

South Korea PNU robotics global PBL

Date	Place	Partner Organization	Students' Major and Grade	Participants' Information	SIT Instructor
2025/08/21 ~2025/09/01	Republic of Korea	Pusan National University	<ul style="list-style-type: none"> •Department of Electrical Engineering, Electrical Engineering and Robotics •Undergraduate 1st grade, Undergraduate 2nd grade, Undergraduate 3rd grade 	(SIT) Students 14, Student Staff 2, Professor 3 (Pusan National University) Students 8, Student Staff 3, Professor 3	ANDOU Yoshinobu (Electrical and Electronic Engineering and Robotics), YOSHIMI Takashi (Electrical and Electronic Engineering and Robotics), YONEMITSU Fumiya (Electrical and Electronic Engineering and Robotics)



Image1 Workshop ①

In this time, the Busan Robotics Global PBL took place from August 21st (Thursday) to September 1st (Monday). The SIT students were divided into three groups and stayed in the laboratories of Professor Junghan Kwon, Professor Youngsoo Kim, and Professor Sangrok Jin at Pusan National University. With the cooperation of these three laboratories, they worked on robot-related issues. A total of 14 students from the Electrical and Robotics Course (Department of Electrical Engineering), including first, second, and third year students, participated from SIT. Three faculty members and two TA from SIT support this project. In this gPBL, students were divided into three teams and worked on their own tasks. Team 1 used ROS2 to control a robot arm. Using simulations and the actual machine, they worked on the task of grasping a cubic object with a robot arm and moving it to another location. Team 2 tackled the challenge of enabling a mobile robot to overcome steps by modifying some of its wheels. They attached protrusions to the wheels, and moving the protrusions with a link-like mechanism. They designed the shapes of the protrusions themselves and evaluated their performance through experiments with the actual robot. Team 3 used modeling software and a 3D printer to design the components for a wire-driven arm. After that, they used Arduino to realize the arm's movement. Each group of students gave a final presentation to talk about their efforts.



Image2 Workshop ②



Image3 Workshop ③



Image4 Workshop ④



Image5 Group photo