

How to setup your virtual machine using Oracle VirtualBox

Step 1: Create a new machine using xubuntu-18.04-desktop-amd64.iso

<https://xubuntu.org/download/>

Step 2: Install devel environment

```
> sudo apt-get install gcc  
> sudo apt-get install make  
> sudo apt-get install libeigen3-dev
```

Install g++, freeglut, and glew

```
> sudo apt install g++  
> sudo apt-cache search freeGLUT  
> sudo apt install freeglut3  
> sudo apt install libglew-dev  
> sudo apt install freeglut3-dev  
> sudo apt-cache search glew
```

If you need OpenGL, install also mesa-common-dev and libglu1-mesa-dev

You will need AntTweakBar for the UI elements. You can download that from:

<http://antweakbar.sourceforge.net/doc/>

You will need to build and install AntTweakBar, like so

<http://antweakbar.sourceforge.net/doc/tools:antweakbar:download>

Step 3: Setup source control (git)

Install git

```
sudo apt-get install git
```

Install your ssh key for github

(<https://help.github.com/en/articles/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent>)

Step 4: (optional) Install VirtualBox Guest Extensions

This extension will allow you to resize the window as well as access drives on your machine (such as USB ports and cameras)

Cut and paste: To enable cut and paste between the host and guest machine, enable Devices->SharedClipboard->HostToGuest. You may need to enable this in the VM settings as well (under General->Advanced).

Screen resizing: Enable View -> Adjust Window Size