

The Benefits of Tactile Effects

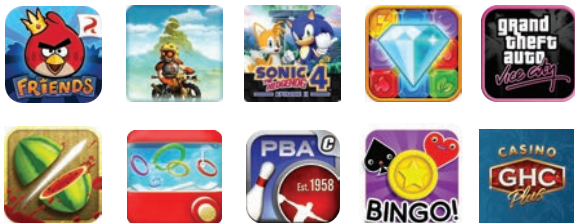
Immersion's TS Gaming SDK makes it easy to design games that user's can feel.

- 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



Games You Can Feel

Check out Google Play's special category featuring games with Immersion's haptic technology: bit.ly/gycf2



At last, Android developers have a vibration control method as good as the console gaming experience! The TS Gaming SDK provides Android developers with a library of 124 pre-designed haptic effects to make their games rock, rumble, and roll. From explosions, weapons, collisions, scrolling, clicking, alerts or gesture confirmation effects, the SDK has the perfect haptic effect for your application. Not sure which haptic effect to call from the library? Get the free Haptic Effect Preview App from Google Play to feel each haptic effect.

To get started all you need is this guide and:

- Immersion's TS Gaming SDK
- Immersion's Haptic Effect Preview App


Have questions? Visit the us at:


immersion.com/mobile-gaming



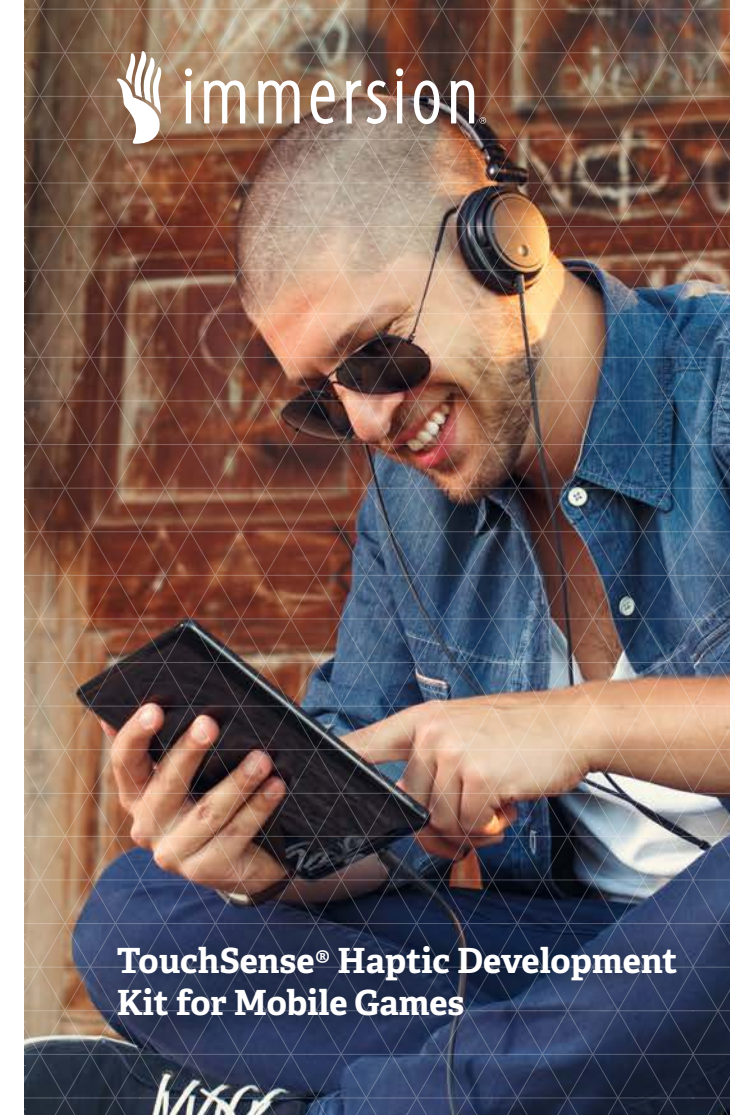
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**TouchSense® Haptic Development
Kit for Mobile Games**

TS GAMING SDK Quick Start Guide

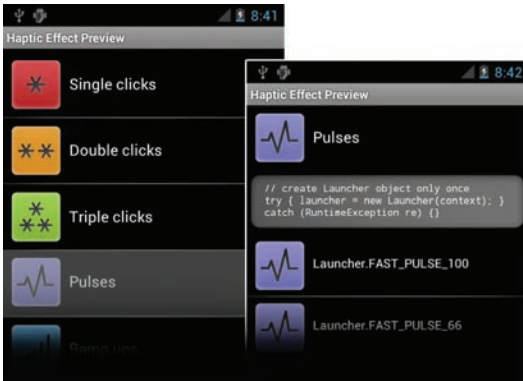
How to quickly and easily add haptics
(tactile effects) to your Android application.

GET STARTED

1

Download Resources

- Immersion's TS Gaming SDK
touchsense.com/developers
- Immersion's Haptic Effect Preview App
bit.ly/haptic-preview-app



The Haptic Effect Preview App is used to preview – or feel – all the haptic effects that are included in Immersion's Gaming SDK. Experience the library of over 120 pre-designed haptic effects prior to implementing it into your application.

2

Add UHL to Application Project

- Extract UHL_x_x_x_x.zip
- Copy **libs/armeabi/libImmEmulatorJ.so** to your project's **libs/armeabi** folder
- Optionally, copy **libs/x86/libImmEmulatorJ.so** to your project's **libs/x86** folder
- Copy **UHL.jar** into your project's **libs** folder

3

Add Android Permissions

- Edit the AndroidManifest.xml to add the vibrate and internet permission

```
<manifest ... >
```

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

```
<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

Create Credentials and Instantiate Launcher

- Create a Credential object to supply your Immersion provided username, password, and DNS
- Instantiate the Launcher object once, usually in the main Activity onCreate function

```
Credential credential =  
    new Credential("username" /*Immersion provided  
        username*/,  
        "password" /*Immersion provided password*/,  
        "dns" /*If provided by Immersion, null otherwise*/);  
  
try {  
    mLauncher = new Launcher(this, credential);  
} catch (Exception e) {  
    Log.e("My App", "Exception!: " + e.getMessage());  
}
```

7

Use Haptic Effect Preview App

- 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 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 Immersion Tactile Effects"* into your Google Play / App Store description.

