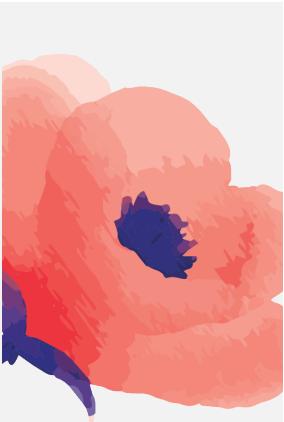


Haya alomran path 3



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Who to install **virtual box ubuntu** and **Ros**:

The process to install virtual box :

1 / search on google virtual box

2/ choose virtual box for IOS and downloaded

Here you will find links to VirtualBox binaries and its source code.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 6.0 packages, see [VirtualBox 6.0 builds](#). Please also use version 6.0 if you need to run VMs with software virtualization; it's discontinued in 6.1. Version 6.0 will remain supported until July 2020.

If you're looking for the latest VirtualBox 5.2 packages, see [VirtualBox 5.2 builds](#). Please also use version 5.2 if you still need support for 32-bit hosts, as this has 6.0. Version 5.2 will remain supported until July 2020.

VirtualBox 6.1.10 platform packages

- Windows hosts
- OS X hosts**
- Linux distributions
- Solaris hosts

The binaries are released under the terms of the GPL version 2.

See the [changelog](#) for what has changed.

You might want to compare the checksums to verify the integrity of downloaded packages. *The SHA256 checksums should be favored as the MD5 algorithm must be insecure!*

- [SHA256 checksums, MD5 checksums](#)

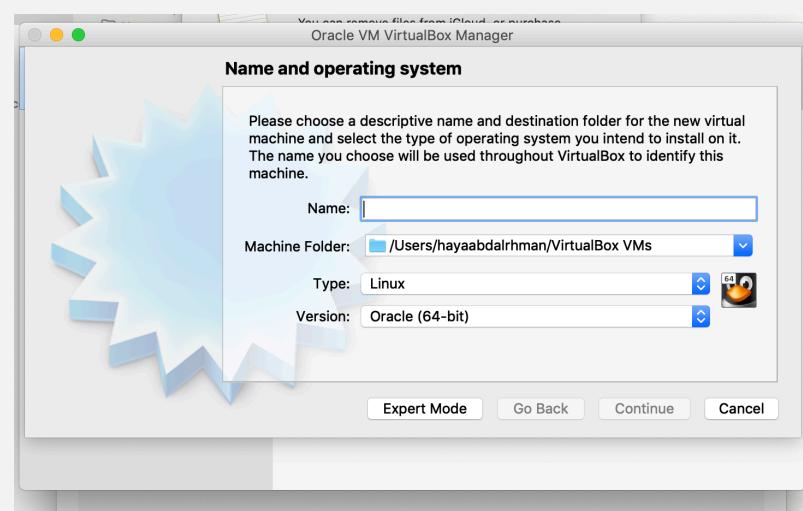
Note: After upgrading VirtualBox it is recommended to upgrade the guest additions as well.

VirtualBox 6.1.10 Oracle VM VirtualBox Extension Pack

- All supported platforms

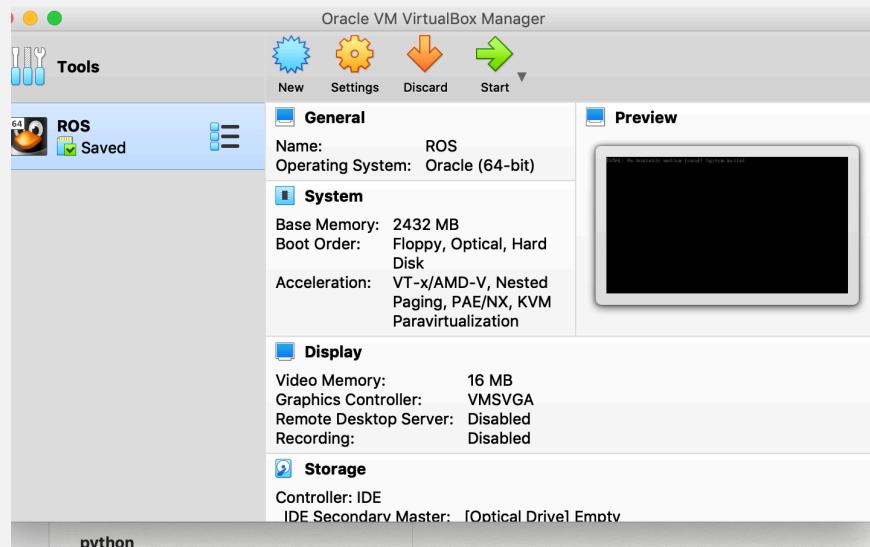
Support for USB 2.0 and USB 3.0 devices, VirtualBox RDP, disk encryption, NVMe and PXE boot for Intel cards. See [this chapter from the User Manual](#) for an intro Extension Pack. The Extension Pack binaries are released under the [VirtualBox Personal Use and Evaluation License \(PUEL\)](#). Please install the same version extension installed version of VirtualBox.

3/ after I opened virtual box I chosen linux and named " ROS "

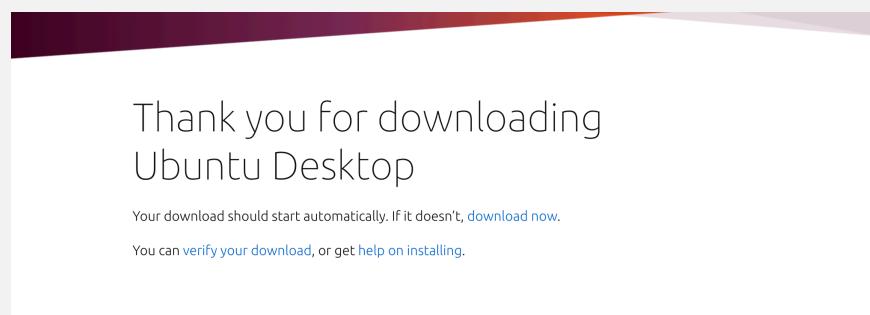




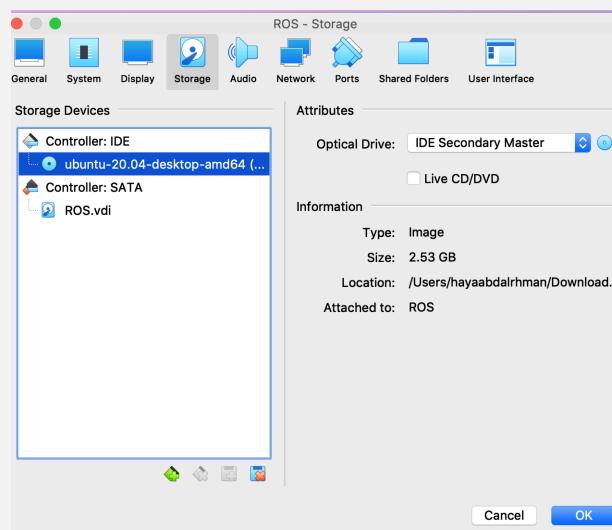
4/ now I have Linux and I need to install **ubuntu**



5/ I downloaded **ubuntu** and it ready to start work

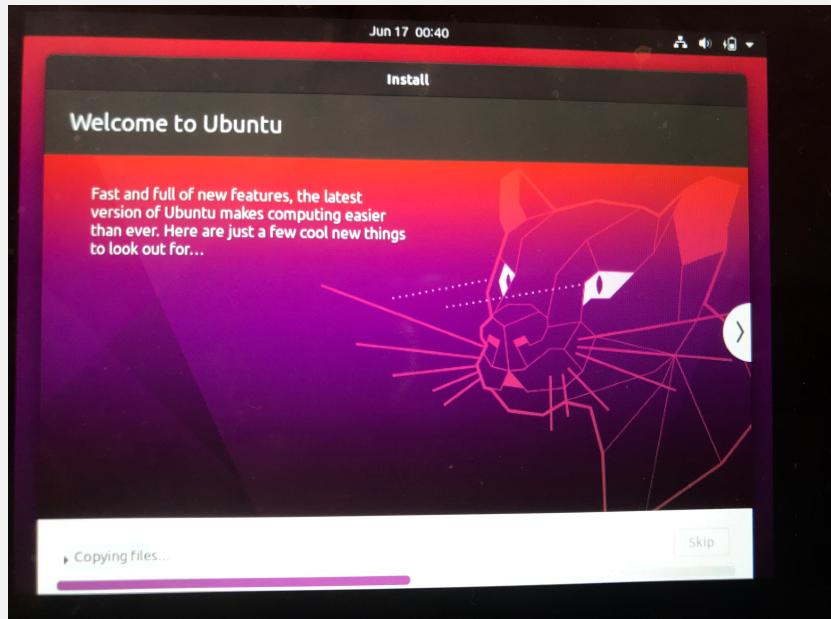


6/ ubuntu is 20.04

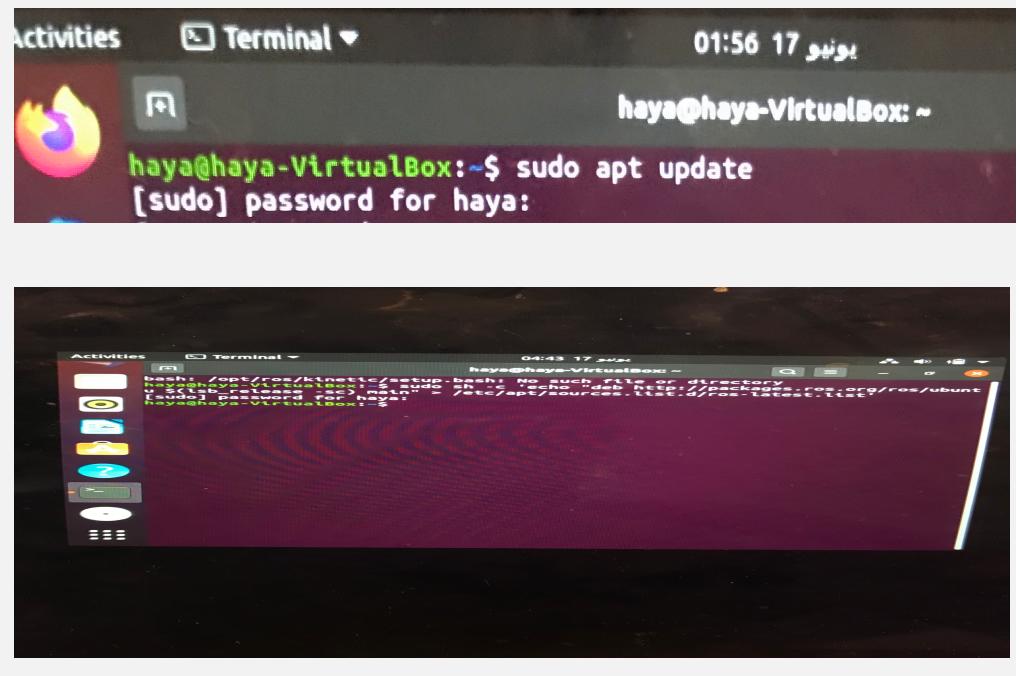


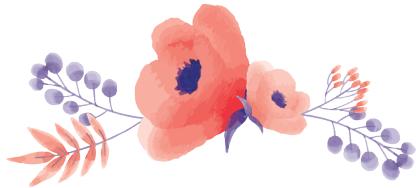


7/ ubuntu is working



8/ I opened Terminal and start working





9/ROS is installation

A screenshot of a dark-themed Ubuntu desktop environment. A terminal window is open in the foreground, showing the output of a ROS installation command. The desktop background is dark, and the Unity interface is visible with icons for Home, Dash, Activities, and others.

```
Setting up libpango1.0-dev:amd64 (1.44.7-2ubuntu4) ...
Setting up libgtk2.0-dev:amd64 (2.24.32-4ubuntu4) ...
Setting up libgazebo11-dev:amd64 (11.0.0-2-focal) ...
Setting up libgtk-3-dev:amd64 (3.24.18-1ubuntu1) ...
Setting up ros-noetic-gazebo-dev (2.9.1-1focal.20200529.054115) ...
Setting up ros-noetic-gazebo-ros (2.9.1-1focal.20200529.070139) ...
Setting up ros-noetic-gazebo-ros-control (2.9.1-1focal.20200601.141902) ...
Setting up ros-noetic-stage (4.3.0-1focal.20200529.054457) ...
Setting up ros-noetic-image-view (1.15.2-1focal.20200529.064734) ...
Setting up ros-noetic-stage-ros (1.8.0-1focal.20200529.070022) ...
Setting up ros-noetic-image-pipeline (1.15.2-1focal.20200529.070311) ...
Setting up ros-noetic-urdf-sim-tutorial (0.5.1-1focal.20200601.142918) ...
Setting up ros-noetic-gazebo-plugins (2.9.1-1focal.20200529.070922) ...
Setting up ros-noetic-gazebo-ros-pkgs (2.9.1-1focal.20200529.073057) ...
Setting up ros-noetic-perception (1.5.0-1focal.20200529.073204) ...
Setting up ros-noetic-simulators (1.5.0-1focal.20200602.151315) ...
Setting up ros-noetic-desktop-full (1.5.0-1focal.20200602.152246) ...
Processing triggers for libc-bin (2.31-0ubuntu9) ...
haya@haya-VirtualBox:~$ source /opt/ros/noetic/setup.bash
haya@haya-VirtualBox:~$ echo "source /opt/ros/noetic/setup.bash" >> ~/.bashrc
haya@haya-VirtualBox:~$ source ~/.bashrc
bash: /opt/ros/kinetic/setup.bash: No such file or directory
haya@haya-VirtualBox:~$ rosversion -d
noetic
haya@haya-VirtualBox:~$ rosversion ros
<unversioned>
haya@haya-VirtualBox:~$ rosversion -d
noetic
haya@haya-VirtualBox:~$
```