

Acelerômetro - Kotlin

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Layout – Não utilize layout linear.

```
<TextView
  android:id="@+id/lblAcelerometro"
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:text="Hello World!"
  app:layout_constraintBottom_toBottomOf="parent"
  app:layout_constraintHorizontal_bias="0.498"
  app:layout_constraintLeft_toLeftOf="parent"
  app:layout_constraintRight_toRightOf="parent"
  app:layout_constraintTop_toTopOf="parent"
  app:layout_constraintVertical_bias="0.022" />
<Button
  android:id="@+id/btnAceleration"
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  app:layout_constraintBottom_toBottomOf="parent"
  app:layout_constraintHorizontal_bias="0.498"
  app:layout_constraintLeft_toLeftOf="parent"
  app:layout_constraintRight_toRightOf="parent"
  app:layout_constraintTop_toTopOf="parent"
  app:layout_constraintVertical_bias="0.256" />
```

Implemente a interface SensorEvent Listener

```
class MainActivity : AppCompatActivity(), SensorEventListener {
```

Atributos

```
private lateinit var accelerometer: Sensor  
private lateinit var sensorManager: SensorManager
```

On Create

```
override fun onCreate(savedInstanceState: Bundle?) {  
    super.onCreate(savedInstanceState)  
    setContentView(R.layout.activity_main)  
  
    this.sensorManager = getSystemService(Context.SENSOR_SERVICE) as SensorManager  
    sensorManager.getDefaultSensor(Sensor.TYPE_ACCELEROMETER)?.let {  
        this.accelerometer = it  
        sensorManager.registerListener(this, this.accelerometer, SensorManager.SENSOR_DELAY_NORMAL);  
    }  
  
}
```

Métodos da interface

```
override fun onAccuracyChanged(sensor: Sensor?, accuracy: Int) {  
}  
  
override fun onSensorChanged(event: SensorEvent?) {  
    val lblAcelerometro: TextView = findViewById(R.id.lblAcelerometro)  
    val btnAceleration : Button = findViewById(R.id.btnAceleration)  
  
    var x: Float  
    var y: Float  
    var z: Float  
    if (event != null) {  
  
        x = event.values[0]  
        y = event.values[1]  
        z = event.values[2]  
        lblAcelerometro.text = x.toString() + "\n" + y.toString() + "\n" + z.toString()  
        btnAceleration.x -= (x*4)  
        btnAceleration.y -= (y*4)  
        btnAceleration.z -= (z*4)  
  
    }  
}
```