

Puppo, The Corgi Manual



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Puppo, The Corgi is released under the [Unity Companion License](#) and uses third party software components. Check the `License.pdf` and `ThirdPartyNotices.pdf` files in the project for more information.

How to install

Compatible Unity versions: 2018.1+

The Puppo, The Corgi zip file contains a full Unity Project.

1. Unzip the `PuppoDemo.zip` archive into a suitable directory.
2. In the Unity Editor, select the **Open Project** menu command.
3. Navigate to your unzipped `PuppoDemo` folder.
4. Click **Open**.

Troubleshooting

If you face any errors after opening the project, it may be due to a missing package or the PlayerSettings not configured correctly. We outline verification steps below, but if you continue facing any problems you can submit an issue on the [ML-Agents issues page](#).

Verify that the following packages are installed for the project:

- Cinemachine 2.2.7
- TextMesh Pro 1.2.4
- Post-processing 2.0.11-preview

You can check whether the packages are installed in the project by opening the **Package Manager** window (menu: **Window** > **Package Manager**). If any of the packages were not installed, you can find them under the **All** tab of the Package Manager window.

Verify that the following PlayerSettings have been configured to enable the TensorflowSharp plugin for inference:

- Set **Scripting Runtime Version** to `NET 4.x Equivalent`
- Set **Scripting Define Symbols** to `ENABLE_TENSORFLOW`

Open the **Project Settings** window (menu: **Edit** > **Project Settings** > **Player**), click **Other Settings** and look in the **Configuration** section to verify these settings.



How to use the pre-trained model

Open the **Fetch** scene in the `Assets/PuppoTheCorgi/Fetch/Scenes` folder. In the **Hierarchy** menu, find the **Brain** Component attached to the **Academy > DogBrain** GameObject. The **Brain Type** property should be set to **Internal** and the **Graph Model** should be `Fetch-Model`.

For more instruction on how to use the Internal Brain, check this [documentation](#).

Press **Play** to start the scene. You can drag and throw the stick with your mouse by dragging it on the screen. The corgi will play fetch with you.

How to train a new model

To train a new model, you need to:

1. Download the [ML-Agents toolkit](#) version **0.5.0**
2. Follow the instructions on how to [install the toolkit](#).
3. Add the hyperparameters listed below for the **DogBrain** to the `trainer_config.yaml` file located in the `config` folder of your ML-Agents toolkit directory.
4. Use the **TrainingScene** located in `Assets/PuppoTheCorgi/Fetch/Scenes` folder.
5. Follow the instructions on how to [train an agent using ML-Agents](#).

Set of hyperparameters used for training :

```
DogBrain:
  normalize: true
  num_epoch: 3
  time_horizon: 1000
  batch_size: 2048
  buffer_size: 20480
  gamma: 0.995
  max_steps: 2e6
  summary_freq: 3000
  num_layers: 3
  hidden_units: 512
```

Resources

If you want to know more about ML-Agents, check out the [ML-Agents toolkit repository](#) and its [documentation](#). You can contact us at ml-agents@unity3d.com.