


Create: Use your new skills with event handlers to code your own cool project!

When you're finished with your project, move on to the **next chapter**.

```
let key1 = Graphic(image: ●)
let key2 = Graphic(image: ●)
let key3 = Graphic(image: ●)
let key4 = Graphic(image: ●)
let key5 = Graphic(image: ●)
let key6 = Graphic(image: ●)
let key7 = Graphic(image: ●)
let key8 = Graphic(image: ●)
let key9 = Graphic(image: ●)
let key10 = Graphic(image: ●)
let key11 = Graphic(image: ●)
let key12 = Graphic(image: ●)
let key13 = Graphic(image: ●)
let key14 = Graphic(image: ●)
let key15 = Graphic(image: ●)
let key16 = Graphic(image: ●)
let key17 = Graphic(image: ●)
let key18 = Graphic(image: ●)
let key19 = Graphic(image: ●)
let key20 = Graphic(image: ●)
let key21 = Graphic(image: ●)
let key22 = Graphic(image: ●)
let key23 = Graphic(image: ●)
let theOrigin = Point(x: 0, y: 0)
scene.place(key1, at: Point(x: -450, y: 450))
scene.place(key2, at: Point(x: -346, y: 450))
scene.place(key3, at: Point(x: -242, y: 450))
scene.place(key4, at: Point(x: -138, y: 450))
scene.place(key5, at: Point(x: -34, y: 450))
scene.place(key6, at: Point(x: 70, y: 450))
```

```
scene.place(key7, at: Point(x: 165, y: 450))
scene.place(key8, at: Point(x: 256, y: 450))
scene.place(key9, at: Point(x: 346, y: 450))
scene.place(key10, at: Point(x: 450, y: 450))
scene.place(key11, at: Point(x: -450, y: 300))
scene.place(key12, at: Point(x: -346, y: 300))
scene.place(key13, at: Point(x: -242, y: 300))
scene.place(key14, at: Point(x: -138, y: 300))
scene.place(key15, at: Point(x: -34, y: 300))
scene.place(key16, at: Point(x: 70, y: 300))
scene.place(key17, at: Point(x: 165, y: 300))
scene.place(key18, at: Point(x: 256, y: 300))
scene.place(key19, at: Point(x: 346, y: 300))
scene.place(key20, at: Point(x: 450, y: 300))
scene.place(key21, at: Point(x: 256, y: 150))
scene.place(key22, at: Point(x: 346, y: 150))
scene.place(key23, at: Point(x: 450, y: 150))
scene.backgroundImage = 
```

```
// Event handler for Music tool.
```

```
func musicalGraphic(graphic: Graphic) {

    // Play a note for Blu.
    if graphic == key1 {
        playInstrument(.piano, note: 1, volume: 50)
    }
    if graphic == key2 {
        playInstrument(.piano, note: 2, volume: 50)
    }
    if graphic == key3 {
        playInstrument(.piano, note: 3, volume: 50)
    }
    if graphic == key4 {
```

```
    playInstrument(.piano, note: 4, volume: 50)
}
if graphic == key5 {
    playInstrument(.piano, note: 5, volume: 50)
}
if graphic == key6 {
    playInstrument(.piano, note: 6, volume: 50)
}
if graphic == key7 {
    playInstrument(.piano, note: 7, volume: 50)
}
if graphic == key8 {
    playInstrument(.piano, note: 8, volume: 50)
}
if graphic == key9 {
    playInstrument(.piano, note: 9, volume: 50)
}
if graphic == key10 {
    playInstrument(.piano, note: 10, volume: 50)
}
if graphic == key11 {
    playInstrument(.piano, note: 11, volume: 50)
}
if graphic == key12 {
    playInstrument(.piano, note: 12, volume: 50)
}
if graphic == key13 {
    playInstrument(.piano, note: 13, volume: 50)
}
if graphic == key14 {
    playInstrument(.piano, note: 14, volume: 50)
}
if graphic == key15 {
```

```
    playInstrument(.piano, note: 15, volume: 50)
}
if graphic == key16 {
    playInstrument(.piano, note: 16, volume: 50)
}
if graphic == key17 {
    playInstrument(.piano, note: 17, volume: 50)
}
if graphic == key18 {
    playInstrument(.piano, note: 18, volume: 50)
}
if graphic == key19 {
    playInstrument(.piano, note: 19, volume: 50)
}
if graphic == key20 {
    playInstrument(.piano, note: 20, volume: 50)
}
if graphic == key21 {
    playInstrument(.piano, note: 21, volume: 50)
}
if graphic == key22 {
    playInstrument(.piano, note: 22, volume: 50)
}
if graphic == key23 {
    playInstrument(.piano, note: 23, volume: 50)
}
// unneeded code
if graphic.text == "🐨" {
    playSound(.walrus, volume: 75)
}
if graphic.text == "👁️" {
    playInstrument(.electricGuitar, note: 12, volume: 50 )
}
```

```

if graphic.text == "" {
    playInstrument(.piano, note: 9, volume: 50 )
}
if graphic.text == "🍊" {
    playInstrument(.piano, note: 14, volume: 50 )
}
if graphic.text == "🍋" {
    playInstrument(.piano, note: 16, volume: 50 )
}
}

```

// Needed Code

```

func addDraw(touch: Touch) {
    if touch.previousPlaceDistance < -3.5 { return }
    let Draw = "🎨".componentsByCharacter()
    let graphic = Graphic(text: Draw.randomItem)
    scene.place(graphic, at: touch.position)
    graphic.scale = 1
    var index = 0
}

func addWalrus(touch: Touch) {
    if touch.previousPlaceDistance < 200 { return }
    var walrus1 = Graphic(image: 🐨)
    scene.place(walrus1, at: touch.position)
    walrus1.scale = 1
    var index = 0
}

```

```

let drawTool = Tool(name: "Draw", emojiIcon: "🖍️")
drawTool.onFingerMoved = addDraw(touch:)
scene.tools.append(drawTool)

```

```
let walrusTool = Tool(name: "Walrus", emojiIcon: "🦨")
walrusTool.onFingerMoved = addWalrus(touch:)
scene.tools.append(walrusTool)
```

```
let musicTool = Tool(name: "Music", emojiIcon: "🎵")
musicTool.onGraphicTouched = musicalGraphic(graphic:)
scene.tools.append(musicTool)
```