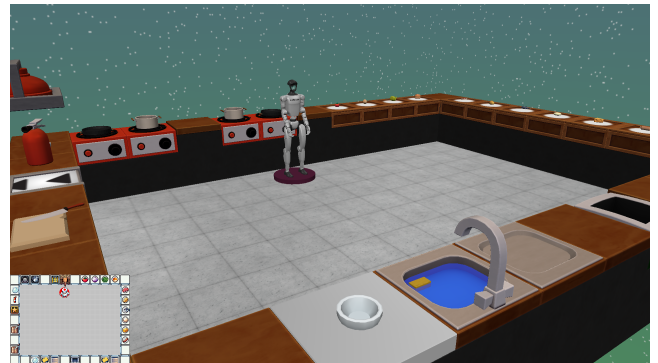




Extending Cooperative Cuisine Mujoco 3D Physics Simulation for Robotic Training

Bachelor/Master – This thesis aims to enhance the existing Mujoco-based Cooperative Cuisine simulation to better support robotic training. The focus is on refining the physical modeling of objects and agent actions within the kitchen environment, making them more suitable for training and evaluating robotic agents. Implementation will be carried out in Python using the Mujoco API. The project includes testing and validating the improvements in cooperative scenarios.

Links: mujoco.org, [cooperative_cuisine](https://cooperative_cuisine.github.io)



Tasks

- Analyze the current CoCu-Mujoco sim and identify areas for improvement related to robotic training.
- Implement enhancements to the physical modeling and agent interactions.
- Test and validate the improved simulation with respect to its applicability for robotic skill learning.
- Provide baseline for robot training

Your Profil

- Programming experience in Python.
- Interest in robotics, simulation, or AI.
- Motivation to learn and work with Mujoco or similar physics engines.

Interested?

If you are interested or have further questions, please send an email to fschroeder@techfak.uni-bielefeld.de.