Gymnasium-Robotics Documentation
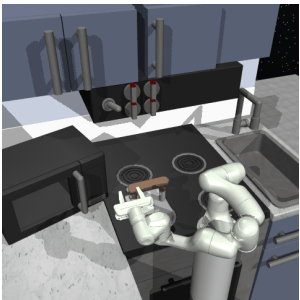
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Franka Kitchen

Multitask environment in which a 9-DoF Franka robot is placed in a kitchen containing several common household items. The goal of each task is to interact with the items in order to reach a desired goal configuration.

[Franka Kitchen](#)

The tasks can be selected when the environment is initialized passing a list of tasks to the `tasks_to_complete` argument as follows:

```python
import gymnasium as gym

env = gym.make('FrankaKitchen-v1', tasks_to_complete=['microwave', 'kettle'])
```

The possible tasks to complete are:

Task	Description
`bottom burner`	twist control knob to activate bottom left burner in the stove.
`top burner`	twist control knob to activate top left burner in the stove.
`light switch`	move a lever switch to turn on a light over the burners.
`slide cabinet`	slide open the cabinet door.
`hinge cabinet`	open a hinge cabinet door.
`microwave`	open the microwave door.
`kettle`	move the kettle from the bottom burner to the top burner.

References

These environments were first introduced in ["Relay Policy Learning: Solving Long-Horizon Tasks via Imitation and Reinforcement Learning"](#) by Abhishek Gupta, Vikash Kumar, Corey Lynch, Sergey Levine, Karol Hausman, and later modified in ["D4RL: Datasets for Deep Data-Driven Reinforcement Learning"](#) by Justin Fu, Aviral Kumar, Ofir Nachum, George Tucker, Sergey Levine. Both publications can be cited as follows:

```
@article{gupta2019relay,
  title={Relay policy learning: Solving long-horizon tasks via imitation and reinforcement le
  author={Gupta, Abhishek and Kumar, Vikash and Lynch, Corey and Levine, Sergey and Hausman,
  journal={arXiv preprint arXiv:1910.11956},
  year={2019}
}
```

```
@misc{fu2020d4rl,
    title={D4RL: Datasets for Deep Data-Driven Reinforcement Learning},
    author={Justin Fu and Aviral Kumar and Ofir Nachum and George Tucker and Sergey Levine},
    year={2020},
    eprint={2004.07219},
    archivePrefix={arXiv},
    primaryClass={cs.LG}
}
```

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