batch\_size = 128 buffer\_size = 100000 tau = 0.001 actor\_lr = 0.0001 critic\_lr = 0.0001 actor\_weight\_decay = 0 critic\_weight\_decay = 0 gamma = 0.99 max\_episode\_len = 1000

```
1 : score : 0.909999979659915 | last 100 mean : 0.909999979659915
2 : score : 0.6009999865666031 | last 100 mean : 0.755499983113259
3 : score : 0.634999985806644 | last 100 mean : 0.7153333173443874
4 : score : 1.1504999742843212 | last 100 mean : 0.8241249815793709
5 : score : 1.3309999702498316 | last 100 mean : 0.925499979313463
6 : score : 1.2589999718591571 | last 100 mean : 0.981083311404412
7 : score : 1.4319999679923057 | last 100 mean : 1.0454999766312538
8 : score : 1.7454999609850348 | last 100 mean : 1.1329999746754766
9 : score : 2.0364999544806777 | last 100 mean : 1.233388861320499
10 : score : 2.4099999461323023 | last 100 mean : 1.3510499698016794
11 : score : 1.9354999567382039 | last 100 mean : 1.4041817867959088
12 : score : 2.740999938733876 | last 100 mean : 1.515583299457406
13 : score : 3.2554999272339047 | last 100 mean : 1.6494230400555985
14 : score : 6.133999862894416 | last 100 mean : 1.969749955972657
15 : score : 8.688999805785716 | last 100 mean : 2.4176999459601944
16 : score : 11.355499746184796 | last 100 mean : 2.9763124334742312
17 : score : 13.376499701011927 | last 100 mean : 3.5880881550940957
18 : score : 20.134499549958853 | last 100 mean : 4.507333232586583
19 : score : 23.444499475974588 | last 100 mean : 5.5040261927649
20 : score : 19.26699956934899 | last 100 mean : 6.192174861594104
21 : score : 25.94749942002818 | last 100 mean : 7.132904602471918
22 : score : 29.1784993478097 | last 100 mean : 8.134977090896362
23 : score : 32.93249926390126 | last 100 mean : 9.213130228853096
24 : score : 33.38349925382063 | last 100 mean : 10.220228938226743
25 : score : 34.67549922494218 | last 100 mean : 11.19843974969536
26 : score : 35.61749920388684 | last 100 mean : 12.13763434408734
27 : score : 37.352499165106565 | last 100 mean : 13.071518226347312
28 : score : 37.19149916870519 | last 100 mean : 13.932946117145807
29 : score : 37.96349915144965 | last 100 mean : 14.761585876949388
30 : score : 37.5749991601333 | last 100 mean : 15.522032986388853
31 : score : 37.88549915319309 | last 100 mean : 16.24343512080189
32 : score : 38.145499147381635 | last 100 mean : 16.92787462163251
33 : score : 38.17299914676696 | last 100 mean : 17.571666273909315
34 : score : 38.043499149661514 | last 100 mean : 18.173779005549086
35 : score : 38.28049914436415 | last 100 mean : 18.748256723800946
36 : score : 37.76799915581942 | last 100 mean : 19.276582902468125
37 : score : 37.936499152053145 | last 100 mean : 19.78090496326772
38 : score : 37.96549915140495 | last 100 mean : 20.25944691558712
39 : score : 37.06899917144328 | last 100 mean : 20.69046107599369
40 : score : 37.44999916292727 | last 100 mean : 21.109449528167026
41 : score : 37.357499164994806 | last 100 mean : 21.50574342174819
42 : score : 36.87899917569011 | last 100 mean : 21.871773320651567
```

```
43 : score : 37.69549915743992 | last 100 mean : 22.239766944762927
44 : score : 37.67049915799871 | last 100 mean : 22.59046540415465
45 : score : 37.75349915614352 | last 100 mean : 22.927421709754398
46 : score : 37.10149917071685 | last 100 mean : 23.235553828470973
47 : score : 36.830999176763 | last 100 mean : 23.524818623115486
48 : score : 36.76649917820468 | last 100 mean : 23.800686968013178
49 : score : 37.79399915523827 | last 100 mean : 24.086264767752464
50 : score : 36.97099917363376 | last 100 mean : 24.343959455870092
51 : score : 36.25549918962643 | last 100 mean : 24.57751905849276
52 : score : 36.365499187167735 | last 100 mean : 24.8042109840442
53 : score : 36.01749919494614 | last 100 mean : 25.015782459721596
54 : score : 37.28549916660413 | last 100 mean : 25.242999435774976
55 : score : 36.97499917354435 | last 100 mean : 25.456308521916238
56 : score : 36.99549917308614 | last 100 mean : 25.66236549782999
57 : score : 36.56249918276444 | last 100 mean : 25.853595913355157
58 : score : 36.813999177142975 | last 100 mean : 26.042568383420463
59 : score : 36.64649918088689 | last 100 mean : 26.22229602405549
60 : score : 36.367999187111856 | last 100 mean : 26.391391076773093
61 : score : 36.522999183647336 | last 100 mean : 26.557483012951355
62 : score : 36.24199918992817 | last 100 mean : 26.713684886773564
63 : score : 36.506499184016135 | last 100 mean : 26.86912638355519
64 : score : 37.000999172963205 | last 100 mean : 27.027436895889696
65 : score : 36.06149919396266 | last 100 mean : 27.166422469706202
66 : score : 36.88799917548895 | last 100 mean : 27.313719086460484
67 : score : 37.57799916006625 | last 100 mean : 27.4669172965143
68 : score : 37.2454991674982 | last 100 mean : 27.610719971087594
69 : score : 37.49599916189909 | last 100 mean : 27.753984886896454
70 : score : 37.25749916722998 | last 100 mean : 27.889749376615505
71 : score : 36.34399918764829 | last 100 mean : 28.008823317615967
72 : score : 37.698499157372865 | last 100 mean : 28.143402148723705
73 : score : 36.75399917848408 | last 100 mean : 28.261355532693027
74 : score : 36.18399919122457 | last 100 mean : 28.36841828483535
75 : score : 36.53449918339029 | last 100 mean : 28.47729936348275
76 : score : 36.86849917592481 | last 100 mean : 28.587709887330668
77 : score : 36.57399918250739 | last 100 mean : 28.691427930125176
78 : score : 35.67299920264632 | last 100 mean : 28.780935254131855
79 : score : 36.22699919026345 | last 100 mean : 28.87518922800694
80 : score : 37.09099917095155 | last 100 mean : 28.97788685229374
81 : score : 36.76649917820468 | last 100 mean : 29.074042560021038
82 : score : 37.18999916873872 | last 100 mean : 29.173017640615154
83 : score : 36.653999180719254 | last 100 mean : 29.263149948327253
84 : score : 36.10349919302389 | last 100 mean : 29.344582677430783
85 : score : 36.834499176684766 | last 100 mean : 29.43269934212789
86 : score : 37.668999158032236 | last 100 mean : 29.528470270219803
87 : score : 37.76899915579706 | last 100 mean : 29.623188993042533
88 : score : 37.94399915188551 | last 100 mean : 29.717743653938474
89 : score : 36.45349918520078 | last 100 mean : 29.793426300357147
90 : score : 37.07499917130917 | last 100 mean : 29.87433266558995
91 : score : 36.69049917990342 | last 100 mean : 29.949235594318665
92 : score : 35.76949920048937 | last 100 mean : 30.01249932916835
Reached 30.01249932916835 in episode 92
```