

Seong Hyeon Kim

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Education

Ulsan National Institute of Science and Technology (UNIST) , M.S. in Artificial Intelligence	Mar 2024 – Present
• Advisor: Prof. Hyemin Ahn	
• Lab: Artificial Intelligence and Human-Robot Interaction Lab (AI-HRI Lab)	
Myongji University , B.S. in Mechanical Engineering	Mar 2018 – Feb 2024
• Advisor: Prof. Dong-il Choi	
• Lab: Dynamic Robot Control Lab (DRCL)	

Research Experience

Graduate Student Researcher , Artificial Intelligence and Human-Robot Interaction Lab (AI-HRI Lab) – UNIST	Mar 2024 – Present
• Focusing on Robotic Manipulation and World Models for intelligent robot control	
Undergraduate Intern , Dynamic Robot Control Lab (DRCL) – Myongji University	Mar 2019 – Feb 2024
• Conducted research on mechanical design and control systems for robotics	

Publications

Proprioception-conditioned Visual Scene Generation for Robot World Modeling via Contrastive Learning and Diffusion	2025
S. H. Kim , H. Ahn <i>Journal of Institute of Control, Robotics and Systems (ICROS)</i>	
Design of a Wheel-Legged Robot using Linear 2-DOF Parallel Mechanism	2023
S. H. Kim , D. Choi <i>Proceedings of the KSME Spring/Autumn Conference</i>	
Application of TDOA Algorithm for Sound Source Direction Tracking	2023
T. Kim, S. H. Kim , D. Choi <i>Proceedings of the KSME Spring/Autumn Conference</i>	
2-DOF Parallel Mechanism for Linear Wheel-Legged Robot System	2023
S. H. Kim , T. Kim, S. Ryu, J. Han, D. Choi <i>Proceedings of the KSME Spring/Autumn Conference</i>	
Ball Tracking and Trajectory Measurement System for Tennis Robot	2022
Y. Yang, S. Ahn, S. H. Kim , D. Choi <i>Proceedings of the KSME Spring/Autumn Conference</i>	
Real-time Object Trajectory Prediction using AI and Stereo Vision	2022
Y. Yang, S. Ahn, S. H. Kim , D. Choi <i>Proceedings of the KSME Spring/Autumn Conference</i>	

Honors & Awards

Bronze Award , School Capstone Design Project – Myongji Univ. Project: <i>Companion Robot for the Elderly</i>	Dec 2023
Bronze Award , Hanium ICT Mentoring – KFII Project: <i>Companion Robot for the Elderly</i>	Dec 2023

Silver Award , SEP Convergence Festival – Myongji Univ. <i>Project: Companion Robot for the Elderly</i>	Dec 2023
Encouragement Award , Capstone Design Competition – KSME <i>Paper: Application of TDOA Algorithm for Sound Source Direction Tracking</i>	Apr 2023
Best Paper Award , Spring Conference – KSME <i>Paper: Ball Tracking and Trajectory Measurement System for Tennis Robot</i>	Apr 2023
Bronze Award , Capstone Design Competition – Myongji Univ. <i>Project: Autonomous Desert Seeding Robot</i>	Dec 2019

Professional Service

Volunteer , LG Project-based Learning Program	Summer 2025
Reviewer , IEEE International Conference on Robotics and Automation (ICRA)	2025

Technical Skills

Programming: Python, C

Tools: ROS, ROS2, MuJoCo, Gazebo, PyTorch, MATLAB, Git, SolidWorks, KiCad

Robots: Unitree Go2, Unitree G1, Universal Robots (UR3, UR5), Franka Emika Panda