**Android OpenCV Configuration Instructions**

**Credits:**

This work is NOT mine originally, I have compiled this document from the following sources:

Stack Overflow post by [Kiran](http://stackoverflow.com/users/1180117/kiran), [jlhonora](http://stackoverflow.com/users/1946861/jlhonora), [ssimm](http://stackoverflow.com/users/5611377/ssimm), and [Wodin](http://stackoverflow.com/users/495319/wodin), see here:

<http://stackoverflow.com/questions/27406303/opencv-in-android-studio>

The OpenCV Organization, see the following:

<http://opencv.org/platforms/android/opencv4android-samples.html>

<https://github.com/opencv/opencv/tree/master/samples/android>

**Instructions:**

Open Android Studio, close a project if you have one open currently, then choose “Start a new Android Studio project”. Name the project “OpenCVTest” or similar, choose company domain, for example “yournamehere.com”, choose you preferred Project location, choose Next.

Check Phone and Tablet, set Minimum SDK to API 19: Android 4.4 (KitKat), and uncheck the other boxes (for Wear, TV, etc.), choose Next.

Choose Empty Activity, choose Next.

You can leave the “Activity Name” as “MainActivity” and the “Layout Name” as “activity\_main”, and leave “Generate Layout File” checked, then choose Finish.

Once Android Studio builds the project, go to activity\_main.xml and change the default TextView text from “Hello World!” to anything else, for example, “My Hello World!” or “Hello World 123”, then run the app on your device to verify it will build and everything is working so far.

Download the latest version of OpenCV for Android, ex. “OpenCV-3.1.0-android-sdk.zip”. The first directory in the .zip will contain only one directory, “OpenCV-android-sdk”. Copy this to the root of your file system, ex. “C:\ OpenCV-android-sdk”, then put the version number in-between OpenCV and android, ex. “OpenCV-3.1.0-android-sdk” so you can use different versions at a later time without the different versions overwriting each other.

Back in Android Studio, choose File -> New -> Import Module . . . Set Source directory to your OpenCV for android sdk, then sdk, then java, ex. “C:\OpenCV-3.1.0-android-sdk\sdk\java”. Android Studio should automatically fill in the “Module name:”, ex. openCVLibrary310. Choose Next.

On the next screen you will get 3 check boxes about replacing .jars with dependencies, replacing library sources with dependencies, and Gradle-style module names, leave these all checked and choose Finish.

At this point you will get Gradle errors, do NOT choose the “Install missing platform(s) and sync project” option, we will fix the Gradle build errors manually in the next steps. If you choose the “Install missing platform(s) and sync project” option, Gradle will do some things to the project that will make it not work later, so do NOT choose this option. If you accidentally chose this option, exit Android Studio, delete the project, and start again from the beginning of these instructions.