

ROS 2 (Humble) Installation Guide



Official documentation can be found here: <https://docs.ros.org/en/humble/Installation.html>

Prerequisites

1. A working Ubuntu Linux environment
2. Have a locale which supports *UTF-8*

1. Add ROS 2 APT Repository

1. First, ensure that the Ubuntu Universe repository is enabled.

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

2. Add the ROS 2 GPG key with apt.

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

3. 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 $(. /etc/os-release && echo $UBUNTU_CODENAME) main" | sudo tee /etc
/apt/sources.list.d/ros2.list > /dev/null
```

2. Install ROS 2 Packages

1. Update your apt repository caches after setting up the repositories. It is also recommended that you ensure your system is up to date before installing new packages.

```
sudo apt update
sudo apt upgrade
```

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

```
sudo apt install ros-humble-desktop
```

3. Install development tools: Compilers and other tools to build ROS packages.

```
sudo apt install ros-dev-tools
```

3. Environment Setup

1. Set up your environment by sourcing the following file.



Replace ".bash" with your shell if you're not using bash

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

