

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>.

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.
- 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.