

Making Your Custom View Interactive



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ANDROID ARCHITECT

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Overview



Handling motion events

Making the color dial interactive

Tying it all together



Handling Motion Events



Touch Event



Touch Event



onTouchEvent()

```
override fun onTouchEvent(event: MotionEvent): Boolean {  
}
```



onTouchEvent()

MotionEvent

X,Y Position

Action

ACTION_DOWN

ACTION_MOVE

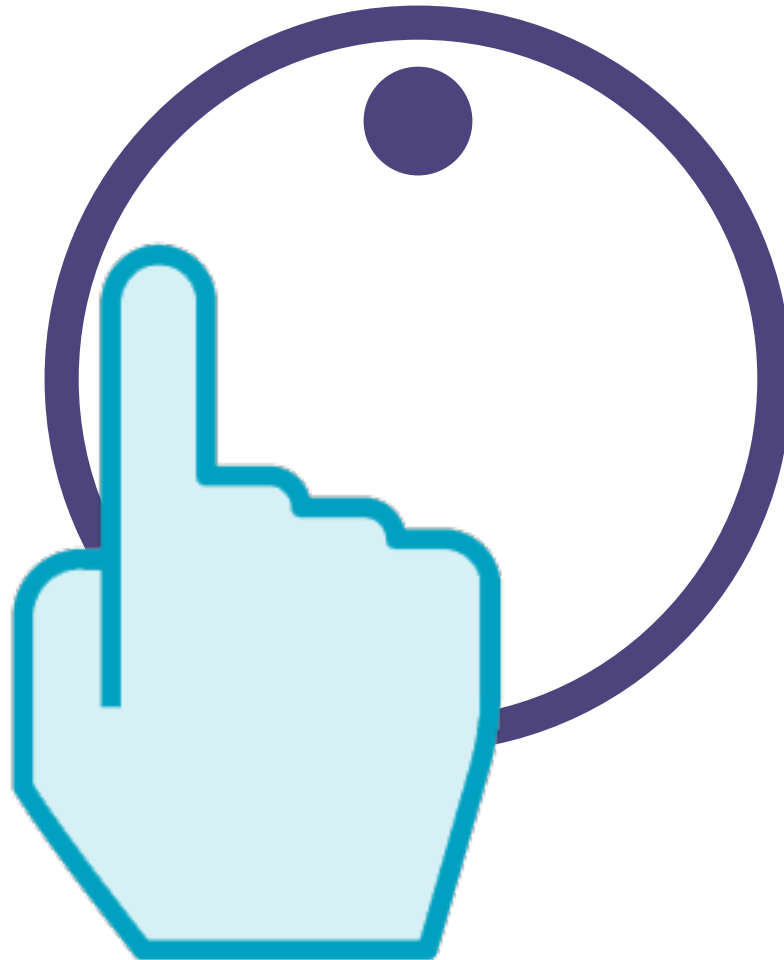


onTouchEvent()

```
override fun onTouchEvent(event: MotionEvent): Boolean {  
}
```



Dial Touch Events



Touch Event



ACTION_DOWN

ACTION_MOVE

ACTION_UP



Touch Event

X, Y Position



ACTION_DOWN

X, Y Position

ACTION_MOVE

ACTION_UP



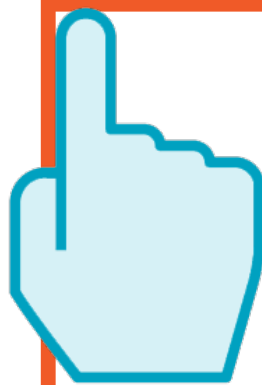
Coordinates

(0,0)

(100,0)

X: 0

Y: 0

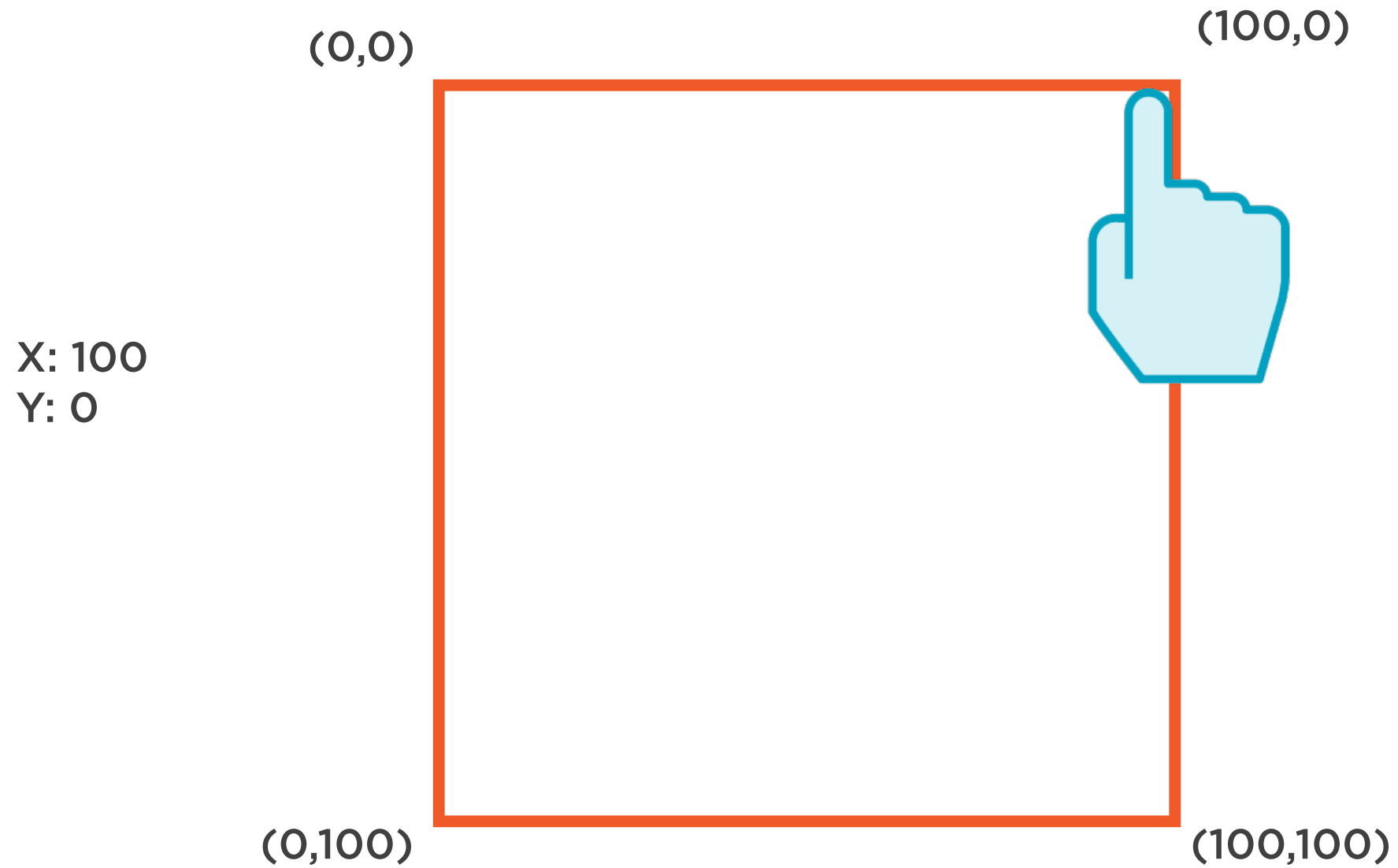


(0,100)

(100,100)



Coordinates



Coordinates

(0,0)

(100,0)

X: 0
Y: 100

(0,100)

(100,100)



Coordinates

(0,0)

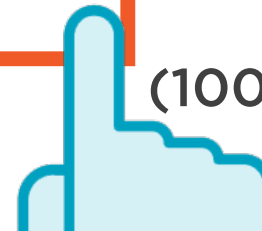
(100,0)

X: 100

Y: 100

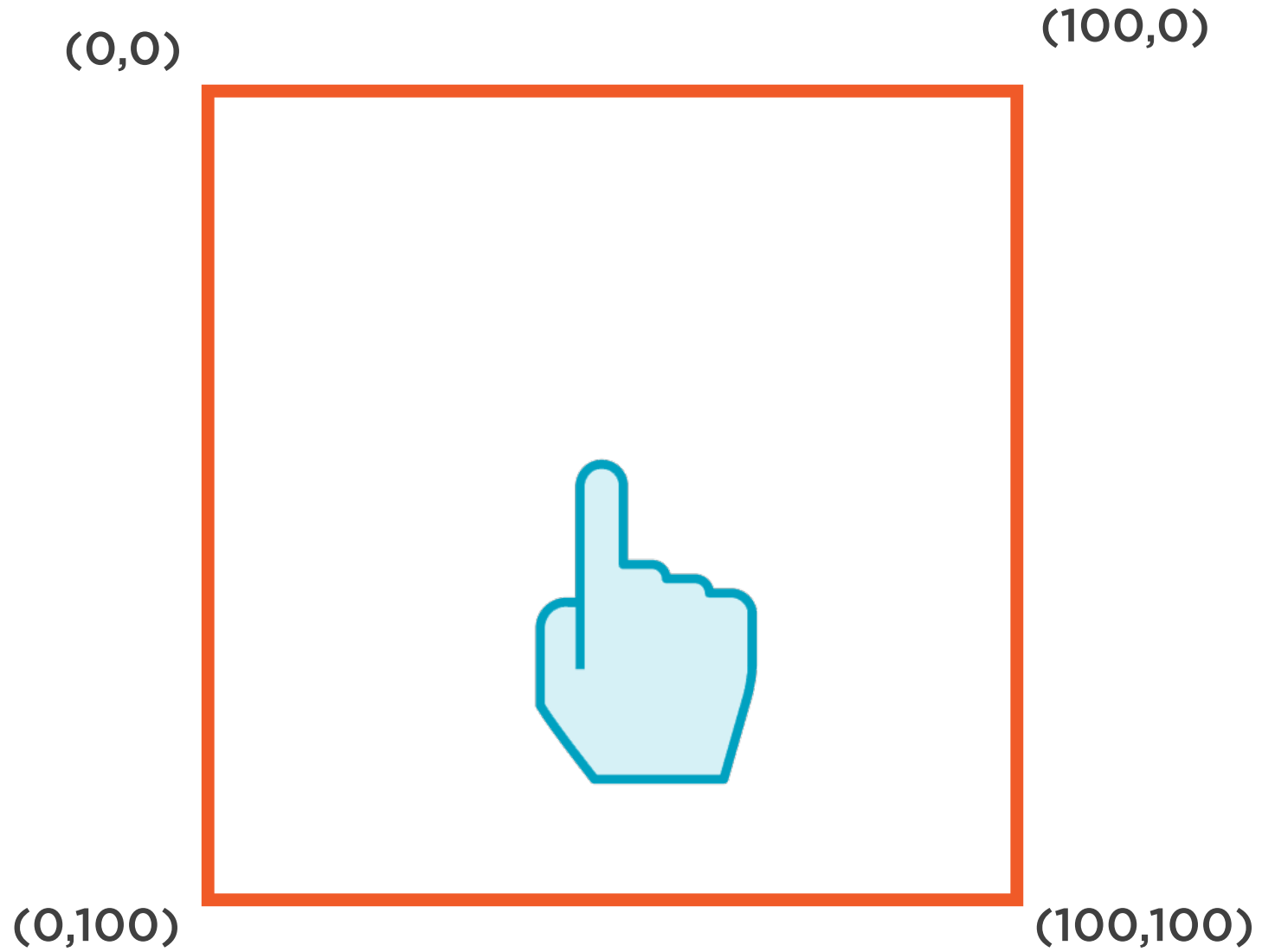
(0,100)

(100,100)



Coordinates

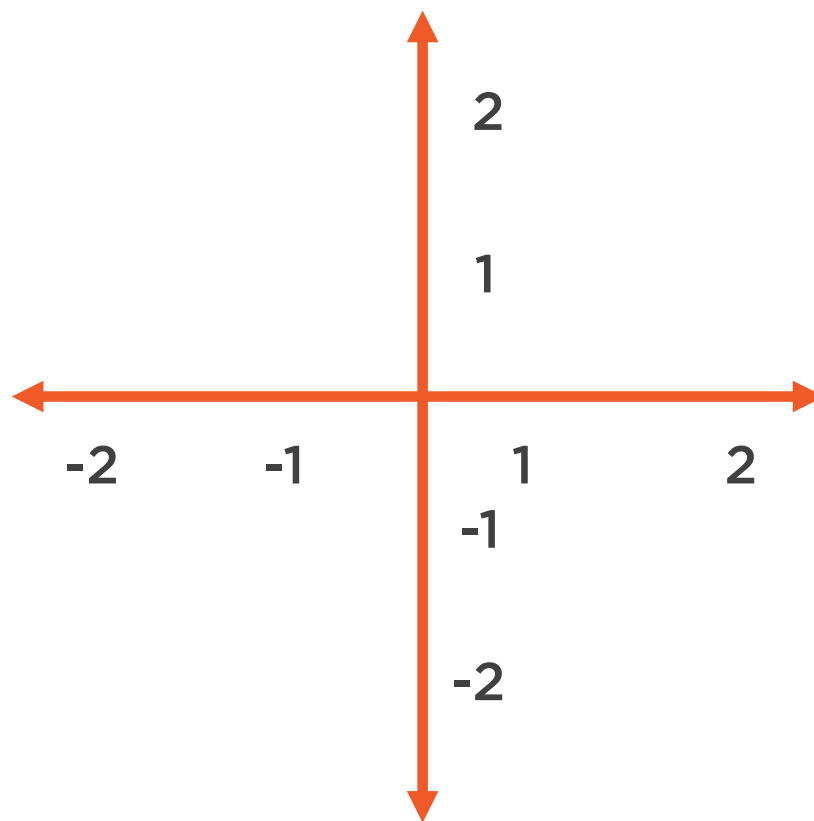
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Y: 50



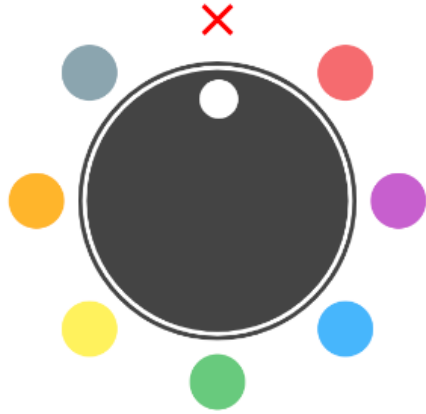
Cartesian Coordinates



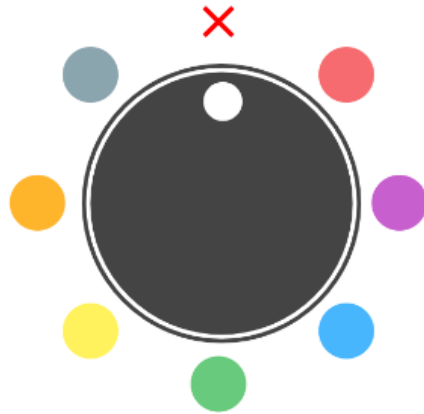
Cartesian Coordinates



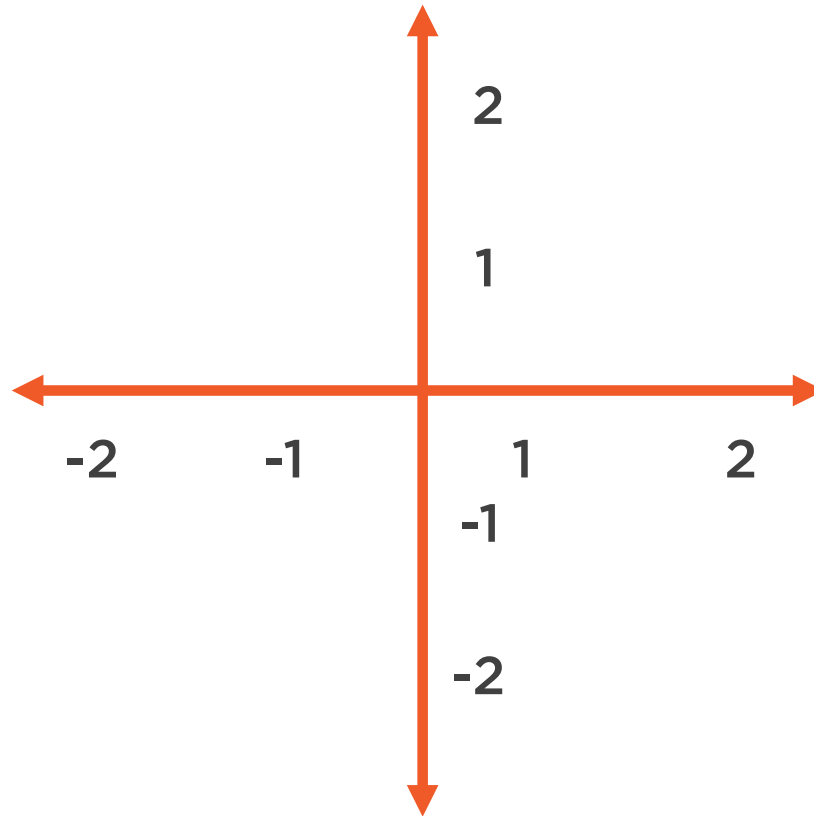
Cartesian Coordinates



Cartesian Coordinates



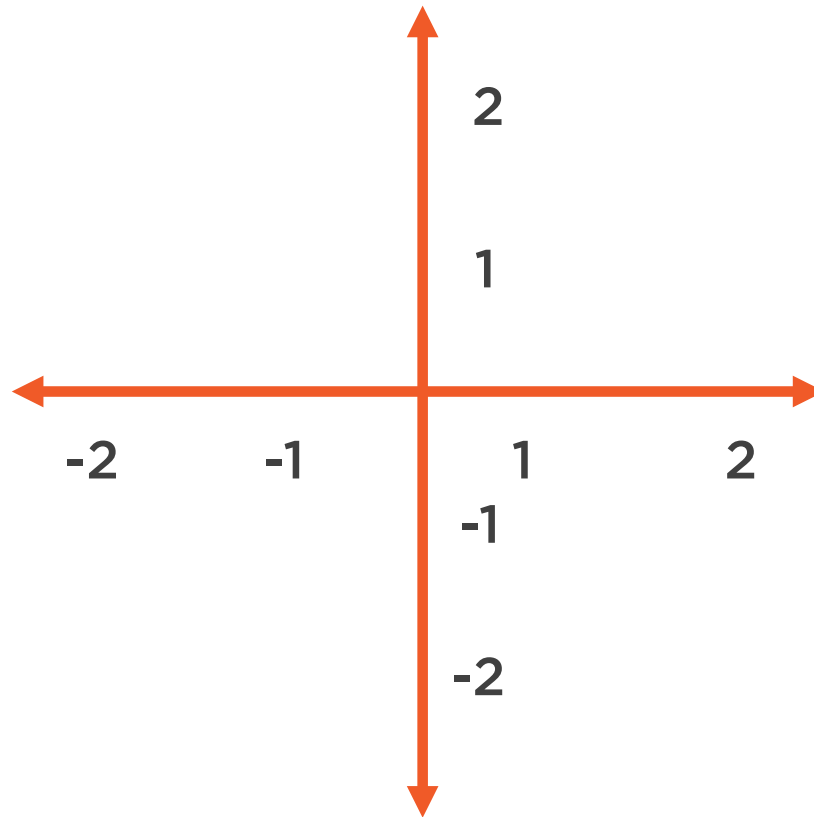
Cartesian to Polar



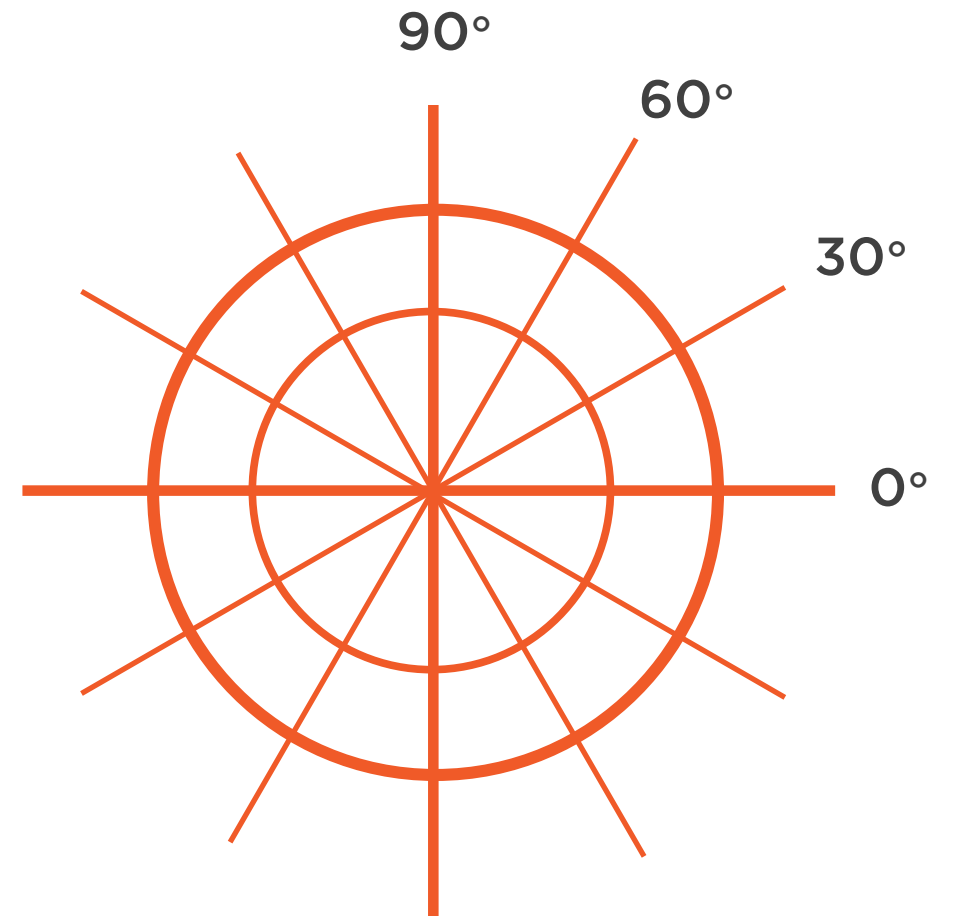
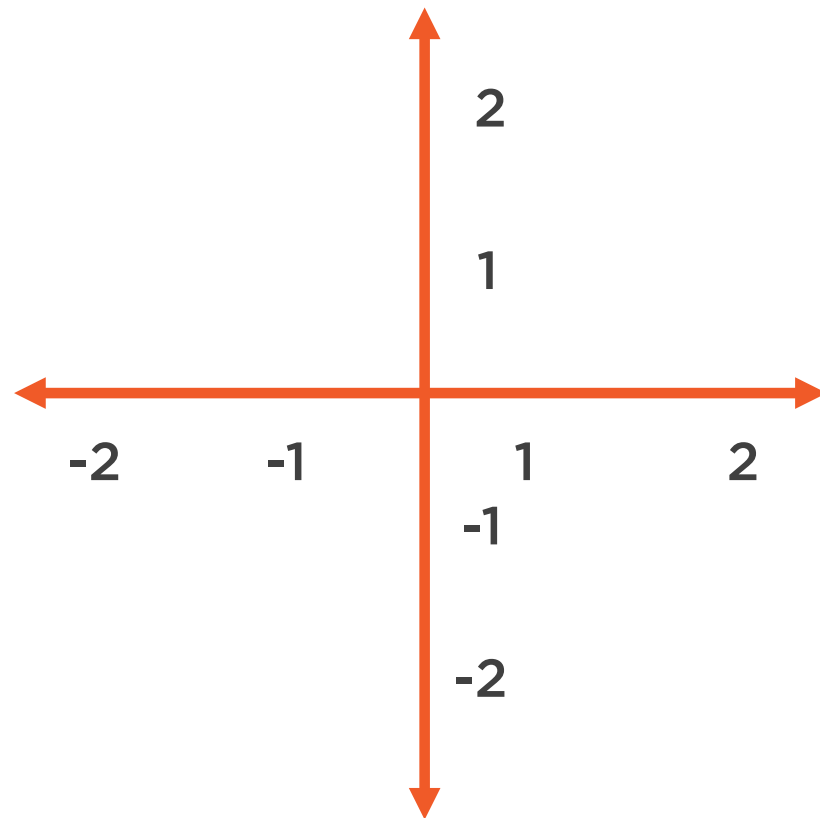
Polar Coordinates



Cartesian to Polar



Cartesian to Polar



Coordinates

(0,0)

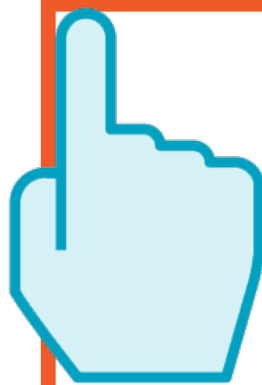
(100,0)

X: 0

Y: 0

(0,100)

(100,100)



Cartesian Coordinates



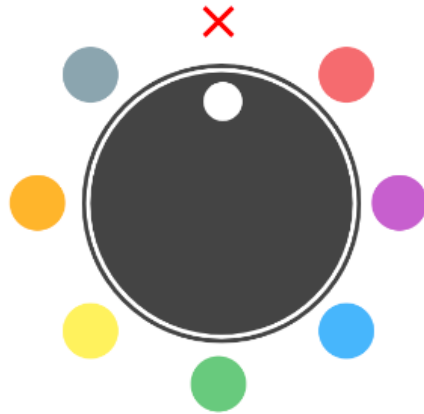
Making the Color Dial Interactive



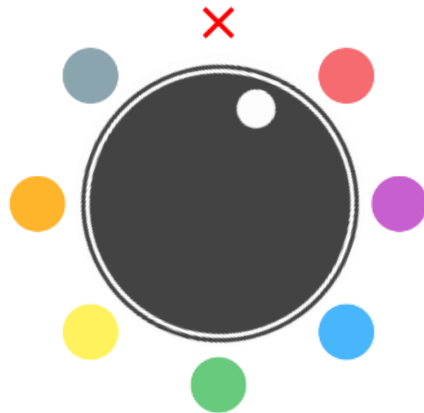
<Live Coding>



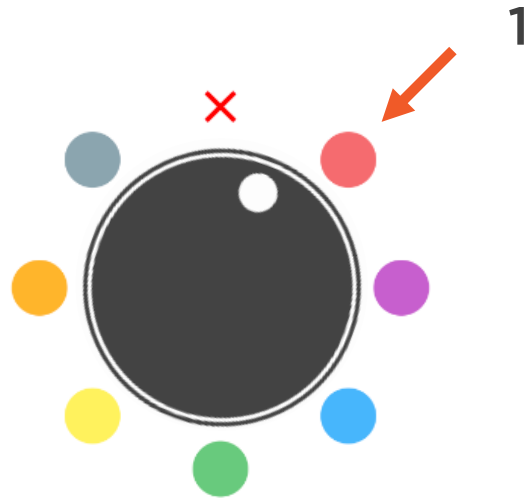
Snap to Angle



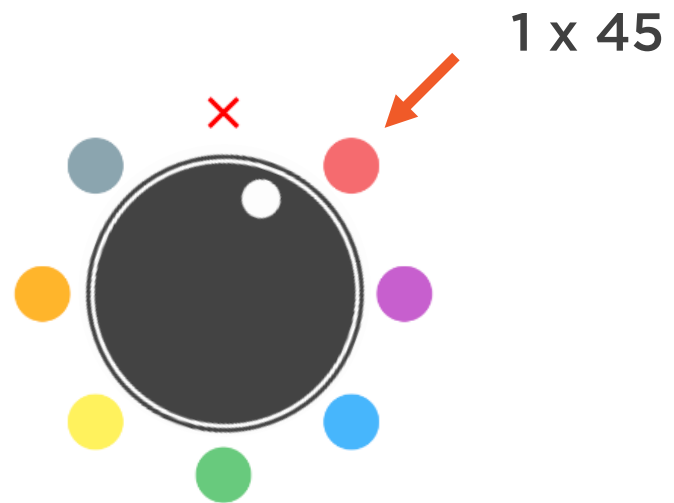
Snap to Angle



Snap to Angle



Snap to Angle



<Live Coding>



Coordinates

(0,0)

(100,0)

X: 0

Y: 0

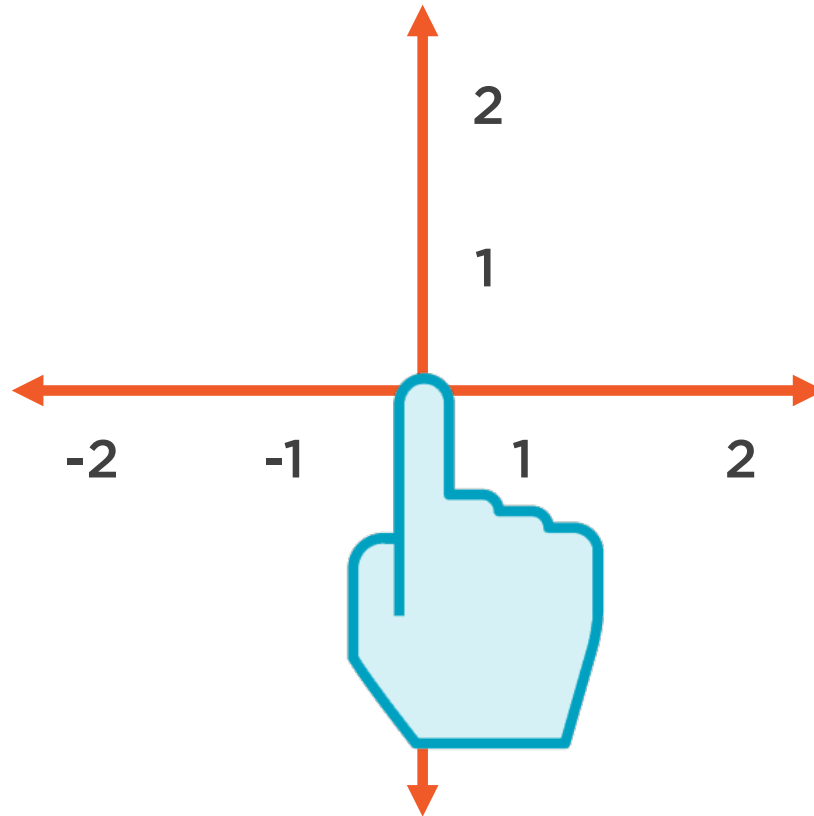


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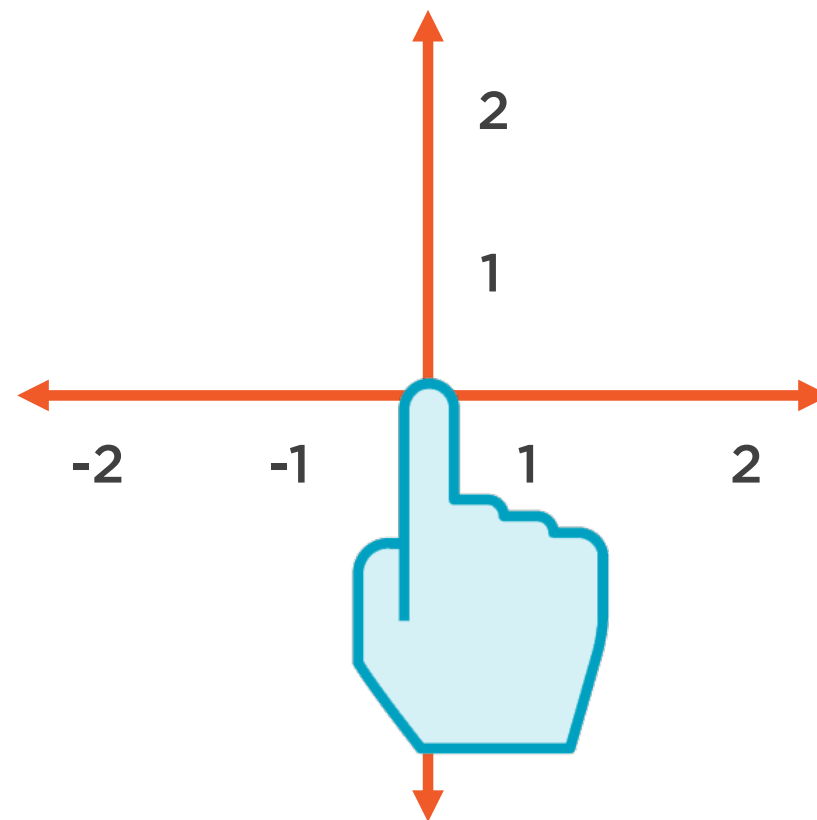
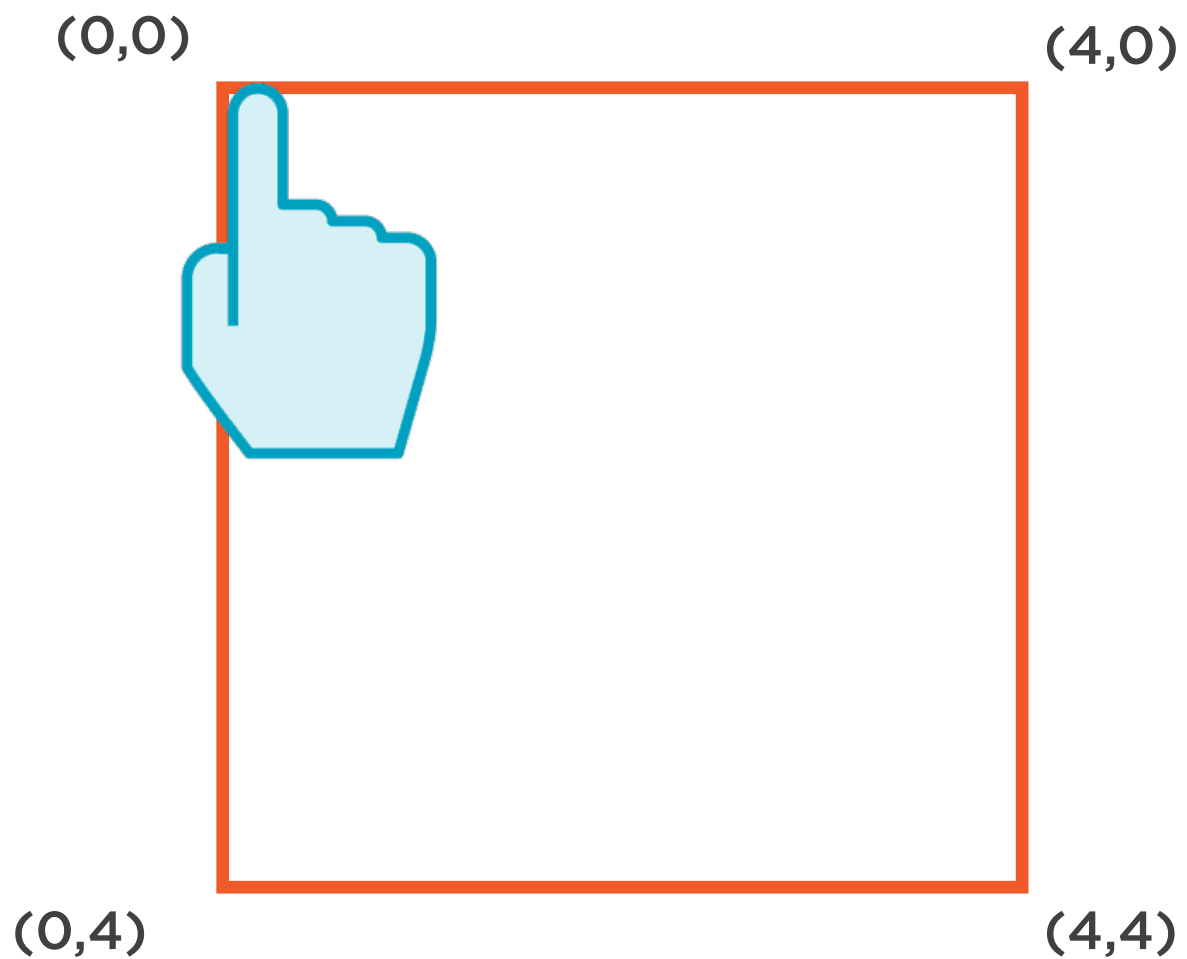
(100,100)



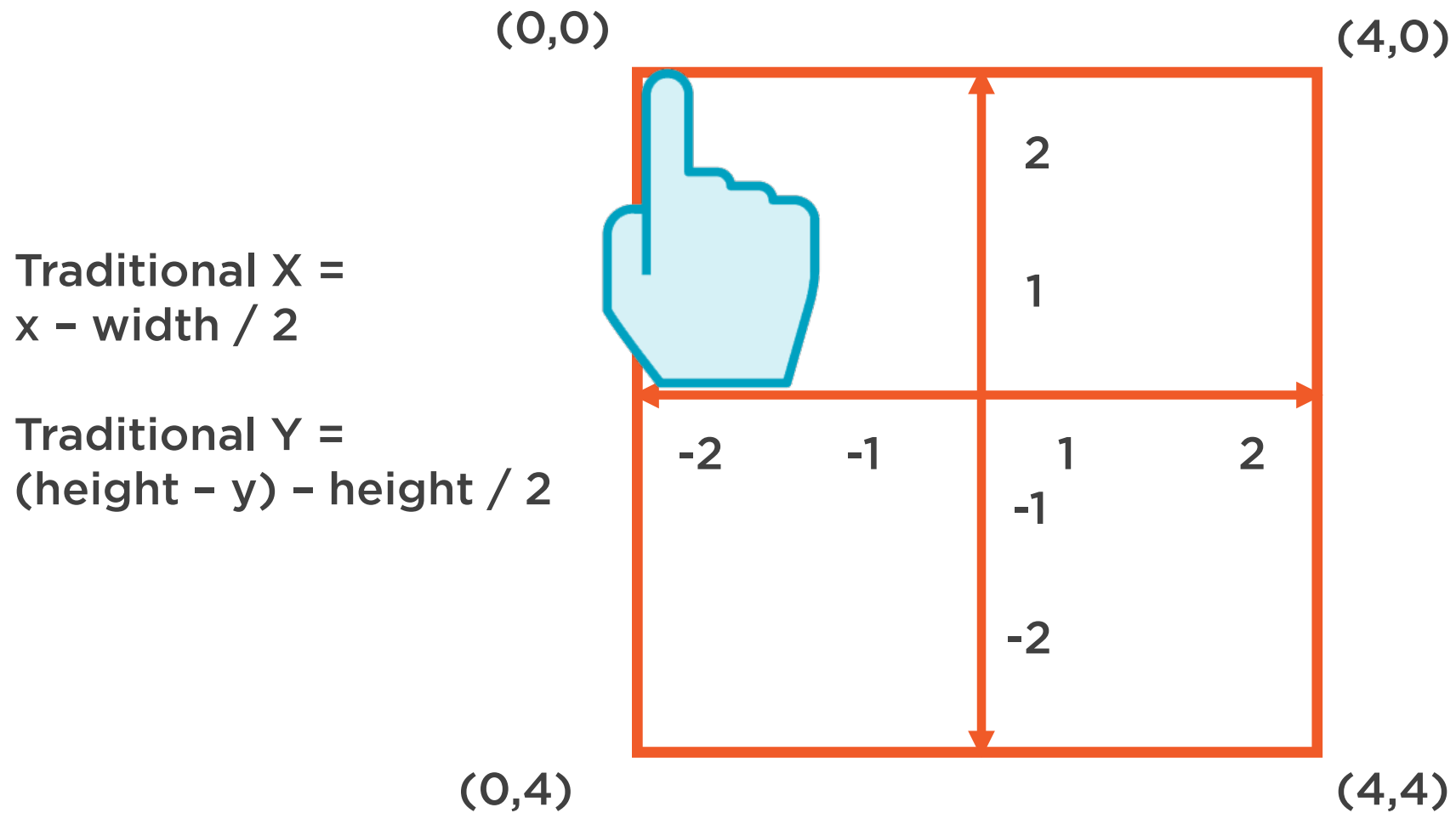
Cartesian to Polar



Cartesian to Polar



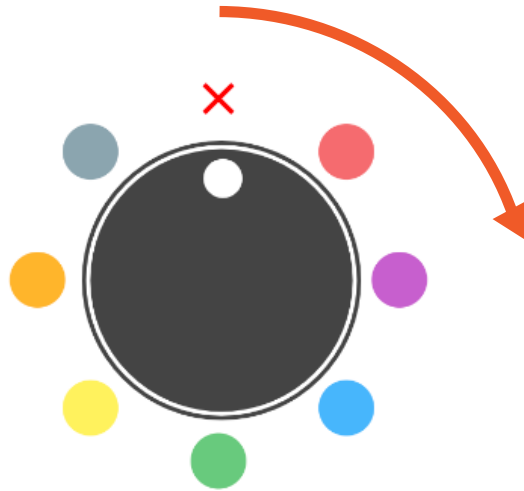
Cartesian to Polar



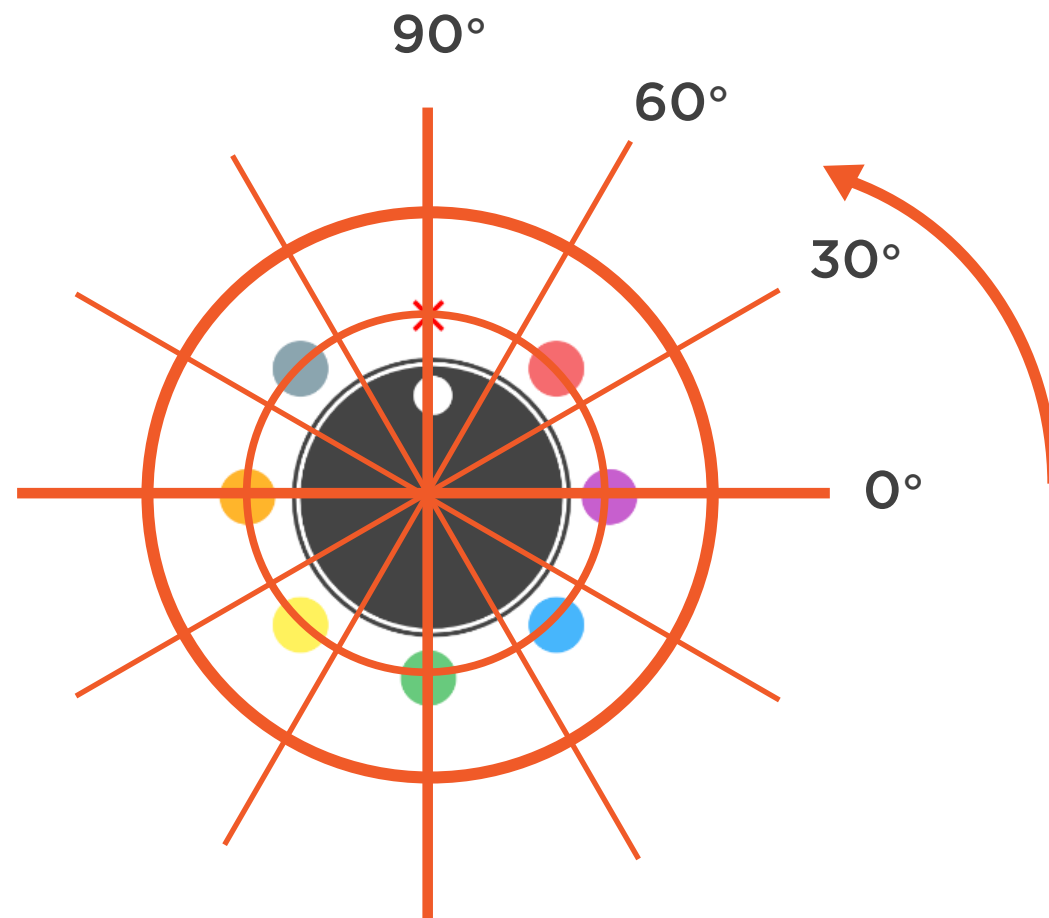
<Live Coding>



Angles



Angles



<Live Coding>



Tying It All Together



<Live Coding>



Summary



Handling motion events

Making the color dial interactive

Tying it all together



Summary



Creating compound components

Extending views

Creating custom views

Custom view positioning and sizing

Making your custom view interactive



Thank You!



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