

Weekly Review

27/04/21

■ Tasks

- Save checkpoints after each learning iteration ✓
- Save value loss, actor loss, critic loss after each learning iteration ✓
- Compare custom implementation parameters with original rlpyt ⚠ ***In progress***
- Understand why the value and entropy become empty ⚠ ***In progress***

■ Problems

- Value output and entropy become *empty* after just a couple of iterations

■ To-Do Items for Next Week

■ To-Do Later

RL Problem for obtaining one flat seam

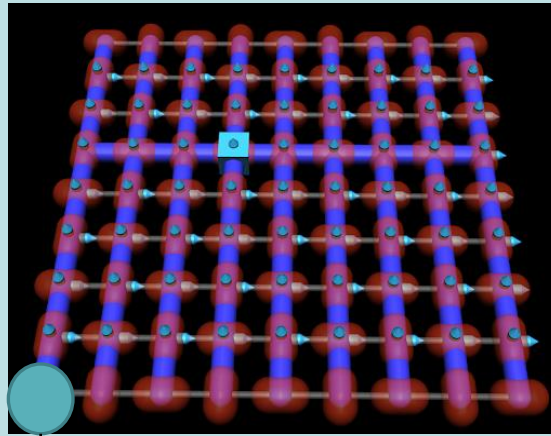
13/04/21

Goal

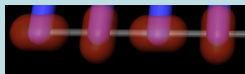
Obtain one flat seam

Given

Cloth in mujoco represented by 64 particles in 8×8 grid



Observations



Corner 1

$[x, y, z]$ positions of 4 points adjacent to corner 1

Actions

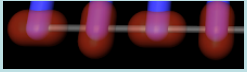
Random $[x, y]$ movement of corner 1

RL Problem for obtaining one flat seam

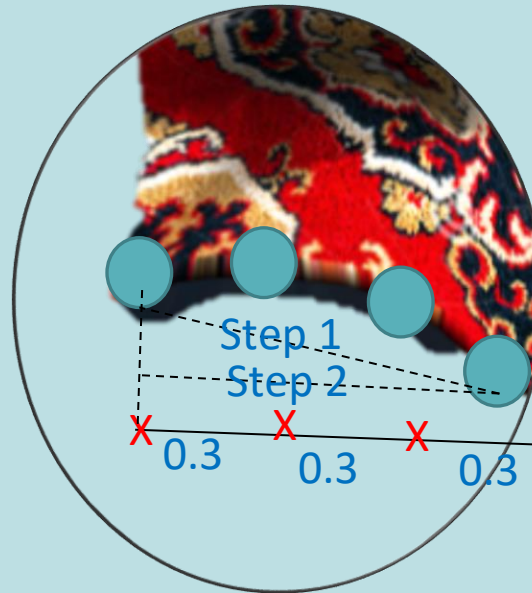
13/04/21

Goal

Obtain one flat seam -> Corner particle + 3 adjacent particles in a straight line



Reward



1. Join 1st point and last point
2. Project on x,y plane
3. Reward is proportional to :

(1 - 1 * (x,y,z) distance from the ideal line)*10

Updated reward

Updated reward definition such that it gives a reward of > 9 for flat position but very low values for other positions -> added weight factors for x,y,z components (more weight for z divergence)

THANK YOU