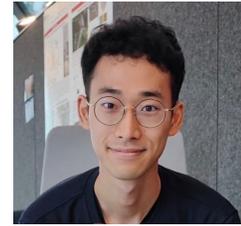


RYO KANNO



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- 🌐 <https://ryokanno.net>
- 🌐 [linkedin.com/in/ryokanno](https://www.linkedin.com/in/ryokanno)
- 👤 Ryo Kanno

EXPERTISE

- Soft Robotics
- Human-Machine Interface Devices
- Sustainable & Eco-Friendly Robotics
- Additive Manufacturing
- Mechanical & Electrical Analysis of Smart Materials

EXPERIENCE

Doctoral fellow at the Laboratory of Sustainability Robotics

Swiss Federal Institutes of Technology (Empa/EPFL)

- Advisors: Prof. Mirko Kovac, Prof. Jamie Paik
- Magnetic underwater soft robots, Biocompatible ionic polymer actuators

Zurich/Lausanne, Switzerland

June 2023-present

Student Teaching Assistant

EPFL

- Instructed soft robotics and soft devices for human-machine interface operating in-air, underwater environments

Lausanne, Switzerland

February 2025- May 2025

Visiting Researcher

EPFL

- Developed underwater hydraulic soft actuators with fully edible materials

Lausanne, Switzerland

March 2023- February 2024

Robotics Association Member

The University of Electro-Communications

- Aimed to participate ABU Robocon, an international university robotics competition: responsible for electronics and motion control of shuttlecock throwing robot
- Developed a flyback robot in CanSat competition at space center: responsible for hardware development and electronics

Tokyo, Japan

April 2017 - March 2021

EDUCATION

The University of Electro-Communications

M.Eng. in Mechanical Engineering and Intelligent Systems

- Biodegradable electrohydraulic soft actuators
- McKibben artificial muscles with dielectric elastomer sensor

Tokyo, Japan

2021-2023

The University of Electro-Communications

B.Eng. in Mechanical Engineering and Control Systems

- Multifunctional electrostatic wearable soft devices
- Fluidic soft actuators with strain/proximity sensor

Tokyo, Japan

2017-2021

SKILLS

- Programming and Software:
Python, MATLAB (<5 years)
C++ (5+ years)
VISA protocol, SolidWorks, Inventor, Fusion360 (5+ years)
- Hardware:
3D printing, Custom PCB development, Metalworking, Robotic system integration, High voltage system, Pneumatic/Hydraulic circuit (5+ years)
- Soft robotic skills:
Direct ink writing, Fluidic/Electrostatic soft Dielectric elastomer transducers (5+ years)

LANGUAGES

- English: fluent
- Japanese: mother tongue

SELECTED PUBLICATIONS (FULL LIST CAN BE FOUND HERE)

- [1] **R. Kanno**, F. Caruso, K. Takai, Y. Piskarev, V. Cacucciolo, and J. Shintake, “Biodegradable electrohydraulic soft actuators”, *Advanced Intelligent Systems*, 2023,
- [2] **R. Kanno**, P. H. Nguyen, J. Pinskiel, D. Howard, S. Song, and M. Kovac, “Hybrid Soft Electrostatic Metamaterial Gripper for Multi-surface, Multi-object Adaptation”, *IEEE 7th International Conference on Soft Robotics (RoboSoft)*, 2024,
- [3] N. Trümpler*, **R. Kanno***, N. David, A. Huch, P. H. Nguyen, M. Jurinovs, and M. Kovac, “Low-Cost 3D printed, Biocompatible Ionic Polymer Membranes for Soft Actuators”, *IEEE 8th International Conference on Soft Robotics (RoboSoft) 2025*,
- [4] **R. Kanno**, B. Kwak, M. Pankhurst, J. Shintake, and D. Floreano, “Edible soft actuators based on konjac glucomannan for underwater operation”, *Advanced Intelligent Systems*, 2024,
- [5] **R. Kanno**, K. Shimizu, K. Murakami, Y. Shibahara, N. Ogawa, H. Akai, and J. Shintake, “Silicone-based highly stretchable multifunctional fiber pumps”, *Nature Scientific Reports*, 2024,
- [6] **R. Kanno**, S. Watanabe, K. Shimizu, and J. Shintake, “Self-sensing McKibben artificial muscles embedded with dielectric elastomer sensor”, *IEEE Robotics and Automation Letters*, 2021,
- [7] **R. Kanno**, S. Watanabe, K. Shimizu, and J. Shintake, “Pneumatic artificial muscles embedded with dielectric elastomer sensor”, *Electroactive Polymer Actuators and Devices (EAPAD) XXIII*, 2021.

AWARDS & MISCELLANEOUS

- Spotlight Paper at Robosoft, 2025
- Best Paper Finalist at Excellence in Manufacturing Reproducibility at RoboSoft, 2024
- Student Award at The University of Electro-Communications, 2022 and 2023