|  |  |  |  |
| --- | --- | --- | --- |
|  |  | |  |
| Nervousnet Mobile API’s  How-To build an Android Native Axon App |
|  |  |  | |

|  |
| --- |
| **Overview** This document specifies a How-To step-by-step guide of integrating the nervousnet Mobile Library into your Android Project to use the Mobile API’s.  A Nervousnet Axon Android application is any Android App that uses the nervousnet Mobile API’s to access sensor and other related data from Nervousnet Mobile application. **Prerequisites** Since nervousnet Mobile APIs is based on the Android Services and Android Interface Definition Language (AIDL) it would be good to read and understand how it works at:  <https://developer.android.com/guide/components/services.html>  <https://developer.android.com/guide/components/aidl.html>  For using the nervousnet mobile API’s requires calling a remote interface defined with AIDL  <https://developer.android.com/guide/components/aidl.html#Calling> **Tools**Android Studio**JavaDoc** <https://github.com/nervousnet/nervousnet-android/tree/master/Documents/Technical/Android/APIs>   * + Click on index.html to launch the API documentation in your browser.   + NervousnetRemote Interface lists all API’s that can be used by External Apps.  **Source Code**  1. Nervousnet Project   <https://github.com/nervousnet/nervousnet-android>   1. **Nervousnet Library Project (nervousnetLIB)**   <https://github.com/nervousnet/nervousnet-android/tree/master/MobileClients/Android/nervousnet/nervousnetLIB>   1. **Sample Extension Project (LightMeter, Accelerometer & Noisemeter)**   (Inside GitHub project -> Mobile Clients -> Android -> Sample Extensions -> **\***)  <https://github.com/nervousnet/nervousnet-android/tree/master/MobileClients/Android/SampleExtensions/Lightmeter>  <https://github.com/nervousnet/nervousnet-android/tree/master/MobileClients/Android/SampleExtensions/Accelerometer>  <https://github.com/nervousnet/nervousnet-android/tree/master/MobileClients/Android/SampleExtensions/Noisemeter> **Steps**  1. Include the ***nervousnetLIB*** project as a library project of your Android project.   In Android Studio,:   * + - build.gradle (Project) add:   repositories {  jcenter() }   * + - build.gradle (Module) add:   dependencies {compile **'ch.ethz.coss.nervousnet:nervousnetLIB:0.7.35'**  **}**  \*\*The latest version of the nervousnetLIB can be found at:  <http://jcenter.bintray.com/ch/ethz/coss/nervousnet/nervousnetLIB/>   1. In the manifest file of your Android project define the Nervousnet Permissions:   <**uses-permission android:name="ch.ethz.coss.nervousnet.hub.BIND\_PERM"** />  **(Note:** On some Android Devices using OS 6.0, after installing your Android App/axon, please enable the Bind Perm settings of your App manually from the device settings -> Application Manager -> App Permissions**)**   1. In your main activity implement   ***Interface*** NervousnetServiceConnectionListener and its methods  **public void** onServiceConnected();  **public void** onServiceDisconnected();  **public void** onServiceConnectionFailed(ErrorReading errorReading);   1. To connect to the Nervousnet Service   **nervousnetServiceController** = **new** NervousnetServiceController(YOURACTIVITY.**this**, **this**); **nervousnetServiceController**.connect();   1. Once the service is connected a callback is received inside the method   onServiceConnected()   1. To disconnect from the nervousnet Service call:   **nervousnetServiceController**.disconnect();   1. Once your app is connected to the Nervousnet Service you can use the methods to request for sensor data:    * + ***SensorReading getLatestReading(long sensorType);***      + ***void getReading(long sensorType, RemoteCallback cb);***      + ***void getReadings(long sensorType, long startTime, long endTime, RemoteCallback cb);*** |
| **NOTE: Please look into the Sample Axons Project for Lightmeter to understand a sample implementation** |

# **Google Play Store Links:**

1. Nervousnet Mobile App

[**https://play.google.com/store/apps/details?id=ch.ethz.coss.nervousnet.hub**](https://play.google.com/store/apps/details?id=ch.ethz.coss.nervousnet.hub)

1. **Nervousnet – Sample Native Axon App List**

**LightMeter:** [**https://play.google.com/store/apps/details?id=ch.ethz.coss.nervousnet.extensions.lightmeter**](https://play.google.com/store/apps/details?id=ch.ethz.coss.nervousnet.extensions.lightmeter)

**NoiseMeter:** [**https://play.google.com/store/apps/details?id=ch.ethz.coss.nervousnet.extensions.noisemeter**](https://play.google.com/store/apps/details?id=ch.ethz.coss.nervousnet.extensions.noisemeter)

**Accelometer:** [**https://play.google.com/store/apps/details?id=ch.ethz.coss.nervousnet.extensions**](https://play.google.com/store/apps/details?id=ch.ethz.coss.nervousnet.extensions)**.**