

Installing the C++ Toolchain

Use the following commands in the terminal to install the C++ toolchain:

```
sudo apt-add-repository ppa:byteit101/frc-toolchain
```

Enter your sudo password and press enter when prompted.

```
sudo apt update
```

This step might take a few minutes.

```
sudo apt install frc-toolchain
```

Installing Eclipse Mars

Download the Eclipse Mars package from <http://www.eclipse.org/downloads/packages/eclipse-ide-cc-developers/mars1> (choose Linux 64-bit on an x86_64 machine, or 32-bit for an x86 machine). Click “Save File” and continue.

The screenshot shows the Eclipse IDE for C/C++ Developers download page. The header includes the Eclipse logo, navigation links (GETTING STARTED, MEMBERS, PROJECTS, MORE), a Google Custom Search bar, and a prominent orange DOWNLOAD button. The breadcrumb trail reads: HOME / DOWNLOADS / PACKAGES / ECLIPSE IDE FOR C/C++ DEVELOPERS. On the left, a 'RELEASES' sidebar lists various package versions from Neon to Europa. The main content area features the Eclipse IDE logo, the title 'Eclipse IDE for C/C++ Developers', a 'Package Description' stating it's an IDE for C/C++ developers with Mylyn integration, and a list of included features: C/C++ Development Tools, Eclipse Git Team Provider, Mylyn Task List, Remote System Explorer, and a link to the Detailed features list. On the right, 'Download Links' are provided for Windows 32-bit, Windows 64-bit, Mac OS X (Cocoa) 64-bit, Linux 32-bit, and Linux 64-bit. The Linux 32-bit and Linux 64-bit links are highlighted with a red box. Below the links, it states 'Downloaded 77,787 Times', a link to 'Checksums...', and a 'Bugzilla' section with a link to 'Open Bugs: 27'. At the bottom, it notes 'Maintained by: Eclipse Packaging Project'.

Then, in the terminal unpack the tar.gz using the following commands.

```
sudo su
```

Escalate user privileges. You will be prompted to input your sudo password.

```
cd /home/<youruser>/Downloads
```

Change your path to the filepath of the download (probable /home/yourusername/Downloads).

```
tar -xzf <filename.tar.gz>
```

Decompress the tar.gz file. This will make a directory called “eclipse” where all the unzipped files are stored.

```
root@dan-linux-pc: /home/dan/Downloads
dan@dan-linux-pc:~$ sudo su
[sudo] password for dan:
root@dan-linux-pc:/home/dan# cd /home/dan/Downloads
root@dan-linux-pc:/home/dan/Downloads# tar -xzf eclipse-cpp-mars-1-linux-gtk-x86_64.tar.gz
root@dan-linux-pc:/home/dan/Downloads#
```

Now there should be a directory in Downloads called “eclipse” with a file called “eclipse” inside. This is the executable file. You can create a shortcut to your desktop using the following process:

Right click “eclipse” and click on “Make Link.” You can move this link to your desktop and rename it to whatever you want.

Before you can run Eclipse, make sure you have a JDK or JRE installed. To install a JDK, execute the following command:

```
sudo apt-get install openjdk-7-jdk
```

Setting up Eclipse:

First thing is you're going to get an error saying that g++ is not linked. First, in the Ubuntu Software Center, install “GNU C++ Compiler”. Then change the following setting:

Window->Preferences->C/C++->Build->Settings->Discovery->CDT GCC Built In Compiler Settings [Shared]

From: \${COMMAND} -E -P -v -dD "\${INPUTS}"

To: /usr/bin/\${COMMAND} -E -P -v -dD "\${INPUTS}"

Next, follow the guide described: <https://wpilib.screenstepslive.com/s/4485/m/13810/1/145002-installing-eclipse-c-java#ConfiguringEclipse> (Starting at Configuring Eclipse).

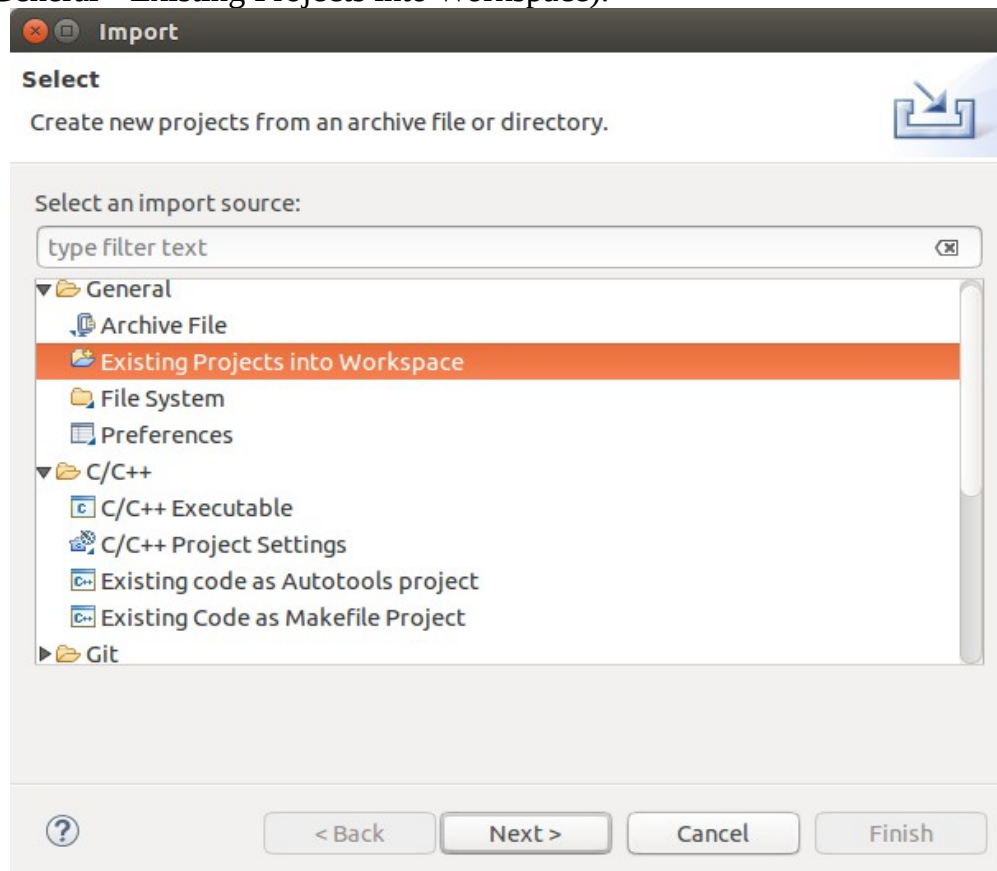
Downloading the github repo:

Go to https://github.com/FRCTeam263/FRC_2015_2016 and click “Download ZIP” on the righthand side.

The screenshot shows the GitHub repository page for **FRCTeam263 / FRC_2015_2016**. The repository has 21 commits, 4 branches, 0 releases, and 2 contributors. The main content area displays a list of files and their commit history. The 'Download ZIP' button is highlighted with a red box.

File	Commit Message	Time
.metadata	Commits after restoring gitignore to near empty.	23 days ago
6 Wheel Drive Code	Added DoubleSolenoid test to ShirtShooter	29 days ago
AtlasPivot	AtlasPivot added printf's to aid doublesolenoid debug	23 days ago
DIO_Test	ShirtShooter added i2c to arduino color light controller	23 days ago
FRC_Earlier	ShirtShooter added i2c to arduino color light controller	23 days ago
RemoteSystemsTempFiles	Changes?	29 days ago
Robotics Led Strip-I2C	ShirtShooter added i2c to arduino color light controller	23 days ago
Robotics Led Strip-Serial	ShirtShooter added i2c to arduino color light controller	23 days ago
ShirtShooter	ShirtShooter fixed lighting effects	23 days ago
TestTalonSrx	ShirtShooter added i2c to arduino color light controller	23 days ago
utilization	Reformat utilization to not omit many files	23 days ago

Unzip the file after the download is finished. Now import the project into Eclipse (File->Import->General->Existing Projects into Workspace).



Now choose the unpacked file's directory as the root directory. Make sure “Search for nested projects” and “Copy projects into workspace” are checked off, click “Select All”, then press finish.

Import Projects

⚠ Some projects will not be imported because they already exist in the workspace

1

☒ Select root directory: /home/dan/Downloads/FRC_2015_2016-master/ **Browse...**

☐ Select archive file: **Browse...**

Projects:

<input type="checkbox"/>	6 Wheel Drive Code (/home/dan/Downloads/FRC_2015_2016-master/6 Wheel Drive Code)
<input type="checkbox"/>	6 Wheel Drive Code (/home/dan/Downloads/FRC_2015_2016-master/6 Wheel Drive Code)
<input type="checkbox"/>	AtlasPlus (/home/dan/Downloads/FRC_2015_2016-master/AtlasPlus)
<input type="checkbox"/>	DIO_Test (/home/dan/Downloads/FRC_2015_2016-master/DIO_Test)
<input type="checkbox"/>	Intermediate Vision (/home/dan/Downloads/FRC_2015_2016-master/Intermediate Vision)
<input type="checkbox"/>	NavX (/home/dan/Downloads/FRC_2015_2016-master/NavX)
<input type="checkbox"/>	Omega (/home/dan/Downloads/FRC_2015_2016-master/Omega)

3

Select All

Deselect All

Refresh

Options

☒ Search for nested projects

☒ Copy projects into workspace

2

☐ Hide projects that already exist in the workspace

Working sets

☐ Add project to working sets

Working sets: **Select...**

4

Finish

< Back **Next >** **Cancel**