Seung Hyeon Park

Personal Data

Ph.D Student
Robotics Lab., Department of Mechanical Engineering,
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Nationality	South Korea
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Research Interests

Embedded Miniature Robotics

- Cable-driven robotic mechanisms
- Miniature robot design
- Embedded hardware and firmware

Motor Driver Design

- Custom BLDC motor driver PCB design
- Embedded motor control firmware development
- Closed-loop control validation and characterization

Education & Studying Abroad

2026.03-PRESENT	Ph.D. Student, Mechanical Engineering Advisor: Prof. Kee Hoon Kim Pohang University of Science and Technology (POSTECH), Pohang, Korea
2024.03-2026.02	M.S. student, Mechanical Engineering Advisor: Prof. Kee Hoon Kim Pohang University of Science and Technology (POSTECH), Pohang, Korea
2018.02-2024.02	B.S., Department of Mechanical Engineering, Chungnam National University, Daejeon, Korea
2022.07-2022.08	Exchange student, Lakehead university (in the Canada)

Awards and Honors

2022.03	Encouragement Award, 2022 ICT PROJECT CONTEST
2023.10	Gold Award, 13th KSME Student Creative Design Competition (KSCDC 2023)
2025.06	Best Paper, IEEE International Conference on Robotics and Automation - ICRA 2025 in Medical Robotics
2022.08	충남인재육성재단 재능키움 장학생
2023.12	대전청년내일재단 성취 장학생

Publications

Domestic Journal Articles

1. **Seung Hyeon Park**, Min Chan Kim, Jun-Hyeok Yook, Hyun-Woo Kim, Ju Yeong Seo, Kyung-Min Lee "Development of Underactuated Adaptive Gripper with Tendon-Pulley Structure," *Trans. Korean Soc. Mech. Eng. A.*

Global Journal Articles

1. Juwan Han, **Seunghyeon Park**, and Keehoon Kim, "In-Vivo Cable-Driven Rodent Ankle Exoskeleton System for Sensorimotor Rehabilitation," in Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), 2025.

Patents

1. (출원번호: 10-2023-0025670) 징검다리형 수력 발전 장치.
2. (출원번호: 10-2023-0027348) 물체 수거가 가능한 로봇청소기.

Languages, Skills and Abilities

Languages	Korean (mothertongue) English (intermediate)
Computer Skills	C/C++, Python, Matlab, Simulink Ansys Workbench, ROS(Robot Operating System) SolidWorks, Altium
Hardware & Equipment	Embedded - Arduino Embedded - Jetson Nano Embedded - STM32 Embedded - nRF Wireless communication Embedded - PCB Circuit Design (Altium) Manufacturing - 3D Printing (Filament & Resin) Manufacturing - Laser cutting
ETC.	Blog Site: https://blog.naver.com/psm113511

Interests and Activities

Walking, Meditation, writing poetry