

# Setting up the EE155 Toolchain

*Updated 09.11.16*

The EE155 Toolchain contains all of the necessary tools to develop for the STM32 F3 Discovery board by STMicroelectronics. It includes the necessary embedded ARM cross compiler, debug utilities, programming interface, and software dependencies. The toolchain has been tested on Ubuntu 14.04. In order to keep consistent development environments, if you are not natively running linux (or want to use a clean, isolated development environment) we will install the toolchain in a virtual machine with VMWare.

Ask for a prebuilt VM from the course staff.

## Installing the VM

### Mac OSX: Install VMWare Fusion

As a Stanford student, you have access to a free copy of VMWare Fusion. Go to <https://stanford.onthehub.com/WebStore/Welcome.aspx> and navigate to the VMWare Fusion 8 download page under "More Software -> VMWare".

### Windows: Install VMWare Player

VirtualBox has issues handling the USB connection with linux on Windows so we have to instead use VMWare instead. You can install it here: <https://www.vmware.com/products/player/playerpro-evaluation.html>. Run through the installation and enter your email to use the free non-commercial license.

### Importing the Pre-built VM

Ask the course staff for a prebuilt VM image. On VMWare you can install the VM by opening the .OVA file. It may fail initially. In that case click retry to install the image. After installing the VM, launch it and install VMWare's tools through the terminal: `sudo apt-get install open-vm-tools`

User: green-electronics

Password: ee155

The distributed file is 1.3 Gb and will require ~4 Gb on your system after installed. Once installed you can begin development immediately.

The green electronics repository will be installed under in "~/green-electronics". **Make sure to `git pull` to get the latest code.**

Now you are ready to develop!