

Setup guide to getting YOLO object detection working with Intel RealSense cameras

1. Install Realsense for ROS:

- <https://github.com/IntelRealSense/realsense-ros> (Go with Method 1)

2. Clone this repository to catkin_ws/src and then *catkin build*

3. Install PyTorch

If you want to use the GPU version of PyTorch, follow the Cuda 11.0 installation tutorial below (Skip the CUDNN installation)

[Cuda 11.0 Installation](#)

Or just use the CPU variant of Pytorch (the GPU variant is much faster)

<https://pytorch.org/get-started/locally/> (Link to PyTorch)

PyTorch Build	Stable (1.7.1)		Preview (Nightly)		
Your OS	Linux	Mac	Windows		
Package	Conda	Pip	LibTorch	Source	
Language	Python		C++ / Java		
CUDA	9.2	10.1	10.2	11.0	None
Run this Command:	<pre>pip install torch==1.7.1+cu110 torchvision==0.8.2+cu110 torchaudio==0.7.2 -f https://download.pytorch.org/whl/torch_stable.html</pre>				

PyTorch Build	Stable (1.7.1)		Preview (Nightly)		
Your OS	Linux	Mac	Windows		
Package	Conda	Pip	LibTorch	Source	
Language	Python		C++ / Java		
CUDA	9.2	10.1	10.2	11.0	None
Run this Command:	<pre>pip install torch==1.7.1+cpu torchvision==0.8.2+cpu torchaudio==0.7.2 -f https://download.pytorch.org/whl/torch_stable.html</pre>				

NB! The first one is for GPU while the latter corresponds to the CPU variant of PyTorch.

To get the object detection working with RealSense you need to:

- `cd ~/catkin_ws`
- `roslaunch realsense2_camera rs_camera.launch`
- Open up a new terminal

- `roslaunch ros_yolo yolo.launch`