

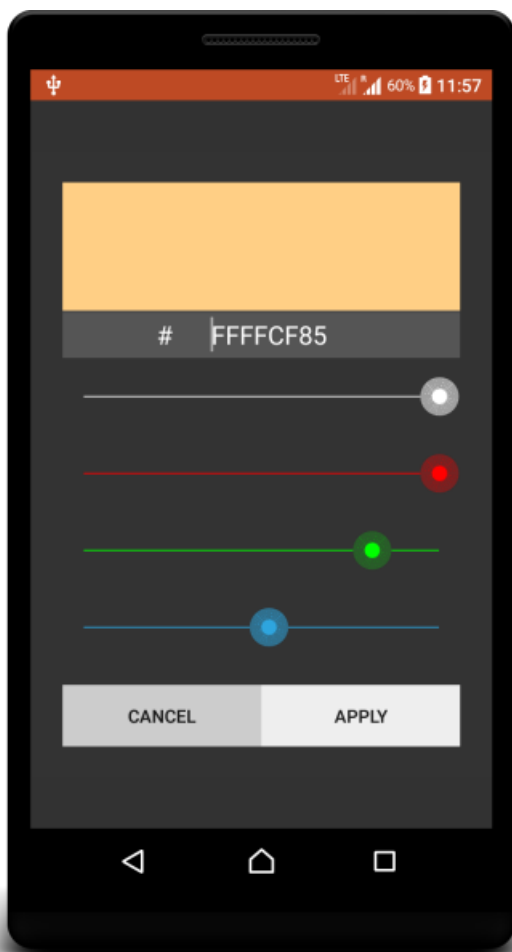
# Kotlin Android – Color Picker – Example

## Kotlin Android – Color Picker

Color Picker is an application, where you can choose specific amounts of Red(R), Green(G), Blue(B) colors and Transparency(A).

In this tutorial, we shall implement a Color Picker using SeekBar and other basic View components of Android. No third party library shall be used. It is a simple Color Picker and you can make your custom changes. For complete source code, scroll to the end of the tutorial.

Following is a sample screenshot of what we are building in this tutorial.



As shown in the above image, there are four seekbars with min value 0 and max value 255 to read the four channels of color (Alpha, Red, Green, Blue). An EditText is available to input color hex value. Preview could be seen in a button at the top.

Your browser does not support the video tag.

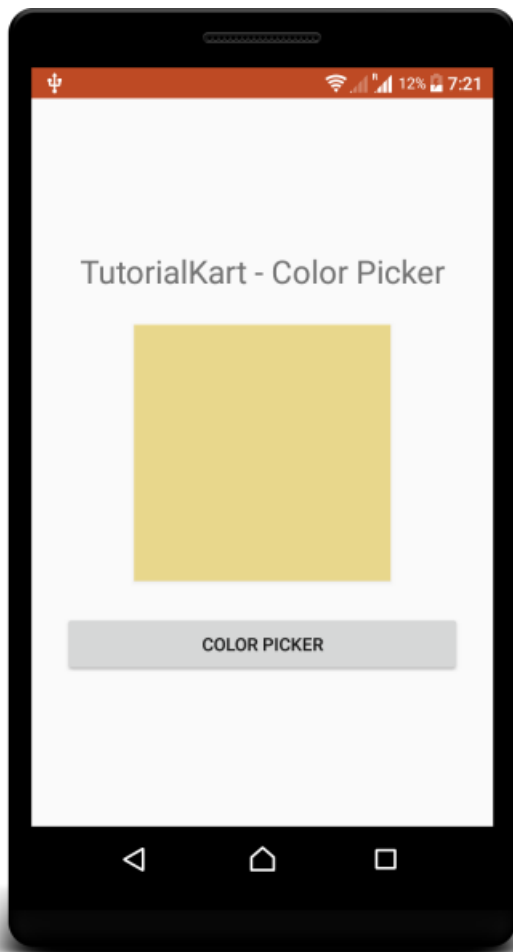
## Steps to Build Color Picker in Android

Following are the steps we followed to build the Kotlin Android – Color Picker presented in this Example.

1. There should be four SeekBar s included for picking Alpha (Transparency), Red, Green and Blue components. As the hex value of a color component ranges from 0..255, take the max value of each SeekBar as 255.
2. An EditText is used to display the complete color's hex value. The same EditText can be used to provide a custom color hex value.
3. A button is provided at the top, to preview the color formed with the values collected from SeekBars or EditText.

## Example – Kotlin Android – Color Picker

In the main activity, we have presented two buttons, one for showing the color and other a regular button. Upon clicking any of the two buttons, color picker layout will appear and you can choose the color by changing the seekbar positions.



Following are the layout and Activity ([Kotlin](#)) files. For resources like drawables which are used for styling seekbars, you can download this whole Android Application using the link provided at the end of this tutorial.

**activity\_main.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <LinearLayout
        android:orientation="vertical"
        android:gravity="center"
        android:layout_width="match_parent"
        android:layout_height="match_parent">
        <TextView
            android:text="TutorialKart - Color Picker"
            android:textSize="25sp"
            android:padding="25sp"
            android:gravity="center"
            android:layout_width="match_parent"
            android:layout_height="wrap_content" />
        <Button
            android:id="@+id/btnColorSelected"
            android:layout_width="200sp"
            android:layout_height="200sp" />
        <Button
            android:id="@+id/btnColorPicker"
            android:layout_margin="25sp"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Color Picker" />
    </LinearLayout>
    <include layout="@layout/colorpicker" />
</RelativeLayout>

```

### colorpicker.xml

```

<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/colorSelector"
    android:visibility="gone"
    android:background="#CC000000"
    android:layout_width="match_parent"
    android:layout_height="match_parent" >
    <LinearLayout
        android:orientation="vertical"
        android:layout_centerVertical="true"
        android:padding="50px"
        android:background="#333333"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <LinearLayout
            android:orientation="vertical"
            android:background="#FFFFFF"
            android:layout_width="match_parent"
            android:layout_height="wrap_content">
            <Button
                android:id="@+id/btnColorPreview"
                android:background="#F00"
                android:layout_width="match_parent"
                android:layout_height="200px" />
        </LinearLayout>
    </LinearLayout>

```

```
        android:gravity="center"
        android:background="#555555"
        android:layout_gravity="center"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <TextView
            android:text="#"
            android:textColor="#FFFFFF"
            android:textSize="20sp"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content" />
        <EditText
            android:id="@+id/strColor"
            android:text="FFFF0000"
            android:textSize="20sp"
            android:maxLength="8"
            android:textColor="#FFFFFF"
            android:background="#555555"
            android:padding="5sp"
            android:imeOptions="actionDone"
            android:textAlignment="center"
            android:layout_width="150sp"
            android:layout_height="wrap_content" />
    </LinearLayout>
</LinearLayout>

<SeekBar
    android:id="@+id/colorA"
    android:padding="30px"
    android:progress="255"
    android:progressDrawable="@drawable/seekbar_a_progress"
    android:thumb="@drawable/seekbar_a_thumb"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />

<SeekBar
    android:id="@+id/colorR"
    android:padding="30px"
    android:progress="255"
    android:progressDrawable="@drawable/seekbar_r_progress"
    android:thumb="@drawable/seekbar_r_thumb"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />

<SeekBar
    android:id="@+id/colorG"
    android:padding="30px"
    android:progress="0"
    android:progressDrawable="@drawable/seekbar_g_progress"
    android:thumb="@drawable/seekbar_g_thumb"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />

<SeekBar
    android:id="@+id/colorB"
    android:padding="30px"
    android:progress="0"
    android:progressDrawable="@drawable/seekbar_b_progress"
    android:thumb="@drawable/seekbar_b_thumb"
    android:layout_weight="0.9"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />
```

```

<LinearLayout
    android:orientation="horizontal"
    android:gravity="center"
    android:layout_marginTop="30px"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <Button
        android:id="@+id/colorCancelBtn"
        android:text="Cancel"
        android:background="#CCCCCC"
        android:layout_weight="0.5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />
    <Button
        android:id="@+id/colorOkBtn"
        android:background="#EEEEEE"
        android:text="Apply"
        android:layout_weight="0.5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />
</LinearLayout>
</LinearLayout>
</RelativeLayout>

```

### MainActivity.kt

```

package com.tutorialkart.colorpicker

import android.app.Activity
import android.graphics.Color
import android.os.Bundle
import android.view.View
import android.widget.SeekBar
import kotlinx.android.synthetic.main.activity_main.*
import kotlinx.android.synthetic.main.colorpicker.*
import android.text.Editable
import android.text.TextWatcher

class MainActivity : Activity() {

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        btnColorPicker.setOnClickListener {
            colorSelector.visibility = View.VISIBLE
        }

        btnColorSelected.setOnClickListener {
            colorSelector.visibility = View.VISIBLE
        }

        strColor.addTextChangedListener(object : TextWatcher {

            override fun afterTextChanged(s: Editable) {
                if (s.length == 6){
                    colorA.progress = 255
                    colorR.progress = Integer.parseInt(s.substring(0..1), 16)
                }
            }
        })
    }
}

```



```

        val colorStr = getColorString()
        strColor.setText(colorStr.replace("#", "").toUpperCase())
        btnColorPreview.setBackgroundColor(Color.parseColor(colorStr))
    }
})

colorCancelBtn.setOnClickListener {
    colorSelector.visibility = View.GONE
}

colorOkBtn.setOnClickListener {
    val color:String = getColorString()
    btnColorSelected.setBackgroundColor(Color.parseColor(color))
    colorSelector.visibility = View.GONE
}
}
fun getColorString(): String {
    var a = Integer.toHexString(((255*colorA.progress)/colorA.max))
    if(a.length==1) a = "0"+a
    var r = Integer.toHexString(((255*colorR.progress)/colorR.max))
    if(r.length==1) r = "0"+r
    var g = Integer.toHexString(((255*colorG.progress)/colorG.max))
    if(g.length==1) g = "0"+g
    var b = Integer.toHexString(((255*colorB.progress)/colorB.max))
    if(b.length==1) b = "0"+b
    return "#" + a + r + g + b
}
}

```

[Download Complete Source Code of this Example Android Application](#)

## Conclusion

In this [Kotlin Android Tutorial](#) – Android **Color Picker**, we have provided the source code to build Color Picker using basic Android View elements an no third party library.

### Getting Started with Android

- ↳ [Kotlin Android Tutorial](#)
- ↳ [Create Android Application with Kotlin Support](#)
- ↳ [Walk Through Android Studio](#)
- ↳ [Convert Java Files to Kotlin Files](#)
- ↳ [Kotlin vs Java](#)
- ↳ [Use Java 8 in Android](#)
- ↳ [Add External Jar to Android Dependencies](#)

### Android TextView

- ↳ [Android TextView](#)
- ↳ [Android TextView - Basic Example](#)
- ↳ [Android TextView - Create programmatically](#)

↳ [Android TextView - OnClickListener](#)

↳ [Android TextView - Justify Text](#)

↳ [Android TextView - Italic](#)

↳ [Android TextView - Bold](#)

## Android Button

↳ [Android - New Button programmatically](#)

↳ [Android Button - OnClickListener](#)

↳ [Android Button - Disable All Caps](#)

↳ [Android Button - Custom Background](#)

↳ [Android Button - Change background programatically](#)

## Android Toast

↳ [Android Toast - Example](#)

## Android EditText

↳ [Android EditText - Create programmatically](#)

↳ [Android EditText - On Text Change - Listener](#)

↳ [Android TextInputLayout - Floating Label in EditText](#)

↳ [Android EditText - Keyboard with only Numbers](#)

↳ [Android EditText - Show/Hide Password](#)

## Android ImageView

↳ [Android ImageView - OnClickListener](#)

## Android Radio Buttons

↳ [Android RadioGroup - RadioButtons Create programmatically](#)

## Android SeekBar

↳ [Android SeekBar - Example](#)

↳ [Android SeekBar Set Custom Range](#)

## Android Intent

↳ [Android - Start Another Activity](#)

↳ [Android - Open URL in Browser Activity](#)

## Android AlertDialog

↳ [Android AlertDialog - Example](#)

## Android WebView

↳ [Android WebView - Example](#)

## Android ProgressBar



## Android ProgressBar

↳ [Kotlin Android - Indeterminate ProgressBar](#)

## Android Snackbar

↳ [Android Snackbar - Example](#)

↳ [Android Snackbar - Set Action](#)

↳ [Android Snackbar - Change Text Color, Background Color](#)

## Android ListView

↳ [Android ListView Example](#)

↳ [Android Refresh ListView](#)

## Android Device Parameters

↳ [Android Get Screen Width and Height Programmatically](#)

## Android Canvas

↳ [Draw Rect / Oval to Canvas](#)

↳ [Android Draw Circle Border](#)

↳ [Android Draw SVG to Canvas](#)

## Android Programming - Other

↳ [Android - Access View Programmatically using findViewById](#)

↳ [Android runOnUiThread](#)

## Android Game Development

↳ [Android Game Development](#)

↳ [Detect Collisions between two Sprites \(Bitmaps\)](#)

## Android Text To Speech

↳ [Android Text To Speech - Kotlin Example](#)

## Fix Errors

↳ [Android - Minimum supported Gradle version](#)

↳ [Android - All support libraries must use the exact same version specification](#)

## Example Applications

↳ [Android - Login Form](#)

↳ [Android - Color Picker](#)

↳ [Kotlin Android Game Development](#)

## Kotlin - Java

↳ [Kotlin Tutorial](#)

## Useful Resources

▸ [How to Learn Programming](#)