

File - main

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1 C:\Users\Salvo\AppData\Local\Microsoft\WindowsApps\python3.8.exe "C:/Users/Salvo/GitHub/MicroRacer_Corinaldesi_Fiorilla
- Copy/ppo/main.py"
2 2022-01-30 22:59:28.505340: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cudart64_110.dll'; dlsym: cudart64_110.dll not found
3 2022-01-30 22:59:33.589493: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ignore above cudart dlsym if you do
not have a GPU set up on your machine.
4 2022-01-30 22:59:33.588972: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cudart64_110.dll'; dlsym: cudart64_110.dll not found
5 2022-01-30 22:59:33.589245: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cublas64_11.dll'; dlsym: cublas64_11.dll not found
6 2022-01-30 22:59:33.589503: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cublasLt64_11.dll'; dlsym: cublasLt64_11.dll not found
7 2022-01-30 22:59:33.589757: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cufft64_10.dll'; dlsym: cufft64_10.dll not found
8 2022-01-30 22:59:33.590010: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'curand64_10.dll'; dlsym: curand64_10.dll not found
9 2022-01-30 22:59:33.590261: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cusolver64_11.dll'; dlsym: cusolver64_11.dll not found
10 2022-01-30 22:59:33.590515: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cusparse64_11.dll'; dlsym: cusparse64_11.dll not found
11 2022-01-30 22:59:33.590771: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cudnn64_8.dll'; dlsym: cudnn64_8.dll not found
12 2022-01-30 22:59:33.590910: W tensorflow/core/common_runtime/gpu/gpu_device.cc:1835] Cannot dlopen some GPU libraries.
Please make sure the missing libraries mentioned above are installed properly if you would like to use GPU. Follow the
guide at https://www.tensorflow.org/install/gpu for how to download and setup the required libraries for your platform.
13 Skipping registering GPU devices...
14 2022-01-30 22:59:33.591382: I tensorflow/core/platform/cpu_feature_guard.cc:142] This TensorFlow binary is optimized
with oneAPI Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical
operations: AVX AVX2
15 To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
16 CURRENT ACTOR-CRITIC NETWORK IN USE
17 Model: "ActorNet"
18 -----
19 Layer (type)          Output Shape         Param #  Connected to
20 =====
21 input_1 (InputLayer) [(None, 5)]        0
22 -----
23 acc_1 (Dense)         (None, 512)        3072     input_1[0][0]
24 -----
25 dir_1 (Dense)         (None, 512)        3072     input_1[0][0]
26 -----
27 acc_2 (Dense)         (None, 512)        262656   acc_1[0][0]
28 -----
29 dir_2 (Dense)         (None, 512)        262656   dir_1[0][0]
30 -----
31 acc_3 (Dense)         (None, 512)        262656   acc_2[0][0]
32 -----
33 dir_3 (Dense)         (None, 512)        262656   dir_2[0][0]
34 -----
35 acc_out_mu (Dense)   (None, 1)           513      acc_3[0][0]
36 -----
37 dir_out_mu (Dense)   (None, 1)           513      dir_3[0][0]
38 -----
39 concatenate (Concatenate) (None, 2)        0        acc_out_mu[0][0]
40                               |                   dir_out_mu[0][0]
41 -----
42 Total params: 1,057,794
43 Trainable params: 1,057,794
44 Non-trainable params: 0
45 -----
46 Model: "CriticNet"
47 -----
48 Layer (type)          Output Shape         Param #
49 =====
50 input_2 (InputLayer) [(None, 5)]        0
51 -----
52 layer_1 (Dense)       (None, 512)        3072
53 -----
54 layer_2 (Dense)       (None, 512)        262656
55 -----
56 layer_3 (Dense)       (None, 512)        262656
57 -----
58 dense (Dense)         (None, 1)           513
59 -----
60 Total params: 528,897
61 Trainable params: 528,897
62 Non-trainable params: 0
63 -----
64 Started Training ...
65 Hyperparameters:
66 Actor_lr 3e-05. Critic_lr 0.0001. clip_value 0.1. N_epochs 200. steps_per_epoch 4096. train_iteraion 50.
target_mean_diff 0.0225.
67 2022-01-30 22:59:34.292642: I tensorflow/compiler/mlir/mlir_graph_optimization_pass.cc:185] None of the MLIR
Optimization Passes are enabled (registered 2)
68 2022-01-30 22:59:34.352019: W tensorflow/core/grappler/optimizers/loop_optimizer.cc:907] Skipping loop optimization for
Merge node with control input: direction_norm/assert_greater/Assert/AssertGuard/branch_executed/_57
69 2022-01-30 23:00:54.864063: W tensorflow/core/grappler/optimizers/loop_optimizer.cc:907] Skipping loop optimization for
Merge node with control input: StatefulPartitionedCall/acceleration_norm/assert_greater/Assert/AssertGuard/
branch_executed/_468
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70 2022-01-30 23:01:03.915723: W tensorflow/python/util/util.cc:348] Sets are not currently considered sequences, but this
    may change in the future, so consider avoiding using them.
71 Epoch: 1. UP Best ! Mean Return: -2.866931200027466. Trajectories: 323. Mean Length: 12.681114551083592.
72 Epoch: 2. UP Best ! Mean Return: -2.85351354598999. Trajectories: 288. Mean Length: 14.22222222222221.
73 Epoch: 3. UP Best ! Mean Return: -2.8483598232269287. Trajectories: 283. Mean Length: 14.473498233215548.
74 Epoch: 4. UP Best ! Mean Return: -2.84507155418396. Trajectories: 322. Mean Length: 12.720496894409937.
75 Epoch: 5. DOWN Mean Return: -2.846494436264038. Trajectories: 326. Mean Length: 12.56441717791411.
76 Epoch: 6. UP Best ! Mean Return: -2.843815565109253. Trajectories: 261. Mean Length: 15.693486590038313.
77 Epoch: 7. DOWN Mean Return: -2.8502020835876465. Trajectories: 273. Mean Length: 15.003663003663004.
78 Epoch: 8. UP Best ! Mean Return: -2.842578172683716. Trajectories: 234. Mean Length: 17.504273504273506.
79 Epoch: 9. UP Best ! Mean Return: -2.8379852771759033. Trajectories: 275. Mean Length: 14.894545454545455.
80 saving models
81 Epoch: 10. UP Best ! Mean Return: -2.825319290161133. Trajectories: 188. Mean Length: 21.78723404255319.
82 Epoch: 11. UP Best ! Mean Return: -2.8151421546936035. Trajectories: 245. Mean Length: 16.718367346938777.
83 Epoch: 12. UP Best ! Mean Return: -2.81498384475708. Trajectories: 224. Mean Length: 18.285714285714285.
84 Epoch: 13. UP Best ! Mean Return: -2.8007915019989014. Trajectories: 192. Mean Length: 21.333333333333332.
85 Epoch: 14. DOWN Mean Return: -2.8043200969696045. Trajectories: 198. Mean Length: 20.68686868686869.
86 Epoch: 15. UP Best ! Mean Return: -2.78787899017334. Trajectories: 143. Mean Length: 28.6433566443356643.
87 Epoch: 16. UP Best ! Mean Return: -2.787142515182495. Trajectories: 153. Mean Length: 26.77124183006536.
88 Epoch: 17. UP Best ! Mean Return: -2.752728223800659. Trajectories: 118. Mean Length: 34.71186440677966.
89 Epoch: 18. UP Best ! Mean Return: -2.721825361251831. Trajectories: 92. Mean Length: 44.52173913043478.
90 Epoch: 19. DOWN Mean Return: -2.7390758991241455. Trajectories: 104. Mean Length: 39.38461538461539.
91 saving models
92 Epoch: 20. UP Mean Return: -2.739006757736206. Trajectories: 127. Mean Length: 32.25196850393701.
93 Epoch: 21. UP Mean Return: -2.722646206054688. Trajectories: 85. Mean Length: 48.188235294117646.
94 Epoch: 22. DOWN Mean Return: -2.746546506881714. Trajectories: 112. Mean Length: 36.57142857142857.
95 Epoch: 23. UP Best ! Mean Return: -2.688951015472412. Trajectories: 80. Mean Length: 51.2.
96 Epoch: 24. DOWN Mean Return: -2.759488821029663. Trajectories: 150. Mean Length: 27.306666666666667.
97 Epoch: 25. UP Best ! Mean Return: -2.5871028900146484. Trajectories: 66. Mean Length: 62.06060606060606.
98 Epoch: 26. DOWN Mean Return: -2.6417465209960938. Trajectories: 76. Mean Length: 53.89473684210526.
99 Epoch: 27. DOWN Mean Return: -2.755754232406616. Trajectories: 169. Mean Length: 24.236686390532544.
100 Epoch: 28. UP Mean Return: -2.647958278656006. Trajectories: 78. Mean Length: 52.51282051282051.
101 Epoch: 29. UP Mean Return: -2.616581916809082. Trajectories: 71. Mean Length: 57.690140845070424.
102 saving models
103 Epoch: 30. DOWN Mean Return: -2.64186429977417. Trajectories: 83. Mean Length: 49.3493759036145.
104 Epoch: 31. DOWN Mean Return: -2.709263563156128. Trajectories: 112. Mean Length: 36.57142857142857.
105 Epoch: 32. UP Mean Return: -2.6710827350616455. Trajectories: 101. Mean Length: 40.554455445544555.
106 Epoch: 33. UP Best ! Mean Return: -2.511446714401245. Trajectories: 39. Mean Length: 105.02564102564102.
107 Epoch: 34. DOWN Mean Return: -2.6562516689300537. Trajectories: 81. Mean Length: 50.5679012345679.
108 Epoch: 35. UP Mean Return: -2.6462790966033936. Trajectories: 77. Mean Length: 53.1948051948052.
109 Epoch: 36. UP Best ! Mean Return: -2.487006187438965. Trajectories: 54. Mean Length: 75.85185185185185.
110 Epoch: 37. DOWN Mean Return: -2.4666335274887085. Trajectories: 109. Mean Length: 37.57798165137615.
111 Epoch: 38. UP Mean Return: -2.5593292713165283. Trajectories: 67. Mean Length: 61.134328358208954.
112 Epoch: 39. DOWN Mean Return: -2.6221492290496826. Trajectories: 102. Mean Length: 40.15686274509804.
113 saving models
114 Epoch: 40. UP Mean Return: -2.6177728176116943. Trajectories: 95. Mean Length: 43.11578947368421.
115 Epoch: 41. UP Mean Return: -2.5627660751342773. Trajectories: 70. Mean Length: 58.51428571428571.
116 Epoch: 42. UP Best ! Mean Return: -2.280822277069092. Trajectories: 40. Mean Length: 102.4.
117 Epoch: 43. DOWN Mean Return: -2.635815143585205. Trajectories: 74. Mean Length: 55.351351351351354.
118 Epoch: 44. UP Mean Return: -2.458315372467041. Trajectories: 66. Mean Length: 62.06060606060606.
119 Epoch: 45. DOWN Mean Return: -2.503418207168579. Trajectories: 53. Mean Length: 77.28301886792453.
120 Epoch: 46. UP Best ! Mean Return: -2.220872640609741. Trajectories: 24. Mean Length: 170.666666666666666.
121 Epoch: 47. DOWN Mean Return: -2.4460289478302. Trajectories: 44. Mean Length: 93.0909090909091.
122 Epoch: 48. DOWN Mean Return: -2.505542516708374. Trajectories: 75. Mean Length: 54.61333333333334.
123 Epoch: 49. UP Mean Return: -2.404893636703491. Trajectories: 46. Mean Length: 89.04347826086956.
124 saving models
125 Epoch: 50. UP Best ! Mean Return: -2.034672737121582. Trajectories: 22. Mean Length: 186.1818181818182.
126 Epoch: 51. DOWN Mean Return: -2.4733164310455322. Trajectories: 58. Mean Length: 70.62068965517241.
127 Epoch: 52. UP Best ! Mean Return: -1.9318432807922363. Trajectories: 16. Mean Length: 256.0.
128 Epoch: 53. DOWN Mean Return: -2.4353206157684326. Trajectories: 49. Mean Length: 83.59183673469387.
129 Epoch: 54. UP Mean Return: -2.334169387817383. Trajectories: 55. Mean Length: 74.47272727272727.
130 Epoch: 55. DOWN Mean Return: -2.390812873840332. Trajectories: 50. Mean Length: 81.92.
131 Epoch: 56. DOWN Mean Return: -2.4314115047454834. Trajectories: 60. Mean Length: 68.266666666666667.
132 Epoch: 57. DOWN Mean Return: -2.483100414276123. Trajectories: 59. Mean Length: 69.42372881355932.
133 Epoch: 58. UP Mean Return: -2.0986382961273193. Trajectories: 32. Mean Length: 128.0.
134 Epoch: 59. UP Mean Return: -2.03472638130188. Trajectories: 31. Mean Length: 132.1290322580645.
135 saving models
136 Epoch: 60. DOWN Mean Return: -2.089191198348999. Trajectories: 33. Mean Length: 124.12121212121212.
137 Epoch: 61. UP Best ! Mean Return: -1.5253580808639526. Trajectories: 22. Mean Length: 186.1818181818182.
138 Epoch: 62. DOWN Mean Return: -2.429995059967041. Trajectories: 66. Mean Length: 62.06060606060606.
139 Epoch: 63. UP Mean Return: -2.3686516284942627. Trajectories: 56. Mean Length: 73.14285714285714.
140 Epoch: 64. UP Mean Return: -1.795781135559082. Trajectories: 23. Mean Length: 178.08695652173913.
141 completed
142 Epoch: 65. DOWN Mean Return: -2.193974494934082. Trajectories: 50. Mean Length: 81.92.
143 Epoch: 66. UP Mean Return: -2.0522403717041016. Trajectories: 34. Mean Length: 120.47058823529412.
144 Epoch: 67. DOWN Mean Return: -2.3368732929229736. Trajectories: 65. Mean Length: 63.01538461538462.
145 Epoch: 68. UP Mean Return: -2.06518816947937. Trajectories: 40. Mean Length: 102.4.
146 Epoch: 69. UP Mean Return: -1.8113371133804321. Trajectories: 25. Mean Length: 163.84.
147 saving models
148 Epoch: 70. DOWN Mean Return: -1.9614404439926147. Trajectories: 35. Mean Length: 117.02857142857142.
149 Epoch: 71. UP Mean Return: -1.8164693117141724. Trajectories: 30. Mean Length: 136.53333333333333.
150 Epoch: 72. DOWN Mean Return: -2.1545298099517822. Trajectories: 41. Mean Length: 99.90243902439025.
151 completed
152 Epoch: 73. UP Mean Return: -1.9193156957626343. Trajectories: 37. Mean Length: 110.70270270270271.
153 Epoch: 74. UP Mean Return: -1.6345571279525757. Trajectories: 30. Mean Length: 136.53333333333333.
154 completed
155 Epoch: 75. UP Best ! Mean Return: -1.3848811388015747. Trajectories: 26. Mean Length: 157.53846153846155.
156 Epoch: 76. DOWN Mean Return: -1.9818733930587769. Trajectories: 30. Mean Length: 136.53333333333333.
157 Epoch: 77. DOWN Mean Return: -2.0662643909454346. Trajectories: 36. Mean Length: 113.77777777777777.
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158 Epoch: 78. UP Mean Return: -1.9463917016983032. Trajectories: 35. Mean Length: 117.02857142857142.  
159 completed  
160 Epoch: 79. DOWN Mean Return: -2.110605239868164. Trajectories: 56. Mean Length: 73.14285714285714.  
161 saving models  
162 Epoch: 80. UP Mean Return: -1.8805475234985352. Trajectories: 32. Mean Length: 128.0.  
163 Epoch: 81. DOWN Mean Return: -2.1585915088653564. Trajectories: 51. Mean Length: 80.31372549019608.  
164 completed  
165 Epoch: 82. UP Mean Return: -2.1550605297088623. Trajectories: 48. Mean Length: 85.3333333333333.  
166 Epoch: 83. DOWN Mean Return: -2.206280469894409. Trajectories: 62. Mean Length: 66.06451612903226.  
167 Epoch: 84. UP Mean Return: -1.7351309061050415. Trajectories: 27. Mean Length: 151.7037037037037.  
168 completed  
169 Epoch: 85. UP Best ! Mean Return: -1.2191280126571655. Trajectories: 23. Mean Length: 178.08695652173913.  
170 completed  
171 Epoch: 86. DOWN Mean Return: -1.7477816343307495. Trajectories: 24. Mean Length: 170.66666666666666.  
172 Epoch: 87. DOWN Mean Return: -2.0326976776123047. Trajectories: 38. Mean Length: 107.78947368421052.  
173 completed  
174 Epoch: 88. UP Mean Return: -2.0306742191314697. Trajectories: 33. Mean Length: 124.121212121212.  
175 completed  
176 Epoch: 89. DOWN Mean Return: -2.195194721221924. Trajectories: 54. Mean Length: 75.85185185185185.  
177 completed  
178 saving models  
179 Epoch: 90. UP Mean Return: -1.530350685119629. Trajectories: 27. Mean Length: 151.7037037037037.  
180 Epoch: 91. UP Mean Return: -1.4994518756866455. Trajectories: 23. Mean Length: 178.08695652173913.  
181 completed  
182 Epoch: 92. DOWN Mean Return: -1.7309166193008423. Trajectories: 38. Mean Length: 107.78947368421052.  
183 Epoch: 93. DOWN Mean Return: -2.1640231609344482. Trajectories: 54. Mean Length: 75.85185185185185.  
184 completed  
185 Epoch: 94. UP Mean Return: -1.4897626638412476. Trajectories: 30. Mean Length: 136.5333333333333.  
186 Epoch: 95. DOWN Mean Return: -1.8262300491333008. Trajectories: 42. Mean Length: 97.52380952380952.  
187 Epoch: 96. DOWN Mean Return: -2.0736947059631348. Trajectories: 52. Mean Length: 78.76923076923077.  
188 completed  
189 Epoch: 97. UP Mean Return: -1.8987879753112793. Trajectories: 43. Mean Length: 95.25581395348837.  
190 completed  
191 Epoch: 98. UP Best ! Mean Return: -0.47868862748146057. Trajectories: 20. Mean Length: 204.8.  
192 Epoch: 99. DOWN Mean Return: -2.011240005493164. Trajectories: 48. Mean Length: 85.3333333333333.  
193 completed  
194 saving models  
195 Epoch: 100. UP Mean Return: -1.0883742570877075. Trajectories: 23. Mean Length: 178.08695652173913.  
196 completed  
197 Epoch: 101. DOWN Mean Return: -2.0363144874572754. Trajectories: 50. Mean Length: 81.92.  
198 completed  
199 Epoch: 102. UP Mean Return: -1.9874765872955322. Trajectories: 54. Mean Length: 75.85185185185185.  
200 Epoch: 103. UP Mean Return: -1.5476007461547852. Trajectories: 33. Mean Length: 124.121212121212.  
201 Epoch: 104. DOWN Mean Return: -1.7629029750823975. Trajectories: 46. Mean Length: 89.04347826086956.  
202 completed  
203 Epoch: 105. UP Mean Return: -1.2292084693908691. Trajectories: 29. Mean Length: 141.24137931034483.  
204 completed  
205 Epoch: 106. DOWN Mean Return: -1.596531867980957. Trajectories: 39. Mean Length: 105.02564102564102.  
206 Epoch: 107. UP Mean Return: -1.5459688901901245. Trajectories: 38. Mean Length: 107.78947368421052.  
207 completed  
208 Epoch: 108. DOWN Mean Return: -1.7503732442855835. Trajectories: 42. Mean Length: 97.52380952380952.  
209 completed  
210 Epoch: 109. DOWN Mean Return: -1.9402406215667725. Trajectories: 54. Mean Length: 75.85185185185185.  
211 completed  
212 completed  
213 saving models  
214 Epoch: 110. UP Mean Return: -1.336079478263855. Trajectories: 31. Mean Length: 132.1290322580645.  
215 Epoch: 111. UP Mean Return: -1.1719163656234741. Trajectories: 24. Mean Length: 170.66666666666666.  
216 completed  
217 Epoch: 112. UP Mean Return: -1.028515100479126. Trajectories: 24. Mean Length: 170.66666666666666.  
218 Epoch: 113. DOWN Mean Return: -1.6590931415557861. Trajectories: 40. Mean Length: 102.4.  
219 Epoch: 114. DOWN Mean Return: -2.075916290283203. Trajectories: 47. Mean Length: 87.14893617021276.  
220 completed  
221 completed  
222 Epoch: 115. UP Mean Return: -0.9389739632606506. Trajectories: 23. Mean Length: 178.08695652173913.  
223 completed  
224 Epoch: 116. DOWN Mean Return: -1.2970670461654663. Trajectories: 32. Mean Length: 128.0.  
225 Epoch: 117. DOWN Mean Return: -1.6659239530563354. Trajectories: 35. Mean Length: 117.02857142857142.  
226 Epoch: 118. DOWN Mean Return: -1.9023628234863281. Trajectories: 62. Mean Length: 66.06451612903226.  
227 completed  
228 Epoch: 119. UP Mean Return: -1.4110299348831177. Trajectories: 36. Mean Length: 113.77777777777777.  
229 completed  
230 saving models  
231 Epoch: 120. DOWN Mean Return: -1.8216434717178345. Trajectories: 46. Mean Length: 89.04347826086956.  
232 Epoch: 121. DOWN Mean Return: -2.0157265663146973. Trajectories: 52. Mean Length: 78.76923076923077.  
233 completed  
234 Epoch: 122. UP Mean Return: -0.9867385625839233. Trajectories: 27. Mean Length: 151.7037037037037.  
235 completed  
236 Epoch: 123. DOWN Mean Return: -1.2055747509002686. Trajectories: 28. Mean Length: 146.28571428571428.  
237 completed  
238 Epoch: 124. DOWN Mean Return: -1.610727310180664. Trajectories: 38. Mean Length: 107.78947368421052.  
239 completed  
240 completed  
241 Epoch: 125. DOWN Mean Return: -1.670791745185852. Trajectories: 45. Mean Length: 91.02222222222223.  
242 Epoch: 126. UP Mean Return: -1.171729326248169. Trajectories: 31. Mean Length: 132.1290322580645.  
243 completed  
244 completed  
245 Epoch: 127. DOWN Mean Return: -1.2445356845855713. Trajectories: 35. Mean Length: 117.02857142857142.  
246 completed

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247 completed  
248 Epoch: 128. DOWN Mean Return: -1.2864654064178467. Trajectories: 30. Mean Length: 136.53333333333333.  
249 completed  
250 completed  
251 completed  
252 Epoch: 129. UP Mean Return: -0.6444056630134583. Trajectories: 26. Mean Length: 157.53846153846155.  
253 completed  
254 saving models  
255 Epoch: 130. DOWN Mean Return: -1.0356953144073486. Trajectories: 27. Mean Length: 151.7037037037037.  
256 completed  
257 Epoch: 131. DOWN Mean Return: -1.4580515623092651. Trajectories: 36. Mean Length: 113.77777777777777.  
258 completed  
259 completed  
260 Epoch: 132. DOWN Mean Return: -1.6422332525253296. Trajectories: 44. Mean Length: 93.0909090909091.  
261 completed  
262 completed  
263 Epoch: 133. UP Mean Return: -1.3062068223953247. Trajectories: 40. Mean Length: 102.4.  
264 Epoch: 134. UP Mean Return: -1.151822805404663. Trajectories: 29. Mean Length: 141.24137931034483.  
265 completed  
266 completed  
267 completed  
268 Epoch: 135. UP Mean Return: -0.6880339980125427. Trajectories: 31. Mean Length: 132.1290322580645.  
269 completed  
270 completed  
271 completed  
272 completed  
273 Epoch: 136. UP Best ! Mean Return: 0.7826110124588013. Trajectories: 16. Mean Length: 256.0.  
274 Epoch: 137. DOWN Mean Return: -1.0520195960998535. Trajectories: 30. Mean Length: 136.53333333333333.  
275 completed  
276 Epoch: 138. DOWN Mean Return: -1.5672506093978882. Trajectories: 46. Mean Length: 89.04347826086956.  
277 completed  
278 Epoch: 139. DOWN Mean Return: -1.568819284439087. Trajectories: 42. Mean Length: 97.52380952380952.  
279 completed  
280 saving models  
281 Epoch: 140. UP Mean Return: -0.8330088257789612. Trajectories: 24. Mean Length: 170.66666666666666.  
282 completed  
283 Epoch: 141. DOWN Mean Return: -1.4551502466201782. Trajectories: 43. Mean Length: 95.25581395348837.  
284 completed  
285 completed  
286 Epoch: 142. UP Mean Return: -1.0900877714157104. Trajectories: 36. Mean Length: 113.77777777777777.  
287 completed  
288 Epoch: 143. DOWN Mean Return: -1.5333315134048462. Trajectories: 41. Mean Length: 99.90243902439025.  
289 completed  
290 completed  
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292 Epoch: 144. UP Mean Return: 0.33718341588974. Trajectories: 18. Mean Length: 227.55555555555554.  
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298 completed  
299 Epoch: 146. UP Mean Return: -0.6302773356437683. Trajectories: 27. Mean Length: 151.7037037037037.  
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301 Epoch: 147. DOWN Mean Return: -1.2543174028396606. Trajectories: 40. Mean Length: 102.4.  
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305 Epoch: 148. UP Mean Return: 0.2909119129180908. Trajectories: 19. Mean Length: 215.57894736842104.  
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308 completed  
309 Epoch: 149. DOWN Mean Return: -1.0250577926635742. Trajectories: 38. Mean Length: 107.78947368421052.  
310 completed  
311 saving models  
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313 completed  
314 completed  
315 Epoch: 151. UP Mean Return: -0.10984072834253311. Trajectories: 23. Mean Length: 178.08695652173913.  
316 completed  
317 Epoch: 152. DOWN Mean Return: -1.2167763710021973. Trajectories: 40. Mean Length: 102.4.  
318 completed  
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320 Epoch: 153. UP Mean Return: -0.23541904985904694. Trajectories: 19. Mean Length: 215.57894736842104.  
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325 Epoch: 154. UP Mean Return: -0.003914962988346815. Trajectories: 22. Mean Length: 186.1818181818182.  
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328 Epoch: 155. DOWN Mean Return: -0.546985924243927. Trajectories: 26. Mean Length: 157.53846153846155.  
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331 Epoch: 156. UP Mean Return: -0.05626928061246872. Trajectories: 21. Mean Length: 195.04761904761904.  
332 Epoch: 157. DOWN Mean Return: -1.2214958667755127. Trajectories: 36. Mean Length: 113.77777777777777.

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337 completed  
338 completed  
339 Epoch: 159. DOWN Mean Return: -0.9936503171920776. Trajectories: 36. Mean Length: 113.77777777777777.  
340 saving models  
341 Epoch: 160. DOWN Mean Return: -1.3455448150634766. Trajectories: 38. Mean Length: 107.78947368421052.  
342 completed  
343 Epoch: 161. DOWN Mean Return: -1.3849096298217773. Trajectories: 47. Mean Length: 87.14893617021276.  
344 completed  
345 completed  
346 completed  
347 Epoch: 162. UP Mean Return: -0.5538356900215149. Trajectories: 31. Mean Length: 132.1290322580645.  
348 completed  
349 completed  
350 Epoch: 163. DOWN Mean Return: -1.2420159578323364. Trajectories: 35. Mean Length: 117.02857142857142.  
351 completed  
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353 Epoch: 164. UP Mean Return: -0.8366132378578186. Trajectories: 36. Mean Length: 113.77777777777777.  
354 completed  
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357 completed  
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359 completed  
360 Epoch: 166. UP Mean Return: 0.5031561851501465. Trajectories: 19. Mean Length: 215.57894736842104.  
361 completed  
362 Epoch: 167. DOWN Mean Return: -0.6570771932601929. Trajectories: 29. Mean Length: 141.24137931034483.  
363 completed  
364 Epoch: 168. DOWN Mean Return: -1.065611720085144. Trajectories: 34. Mean Length: 120.47058823529412.  
365 completed  
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368 saving models  
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374 Epoch: 171. DOWN Mean Return: -0.481986939907074. Trajectories: 31. Mean Length: 132.1290322580645.  
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380 Epoch: 172. UP Best ! Mean Return: 1.0869841575622559. Trajectories: 18. Mean Length: 227.55555555555554.  
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385 Epoch: 174. DOWN Mean Return: -1.4553812742233276. Trajectories: 46. Mean Length: 89.04347826086956.  
386 completed  
387 completed  
388 Epoch: 175. UP Mean Return: 0.6374363899230957. Trajectories: 19. Mean Length: 215.57894736842104.  
389 completed  
390 completed  
391 Epoch: 176. DOWN Mean Return: -0.555432140827179. Trajectories: 30. Mean Length: 136.53333333333333.  
392 completed  
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394 completed  
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396 completed  
397 Epoch: 177. UP Mean Return: 0.1518813669681549. Trajectories: 24. Mean Length: 170.66666666666666.  
398 completed  
399 Epoch: 178. DOWN Mean Return: -0.13358716666698456. Trajectories: 23. Mean Length: 178.08695652173913.  
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405 saving models  
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417 completed  
418 completed  
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420 completed  
421 Epoch: 185. UP Mean Return: -0.19421447813510895. Trajectories: 25. Mean Length: 163.84.  
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423 Epoch: 186. DOWN Mean Return: -1.1002377271652222. Trajectories: 41. Mean Length: 99.90243902439025.  
424 completed

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452 completed
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454 completed
455 completed
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457 completed
458 completed
459 Epoch: 196. DOWN    Mean Return: -0.993115246295929.  Trajectories: 39.    Mean Length: 105.02564102564102.
460 completed
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462 completed
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477 completed
478 completed
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## File - main

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File - main

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