

April 4, 2025

Meidensha Corporation

Meidensha to use 3D printing technology for R&D, production innovation and expansion of small- and medium-scale hydropower business

Meidensha Corporation is pleased to announce the acquisition of LIFE PARTS^{*1}, a project concept involving pico hydropower^{**2} business developed within TRIBUS^{*1}, Ricoh Co., Ltd.'s new business creation initiative. The transfer agreement from Ricoh to Meidensha was signed and became effective on April 1.

LIFE PARTS explores micro-hydropower opportunities using water-resistant 3D printing materials. Under the project concept, engineers with expertise in chemistry, materials, and 3D printing have been investigating applications of this technology in areas where it has not previously been used. Since fiscal 2023, EAML Engineering Ltd., a Meiden Group company, has aligned with the LIFE PARTS initiative to research and develop applications of these materials for components used in small- and medium-scale hydropower generation.

Meidensha and Ricoh have agreed to advance the project concept and 3D printing technology, resulting in the transfer agreement. Meidensha will build on this opportunity by acquiring 3D printing expertise and technologies it previously lacked and pursuing the following four initiatives.

- Initiatives to be accelerated by Meiden Group through the transfer
 1. Accelerate R&D concepts for social infrastructure and industrial systems using 3D printing technology.
 2. Strengthen production technologies that leverage 3D printing.
 3. Update and enhance the competitiveness of waterwheel components for small- and medium-scale hydropower plants using LIFE PARTS expertise.
 4. Explore ways to expand business in micro-hydropower generation using LIFE PARTS expertise.

■ About LIFE PARTS

LIFE PARTS, a project concept of TRIBUS, Ricoh Co., Ltd.'s new business creation program, is a pico hydropower business utilizing 3D printing technology. It aims to create

uniquely shaped propellers for hydropower generation using 3D printers and to promote their use in industrial drainage canals and waterways for renewable energy generation. Since its inception in 2019, with the vision of “Generating electricity and employment from water, and for education,” the activities behind this concept have been highly regarded. For example, in 2025, it received the 2024 Agency for Natural Resources and Energy Commissioner’s Award in the “Introduction and Promotion” category, part of the New Energy Award sponsored by the New Energy Foundation.

Meidensha is committed to realizing its corporate philosophy of “Illuminating a more affluent tomorrow” and its vision, “Work to build a new society through integrity to the earth, society, and people, and through the power of co-creation as a sustainability partner.” The company will continue to enhance its technological capabilities and production capacity while sharpening and expanding its competitive edge.

*1: TRIBUS and LIFE PARTS are registered trademarks of Ricoh Co., Ltd., headed by President and CEO Akira Oyama.

*2: Pico hydropower generation: hydroelectric power generation of no more than several kW.