Link for Submission: <https://forms.gle/1JxfQfYAZjVaeenY9>

Deadline for submission**:** Nov 24, 2020

# 

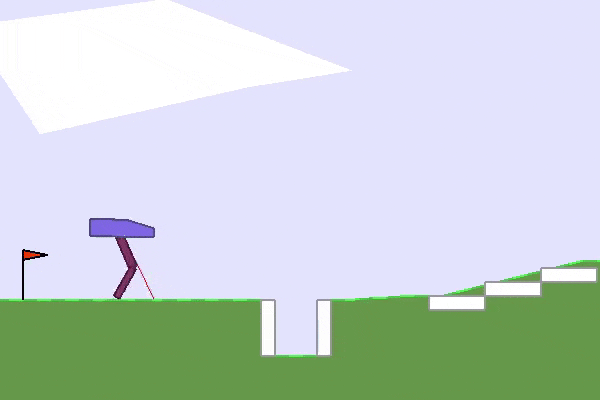
# BipedalWalkerHardcore (With Leaderboard)

By now you would be familiar with the GYM environment and different RL algorithms. For this assignment you will be training the agent on BipedalWalkerHardcore-v2 env.

You are free to choose any RL algorithm and the goal is to get the highest mean score with minimum variance.

With following constraints for the leaderboard:

✢ Max iteration allowed = 5000



Please submit the code along with learning curves, visualization of frames, and final performance.

Helpful resources:

**Environment**: <http://gym.openai.com/envs/BipedalWalkerHardcore-v2/>

**ENV Github**: <https://github.com/openai/gym/blob/master/gym/envs/box2d/bipedal_walker.py>

Leaderboard:

**To submit scores**- <https://forms.gle/Wi3oe8vWQSykiyka9>

**View leaderboard**: <https://docs.google.com/spreadsheets/d/1kBfAf8-kHKkSSf6uTJ_uWFUDaJFBI3ykuSZDn6ROQLk/edit?usp=sharing>

# 🔥Doom (Extra Credit)**:**

ViZDoom allows developing agents to play Doom using only the visual information (the screen buffer). You will be using basic scenario (basic.wad) and map01 to train the agent. Goal is to get maximum reward in the mentioned scenario and map.



This is a challenging but fun task, it's recommended to use Ubuntu / Mac for this as the setup for windows is a bit complex (if you are compiling the ViZDoom binaries).

Helpful Resources:

**Paper**: <https://arxiv.org/pdf/1605.02097.pdf>

**Environment**: <https://github.com/mwydmuch/ViZDoom>

**Short tutorial to get started**: <http://vizdoom.cs.put.edu.pl/tutorial#short>

✢ Clarifications regarding BipedalWalkerHardcore

|  |
| --- |
| env = gym.make( ) while i< max\_iteration\_allowed: # Which will be 5000  # .  # .  # Train  # observation, reward, done, info = env.step(action)  # .  # .  # get metrics for this iteration like: mean reward, complete episode count  # (no of env.steps before done=True)  # .  # .  iteration += 1 |