Continuous control DRL test log

Test #1 (07012019)

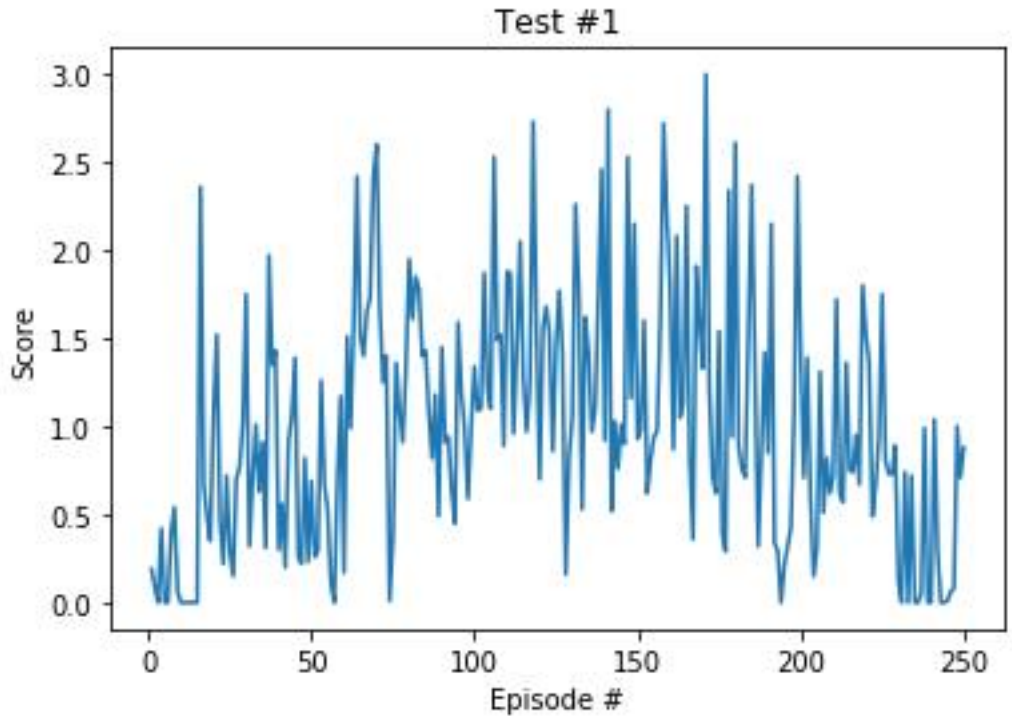
Test info:

250 episodes with 1000 steps per episode using DDPG for 1 agent

Parameter:

```
BUFFER_SIZE = int(1e5)      # replay buffer size
BATCH_SIZE = 128            # minibatch size
GAMMA = 0.99                # discount factor
TAU = 1e-3                  # for soft update of target parameters
LR_ACTOR = 1e-4             # learning rate of the actor
LR_CRITIC = 1e-3            # learning rate of the critic
WEIGHT_DECAY = 0            # L2 weight decay
```

Result



Test #2 (07022019)

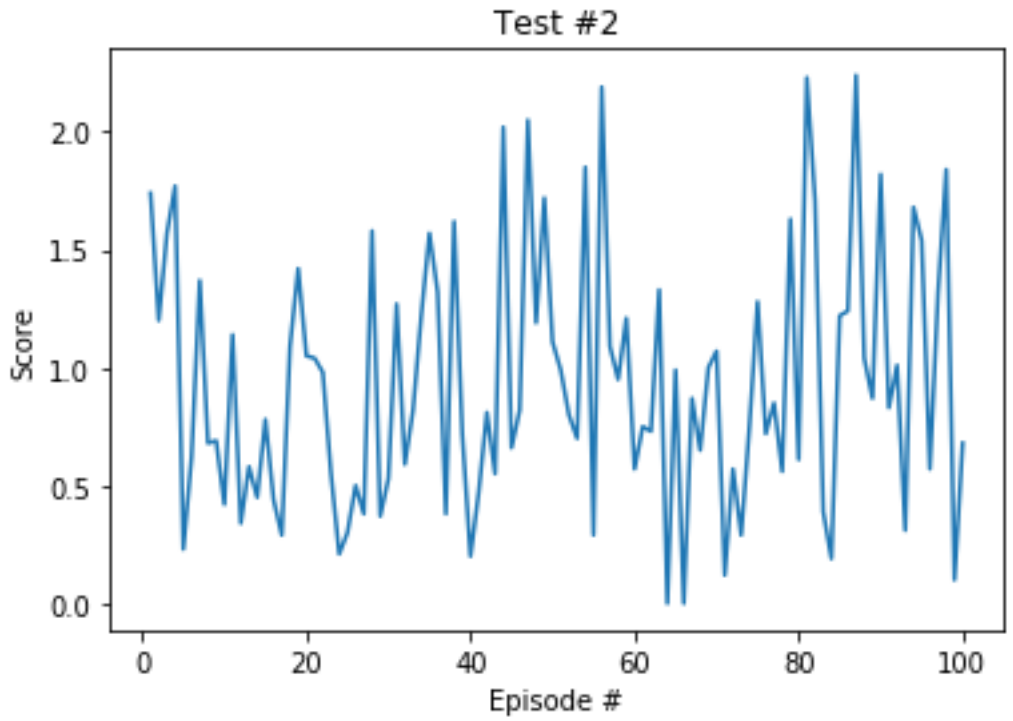
Test info:

100 episodes with 1000 steps per episode using DDPG for 1 agent

Parameter:

```
BUFFER_SIZE = int(1e6)      # replay buffer size
BATCH_SIZE = 1000           # minibatch size
GAMMA = 0.99                # discount factor
TAU = 1e-3                  # for soft update of target parameters
LR_ACTOR = 1e-4             # learning rate of the actor
LR_CRITIC = 1e-3            # learning rate of the critic
WEIGHT_DECAY = 0            # L2 weight decay
```

Result



Test #3 (07032019)

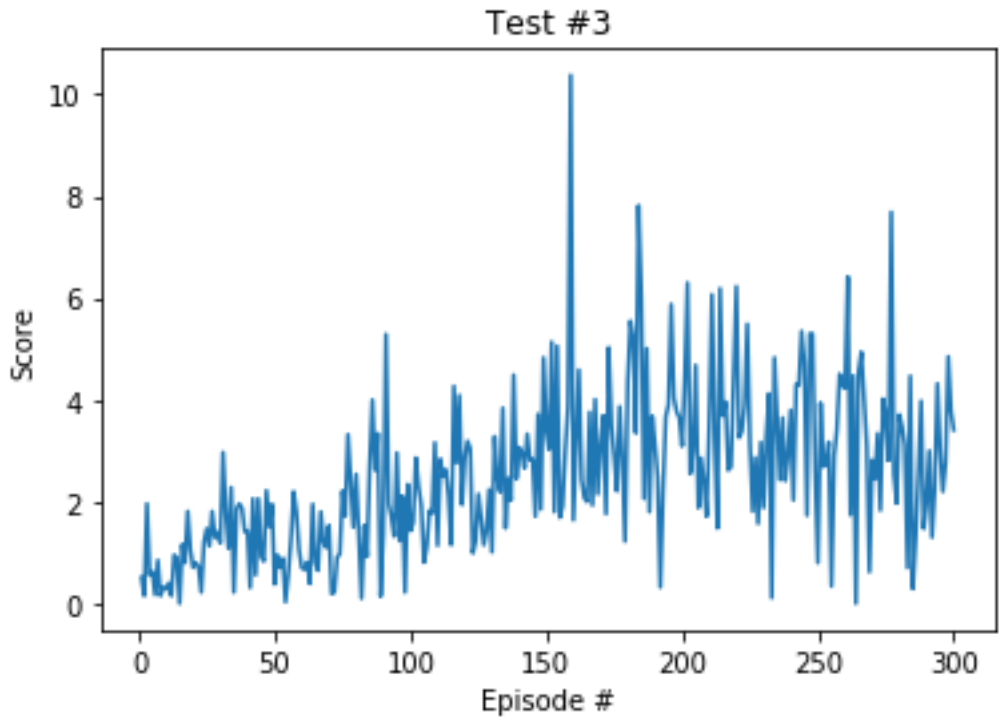
Test info:

300 episodes with 1000 steps per episode using DDPG for 1 agent

Parameter:

```
BUFFER_SIZE = int(1e5)          # replay buffer size
BATCH_SIZE = 20                 # minibatch size
GAMMA = 0.99                    # discount factor
TAU = 1e-3                      # for soft update of target parameters
LR_ACTOR = 1e-4                 # learning rate of the actor
LR_CRITIC = 1e-3                # learning rate of the critic
WEIGHT_DECAY = 0                # L2 weight decay
```

Result



Test #5 (07042019)

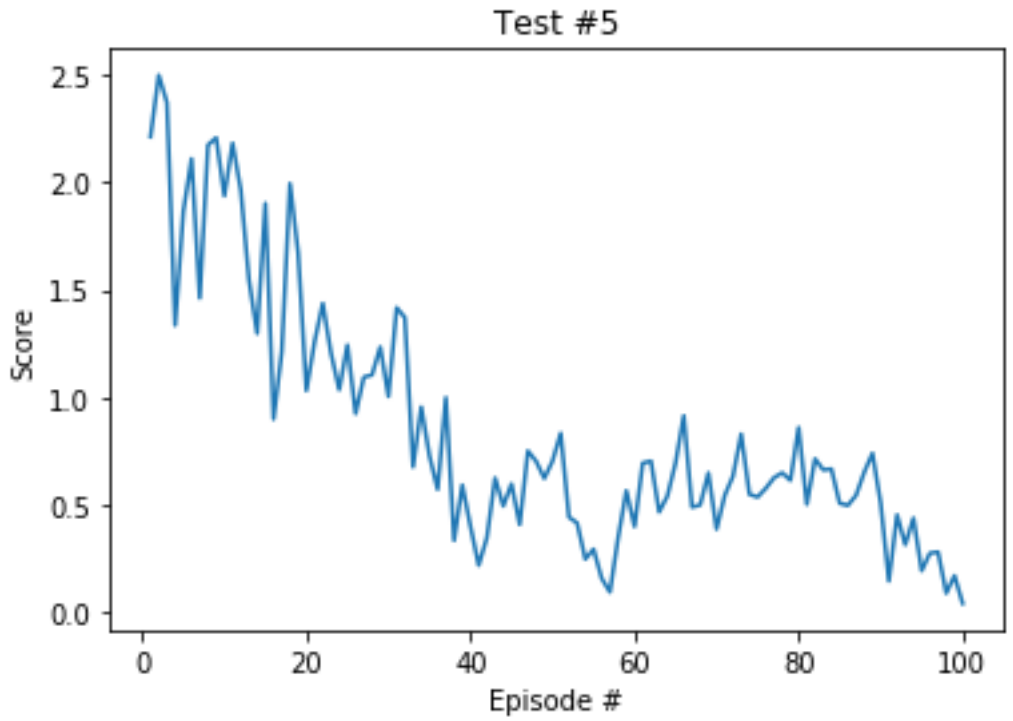
Test info:

100 episodes with 1000 steps per episode using DDPG for 20 agents

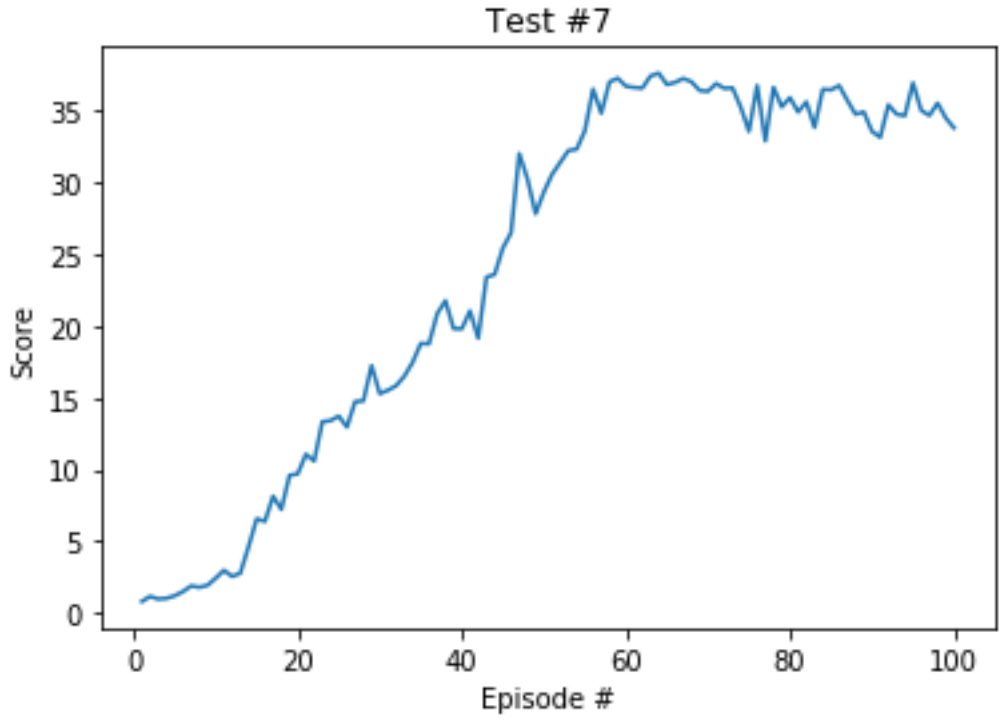
Parameter:

```
BUFFER_SIZE = int(1e5)      # replay buffer size
BATCH_SIZE = 200            # minibatch size
GAMMA = 0.99                # discount factor
TAU = 1e-3                  # for soft update of target parameters
LR_ACTOR = 1e-4             # learning rate of the actor
LR_CRITIC = 1e-3            # learning rate of the critic
WEIGHT_DECAY = 0            # L2 weight decay
```

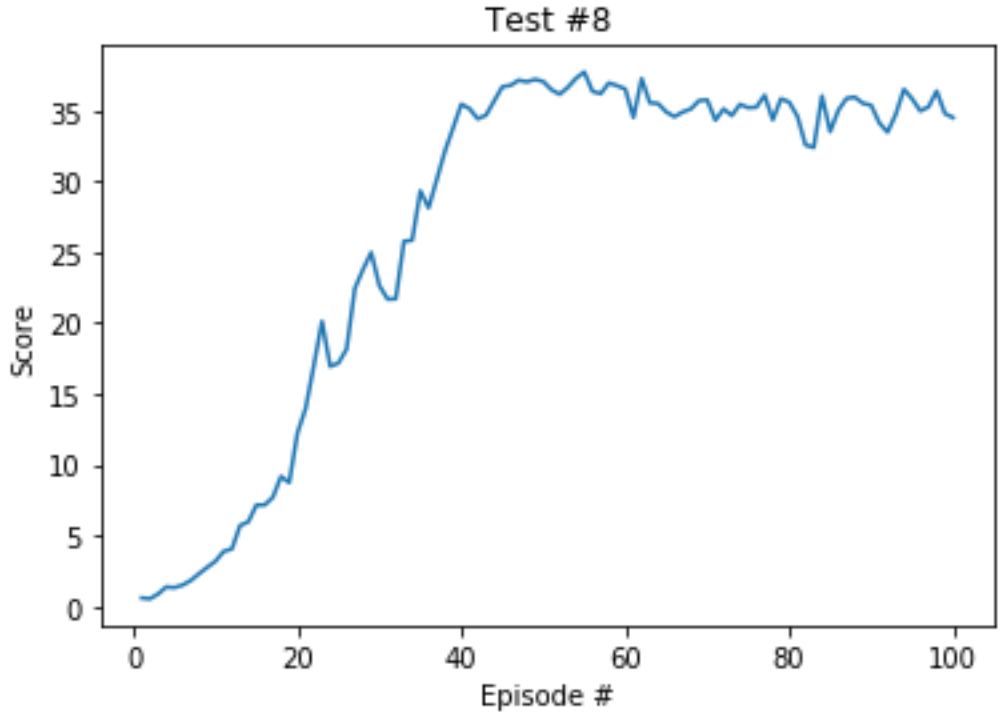
Result



Test #7


Test #7
Score
Episode #
0
5
10
15
20
25
30
35
0
20
40
60
80
100

Test #8


Test #8
Score
Episode #
0
5
10
15
20
25
30
35
0
20
40
60
80
100

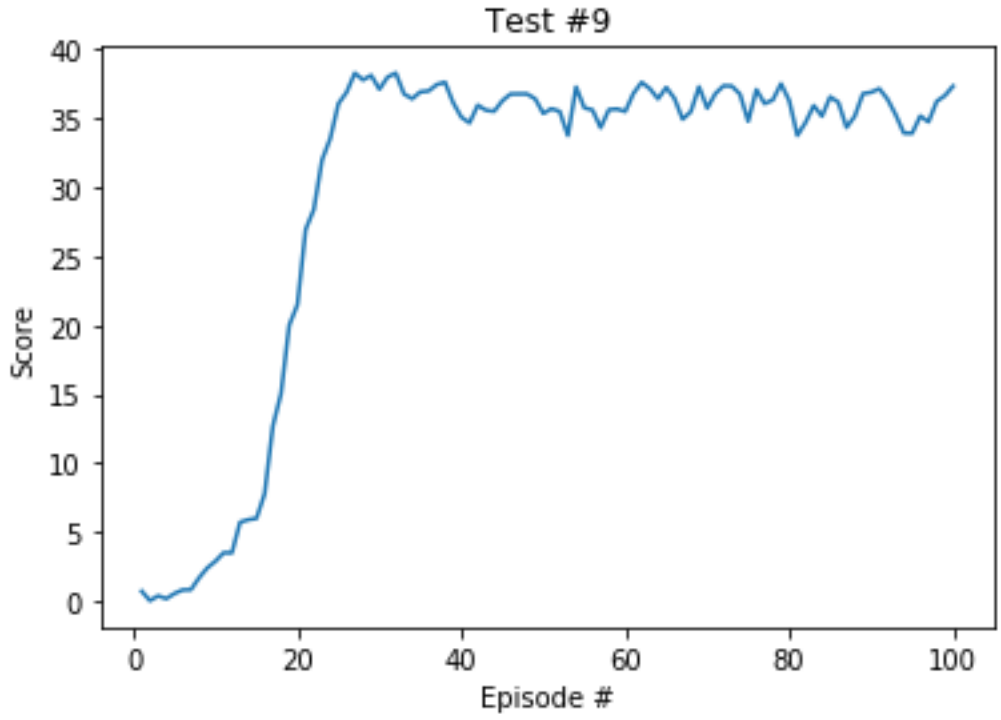
Test #9 (07042019)

Test info:

100 episodes with 1000 steps per episode using DDPG for 20 agents, learning once every 1000 steps.

Parameter:

```
BUFFER_SIZE = int(1e5)      # replay buffer size
BATCH_SIZE = 1000           # minibatch size
GAMMA = 0.99                # discount factor
TAU = 1e-3                  # for soft update of target parameters
LR_ACTOR = 1e-4             # learning rate of the actor
LR_CRITIC = 1e-3            # learning rate of the critic
WEIGHT_DECAY = 0            # L2 weight decay
```



Test #10 (07052019)

Test info:

100 episodes with 1000 steps per episode using DDPG for 20 agents learning 3 times every 1000 steps.

Parameter:

```
BUFFER_SIZE = int(1e5)      # replay buffer size
BATCH_SIZE = 1000           # minibatch size
GAMMA = 0.99                # discount factor
TAU = 1e-3                  # for soft update of target parameters
LR_ACTOR = 1e-4             # learning rate of the actor
LR_CRITIC = 1e-3            # learning rate of the critic
WEIGHT_DECAY = 0            # L2 weight decay
```