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

• 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