This document will have three parts; Downloading and installing Android Studio, setting up Android Studio for FTC, and downloading and installing the FTC SDK (Standard Development Kit).

Downloading and Installing Android Studio:

1. Go to your search engine and look up "Android Studio"
2. Click on "Download Android Studio and SDK Tools" (it should be the first result)
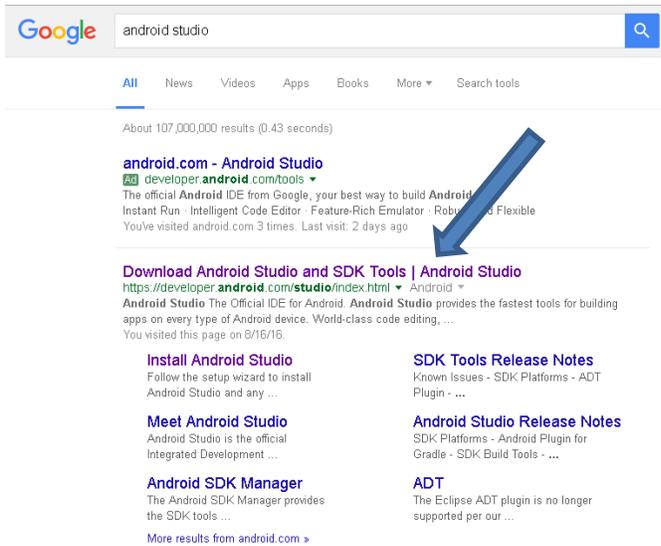
3. If your using Windows, click on the "Download Android Studio [version #] for Windows"
   a. If you're using Mac/Linux, click on "Download Options" (you may have to scroll down a bit). It will bring you to the bottom of the page where you can select the appropriate version to download.
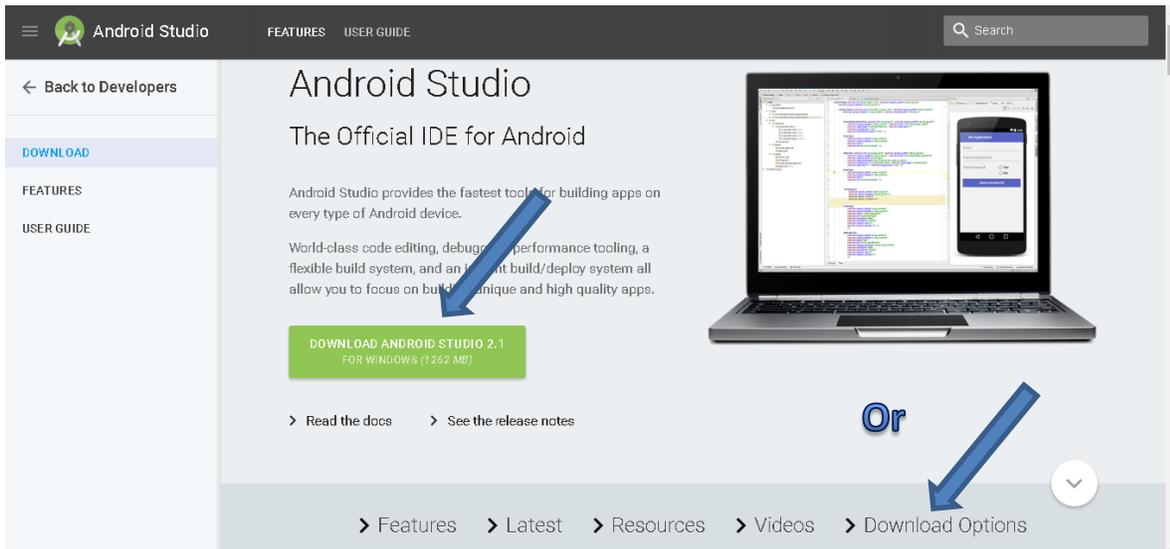
4. Once you click "download", a new window will pop up with the End User License Agreement. Check the box to agree and then click "download". Select where you want to save it, click OK, and Android Studio will start downloading.
5. Once it is finished, go to the folder where you saved it to and open the installer.

6. Follow the installer's instructions to finish installing Android Studio (just click Next -> Next -> Next, but if you're short on disk space, you can uncheck the "Android Virtual Device" option on the "Choose Components" page).

Setting Up Android Studio:

1. Run Android Studio (the last panel of the installation may have started Android Studio for you). The first time you run Android Studio, it will prompt for some configuration options, but the default settings do not need to be changed.
2. At the "Welcome to Android Studio" screen, choose Configure -> SDK Manager.
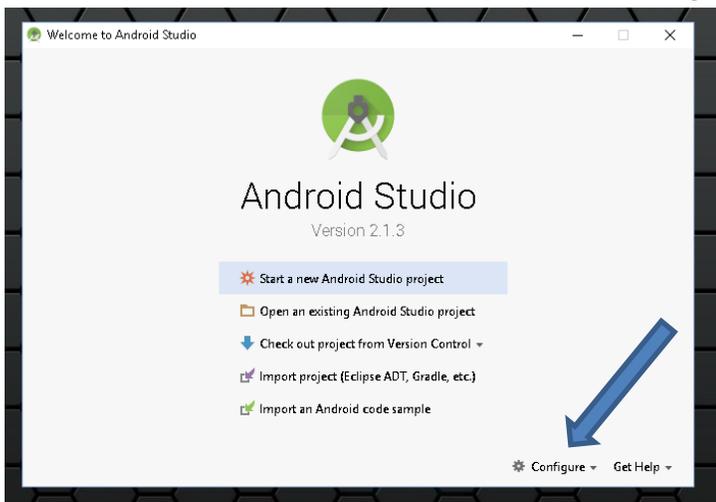
3. Once you are on the "Default Settings" page, click "Launch Standalone SDK Manager"
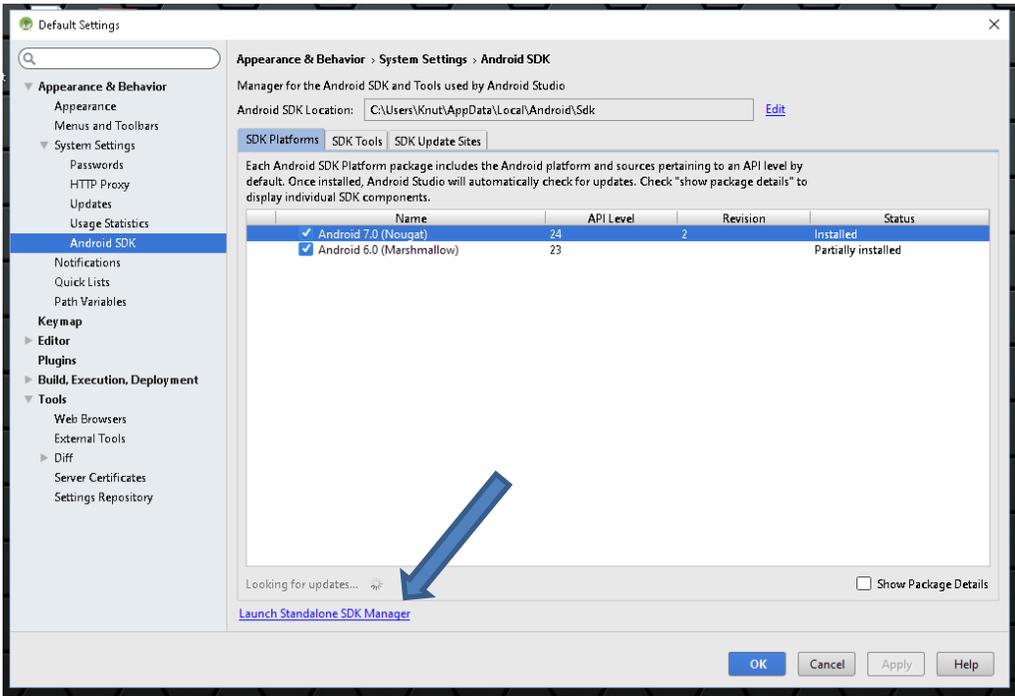
4. Click "Deselect All", then click the checkboxes to add these items:
   a. Tools -> Android SDK Build-tools, revision 21.1.2

   b. Android 4.4.2 (API 19) -> SDK Platform 19, revision 4

   c. Android 4.4.2 (API 19) -> Google APIs (ARM system image) 19, revision 15

   d. Extras -> Google USB Driver, revision 11 (not needed or selectable on Mac OS)

   e. NOTE: If you don't see the items, exit and re-launch the SDK Manager.
   f. IMPORTANT: make sure you put a checkmark in the boxes for "API 19", not a higher or lower version. Android Studio may install other versions by default (which won't cause any problems), but it will NOT install the API 19 versions unless you put a checkmark in these boxes.

5. Click the "Install 4 packages" button, click the "Accept License" button, and then click Install.
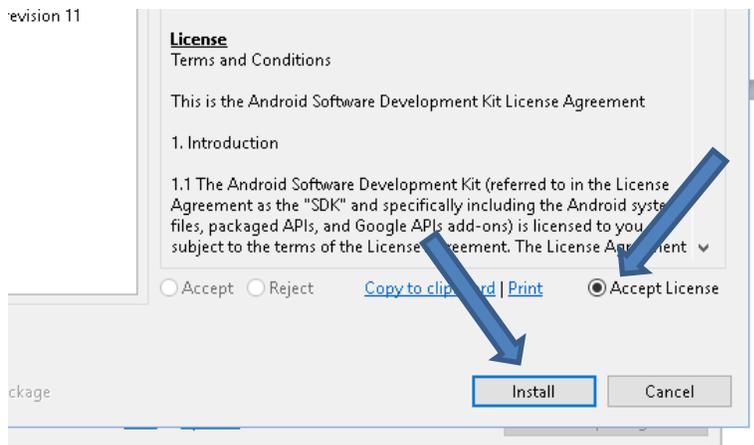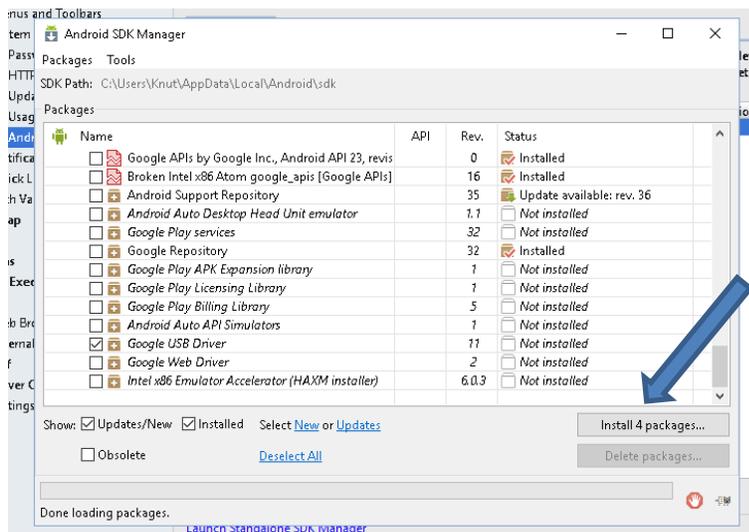
6. After the installation has finished, exit Android Studio.

Downloading and Installing the FTC SDK:

1. Go to the FTC SDK GitHub page here: https://github.com/ftctechnh/ftc_app and click the green "Clone or Download" button and select "Download zip"
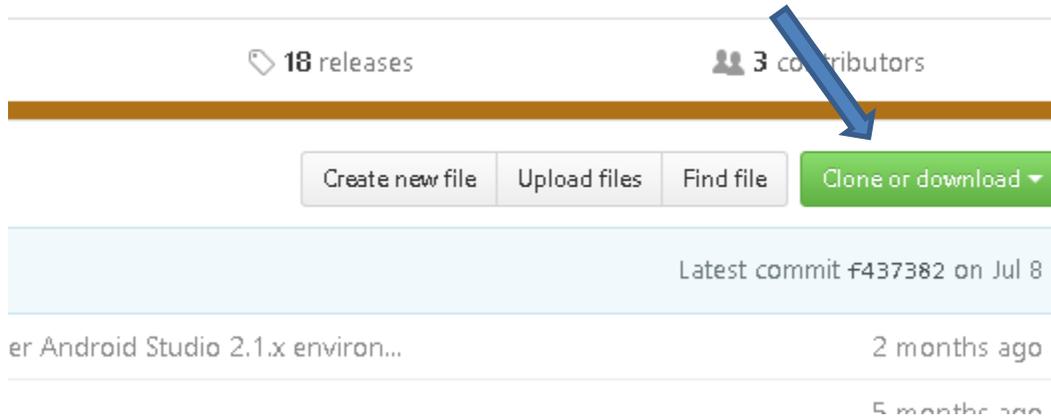
2. Select a place to save, click save, and it will begin downloading.
3. Once it is done downloading, find the folder, open it, and unzip it to a location that will be easily accessible (all you programs will be stored in here).
4. Run Android Studio again and choose "Import project (Eclipse ADT, Gradle, etc)".
5. Find the "ftc_app-master" directory where you unzipped the FTC SDK, then select the "build.gradle" file and click OK.
6. Android Studio will compile. This will take a while, and it will require network access to get some additional files which aren't included in the SDK. When it's done, click the "Gradle Console" button on the bottom right and you should see a line at the end which says, "BUILD SUCCESSFUL".
7. You may need to wait a few minutes before the next two steps will become available; Android Studio indexes the FTC SDK and may not allow you to do any more builds until the indexing is completed. Once the indexing has completed (the status bar line that says "Indexing" will disappear), select the Gradle Scripts node and choose Build -> Make Project.
8. Expand the FtcRobotController node, then browse to the java - com.qualcomm.ftcrobotcontroller - opmodes folder. This has the sample opmodes you can try out if you have a robot built. It also has the FtcOpModeRegister class, which you will need to modify to create your own op modes.
9. To create your own program, go to "file" (top left) and select New -> Java Class. Then name your file, and you're ready to program! (if the Java Class option isn't there, you may need to open one of the sample programs first. Just double click one to open)