# Non-Ubuntu Setup Guide (LIDA Flagship Project)

### Before You Begin

**Prerequisites**:

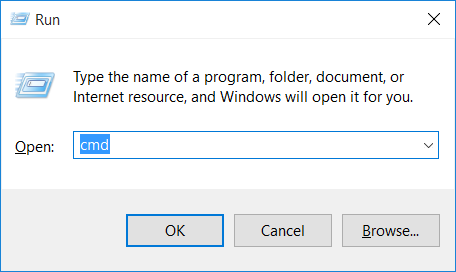
1. **At least**5 GB available disk space
2. Broadband internet connection

### Installation Guide

1. Download and Install **VirtualBox** (Platform Package) (<https://www.virtualbox.org/wiki/Downloads>)
2. Download and Install **Vagrant** (<https://www.vagrantup.com/docs/installation/>)
3. (**Optional**) Install [Putty](http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html) or other ssh client
   1. Convert private key with PuTTYgen
   2. Configure putty session
      1. IP address: 127.0.0.1
      2. Port: 2222

### Vagrant Configuration (Windows Configuration of Vagrant for Flagship Project)

1. Start a windows command prompt
   1. “*Windows Key*” + “*R*”
   2. Type **cmd** in the text field
   3. Hit “OK”

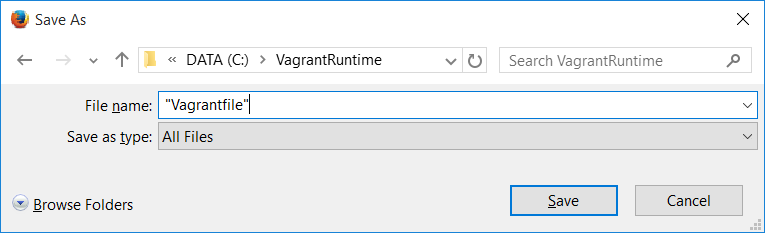


1. Make a Vagrant runtime directory (for example, c:\VagrantRuntime)

|  |
| --- |
| **mkdir c:\VagrantRuntime** |

***Note: The directory name is arbitrary, as long as you are consistent in the steps that follow!***

1. Download the Vagrantfile from Github to c:\VagrantRuntime
   1. Navigate to <https://raw.githubusercontent.com/CognitiveComputingResearchGroup/flagship-project/master/vagrant/Vagrantfile> in an internet browser
   2. Save page as “Vagrantfile” to c:\VagrantRuntime
      1. **The name must be Vagrantfile (*no file extension*) or vagrant will not find it.**



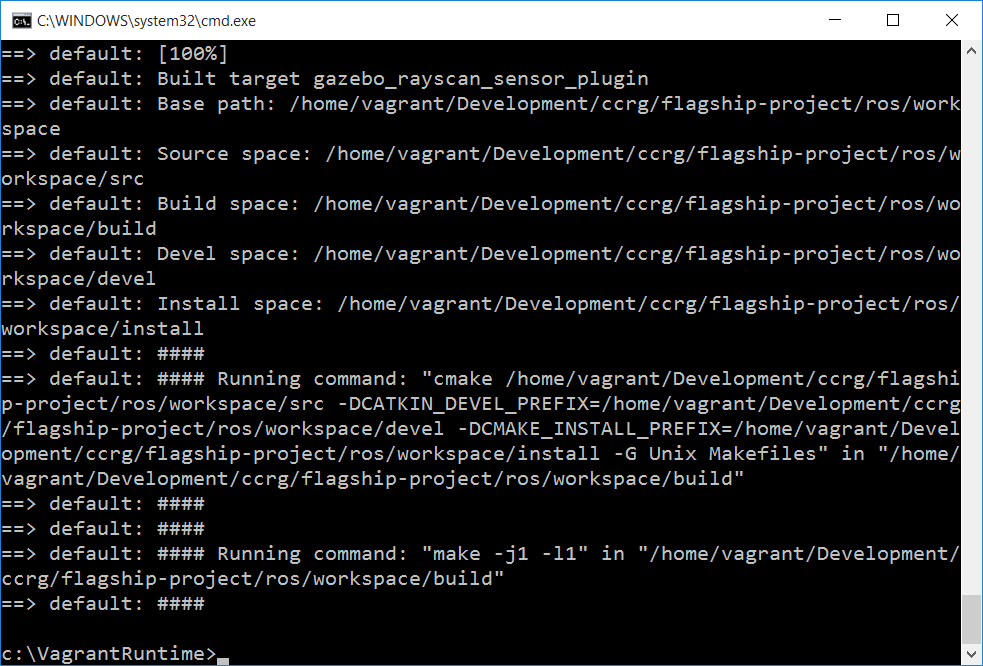
1. Change directory to c:\VagrantRuntime

|  |
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| **cd c:\VagrantRuntime** |

1. Start download and provisioning of virtual machine by executing “vagrant up” command

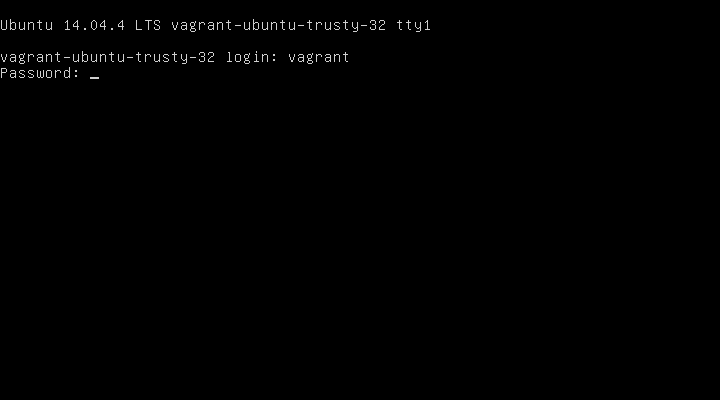
|  |
| --- |
| **vagrant up** |

* 1. This will download the Ubuntu 14.04 virtual machine and all the software that is needed for the LIDA flagship project. Depending on your network connection, this may take a long time. **Be patient!**
  2. If all goes well you should see something like the this:



### Accessing Virtual Machine and Verifying Installation

1. Login to Ubuntu 14.04 virtual box
   1. Default username: **vagrant**
   2. Default password: **vagrant**



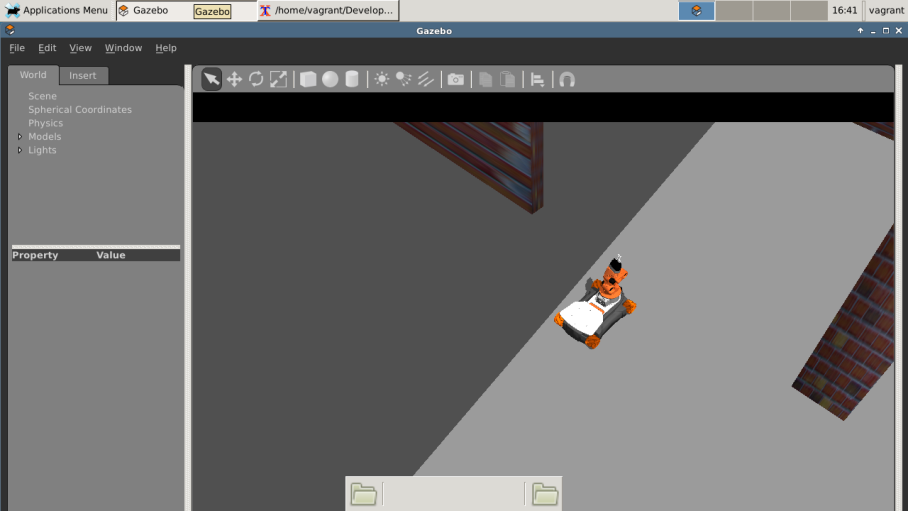
1. Start desktop

|  |
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| **startxfce4** |

1. Open a terminal window (**Applications Menu > Terminal Emulator**)
2. From a terminal window execute the following command:

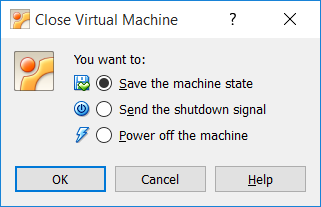
|  |
| --- |
| **roslaunch ccrg\_flagship\_buildtest test.launch** |

* 1. If all goes well you should see something like the this:



* 1. Shutting down the virtual machine

You can shut down your virtual machine by clicking on the [X] in the top-right corner of your desktop window. A dialog box should appear that looks like the following:



* 1. The virtual machine can be accessed again later by launching a command prompt, changing the directory to the one containing your Vagrantfile, and issuing the command **vagrant up**.

### Customize virtual machine resources [OPTIONAL]

By default, vagrant configures the virtual machine to have 1 CPU, 512 MB system memory, and 12 MB of video memory. Additional resources can be allocated to the virtual machine by modifying your **Vagrantfile** (for example, c:\VagrantRuntime\Vagrantfile).

* Change the following section in your **Vagrantfile** to customize resources:

config.vm.provider "virtualbox" do |vb|

# The name associated with this virtual machine

vb.name = "LIDAFlagshipProject"

# Display the VirtualBox GUI when booting the machine

vb.gui = true

# Customize the amount of memory on the VM:

#vb.memory = "2048"

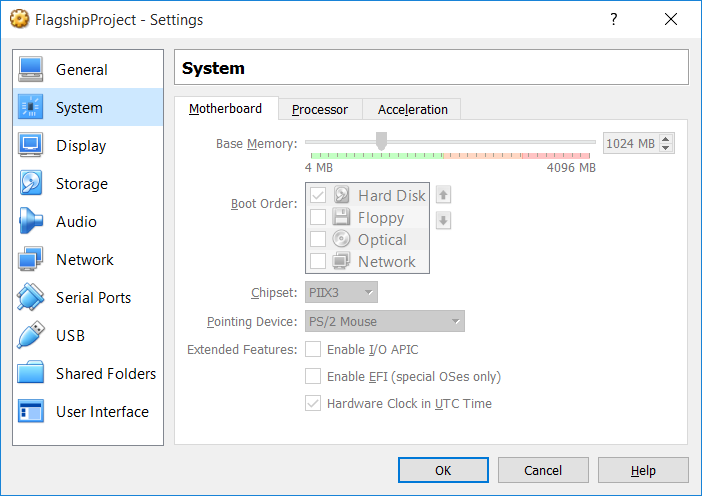
#vb.cpus = "4"

#vb.customize ["modifyvm", :id, "--vram", "128"]

#vb.customize ["modifyvm", :id, "--accelerate3d", "on"]

end

* Once your changes have been made, stop and start your virtual machine. You can confirm that your settings have taken affect by going to **Machine > Settings > System** and **Machine > Settings > Display** from the top menu.



**Additional Information:**

* For more information on VirtualBox, visit this [site](https://www.virtualbox.org/).
* For more information on Vagrant, visit this [site](https://www.vagrantup.com/docs/).

### Troubleshooting

|  |  |
| --- | --- |
| **Problem** | **Solution** |
| I received a timeout after executing “vagrant up” | You may have lost network connectivity during the software download.  Step 1: Verify that you have a network connection (for example, by trying to open [www.google.com](http://www.google.com) in a browser).  Step 2: If network connectivity is available, try running the command “**vagrant up --provision**” from your vagrant runtime directory (for example, c:\VagrantRuntime)  Step 3: If the command executed in Step 2 also results in a timeout, and you have an Intel processor, you may need to change your virtualization settings in your system **BIOS**. Please reference the following webpage for more details: <http://www.howtogeek.com/213795/how-to-enable-intel-vt-x-in-your-computers-bios-or-uefi-firmware/> |