

Install VMWare

MAC

1. Register for a VMware fusion licence from Georgia Tech [\[link\]](#)
2. Download the free 30 Day trial and install it [\[link\]](#)
3. Once you get your licence from Georgia Tech you can come back and register your copy of VMware fusion (in a couple of days)
 - a. To enter the licence you get go to VMware fusion → “Buy now or Enter Licence”

Windows

1. Download and install VMWare player [\[link\]](#)

If you cannot install VMware

Use Virtualbox [\[link\]](#) instead, but note that it may have bugs later when we do gameboy development.

Download the Ubuntu .iso file

1. Go to the download page for Ubuntu 16.04 [\[link\]](#)
2. Move the download somewhere where you will not delete it (out of your downloads folder)

Create a virtual machine

Create your virtual machine using either VMware Player/Fusion or Virtualbox.

1. Create a new virtual machine (should be a button inside Player/Fusion/Virtualbox)
 - a. If prompted for a .iso file give it the file you downloaded in the previous section
 - b. Set hard drive size ≥ 16 GB
 - c. Set RAM ≥ 1 GB
2. Boot the VM
 - a. If prompted for a .iso file give it the file you downloaded in the previous section
 - b. You should be prompted to install Ubuntu
 - c. Choose the option that will “erase entire disk and install ubuntu”
 - i. This will only erase the virtual hard drive (not your real one) so don’t panic
 - d. Complete the installation process by following the prompts
3. Reboot the VM to make sure the installation worked
4. You may need to change a few settings to get your virtual machine to run well.

Regardless of the program you used, if things are running slow, you can increase the number of cpu cores and memory allocated. For instance, I’m running my virtual machine with 2 cpu cores (out of the 4 on my machine) and 1 gig of ram (out of 8).
5. IF YOU ARE USING VIRTUALBOX, enable 3D Video acceleration.

Install complx on the VM

Note that all of the following instructions will be on the VM, not your native OS

1. Now that you have Linux up and running, we need to install the LC3 simulator we will be using for the class.
2. Run the following commands in a terminal on your VM
 - a. `sudo add-apt-repository ppa:tricksterguy87/ppa-gt-cs2110`
 - b. `sudo apt-get update`
 - c. `sudo apt-get install complx-tools`
3. Make sure that Complx install correctly by running the command "complx" in terminal. If the program opens up, then everything's working!
4. **Show your vm running complx to a TA to get credit for this lab.**