Executar ação através do Shaking do Celular

.java

**import** android.hardware.Sensor;  
**import** android.hardware.SensorEvent;  
**import** android.hardware.SensorEventListener;  
**import** android.hardware.SensorManager;

**protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_home***); *//Variáveis Do Sensor* **sm** = (SensorManager) getSystemService(Context.***SENSOR\_SERVICE***);  
 **sm**.registerListener(**sensorListener**, **sm**.getDefaultSensor(Sensor.***TYPE\_ACCELEROMETER***), SensorManager.***SENSOR\_DELAY\_NORMAL***);  
 **acelVal** = SensorManager.***GRAVITY\_EARTH*** ;  
 **acelLast** = SensorManager.***GRAVITY\_EARTH*** ;  
 **shake** = 0.00f ;  
 *//Fim Das Variáveis Do Sensor*}

*//Método Para Identificar o Shake***private final** SensorEventListener **sensorListener** = **new** SensorEventListener() {  
 @Override  
 **public void** onSensorChanged(SensorEvent sensorEvent) {  
 **float** x = sensorEvent.**values**[0] ;  
 **float** y = sensorEvent.**values**[1] ;  
 **float** z = sensorEvent.**values**[2] ;  
  
  
 **acelLast** = **acelVal** ;  
 **acelVal** = (**float**) Math.*sqrt*((**double**) (x\*x + y\*y + z\*z) ) ;  
 **float** delta = **acelVal** - **acelLast** ;  
 **shake** = **shake** \* 0.9f + delta ;  
  
  
 **if** (**shake** > 12) {  
 *//Ação Para Executar Quando o Shake Acontece*  }  
 }  
  
 @Override  
 **public void** onAccuracyChanged(Sensor sensor, **int** accuracy) {  
  
 }  
};