22BCS093

Prithvi C

**PROXIMITY SENSOR**

**AIM :**

**Activity\_main.XML :**

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="#00FF00">

<!-- Title: Proximity Sensor -->

<TextView

android:id="@+id/textViewTitle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Proximity Sensor"

android:textColor="#FF0000"

android:textSize="20sp"

android:layout\_marginTop="20dp"

android:layout\_centerHorizontal="true"/>

<!-- Subtitle: Prithvi C 22BCS093 -->

<TextView

android:id="@+id/textViewSubtitle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Prithvi C 22BCS093"

android:background="#00FF00"

android:textColor="#000000"

android:textSize="16sp"

android:layout\_below="@id/textViewTitle"

android:layout\_marginTop="10dp"

android:layout\_centerHorizontal="true"/>

<!-- Proximity Value -->

<TextView

android:id="@+id/textViewProximity"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Proximity: 0.0"

android:textColor="#000000"

android:layout\_below="@id/textViewSubtitle"

android:layout\_marginTop="20dp"

android:layout\_centerHorizontal="true"/>

</RelativeLayout>

**Main\_activity.java :**

package com.example.exno9;

import android.hardware.Sensor;

import android.hardware.SensorEvent;

import android.hardware.SensorEventListener;

import android.hardware.SensorManager;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity implements SensorEventListener {

private SensorManager sensorManager;

private Sensor proximitySensor;

private TextView textViewProximity;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// Initialize the TextView for proximity value

textViewProximity = findViewById(R.id.textViewProximity);

// Initialize the SensorManager and proximity sensor

sensorManager = (SensorManager) getSystemService(SENSOR\_SERVICE);

if (sensorManager != null) {

proximitySensor = sensorManager.getDefaultSensor(Sensor.TYPE\_PROXIMITY);

}

// Check if the device has a proximity sensor

if (proximitySensor == null) {

textViewProximity.setText("Proximity Sensor not available");

}

}

@Override

protected void onResume() {

super.onResume();

// Register the sensor listener when the activity resumes

if (proximitySensor != null) {

sensorManager.registerListener(this, proximitySensor, SensorManager.SENSOR\_DELAY\_NORMAL);

}

}

@Override

protected void onPause() {

super.onPause();

// Unregister the sensor listener when the activity pauses

sensorManager.unregisterListener(this);

}

@Override

public void onSensorChanged(SensorEvent event) {

// Update the proximity value in the TextView

if (event.sensor.getType() == Sensor.TYPE\_PROXIMITY) {

float proximityValue = event.values[0];

textViewProximity.setText("Proximity: " + proximityValue);

}

}

@Override

public void onAccuracyChanged(Sensor sensor, int accuracy) {

// Handle accuracy changes if needed

}

}

**OUTPUT :**

A green screen with black border

AI-generated content may be incorrect.

**Result :**

Thus a Simple Android Application for Proximity Sensor developed and executed successfully.