

Hibikino-Musashi@Home (Japan)




Development point


We aim to develop a robot that keeps moving. By operating move base and arm in parallel, our robot moves quickly and smoothly. In addition, our robot process various sensor information using neural networks to recognize and grasp objects accurately. We also focus on making the behavior of the robot gentle. For example, our robot can place the object softly.

Smooth each movement


Recognition
Recognize object categories and locations



Grasp
Quick and accurate grasping



Place
Carefully place objects so they don't fall.



Introduction of your team

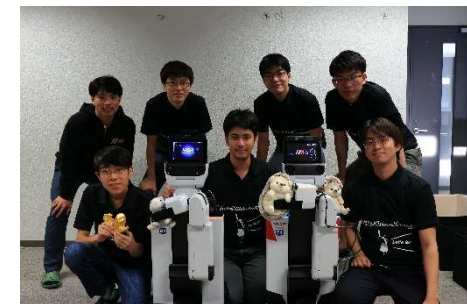
【Inspiration, motivation to form a team】

We formed as a group of Kyushu Institute of Technology (Kyutech), working in Kitakyushu Science and Research Park, with the goal of "Realizing a home service robot that can coexist with humans". Our main activities are to participate in competitions such as WRS and RoboCup, and to hold robot seminar.

【Future outlook】

Recently, we have not been ranked first in the world competitions, so we are aiming to be ranked first again.

Role	Name	Affiliation/Title	Specialty, Field of study
Team leader	Shoshi Tokuno	Tamukoh Lab., Kyutech, D1	Object recognition of tactile information
Unknow object detection	Daiju Kanaoka	Tamukoh Lab., Kyutech, M2	Open set recognition
Adjustment when grasping	Kenta Tsukamoto	Ikemoto Lab., Kyutech, M2	Tensegrity dynamics
Grasping under the table	Hayato Amano	Tamukoh Lab., Kyutech, M1	Development of autonomous driving system using FPGA
Development of Task2	Tomoya Shiba	Tamukoh Lab., Kyutech, M1	Development of a home service robot
Object recognition	Kazuo Nakahara	Morie Lab., Kyutech, M1	Research on reservoir computing based on CBM
Avoidance of floor obstacles	Akinobu Mizutani	Tamukoh Lab., Kyutech, M1	Robot application of a brain-inspired artificial intelligence
Drawer detection	Yusuke Mizoguchi	Nishida Lab., Kyutech, M1	Development of a sea urchin capture system using an autonomous underwater robot
Grasping an object in a shelf	Ikuya Matsumoto	Tamukoh Lab., Kyutech, B1	Multi-modal learning
Object orientation detection	Yuga Yano	Tamukoh Lab., Kyutech, B4	Development of auto driving system



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HP etc. <http://www.brain.kyutech.ac.jp/~hma/>