

Install xubuntu in Jetson Nano

<https://github.com/Discombobulated88/Xubuntu-20.04-L4T-32.3.1/releases/download/v1.0/Xubuntu-20.04-l4t-r32.3.1.tar.tbz2>

Download balena

[/https://www.balena.io/etcher](https://www.balena.io/etcher)

ROS2 install

Set locale

Make sure you have a locale which supports UTF-8. If you are in a minimal environment (such as a docker container), the locale may be something minimal like POSIX. We test with the following settings. However, it should be fine if you're using a different UTF-8 supported locale.

```
locale # check for UTF-8
```

```
sudo apt update && sudo apt install locales
sudo locale-gen en_US en_US.UTF-8
sudo update-locale LC_ALL=en_US.UTF-8 LANG=en_US.UTF-8
export LANG=en_US.UTF-8
```

```
locale # verify settings
```

Setup Sources

```
apt-cache policy | grep universe
```

* This should output a line like the one below:

```
500 http://us.archive.ubuntu.com/ubuntu focal/universe amd64 Packages
   release v=20.04,o=Ubuntu,a=focal,n=focal,l=Ubuntu,c=universe,b=amd64
```

* If you don't see an output line like the one above, then enable the Universe repository with these instructions:

```
sudo apt install software-properties-common
sudo add-apt-repository universe
```

* Now add the ROS 2 apt repository to your system:

```
sudo apt update && sudo apt install curl gnupg2 lsb-release
sudo curl -sSL https://raw.githubusercontent.com/ros/rosdistro/master/ros.key -o
/usr/share/keyrings/ros-archive-keyring.gpg
```

* Then add the repository to your sources list.

```
echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/ros-archive-
keyring.gpg] http://packages.ros.org/ros2/ubuntu $(source /etc/os-release && echo
$UBUNTU_CODENAME) main" | sudo tee /etc/apt/sources.list.d/ros2.list > /dev/null
```

Install ROS 2 packages

*Update your apt repository caches after setting up the repositories.

```
sudo apt update
```

* ROS 2 packages are built on frequently updated Ubuntu systems. It is always recommended that you ensure your system is up to date before installing new packages.

```
sudo apt upgrade
```

* Desktop Install (Recommended): ROS, RViz, demos, tutorials.

```
sudo apt install ros-foxy-desktop
```

* ROS-Base Install (Bare Bones): Communication libraries, message packages, command line tools. No GUI tools.

```
sudo apt install ros-foxy-ros-base
```

Enviroment setup

* Sourcing the setup script Set up your environment by sourcing the following file:

```
source /opt/ros/foxy/setup.bash
```

* With these commands, Ros2 was downloaded successfully. To make sure, we type the command:

```
ros2 topic list
```