

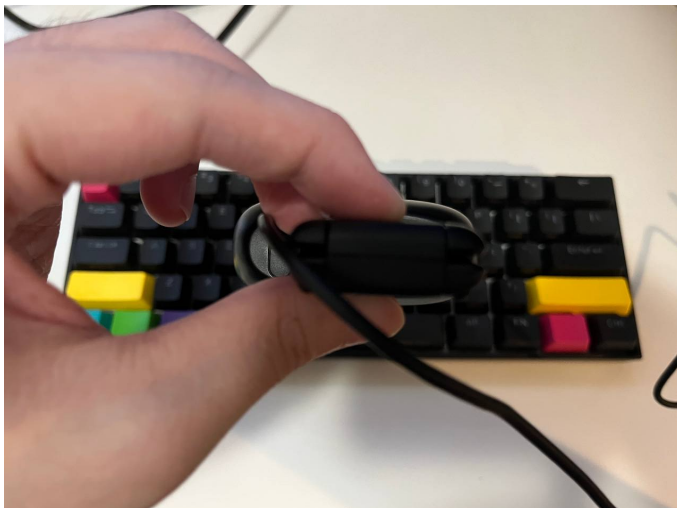
## Part 1

```
(dlonedge) yurui@yurui:~/lab5 $ python3 mobile_net.py
/home/yurui/lab5/dlondedge/lib/python3.11/site-packages/torchvision/models/_utils
.py:208: UserWarning: The parameter 'pretrained' is deprecated since 0.13 and ma
y be removed in the future, please use 'weights' instead.
  warnings.warn(
/home/yurui/lab5/dlondedge/lib/python3.11/site-packages/torchvision/models/_utils
.py:223: UserWarning: Arguments other than a weight enum or 'None' for 'weights'
are deprecated since 0.13 and may be removed in the future. The current behavior
is equivalent to passing 'weights=MobileNet_V2_Weights.IMAGENET1K_V1'. You can
also use 'weights=MobileNet_V2_Weights.DEFAULT' to get the most up-to-date weig
hts.
  warnings.warn(msg)
=====0.47715373964606494 fps =====
=====5.5009201416705595 fps =====
=====5.5107905256484795 fps =====
=====5.567104698181664 fps =====
=====5.531710179969776 fps =====
=====5.512894690838927 fps =====
=====5.479083280209047 fps =====
=====5.520258014531414 fps =====
=====5.5404201863272675 fps =====
=====5.533645397406737 fps =====
```

## Part 2

```
(dlonedge) yurui@yurui:~/lab5 $ python3 mobile_net.py
/home/yurui/lab5/dlondedge/lib/python3.11/site-packages/torchvision/models/_utils
.py:208: UserWarning: The parameter 'pretrained' is deprecated since 0.13 and ma
y be removed in the future, please use 'weights' instead.
  warnings.warn(
/home/yurui/lab5/dlondedge/lib/python3.11/site-packages/torchvision/models/_utils
.py:223: UserWarning: Arguments other than a weight enum or 'None' for 'weights'
are deprecated since 0.13 and may be removed in the future. The current behavior
is equivalent to passing 'weights=MobileNet_V2_QuantizedWeights.IMAGENET1K_QNN
PACK_V1'. You can also use 'weights=MobileNet_V2_QuantizedWeights.DEFAULT' to g
et the most up-to-date weights.
  warnings.warn(msg)
/home/yurui/lab5/dlondedge/lib/python3.11/site-packages/torch/ao/quantization/uti
ls.py:408: UserWarning: must run observer before calling calculate_qparams. Retu
rning default values.
  warnings.warn(
Downloading: "https://download.pytorch.org/models/quantized/mobilenet_v2_qnnpack
_37f702c5.pth" to /home/yurui/.cache/torch/hub/checkpoints/mobilenet_v2_qnnpack
_37f702c5.pth
100.0%
/home/yurui/lab5/dlondedge/lib/python3.11/site-packages/torch/_utils.py:410: User
Warning: TypedStorage is deprecated. It will be removed in the future and Untyp
edStorage will be the only storage class. This should only matter to you if you a
re using storages directly. To access UntypedStorage directly, use tensor.untyp
ed_storage() instead of tensor.storage()
  device=storage.device,
=====0.49835953689904294 fps =====
=====22.338779572504418 fps =====
=====20.037103968639613 fps =====
=====22.313868999774478 fps =====
=====24.020439144728176 fps =====
=====24.13106279213787 fps =====
=====24.039096177155184 fps =====
=====24.12871396487611 fps =====
=====24.028260777904677 fps =====
=====24.129152600018273 fps =====
```

### Part 3



```
yurui@yurui: ~/lab5
File Edit Tabs Help
25.19% space bar
13.65% typewriter keyboard
0.64% honeycomb
0.55% notebook
0.47% cinema
0.40% waffle iron
0.30% abacus
0.25% doormat
0.25% laptop
=====
52.49% computer keyboard
20.95% space bar
20.95% typewriter keyboard
0.84% abacus
0.46% waffle iron
0.34% notebook
0.21% honeycomb
0.18% laptop
0.16% cinema
0.16% tile roof
=====
59.20% computer keyboard
23.62% space bar
14.92% typewriter keyboard
0.32% notebook
0.24% abacus
0.18% waffle iron
0.10% honeycomb
0.10% laptop
0.07% mouse
0.06% hand-held computer
=====
=====6.746275433416436 fps =====
49.56% computer keyboard
26.86% space bar
19.78% typewriter keyboard
0.37% abacus
0.27% notebook
0.23% waffle iron
0.20% honeycomb
0.17% tile roof
0.13% laptop
0.09% window screen
=====
```