

haven't started training. Once training starts, come back and click the refresh button to see the model's overall loss.

```
%load_ext tensorboard
%tensorboard --logdir '/content/training/train'
```

Model training is performed using the "model_main_tf2.py" script from the TF Object Detection API. Training will take anywhere from 2 to 6 hours, depending on the model, batch size, and number of training steps. We've already defined all the parameters and arguments used by model_main_tf2.py in previous sections of this Colab. Just click Play on the following block to begin training!

Note: It takes a few minutes for the program to display any training messages, because it only displays logs once every 100 steps. If it seems like nothing is happening, just wait a couple minutes.

```
# Run training!
!python /content/models/research/object_detection/model_main_tf2.py \
  --pipeline_config_path={pipeline_file} \
  --model_dir={model_dir} \
  --alsologtostderr \
  --num_train_steps={num_steps} \
  --sample_1_of_n_eval_examples=1
```

→ /usr/local/lib/python3.10/dist-packages/tensorflow_addons/utils/tfa_eol_msg.py:23

TensorFlow Addons (TFA) has ended development and introduction of new features. TFA has entered a minimal maintenance and release mode until a planned end of life. Please modify downstream libraries to take dependencies from other repositories if

For more information see: <https://github.com/tensorflow/addons/issues/2807>

```
warnings.warn(
  /usr/local/lib/python3.10/dist-packages/tensorflow_addons/utils/ensure_tf_install
  The versions of TensorFlow you are currently using is 2.8.0 and is not supported
  Some things might work, some things might not.
```

If you were to encounter a bug, do not file an issue.

If you want to make sure you're using a tested and supported configuration, either You can find the compatibility matrix in TensorFlow Addon's readme:

<https://github.com/tensorflow/addons>

```
warnings.warn(
2024-07-30 20:44:46.453861: W tensorflow/core/common_runtime/gpu/gpu_bfc_allocator
INFO:tensorflow:Using MirroredStrategy with devices ('/job:localhost/replica:0/task:0
I0730 20:44:46.485276 136147738234880 mirrored_strategy.py:374] Using MirroredStr
INFO:tensorflow:Maybe overwriting train_steps: 10000
I0730 20:44:46.488968 136147738234880 config_util.py:552] Maybe overwriting train
INFO:tensorflow:Maybe overwriting use_bfloat16: False
I0730 20:44:46.489124 136147738234880 config_util.py:552] Maybe overwriting use_b
WARNING:tensorflow:From /usr/local/lib/python3.10/dist-packages/object_detection/
Instructions for updating:
  rename to distribute_datasets_from_function
W0730 20:44:46.669476 136147738234880 deprecation.py:337] From /usr/local/lib/pyt
Instructions for updating:
```