electronics Corporation

NEXTY develops eco-friendly electric radio-controlled mowers equipped with Spectronik hydrogen fuel cells

Toyota Tsusho Group's electronics trading company, NEXTY Electronics Corporation (Head Office: Minato-ku, Tokyo; President: Yasuhiro Kakihara; hereinafter referred to as "NEXTY Electronics"), has developed in February 2023 an eco-friendly electric radio-controlled mower that can operate over extended periods of time by installing a compact hydrogen fuel cell manufactured by Spectronik Pte. Ltd. (hereinafter "Spectronik") onto the electric radio-controlled mowers manufactured and sold by UNIC Co., Ltd., and by providing technical support. We will aim to start sales in the near future.

Hydrogen is widely anticipated as the CO₂-free energy source of the future. In May 2022, NEXTY Electronics signed a distributor agreement with Spectronik and has been working to develop applications in which Spectronik's hydrogen fuel cells can be equipped on machinery for relatively smaller power applications, including ground and water vehicles, unmanned aerial vehicles, robots, and electric radio-controlled lawn mowers. Of these, the company has focused its attention on electric radio-controlled mowers, which have problems with extended operation times, and has been working on their development in collaboration with UniQ Co., Ltd. and JFE Container Co., Ltd. since 2021.

Conventional electric radio-controlled mowers use lithium-ion batteries. However, these batteries are unable to provide long periods of continuous operation, making them unsuitable for areas that lack recharging facilities, such as semi-mountainous areas or large open spaces such as solar power plants and orchards. To solve this problem, NEXTY Electronics developed an electric radio-controlled mower equipped with a hydrogen fuel cell, which enables much longer operation times than conventional lithium-ion batteries. At the demonstration testing stage, successful operation was confirmed using two 2.8-liter 19.6 MPa high-pressure hydrogen tanks, and future plans call for mass production with two 6.8-liter 29.4 MPa high-pressure hydrogen tanks to ensure 8* hours of continuous work capacity.

By facilitating the shift to energy sources with lower CO₂ emissions, NEXTY Electronics is working to help solve the challenges faced by society and achieve the Japanese government's goal of "achieving net zero GHG emissions by 2050."

* Based on mowing conditions set by UniQ

<Mowing on a slope>

This prototype is equipped with only one 2.8-liter 19.6 MPa high-pressure hydrogen tank. Click [here](#) to view the video.



<Developed electric radio-controlled mower>



<Reference: Press release>

[NEXTY Electronics and Spectronik signs Distributorship Agreement\(2022/7/7\)](#)

【Company Overview】

■ About NEXTY Electronics

Company: NEXTY Electronics Co., Ltd.

Location: Shinagawa Front Building, 2-3-13, Konan, Minato-ku, Tokyo

NEXTY Electronics is one of the core members of the Toyota Tsusho Group's electronics business and boasts top-of-class scale in the automotive electronics sector. With its core strengths of technology and products, NEXTY Electronics meets customer and global needs in a broad range of areas and provides solutions to the challenges faced by society. It achieves this by actively adapting the autonomous driving, connected, and other leading-edge technologies it has cultivated in the automotive electronics sector for use in other industries. It offers optimum solutions that transcend regions and business sectors by leveraging the Toyota Tsusho Group's global network.

Visit the link below for more information.

NEXTY Electronics website: <https://www.nexty-ele.com/english/>

[For inquiries concerning this release]

NEXTY Electronics Corporation Corporate Communication Group, Corporate Planning Dept.
Tel: 03-5462-9666