Beomjun Kim

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M.S. Student in Robotics & Manufacturing Hardware

Education

UCLA | M.S. in Mechanical and Aerospace Engineering — Sept. 2025 – Present

Teaching Assistant: Kinematics of Robotics (MAE 163/263A) — GPA: 4.0/4.0

Korea University | B.S. in Mechanical Engineering — March 2017 – Feb. 2024

Valedictorian (top-ranked graduate of the class) — GPA: 3.85/4.0

Presidential Science Scholarship Recipient

Professional Experience

Samsung Electronics | Mobile Experience division, Mechanical R&D Team — Jan. 2024 – Aug. 2025

Mechanical Design Engineer - Full Time

- Selected for the Vice President's Award for impactful contributions to manufacturing automation and process optimization in Galaxy Watch mass production
- Engineered the ultra-thin Galaxy Watch design under tight packaging constraints, applying GD&T and conducting DFM reviews with cross-functional manufacturing teams to ensure precision and manufacturability
- Evaluated and validated advanced manufacturing processes such as insert molding and MIM (Metal Injection Molding) for mass production through on-site process testing and verification
- Validated product reliability through extensive testing, including shock, water-resistance, thermal cycling, and tumble evaluations

Endo Robotics Co., LTD. | Mechanical R&D Team — July 2023 – Aug. 2023

Mechanical Engineer Intern

- Developed and prototyped a novel length and tension-adjuster for the tendon-sheath mechanism of the RoSE(Robot for Surgical Endoscopic) platform

Research Experience

UCLA | RoMeLA (Robotics & Mechanisms Laboratory) — Sept. 2025 – Present

Graduate Student Researcher, advised by Prof. Dennis Hong

- Designed an anthropomorphic exoskeleton device for robotic hand teleoperation, optimizing link kinematics to ensure ergonomic fit and high-fidelity data collection for imitation learning
- Prototyped a TPU-based flexible robotic skin with auxetic lattices to optimize compliance and integration on humanoids
- Optimized humanoid agility and stability on the "Booster T1" platform through a unified RL-MPC control architecture, validated via high-fidelity MuJoCo physics simulations.

Korea University | MFR (Mechatronics and Field Robotics Laboratory) — March 2023 – Dec. 2023

Undergraduate Student Researcher, advised by Prof. Daehie Hong

- Led the development of a soft-robot insertion platform with a double-layer structure and biocompatible materials, enhancing patient safety during endoscopic navigation

Projects

Modular Robotic Arm – Modulero (Samsung C-Lab Corporate Venture Program) — Summer 2024

- Led the mechanical design of a modular robotic arm, overseeing CAD modeling and structural optimization for prototyping
- Showcased two modular robots at CES 2025 through Samsung's C-Lab venture program

Skills

CAD (NX/SolidWorks/Fusion) | GD&T | Tolerance stack-up | DFM/DFA | FEA | Rapid prototyping | Manufacturing process (IM/MIM/insert molding) | Python/Matlab | ROS/MuJoCo