

# Experiment Report

Start of automated test report 2024-08-30 16:17:29

Author=yons@yons-MS-7E06 obo Luke Vassallo

## Machine Information

sysname=Linux

nodename=yons-MS-7E06

release=6.8.0-40-generic

version=#40~22.04.3-Ubuntu SMP PREEMPT\_DYNAMIC Tue Jul 30 17:30:19 UTC 2

machine=x86\_64

CPU arch : X86\_64

CPU bits : 64

CPU brand : Intel(R) Core(TM) i9-14900KF

CPU cores : 32

CPU base clock : 1.9947 GHz

CPU boost clock : 1.9947 GHz

System Memory : 94.13GB

Nvidia driver version : 550.90.07

Device 0 : NVIDIA GeForce RTX 4090

Device 0 : 23.99GB

## Library Information

python : 3.8.19

torch : 1.13.1+cu117

optuna : 3.2.0

numpy : 1.23.3

pandas : 1.5.3

matplotlib : 3.7.1

seaborn : 0.12.2

pcb library: generation of .pcb files.

Library version : 0.0.12

Library built with : C++14

Library built on : Mar 3 2023 23:10:31

netlist\_graph: Graph pre-processing library for PCB component placement.

Library version : 0.1.16

Library built with : C++14

Library built on : Mar 3 2023 23:10:32

## Hpyerparameters

/home/yons/work/RL\_PCB-main/tests/23\_226\_ppo/hyperparameters/hp\_ppo.json

learning\_rate:0.001

lr\_critic:0.003

buffer\_size:25000

n\_steps:2048

batch\_size:128

gamma:0.99

net\_arch: {'pi': [64, 128, 64], 'qf': [64, 128, 64]}

activation\_fn:relu

K\_epochs:1

expl\_noise:0.1

policy\_noise:0.2

noise\_clip:0.5

clip\_param:0.2

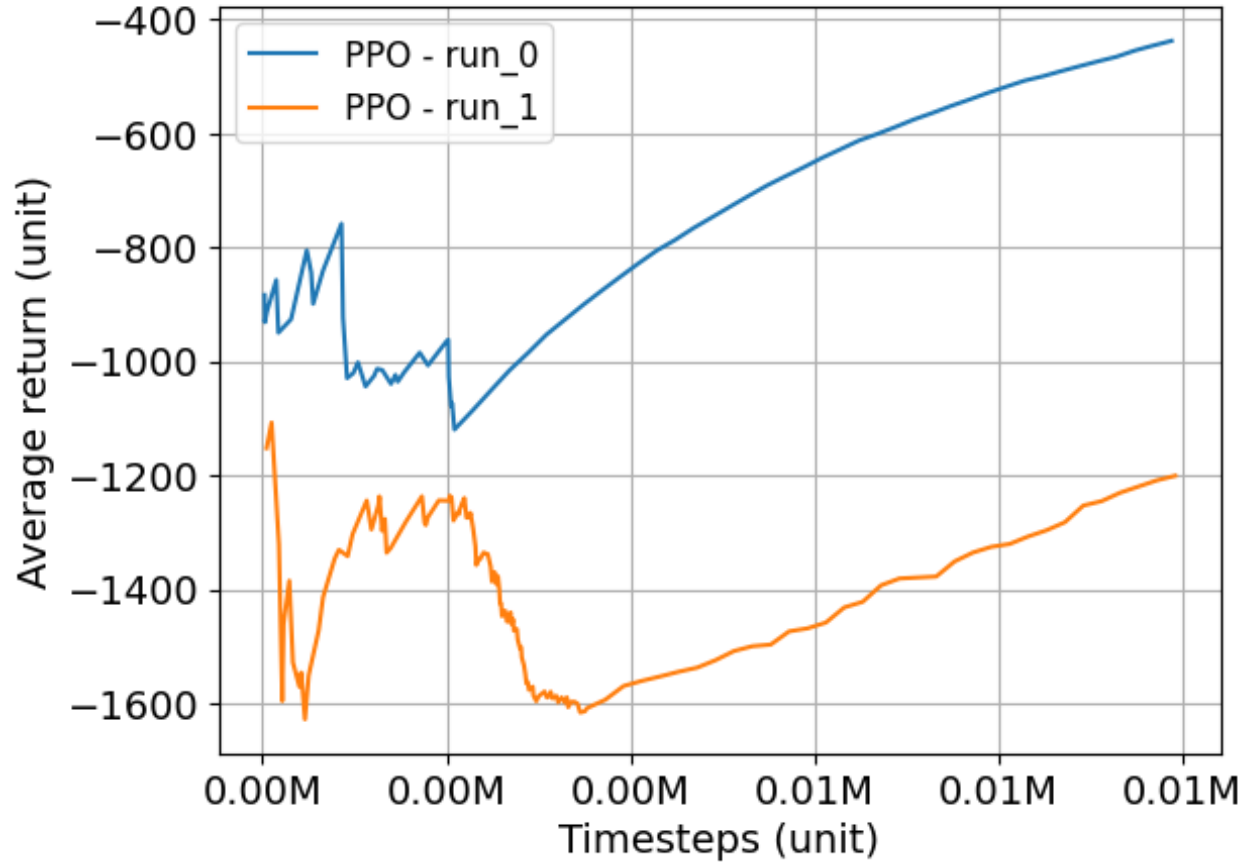
max\_grad\_norm:0.5

tau:0.98

policy\_freq:2

experiment=parameter\_test\_226  
experiments=['parameter\_experiment\_226']  
algorithms=['PPO']  
averaging window=100 (user assigned)

Parameter test w/ emphasis on wirelength (W=2, H=2, O=6)



title	experiment_226:PPO
run #0	136.2543 ± 68.5500
run #1	117.1880 ± 66.6224
mean	126.7212 ± 67.5862

runs\_involved=['1725004899\_0', '1725004899\_1']

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