

CONTROL CHEAT SHEET

ANDROID STUDIO

What is Android Studio?

Android Studio is an IDE (integrated development environment) for the Android platform.




Getting Android Studio

1. Download the latest version of Android Studio from the Android Studio website.
2. Open the installer, and follow the setup wizard to install needed SDK tools and any other necessary components.

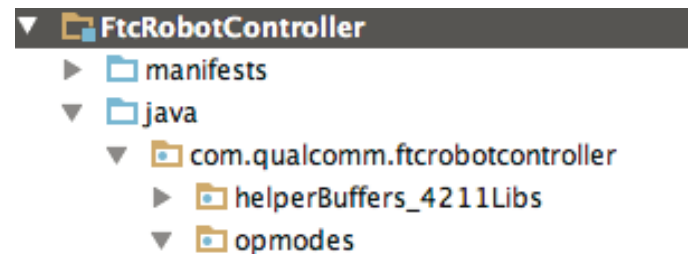
Android Studio will NOT work properly if the required SDKs and other tools are not installed.

Installing More SDK Tools

Sometimes, the setup wizard won't install all of the required tools you need to start using Android Studio. In this case, the program will usually tell you which SDKs you are missing. To install these, click on the SDK Manager icon and find the ones you are missing. 

Once proper setup is completed, download the FTC App from [ftctechnh](#) on GitHub then create a copy of the "FTCRobotController" folder to create your own base code repository.

To begin writing code, open your new repository in Android Studio, and navigate to the "opmodes" folder to find the base files.



Create a copy of any of the base files to begin writing the code for your robot.

FtcOpModeRegister

For any new files you create and want your robot to recognize, you must register them in the FtcOpModeRegister.java file in the opmodes folder.

To register an opmode, enter this code:
`manager.register("FileName", FileName.class);`

To unregister an opmode, simply put `//` in front of the line of code.

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BUG FIXES

Garbage data, unstoppable program, “robot is stopped”, or “unable to find serial port” bugs

Step 1: Close app through the multi-tasking manager.

To do this, hold down the bottom right button on the phone and slide the controller app to the right.

Step 2: Turn off the robot’s power and wait 30 seconds.

If the problem persists...

Restart the robot controller phone.

Check to see if the robot phone, the driver’s station phone and the batteries connected to the robot are fully charged.

“Unable to find serial port” / Can’t find device bug

Step 1: Close app through the multi-tasking manager.

To do this, hold down the bottom right button on the phone and slide the controller app to the right.

Step 2: Turn off the robot’s power and wait 30 seconds.

If the problem persists...

Download the “Core Device Discovery Program” from Modern Robotics’ website.

Plug your laptop into your Core Power Module with a mini-USB to USB type “A” connector (the Device Controller Cable).

Once you press “refresh” in the program, it should say all of the connected modules.

If one of the modules shows up red, it means it is improperly connected. To fix this, turn off the robot’s power for 30 seconds and restart the phones.