

Algorithm for installing ROS

There are mainly 3 steps to instal ROS which are first installing VirtualBox, then installing Ubuntu and finally installing ROS. I will give the algorithm for each step in detail.

1. Installing Virtualbox

1. Search on Google "virtualbox download " and click on the virtualbox.org website- <https://www.virtualbox.org/wiki/Downloads>
2. Click the package suited to your computer(windows,OS X,linux..etc) and it will download a file
3. Click on the file after it downloads, which will open Virtualbox and click next each time and it will instal it

2. Installing Ubuntu

1. Go on google and search "ubuntu 20.04 " and click on the official website(<https://releases.ubuntu.com/20.04/>) of ubuntu and instal the desktop image version of ubuntu 20.04(3.1 GB). After that it will download an iso file
2. Open the downloaded iso file and click on "new " in virtual box and write the name you want then click next
3. Choose memory size to the end of the green limit and click next for the rest and leave as default- by the end you will have created a new device
4. On Virtualbox click on the device you created and click on start
5. Add the ubuntu iso file we downloaded previously and click start and it will take some time to load
6. After it loads, click on install ubuntu and click next for the rest and leave the settings as default (add your name and password)- after some time you will have installed ubuntu

3. Installing ROS

1. Search on firefox on ubuntu "ROS " and go on the official website(<http://wiki.ros.org/noetic/Installation/Ubuntu>) to download ROS Noetic
2. Open terminal on Virtualbox from show applications at the bottom
3. Copy the commands from the website and paste on the terminal
-Copy the following commands:
 1. From 1.2 copy the command given
 2. From 1.3 copy the command given
 3. From 1.4 copy one of the 3 commands but for the full ROS choose the first command
 4. From 1.5 choose "source /opt/ros/noetic/setup.bash"

4. Finally to make sure that it is installed type in the terminal "roscore"