CS 309 Robot Learning (FRI I) — Homework #4

Paper Analysis

Read one of the papers below and answer the "Blackbox" questions.

Submit your answers as a pdf to Gradescope.

Pick one of the following papers (or suggest your own and include the reference):

- MUTEX: Learning Unified Policies from Multimodal Task Specifications (CoRL 2023)

- Waypoint-Based Imitation Learning for Robotic Manipulation (CoRL 2023)

- ScrewMimic: Bimanual Imitation from Human Videos with Screw Space Projection (RSS 2024)

- Variable impedance control in end-effector space: An action space for reinforcement learning in contact-rich tasks (IROS 2019)

Answer the following questions:

a. What is the problem the paper is solving? (in plain English, little technical jargon)

b. Why is the existing state of the art insufficient? What's missing?

c. What is this paper's novelty? What is their clever idea?

d. How is this idea evaluated? What are the main experiments and findings?