${\it Grid Environment Interface}. Env Params$

Attributes

render mode length width moves_per_timestep window height observation distance initial state initial state template distinguishable particles use speeds sigma average_window allow wait social reward density invert speed observation speed observation threshold punish inhomogeneities speed gradient reward speed gradient linearity inh_rew_idx binary_speeds

choices

Operations |

DQN.DQN

Attributes

*layers

Attributes

Operations

n()

rho()

render()

step(action)

reset()

close()

.....

Operations

__init__(n_observations, n_actions, new_model): forward(x):

GridEnvironment.GridEnv

*env params: EnvParams

window: pygame.display

init (EnvParams)

Trainer.Trainer

Attributes

Attributes

model

Operations

memory: TensorDictReplayBuffer

criterion: SmoothL1Loss

Playground.Playground

policy_net: DQN target net: DQN

__init__(model id)

optimizer: AdamW

state: Tensor

env params: EnvParams

env: GridEnv BATCH SIZE

GAMMA

EPS START

EPS END

EPS DECAY

TAU

LR

MEMORY_SIZE

. . . .

Operations

```
__init__(env_params, hyperparams, total_steps, ...)
load(model_id)
reset_env()
run()
train_and_save()
```