May 26, 2026
Mitsubishi Electric Corporation
Chiba Institute of Technology

Mitsubishi Electric and Chiba Institute of Technology to Co-Research and Develop Homegrown Physical AI

Co-Creation Center to help commercialize AI robotics solutions for public and private sectors

(from left) Kunihiko Kaga, Representative Executive Officer, Executive Vice President and CTO, Mitsubishi Electric, and Takayuki Furuta, Director of the Board of Trustees and Director of the Future Robotics Technology Center, Chiba Institute of Technology

Mitsubishi Electric Corporation and Chiba Institute of Technology announced today that they have signed a basic agreement to research and develop homegrown physical AI technologies for public and private sector applications. The two parties will establish a co-creation center and promote the commercialization of AI robotics solutions utilizing a variety of autonomously controlled robots, including multi-legged walking robots, humanoid robots and drone-type robots. The agreement is planned to last three years, ending in April 2029.

Mitsubishi Electric possesses diverse manufacturing knowledge and know-how cultivated across a broad range of sectors, including industry, as well as maintenance and inspection expertise and know-how based on its involvement with infrastructure, such as water-environments and power systems. In addition, through developing product for its factory automation systems, including the MELFA ASSISTA® collaborative robot, the company has developed highly accurate and safe motion-control and sensing technologies.

Chiba Institute of Technology, which operates the Future Robotics Technology Center, possesses large-scale physical model technologies[1] for motion performance that respond reflexively and flexibly to changing conditions. The center researches and develops robotics for advanced tasks in real-world environments, such as mobile robots for nuclear power plants and disaster site-investigation and rescue.

[1] A technology that realizes a motion model capable of reflex actions to the external environment similar to the cerebellum, which governs motion functions by integrating operation commands and sensory information, through learning focused on operation commands and their outcomes.

Under this agreement, both parties will combine their technologies and expertise to advance the development of homegrown physical AI technology and related technologies. By promoting the use of this physical AI technology in both public and private sector applications, including infrastructure maintenance and manufacturing, they expect to accelerate the commercialization of AI robotics solutions utilizing autonomously controlled robots and work to resolve societal issues, such as labor shortages and aging infrastructure. Later, they will apply the technologies developed through this initiative to various fields, including disaster response and logistics, aiming to contribute to a safer and more convenient world.

Kunihiko Kaga, Mitsubishi Electric's Representative Executive Officer, Executive VP and CTO, said, "We are promoting the implementation of solutions to address a wide range of societal challenges, including labor shortages, energy issues and geopolitical risks, in collaboration with leading companies and technology partners worldwide. Through the establishment of the Co-Creation Center, we will accelerate the research and development of physical AI that endows robots with situational adaptability equal to or beyond that of humans, to tackle the challenge of realizing advanced solutions such as unmanned factories."

Takayuki Furuta, Director of the Board of Trustees and Director of the Future Robotics Technology Center, Chiba Institute of Technology, said, "From manufacturing to security, the applications of physical AI remain limited across many real-world situations. To ensure robots evolve from 'demo' tool into truly useful technologies, we will leverage the strengths of both parties to vigorously advance the creation of new industries through the research and development of next-generation physical AI that surpasses human capabilities, DevOps[2], and the acceleration of the innovation cycle."

Shrinking labor forces and the aging of public infrastructure, including roads, railways and water systems, have led to the adoption of AI and robotics to improve automation and operational efficiency in manufacturing and infrastructure maintenance and inspection. However, tasks requiring dexterous actions suited to specific environments and conditions, such as machining, assembly and equipment adjustment in manufacturing, are difficult to automate and make autonomous. In response, physical AI, which enables real-time control according to real-world conditions, is expected to be an important fundamental technology for creating autonomous robots capable of handling tools and equipment like skilled workers.

[2] A development methodology to realize services and solutions for a single purpose in which development and operation teams collaborate closely to integrate organizational cultures, technologies and operational practices.

Overview of the Agreement

Duration	May 2026 – April 2029 (Planned)	
Details	・Joint research and development of homegrown physical AI technology and related technologies for public and private sectors ・Establishment of a co-creation center	
Roles	Mitsubishi Electric	Development and societal implemention of AI robotics solutions utilizing the company's business assets, including expertise and know-how for manufacturing and maintenance and inspection, motion-control and sensing technologies
	Chiba Institute of Technology	Research and development of humanoid, quadruped and other autonomously controlled robotics technologies using large-scale physical models that enable motion performance capable of reflexive and flexible responses to changing conditions, as well as general-purpose dexterous manipulation capabilities

###

About Mitsubishi Electric Corporation

Guided by its corporate philosophy, Mitsubishi Electric Corporation (TOKYO: 6503) places sustainability at the core of its operations and values stakeholder trust—encompassing society, customers, shareholders and employees. In pursuing profitability, capital efficiency and growth, Mitsubishi Electric works closely alongside customers to develop value-added solutions that address today's complex challenges while enhancing the company's sustainable corporate value.

Founded in 1921, Mitsubishi Electric has over a century of experience in delivering reliable, high-quality products and solutions. With over 200 group companies and approximately 150,000 employees worldwide, the company is a recognized global leader in manufacturing, marketing and selling electrical and electronic equipment and systems across a broad range of sectors, including public utility systems, energy systems, defense and space systems, factory automation systems, automotive equipment, building systems, air conditioning systems & home products, digital innovations, and semiconductor & devices.

Mitsubishi Electric recorded consolidated revenue of 5,894.7 billion yen (U.S.$ 36.8 billion*) in the fiscal year that ended on March 31, 2026. For more information, please visit www.MitsubishiElectric.com

*JPY 160=USD 1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2026

About Chiba Institute of Technology

Since its founding in 1942, Chiba Institute of Technology has upheld its founding philosophy of "Contributing to World Culture through Technology" and has developed the longest history among private institutes of technology in Japan. Through education and research in engineering and advanced fields, Chiba Institute of Technology has continuously contributed to the development of society. Based on the integration of practical education and advanced research capabilities, the university actively promotes collaboration with industry and local communities. Chiba Institute of Technology is committed to nurturing each student's creativity and practical skills, with the aim of developing professionals who can contribute to solving increasingly complex and sophisticated social challenges. Currently, Chiba Institute of Technology consists of 5 faculties with 17 departments, as well as 6 graduate schools with 16 majors, where approximately 10,000 students engage daily in cutting-edge research and learning, including collaborative projects among industry, government, and academia. Together with more than 100,000 alumni, Chiba Institute of Technology has contributed to the creation and social implementation of technologies that meet societal needs in a wide range of fields, including robotics, planetary exploration, and computer science, both in Japan and internationally.

For more information, please visit the Chiba Institute of Technology website.

Please note that the structure and number of faculties/departments and graduate schools/majors are subject to change due to the future establishment of new academic programs and organizational revisions.

Media Inquiries

Mitsubishi Electric Corporation
Public Relations Division
prd.gnews@nk.MitsubishiElectric.co.jp

Chiba Institute of Technology
Future Robotics Technology Center
https://www.furo.org/index_e.html

Customer Inquiries

Mitsubishi Electric Corporation
Strategic Planning Dept.
Corporate Research and Development Group
https://www.MitsubishiElectric.com/ssl/contact/company/rd/form.html

Chiba Institute of Technology
Future Robotics Technology Center
https://www.furo.org/index_e.html