

THE BENEFITS OF HAPTIC TACTILE EFFECTS

Immersion's Game SDK makes it easy to design games that user's can feel.

- Increase retention and improve game play
- Incorporate the latest technology in your game design
- Increase playability on mute
- Creates immersive and engaging user experience
- Improve battery consumption over use of basic vibration



ADDITIONAL RESOURCES

Haptic Resource Sample Code
www.immersion.com/haptic/code

Immersion Developer Forum
www.immersion.com/haptic/forum

Mobile Developer's Guide to the Galaxy and
Mobile Developer's Guide to the Parallel Universe:
www.immersion.com/haptic/resources



Android game developers have a vibration control method as good as the console gaming experience! The Immersion Haptic Development Platform provides Android developers with a library of 124 pre-designed haptic effects to make their apps rock, rumble, and roll. From explosions, weapons, collisions, scrolling, clicking, alerts or gesture confirmation effects, the development platform has the perfect haptic effect for your application. Not sure which haptic effect to call from the library? Get the free Haptic Muse effect preview app from Google Play to feel each haptic effect.

To get started all you need is this guide and:

- Immersion's Haptic SDK
- Immersion's Haptic Muse effect preview app

Have questions? Visit the Immersion Developer Site:
developer.immersion.com

Check out our Featured Apps from top developers:
www.immersion.com/haptic/apps



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APPS HAVE FEELINGS TOO*



**well, at least ours do*



HAPTIC Quick Start Guide

How to quickly and easily add
tactile effects to your Android mobile
game.

GET STARTED

1. DOWNLOAD RESOURCES

- Immersion's Haptic SDK
www.immersion.com/haptic/sdk
- Immersion's Haptic Muse
www.immersion.com/haptic/muse



Haptic Muse is a free animated effect preview app (download from Google Play) that illustrates the Haptic SDK's library of 124 pre-designed haptic effects in a gaming context like sports, combat, and casinos.

2. ADD UHL TO ECLIPSE PROJECT

- Extract UHL_x_x_xx.zip
- Copy extracted **liblmmEmulatorJ.so** file to your Eclipse project **libs/armeabi** folder (create folders if necessary)
- In Eclipse, refresh project to see **libs/armeabi/liblmmEmulatorJ.so**
- For ADT 16 or earlier, navigate to **Project > Properties > Build Path**, then under "Libraries" tab, click on **Add External JARs...**, browse and enter the location of the extracted **UHL.jar** file
- For ADT 17 or later, copy **UHL.jar** into your Eclipse project **libs** folder

3. ADD VIBRATE PERMISSION

- Edit the **AndroidManifest.xml** to add the vibrate permission

```
<manifest ... >

    <uses-permission android:name="
        android.permission.VIBRATE" />

</application ... >
```

4. ADD IMPORT STATEMENT

- Import the Launcher class wherever the Launcher will be used

```
import com.immersion.uhl.Launcher;
```

5. ADD LAUNCHER MEMBER

- Add a Launcher member to the main Activity class or other application-wide class

```
private Launcher m_launcher;
```

6. INSTANTIATE LAUNCHER

- Instantiate the Launcher object once, usually in the main Activity onCreate function

```
try
{
    m_launcher = new Launcher(this);
}
catch (RuntimeException e)
{
    Log.e("My App", e.getMessage());
}
```

7. LAUNCH HAPTIC MUSE

- Use the Haptic Muse effect preview app to feel the built-in effects and determine which effect IDs to use in your application.

8. PLAY HAPTIC EFFECT

```
try
{
    m_launcher.play(Launcher.BOUNCE_33);
}
catch (RuntimeException e) {}
```

Use Haptic Muse effect preview app on your target Android phone to choose effect.

9. STOP HAPTIC EFFECT

```
try
{
    m_launcher.stop();
}
catch (RuntimeException e) {}
```

Add this to Activity onPause function in case a phone call is received.

* GIVE IMMERSION CREDIT

- Add "Enhanced with **Tactile Effects from Immersion**" into your Google Play / App Store description.

For detailed information about these steps, visit: immersion.com/haptic/guide