This document is a short guide in how to get BenchMARL up and running together with the information relaying environment implemented in PettingZoo. BenchMARL can be installed from: https://github.com/facebookresearch/BenchMARL.

In order to run our environment together with BenchMARL. Create a virtual environment with Python 3.12 (3.11 also works if 3.12 is not available). Then pip install BenchMARL and run **git checkout 3f4a765e55f0788cec579fd2dc5d0fd62cae63a5** (1.4.0) to get a version compatible with the current info relay environment. Then pip install -r all packages inside the **benchmarl_integration/requirements.txt** file (detta tar någon minut för att overridea olika versioner). Once the steps below have been followed, it should be possible to run the info relay environment using:
python benchmarl/run.py algorithm=mappo task=customenv/info_relay

There are several files that need to be placed in some locations in the BenchMARL directory. These files (except the information relaying environment files) are all located inside the folder **benchmarl_integration**. The address inside BenchMARL (once installed from their github) that each file from benchmarl_integration should be transferred to is listed below:
- Inside **benchmarl/conf/experiment/base_experiment.yaml**, the hyperparameters for each experiment can be changed. Change **prefer_continuous_actions** to False, The remaining parameters can be changed as preferred.
- Put the **conf-task/customenv** folder inside **benchmarl/conf/task**
- Put the **environments/customenv** folder inside **benchmarl/environments**. Also put the files **Info_relay_env_v2.py** and **Info_relay_classes.py** from the information relaying implementation into this folder in BenchMARL.
- Inside **benchmarl/environments/__init__.py**, add CustomEnvTask to the list of tasks. Also add from .customenv.common import CustomEnvTask at the top.
- If confidence intervals should be calculated - replace **benchmarl/experiment/logger.py** with logger.py from benchmarl_integration.
- evaluate.py can be used to run some evaluations after training has been completed. Put in the benchmarl/ folder.

Furthermore, it is also possible to change the configurations of the training algorithms and environment using the conf/ directory. This folder is split up into algorithm, experiment, model, and task, which all contain .yaml files that can be changed to alter hyperparameters. For a guide on how to run experiments using BenchMARL, please see the BenchMARL git repo.