```
batch_size = 256
buffer_size = 100000
tau = 0.001
actor_lr = 0.0001
critic_lr = 0.001
actor_weight_decay = 0
critic_weight_decay = 0
gamma = 0.99
max_episode_len = 1000
atoms_number = 51
V_min = -5
V_max = 5
delta = (V_max - V_min)/(atoms_number -1)
n_steps = 5
```

## PLus noice dampening

```
1 : score : 0.8059999819844961 | last 100 mean : 0.8059999819844961
2 : score : 0.19349999567493797 | last 100 mean : 0.499749988829717
3 : score : 0.7669999828562141 | last 100 mean : 0.5888333201718826
4 : score : 1.483499966841191 | last 100 mean : 0.8124999818392098
5 : score : 2.0804999534972013 | last 100 mean : 1.066099976170808
6 : score : 2.8139999371021984 | last 100 mean : 1.3574166363260396
7 : score : 4.2424999051727355 | last 100 mean : 1.7695713890184248
8 : score : 6.173499862011522 | last 100 mean : 2.3200624481425622
9 : score : 8.177499817218632 | last 100 mean : 2.9708888224843477
10 : score : 10.799999758601189 | last 100 mean : 3.753799916096032
11 : score : 12.371499723475427 | last 100 mean : 4.537227171312341
12 : score : 16.86799962297082 | last 100 mean : 5.5647915422838805
13 : score : 19.90249955514446 | last 100 mean : 6.667692158657771
14 : score : 26.925499398168178 | last 100 mean : 8.11467839005137
15 : score : 31.54549929490313 | last 100 mean : 9.676733117041488
16 : score : 36.35549918739125 | last 100 mean : 11.34415599643835
17 : score : 38.2214991456829 | last 100 mean : 12.92517618168803
18 : score : 37.81449915478006 | last 100 mean : 14.307916346859807
19 : score : 38.60449913712218 | last 100 mean : 15.586683862136773
20 : score : 38.84399913176894 | last 100 mean : 16.749549625618382
21 : score : 38.05049914950505 | last 100 mean : 17.763880555327273
22 : score : 36.67649918021634 | last 100 mean : 18.623545038276777
23 : score : 37.6204991591163 | last 100 mean : 19.4494995652698
24 : score : 38.56499913800508 | last 100 mean : 20.245978714133766
25 : score : 37.965999151393774 | last 100 mean : 20.95477953162417
26 : score : 37.34899916518479 | last 100 mean : 21.58532644060727
27 : score : 38.51299913916737 | last 100 mean : 22.21227728129468
28 : score : 38.19299914631993 | last 100 mean : 22.783017347902724
29 : score : 37.59749915963039 | last 100 mean : 23.293861548307127
30 : score : 37.78549915542826 | last 100 mean : 23.776916135211163
31 : score : 38.354999142698944 | last 100 mean : 24.24717687738819
32 : score : 38.75849913368002 | last 100 mean : 24.70065569789731
33 : score : 37.54699916075915 | last 100 mean : 25.089938833135548
34 : score : 38.07149914903566 | last 100 mean : 25.47174943066202
35 : score : 37.376999164558946 | last 100 mean : 25.811899423059074
```

```
36 : score : 37.45349916284904 | last 100 mean : 26.135277193608797
37 : score : 38.13999914750457 | last 100 mean : 26.45972913830868
38 : score : 37.56349916039035 | last 100 mean : 26.751933612573993
39 : score : 37.13499916996807 | last 100 mean : 27.018166062763584
40 : score : 37.822499154601246 | last 100 mean : 27.28827439005952
41 : score : 38.473499140050265 | last 100 mean : 27.561084749815393
42 : score : 37.81399915479123 | last 100 mean : 27.805201759457674
43 : score : 37.951999151706694 | last 100 mean : 28.041173791835558
44 : score : 36.13649919228628 | last 100 mean : 28.225158460027618
45 : score : 37.25499916728586 | last 100 mean : 28.42582158685558
46 : score : 38.81799913235009 | last 100 mean : 28.651738490018502
47 : score : 38.83299913201481 | last 100 mean : 28.868361056869485
48 : score : 39.08749912632629 | last 100 mean : 29.08125976664984
49 : score : 38.433499140944335 | last 100 mean : 29.27212179469667
50 : score : 38.361499142553654 | last 100 mean : 29.45390934165381
51 : score : 37.818999154679474 | last 100 mean : 29.617930710536662
52 : score : 38.207499145995826 | last 100 mean : 29.783114718910877
53 : score : 38.056499149370936 | last 100 mean : 29.939216311938424
54 : score : 38.42399914115667 | last 100 mean : 30.09634191988691
Reached 30.09634191988691 in episode 54
```