

ME336 Collaborative Robot Learning

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Agenda

Week 10, DAY, DATE

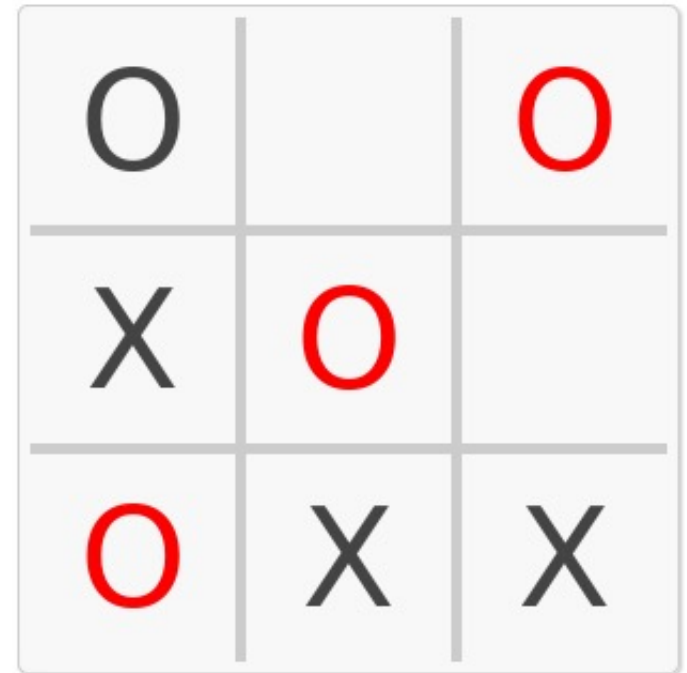
- Project3: TicTacToe-Robot Player
 - Project3 Introduction
 - Hands-on Lab



Project2 Introduction

Scene

- Robot arm: Aubo, UR, Franka
- Hand: suction cup
- Camera: Realsense 430
- Picking items: Tic Tac Toe pieces
- Placing items: Tic Tac Toe pieces on checkerboard



Hands-on Lab

Pipeline of Building A Tic Tac Toe Robot Player

1. (Completed) ROS communication with robot arm, gripper, and camera.
2. (Completed) Hand-eye calibration.
3. (To be Completed) Image processing: Get the current state of a tic tac toe game from image, namely, recognize where has the human player placed its pieces.
4. (To be Completed) Write an AI player of tic tac toe using minimax
5. (To be Completed) Write a python script to pick/place the pieces with Moveit.
6. Codes: <https://github.com/ancorasir/BionicDL-CobotLearning-Project3.git>