

Pendulum-v0

1. There are three observation inputs for this environment, representing the angle of the pendulum $\cos(\theta)$ $[-1.0, 1.0]$, $\sin(\theta)$ $[-1.0, 1.0]$, and its angular velocity $d\theta$ $[-8.0, 8.0]$.
2. The action is a value between -2.0 and 2.0, representing the amount of left or right force on the pendulum.
3. The precise equation for reward: $-(\theta^2 + 0.1*\theta_{dt}^2 + 0.001*action^2)$
4. The reset method generates random angle from $-\pi$ to π , and random velocity between -1 and 1
5. There is no specified termination.

MountainCar-v0

1. There are two observation inputs for this environment, representing the position of the car $[-1.2, 0.6]$, and velocity $[-0.07, 0.07]$.
2. The action is a discrete value: 0 — push left, 1 — no push, 2 — push right.
3. Reward of 0 is awarded if the agent reached the flag (position = 0.5) on top of the mountain.
Reward of -1 is awarded if the position of the agent is less than 0.5.
4. The reset method generates random position of car $[-0.6, -0.4]$ with zero velocity
5. Termination: the car position is more than 0.5 and episode length is greater than 200