



I'm installing virtual box & Ubuntu & write some code to installing ros:

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1- sudo sh -c 'echo "deb http://packages.ros.org/ubuntu $(lsb_release -sc) main" > /etc/apt/sources.list.d/ros-latest.list'
```

```
2- sudo apt install curl # if you haven't already installed curl curl -s https://raw.githubusercontent.com/ros/rosdistro/master/ros.asc | sudo apt-key add
3- sudo apt update
4- sudo apt install ros-noetic-desktop-full
5- sudo apt install ros-noetic-desktop
6- sudo apt install ros-noetic-ros-base
7- sudo apt install ros-noetic-PACKAGE
8- sudo apt install ros-noetic-slam-gmapping
9- apt search ros-noetic
10- source /opt/ros/noetic/setup.bash
11- echo "source /opt/ros/noetic/setup.bash" >> ~/.bashrc
12- source ~/.bashrc
13- echo "source /opt/ros/noetic/setup.zsh" >> ~/.zshrc
14- source ~/.zshrc
15- sudo apt install python3-rosdep python3-rosinstall python3-rosinstall-generator python3-wstool build-essential
16- sudo apt install python3-rosdep
17- sudo rosdep init
18- rosdep update
```