

Calibration Operations Guide

Bubble Level for GlobalMems Gsensor

Introduction

Bubble Level Features

The APK put inside the "setting"

Two kinds of differences apk in source

Revision History

Ver.	Date	Updates	Descriptions
1.0	Feb.25th, 2015	Only support MTK Platform	first Release
1.1	Mar.3th, 2015	UI adjustment	Add button(clear offset)

A. Introduction

Application of GlobalMems Gsensor calibration.

Name	Level
Project Name	Level
Application Name	Level
Package Name	Net.androgames.level
Create Activity	Level.java
Min SDK Version	11

B. Bubble Level Features

1. Install & Run level.apk,
2. First boot, it will trigger GsensorCalibrationBoardCastReceiver..

```
EmSensor.getGsensorCalibration(MTKOffset);
if (MTKOffset[0] != 0 && MTKOffset[1] != 0 && MTKOffset[2] != 0)
    log.e(TAG,"offset existed, Do nothing");
else
    EmSensor.doGsensorCalibration();
```
3. Before Calibration
See Figure 1
Note : Please keep the device in a horizontal desktop.
4. Click Button “Gsensor calibration”
The bubble moves to the center.
See Figure 2
Calibration has been successful at this time.

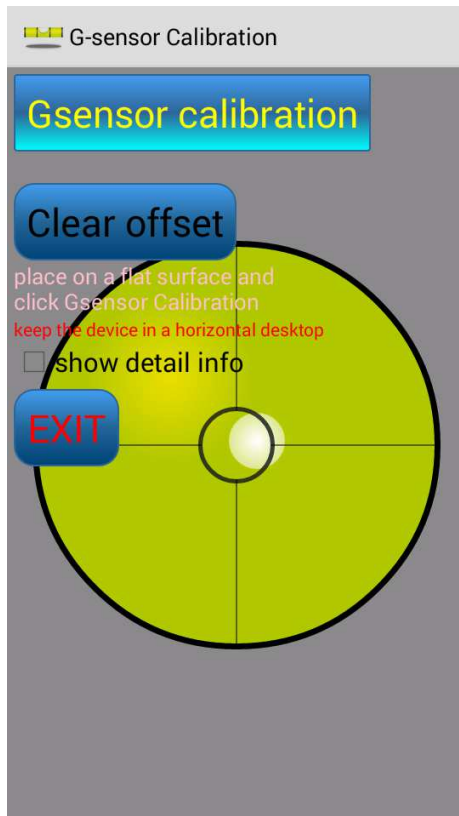


Figure 1(Before calibration)

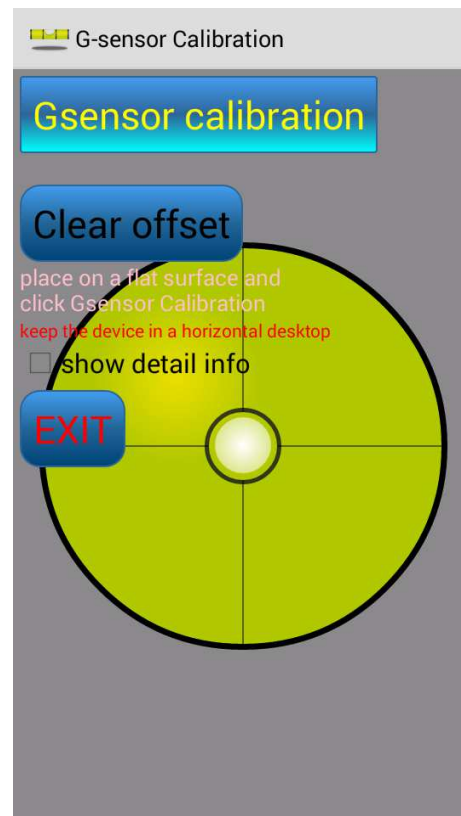


Figure 2(after calibration)

X/Y/Z value of close to 0/0/9.81
And the offset value save to nvram.

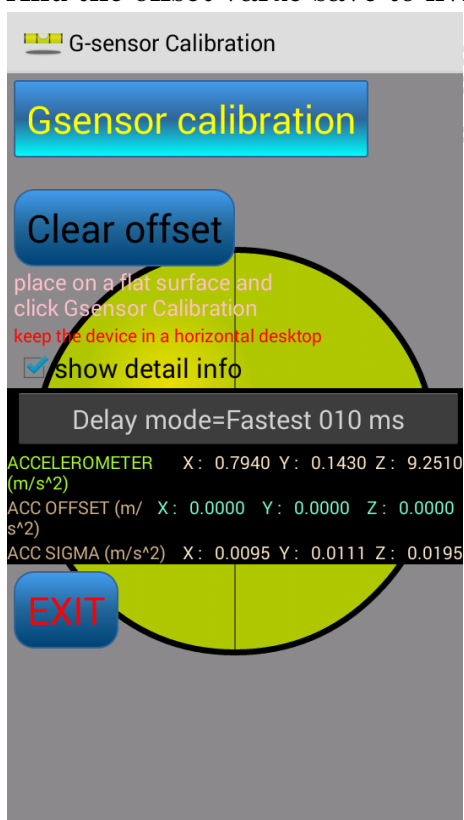


Figure 3(clear offset)



Figure 4(Gsensor calibration)

C. The APK put inside the "setting > display"

The following is placed inside the apk: "setting" > "display"

1. File "\$Android\packages\apps\Settings\res\xml\display_settings.xml"

Add the following code to add an option to perform link "Level"

```
<Preference
    Android:key="accelerometerAdjust"
    Android:title="@string/tscalibration_title">
    <intent
        Android:targetPackage="net.androgames.level"
        Android:targetClass=" net.androgames.level.Level" />
</Preference>
```

2. File "\$Android\packages\apps\Settings\res\values\strings.xml"

Add `<string name="tscalibration_title">Gsensor Calibration</string>`

3. Install Level-mtk_DEFAULT.apk

D. Two kinds of differences apk in source

1. Modify AndroidManifest.xml

```
<category android:name="android.intent.category.LAUNCHER"/>
<category android:name="android.intent.category.DEFAULT"/>
LAUNCHER : The apk on behalf of the show on the desktop icon.
DEFAULT : The apk on behalf of the show in the setting -> display.
```

2. Rebuilding "level.apk", and Install

