

## Download ROS on jetson nano

- 1- Download ubuntu 20.04 from the following link

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

- 2- Extract the downloaded file, then enter the folder and extract the .tar file
- 3- Download a program to flash your SD card

<https://www.balena.io/etcher/>

go to terminal and type the following command to extract the ubuntu image

```
tar -xvzf Xubuntu-20.04-l4t-r32.3.1.tar.tbz2
```

- 4- Open the program and select the image, then select the device and then flash
- 5- After the flash has finished, and the booting process has finished, Configure the system to install ubuntu

### Install ROS

- 6- In terminal type the following commands

```
locale
```

```
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
```

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

- 7- Add ROS 2 repository to your system and source list:

```
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
```

```
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
```

**8- Update your apt repository by typing the following command**

```
sudo apt update
```

**9- Type the following command to install ROS base**

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

**10- Run the following command to set up your environment**

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

**11- run the following command to make sure that ROS is successfully running**

```
ros2 topic list
```