



Hyeonseong Kim

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EDUCATION

(Expected) M.S. degree in Artificial Intelligence

Mar. 2024 – Feb. 2026

Korea University, Seoul, Republic of Korea

- GPA: 4.43/4.5

B.S. degree in Mechanical Engineering

Mar. 2017 – Feb. 2024

Korea University, Seoul, Republic of Korea

- Overall GPA: 3.79/4.5
- Major GPA: 4.10/4.5

ROBOTIC PLATFORMS OPERATED (*clickable names can link to official product pages)

Main

[UR5e](#) (Manipulator): Real-time control for object handover in physical HRI experiments

[Turtlebot 4](#) (Mobile Robot): High-level decision making with VLM in navigation tasks

[Stretch 3](#) (Mobile Manipulator): Reproduced the [OK-Robot](#) system on physical hardware

Self-made Drone (UAV): Low-level control and autonomous flight for delivery scenarios

Sub

[Ambidex](#) (Upper Body Humanoid): Built smooth motion transitions for HRI state machine

[Snapbot](#) (Legged Robot): Hardware replication and locomotion experiments

SKILLS AND TECHNIQUES

Advanced - *Applied extensively with minimal supervision*

Python, ROS 2, MuJoCo Simulator

Intermediate - *Used in multiple projects with moderate guidance*

C++, Pytorch, Fusion 360, Human-subject experiment design & analysis

Fundamental - *Basic usage or coursework-level exposure*

C, Embedded System (STM32), Stereo Vision (e.g. ZED, RealSense)

INTERNATIONAL RESEARCH EXPERIENCE

Visiting Researcher, Queen's University, Canada

Mar. 2025 – Jul. 2025

PROJECTS

Joyful Deceptive Robot, Main Researcher <i>Queen's University Visiting Researcher Program</i> <i>Goal:</i> Developing playful object handover robot, inspired by Turkish ice cream vendor. <i>Contribution:</i> Built the robot system that interacts with people by dodging the hand.	Feb. 2025 – Present
Dynamic Robot-to-human Handover, Main Researcher (publication 1) <i>Korea University-Queen's University Collaboration Project</i> <i>Goal:</i> Enable seamless object transfer from robot to moving human using real-time HRI <i>Contribution:</i> Designed the real-time physical HRI system with machine learning technique.	Mar. 2024 – Sep. 2024
VLM-based Socially Aware Navigation, Main Developer <i>Industry-Academia Collaborative Project with LG Electronics</i> <i>Goal:</i> Demonstrating the possibility of utilizing VLM in navigation tasks, including HRI scenario. <i>Contribution:</i> Integrated ROS-based system with VLM for high-level decision and task logging.	Mar. 2024 – Dec. 2024
Development of Collaborative AI Agent, Research Member <i>Joint Research Project with ETRI</i> Reproduced the OK-Robot system in the real world and validated behavior modules.	Apr. 2024 – Jun. 2024
Korea Robot Aircraft Competition, Team Leader <i>Korea Aerospace Industries Association</i> Developed a drone for the autonomous delivery scenario.	Apr. 2022 – Sep. 2022

PUBLICATIONS

1. "Learning-based Dynamic Robot-to-Human Handover" <i>IEEE International Conference on Robotics and Automation (ICRA) 2025</i> (project page)	1 st Author
2. "Towards Embedding Dynamic Personas in Interactive Robots: Masquerading Animated Social Kinematic (MASK)", <i>IEEE Robot and Automation Letters (R-AL) 2024</i> (project page)	3 rd -author
3. (Under review) "Sample-Efficient Robot Preference Learning with Confidence-Guided Exploration" <i>Conference on Robot Learning (CoRL) 2025</i>	2 nd -Author
4. (Under review) "Leaning Rapid Adaptation of a Legged Robot under Amputation" <i>Asian Conference on Pattern Recognition (ACPR) 2025</i>	4 th -Author

AWARDS & HONORS

Connected Minds Traveler Award – CAD \$6,000 research funding (hosted by Queen's & York Univ.)	Jan. 2025
Silver Prize – Korea Robot Aircraft Competition	Oct. 2022
