

AI course Project

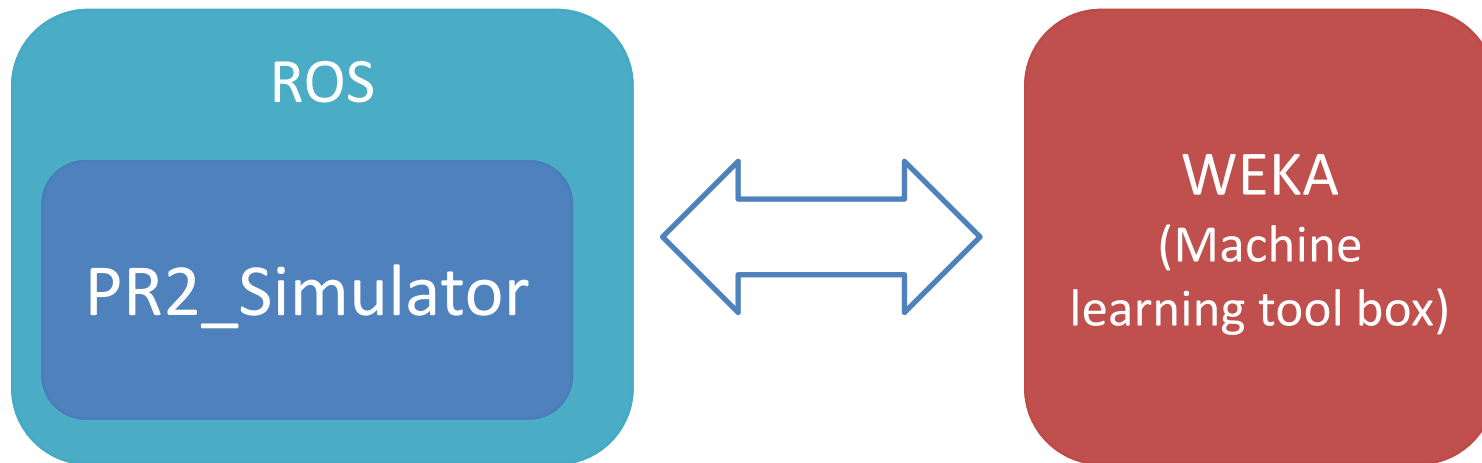
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Final Goal

- Making popcorn with PR2 simulator
- Using machine learning algorithm



Making popcorn with real PR2

- [TUM video](#)

Overview of projects

- Project 0
 - Setting the kitchen in PR2 simulator
- Project 1
 - Classifying objects using MLP with WEKA
- Project 2
 - Making popcorn with PR2 simulator using your MLP model
 - Move
 - Open a drawer
 - Select an ingredient (with MLP result)
 - Pick dishes up
- Extra credit (a lot of)
 - Connecting WEKA with PR2

Grading and Schedule

- Project 0
 - 10%
 - Announcement : 4. 12
 - Due : 4.19
- Project 1
 - 15%
 - Announcement : 4. 26
 - Due : 5.10
- Project 2
 - 25%
 - Announcement : 5. 24
 - Due : 6.10

Project 0: Setting your kitchen

- Read and work this tutorial
 - http://www.ros.org/wiki/simulator_gazebo/Tutorials/SpawningObjectInSimulation
- Make a launch file which can draw
 - 1 PR2 robot
 - 2 tall boxes behind the robot
 - 2 Tables in front of the robot
 - 1 Coffee cup on the table
 - (of course, you can add the other stuffs.)
- With Rviz, take snap shots of your kitchen
 - Use PR2's camera
 - At least, you should take 2 snap shots
 - Front view (tables and cup)
 - Behind view (Tall boxes)

- Outcome
 - A launch file
 - A brief report
 - How can you add those stuff in launch file?
 - What is the topic related with snap shots?
 - Show a rxgraph and check that topic
 - Snap shots about the kitchen
 - Send to TA via email(eskim@bi.snu.ac.kr)
 - Due: April, 19th, 11:59 pm