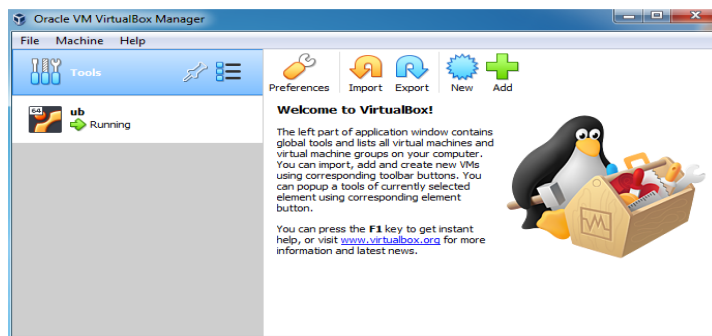# ROBPOT OPERATING SYSTEM INSTALLATION (ROS)

Requirements:

1-Instaled and running Ubuntu 12.04.

2-connected to internet.

3-you know how to work with Ubuntu.

INSTALLATION

We will use a terminal window to write a commands

1- The first command sudo apt update and sudo apt upgrade

```
zakiya@zakiya-VirtualBox:~$ sudo apt upgrade
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
The following package was automatically installed and is no long
  libllvm9
Use 'sudo apt autoremove' to remove it.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
zakiya@zakiya-VirtualBox:~$ sudo sh -c 'echo "deb http://package
untu $(lsb release -sc) main" > /etc/apt/sources.list.d/ros-late
```

2- the second command downloads the ros file .

```
zakiya@zakiya-VirtualBox:~$ sudo apt-get install ros-kinetic-desktop-full
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

3-Initialize rosdep by write commands sudo rosdep init ,
rosdep update

```
zakiya@zakiya-VirtualBox:~$ sudo rosdep init
ERROR: default sources list file already exist
```

```
zakiya@zakiya-VirtualBox:~$ rosdep update
reading in sources list data from /etc/ros/rosdep/sources.list.d
Hit https://raw.githubusercontent.com/ros/rosdistro/master/rosdep/
aml
Hit https://raw.githubusercontent.com/ros/rosdistro/master/rosdep/
Hit https://raw.githubusercontent.com/ros/rosdistro/master/rosdep/
Hit https://raw.githubusercontent.com/ros/rosdistro/master/rosdep/
Hit https://raw.githubusercontent.com/ros/rosdistro/master/release
Query rosdistro index https://raw.githubusercontent.com/ros/rosdis
ex-v4.yaml
Skip end-of-life distro "ardent"
```

 4-Environment setup

Open file then add the line echo"source
/opt/ros/hydro/setup.bash".

Getting rosintall

Sudo apt-get install python-rosinstall.