



SpriteKit

SpriteKit for those who know UIKit



Daniel Lima



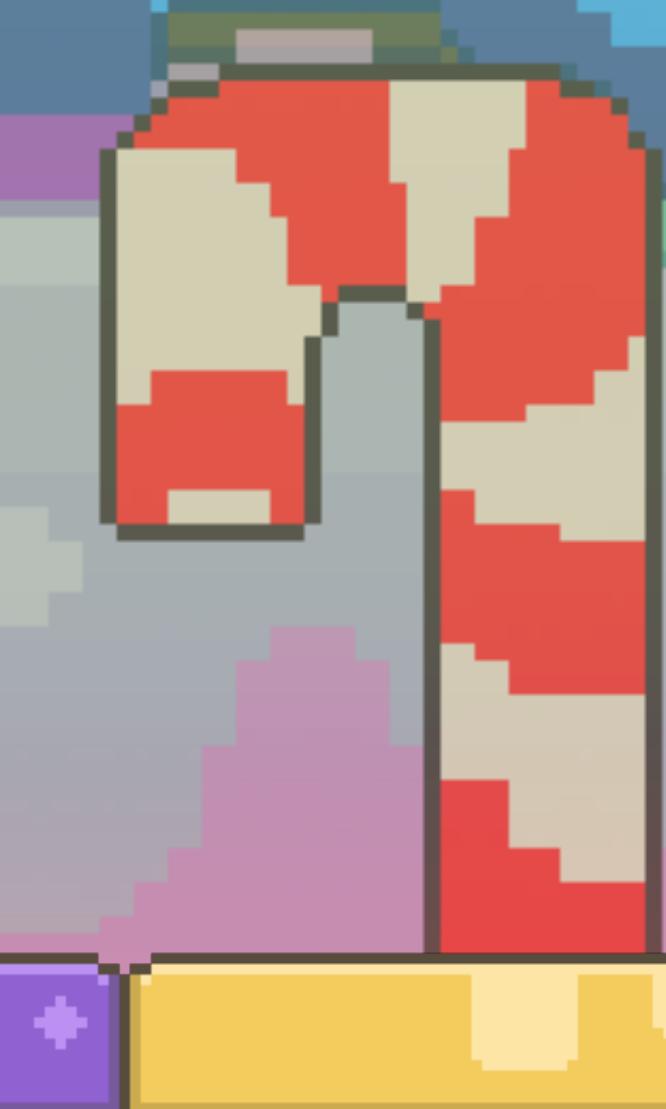
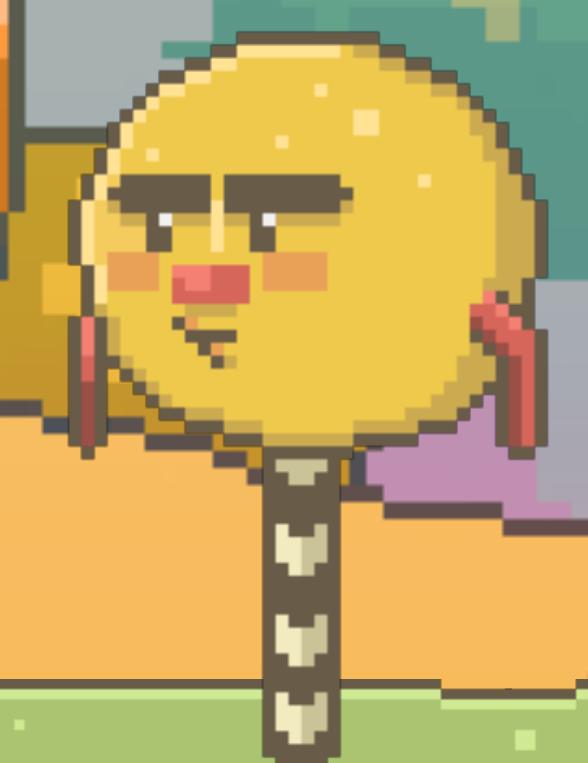


KLEMENTS' ATTACK

PRESS TO PLAY

HOT DOG

VS
CANDY LAND



 Games

Adventure



Battlejack: Blackjack RPG

Play cards to battle foes

GET

In-App Purchases

Top Paid

[See All](#)



1 Minecraft

Create. Share. Play.

R\$ 22,90

In-App Purchases



2 Bully: Anniversary Edition

R\$ 22,90



3 Hot Dog vs Candy Land

Challenging and fun!

OPEN

Top Free

[See All](#)



1 Garena Free Fire

10-minute Survival Shooter

GET

In-App Purchases



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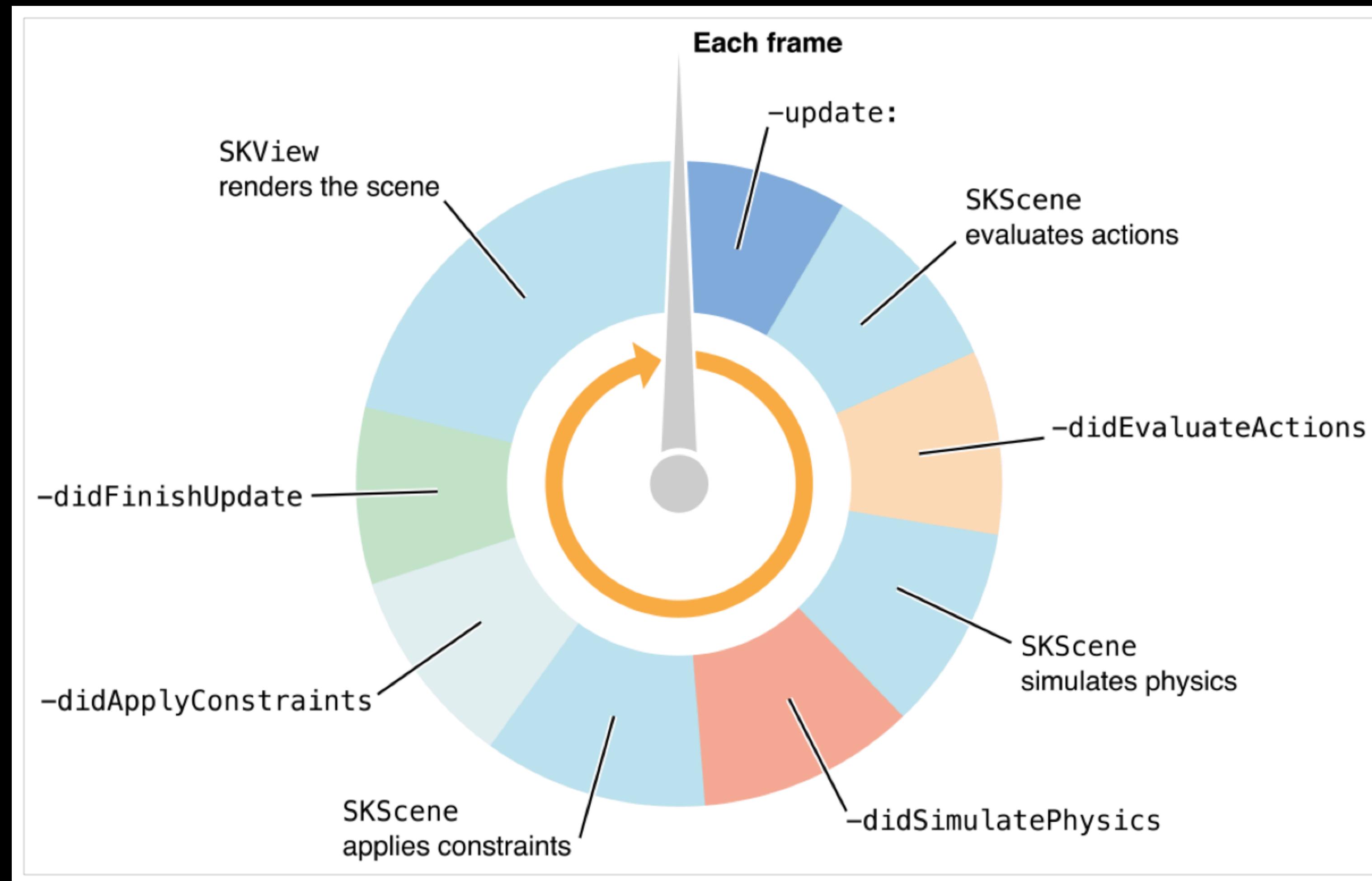


What exactly is SpriteKit?

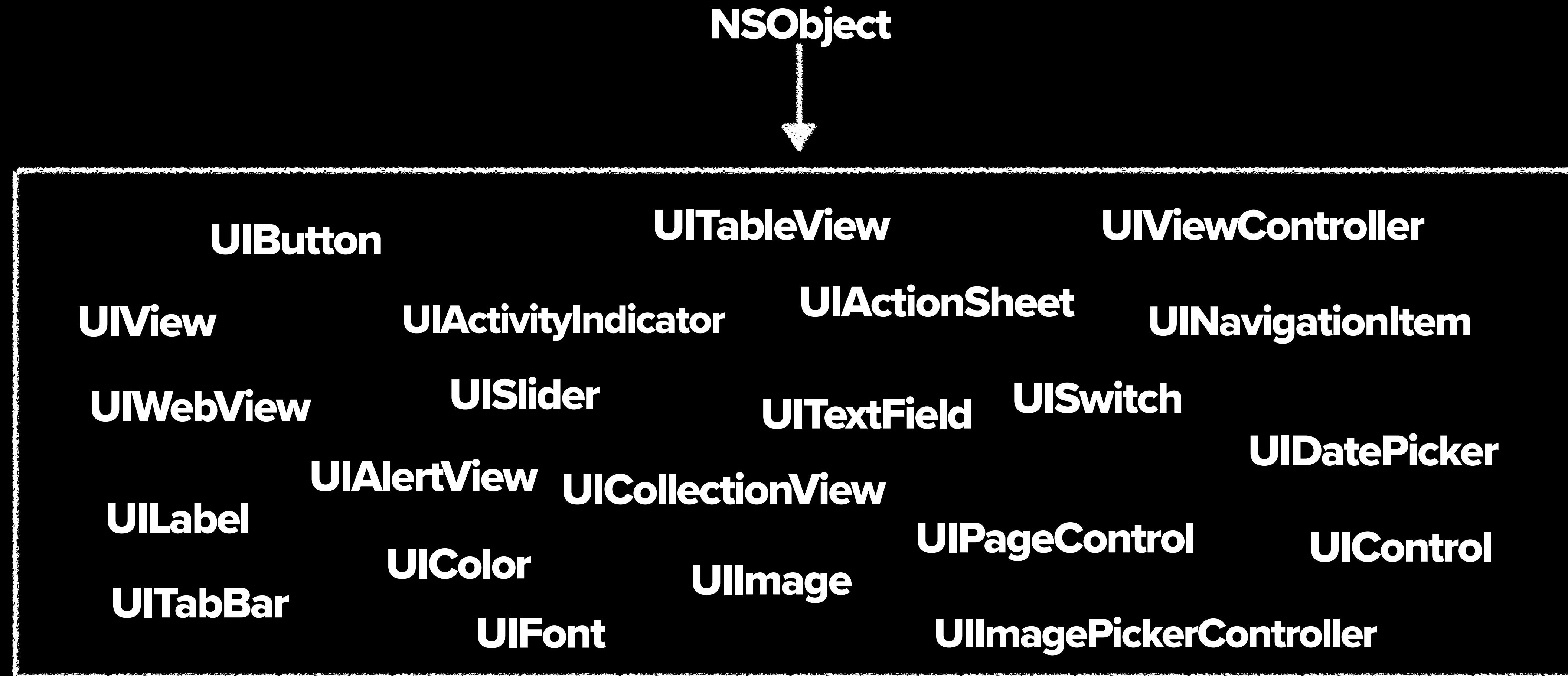
What exactly is SpriteKit?

The SpriteKit framework makes it easy to create high-performance and battery-efficient 2D games.

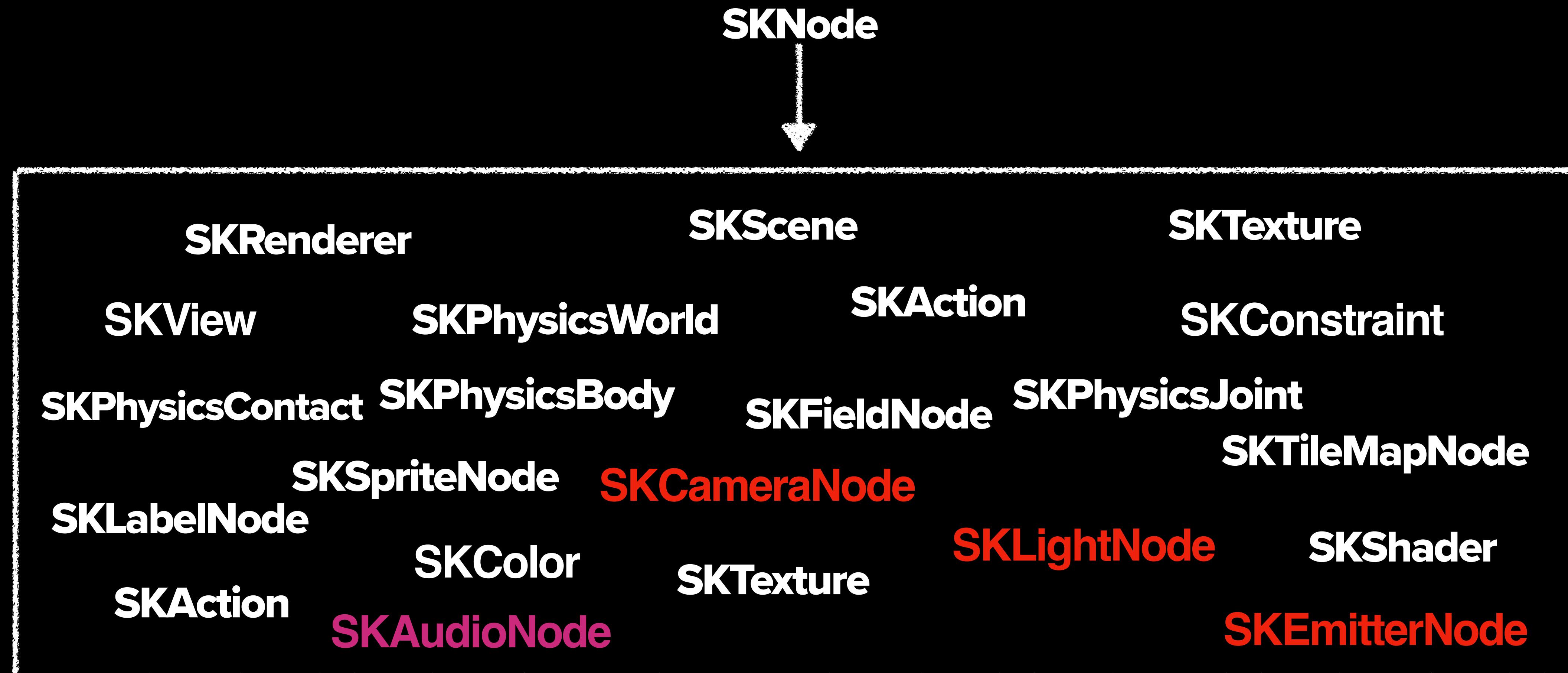
SpriteKit - Rendering Lifecycle



UIKit



SpriteKit



SpriteKit

Demo SKCameraNode, SKLightNode & SKEmitterNode

How to instantiate an image

```
let texture = SKTexture(imageNamed: "image")  
  
let myFirstImageNode = SKSpriteNode(texture: texture)  
  
addChild(myFirstImageNode)
```

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How to instantiate an image

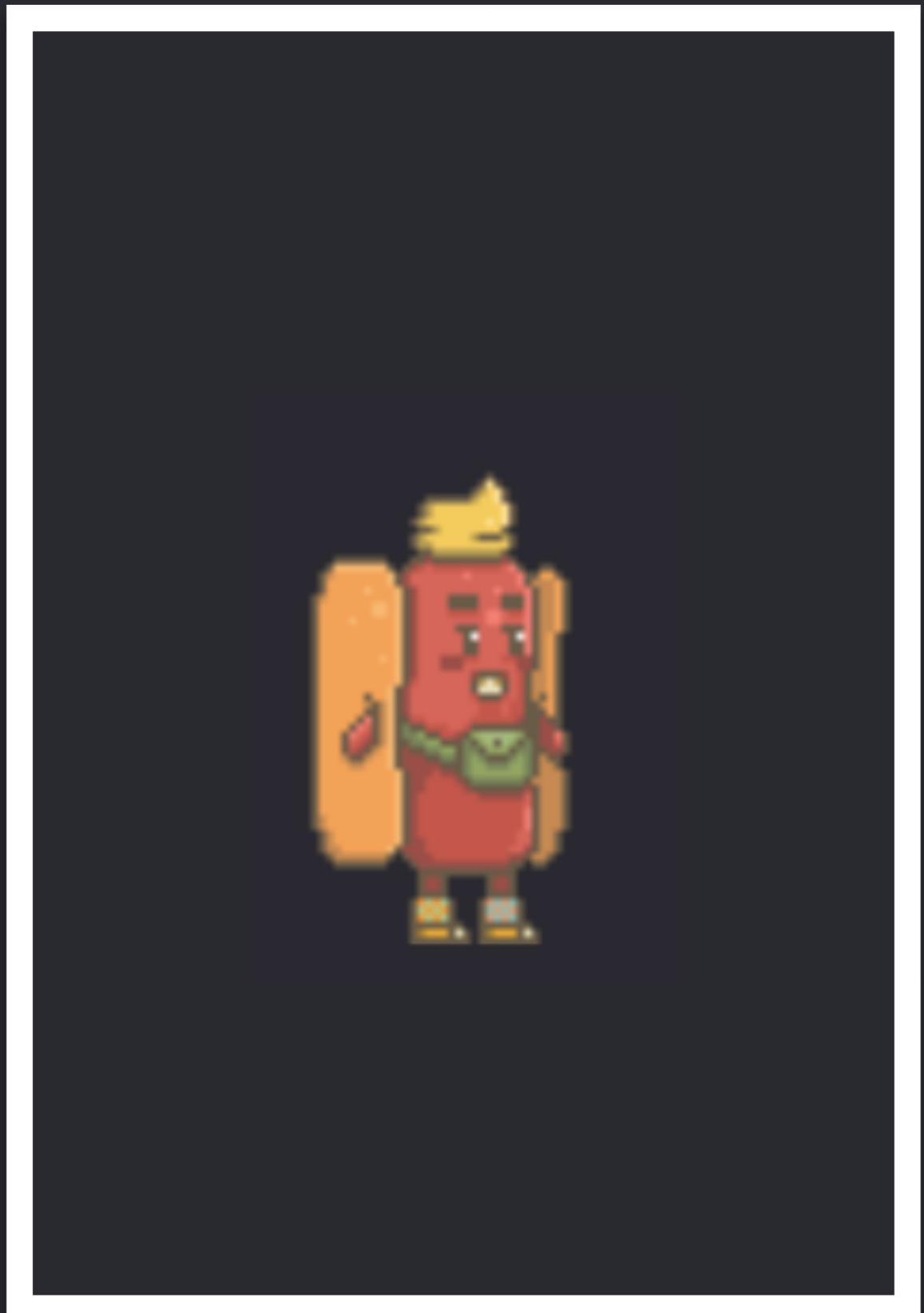
```
class MyNode: SKSpriteNode {  
  
    init(size:CGSize){  
  
        let texture = SKTexture(imageNamed: "image")  
  
        super.init(texture: texture, color: SKColor.clear, size: size)  
    }  
  
    required init?(coder aDecoder: NSCoder) {  
        fatalError("init(coder:) has not been implemented")  
    }  
}
```

How to instantiate an image

```
let texture = SKTexture(imageNamed: "hot_dog")
let imageSprite = SKSpriteNode(texture: texture)

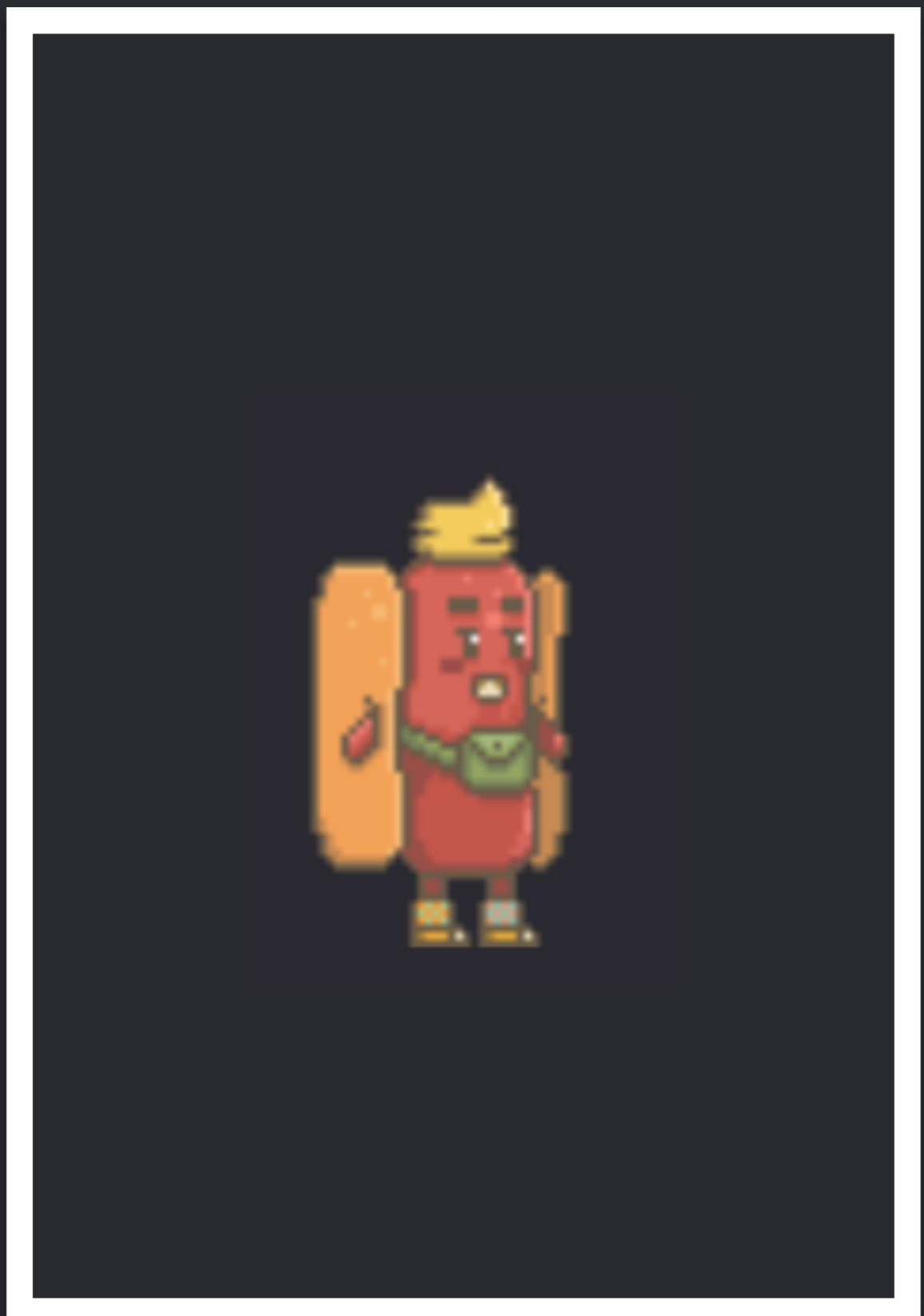
imageSprite.position = CGPoint(x: size.width/2, y: size.height/2)
imageSprite.setScale(5)

addChild(imageSprite)
```



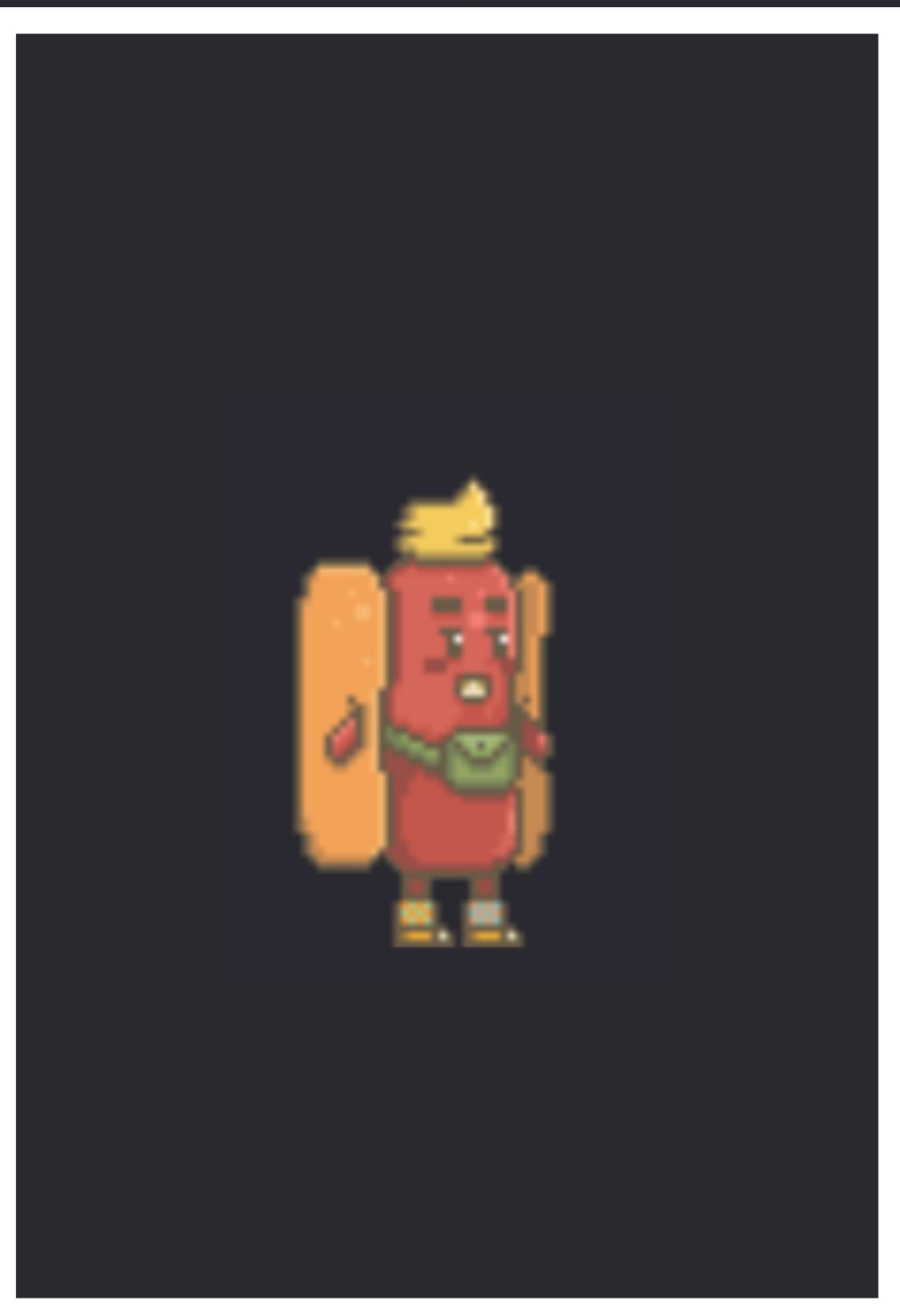
How to instantiate an image

```
let texture = SKTexture(imageNamed: "hot_dog")
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How to instantiate an image

```
let texture = SKTexture(imageNamed: "hot_dog")
texture.filteringMode = .nearest
```



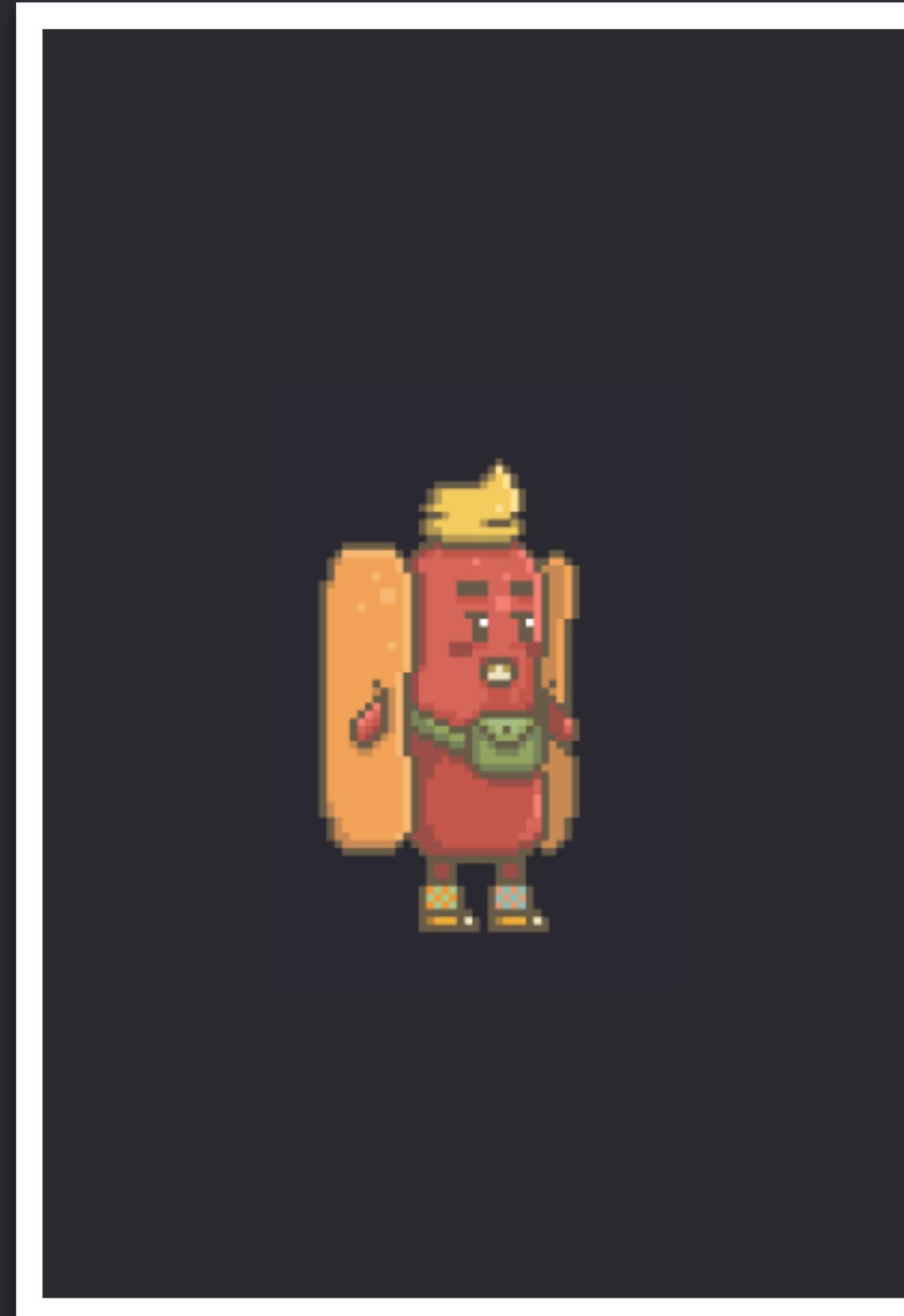
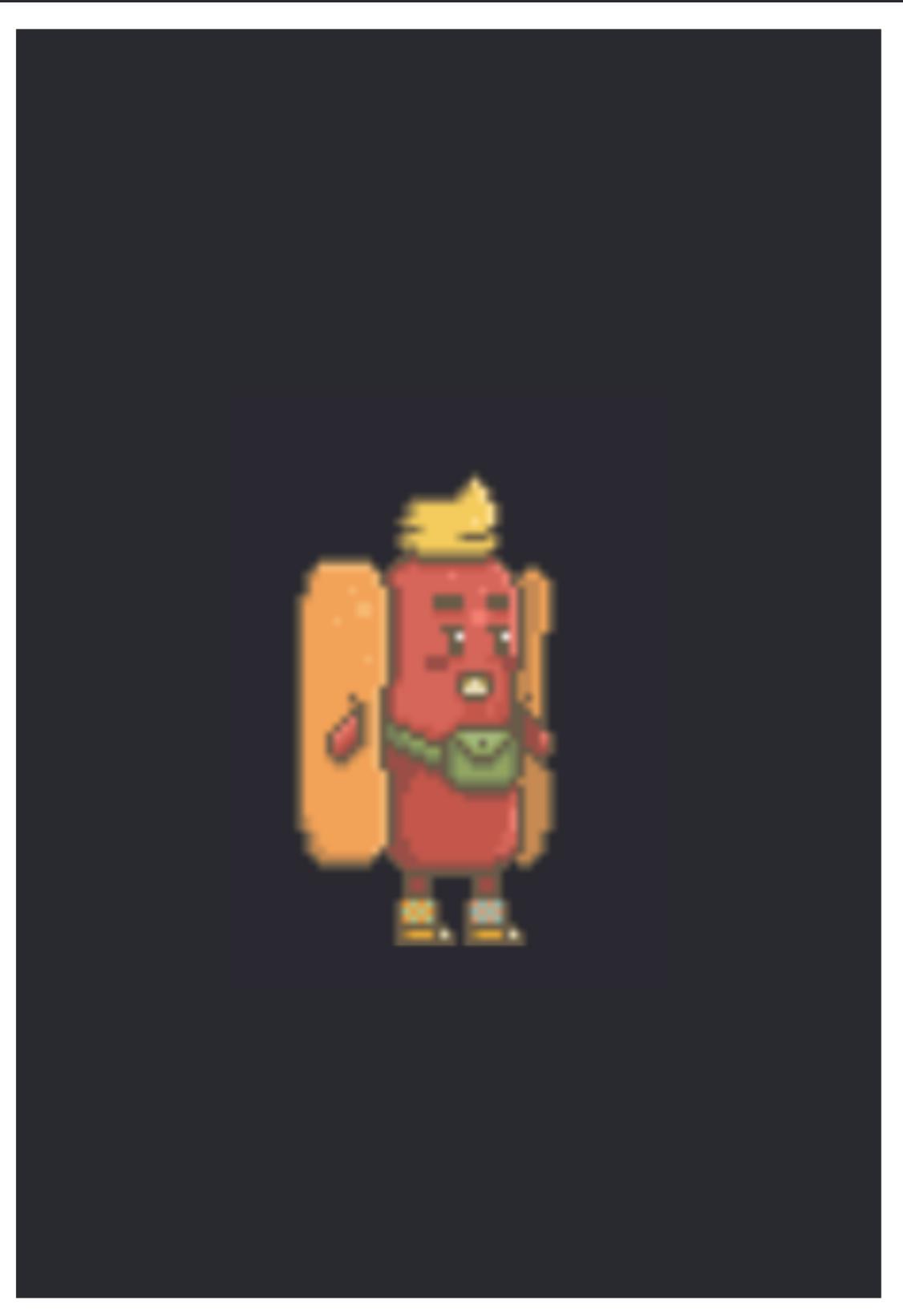
How to instantiate an image

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let texture = SKTexture(imageNamed: "hot_dog")
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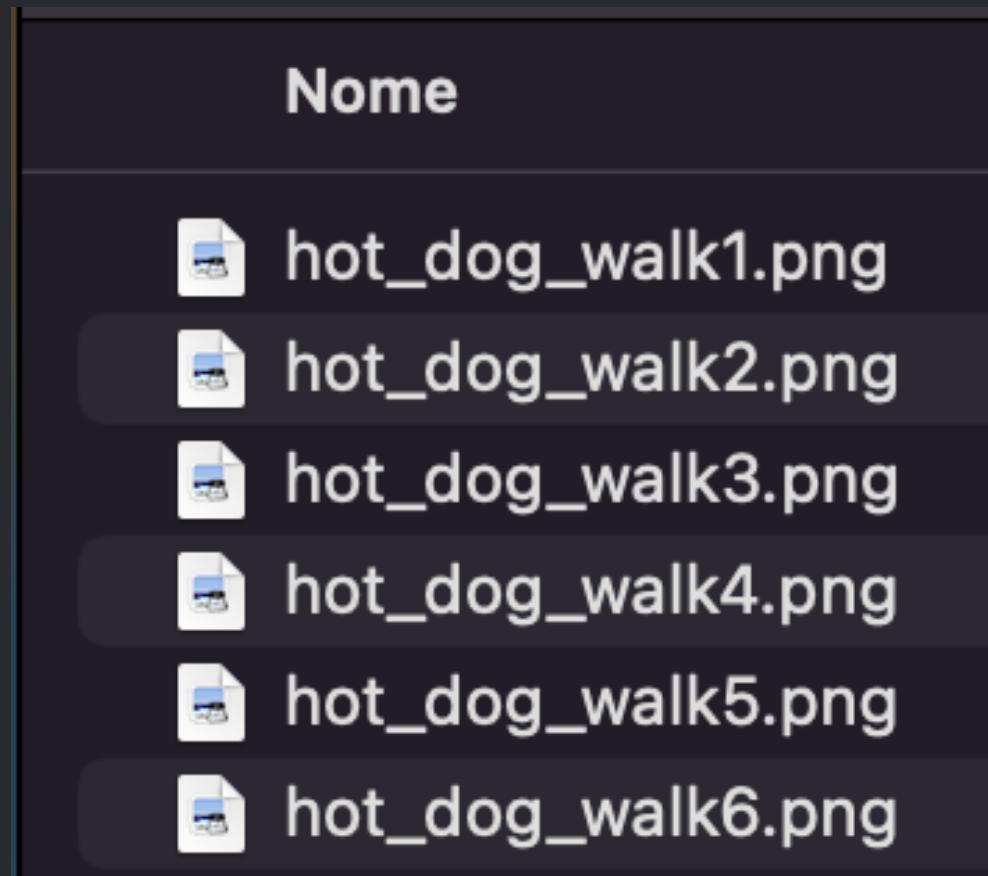
How to make a frame by frame animation

```
var textures = [SKTexture]()
```

How to make a frame by frame animation

```
var textures = [SKTexture]()

for index in 1...6 {
    let texture = SKTexture(imageNamed: "hot_dog_walk" + "\\(index)")
    texture.filteringMode = .nearest
    textures.append(texture)
}
```



How to make a frame by frame animation

```
var textures = [SKTexture]()

for index in 1...6 {
    let texture = SKTexture(imageNamed: "hot_dog_walk" + "\\(index)")
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    textures.append(texture)
}

let imageSprite = SKSpriteNode(texture: textures[0])
```

How to make a frame by frame animation

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let textureAnimation = SKAction.animate(
    with: textures,
    timePerFrame: 0.15
)
```

How to make a frame by frame animation

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let repeatForever = SKAction.repeatForever(textureAnimation)
```

How to make a frame by frame animation

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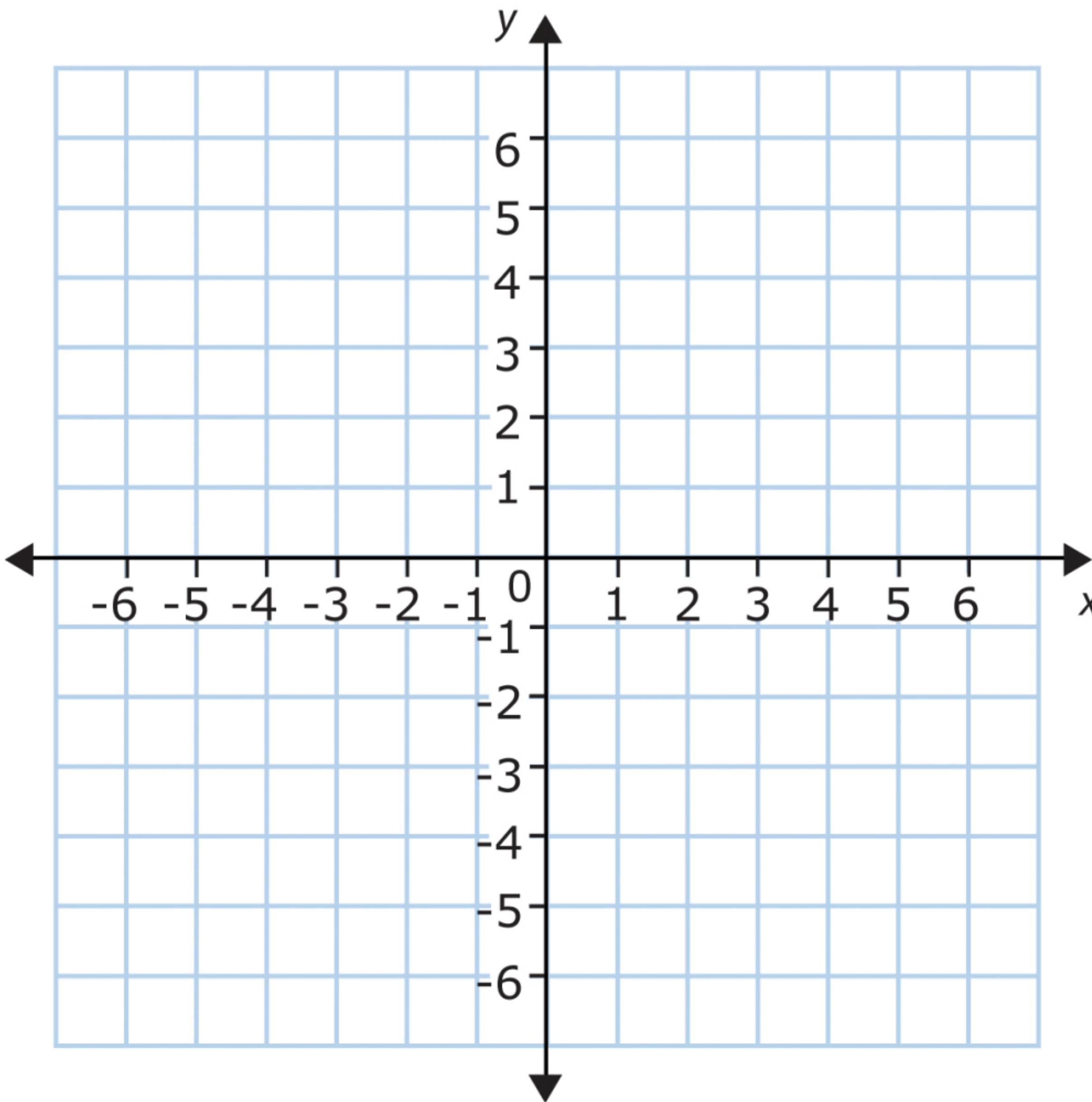
imageSprite.position = CGPoint(x: size.width/2, y: size.height/2)
imageSprite.setScale(5)

addChild(imageSprite)

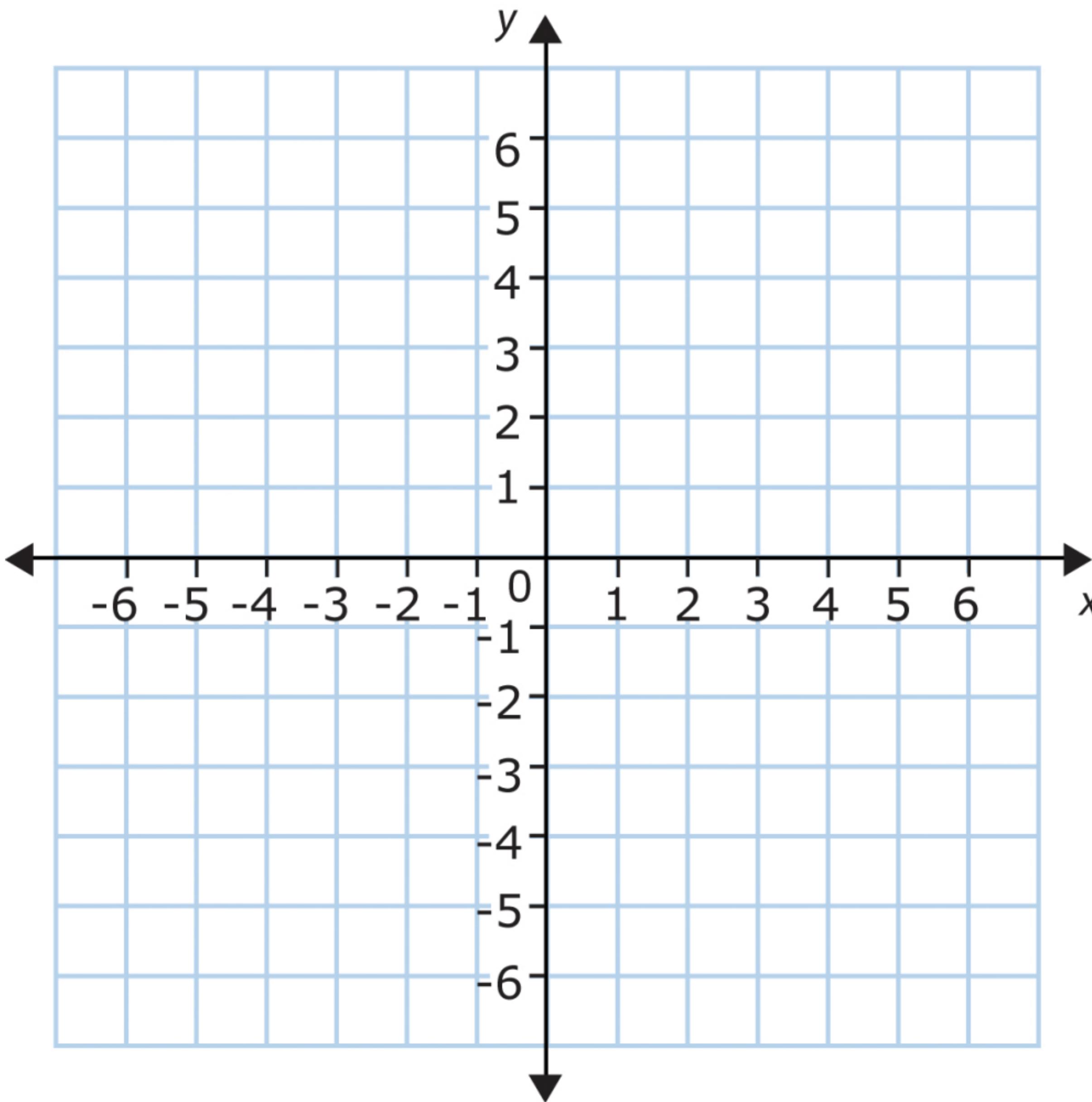
let textureAnimation = SKAction.animate(
    with: textures,
    timePerFrame: 0.15
)
let repeatForever = SKAction.repeatForever(textureAnimation)
imageSprite.run(repeatForever)
```



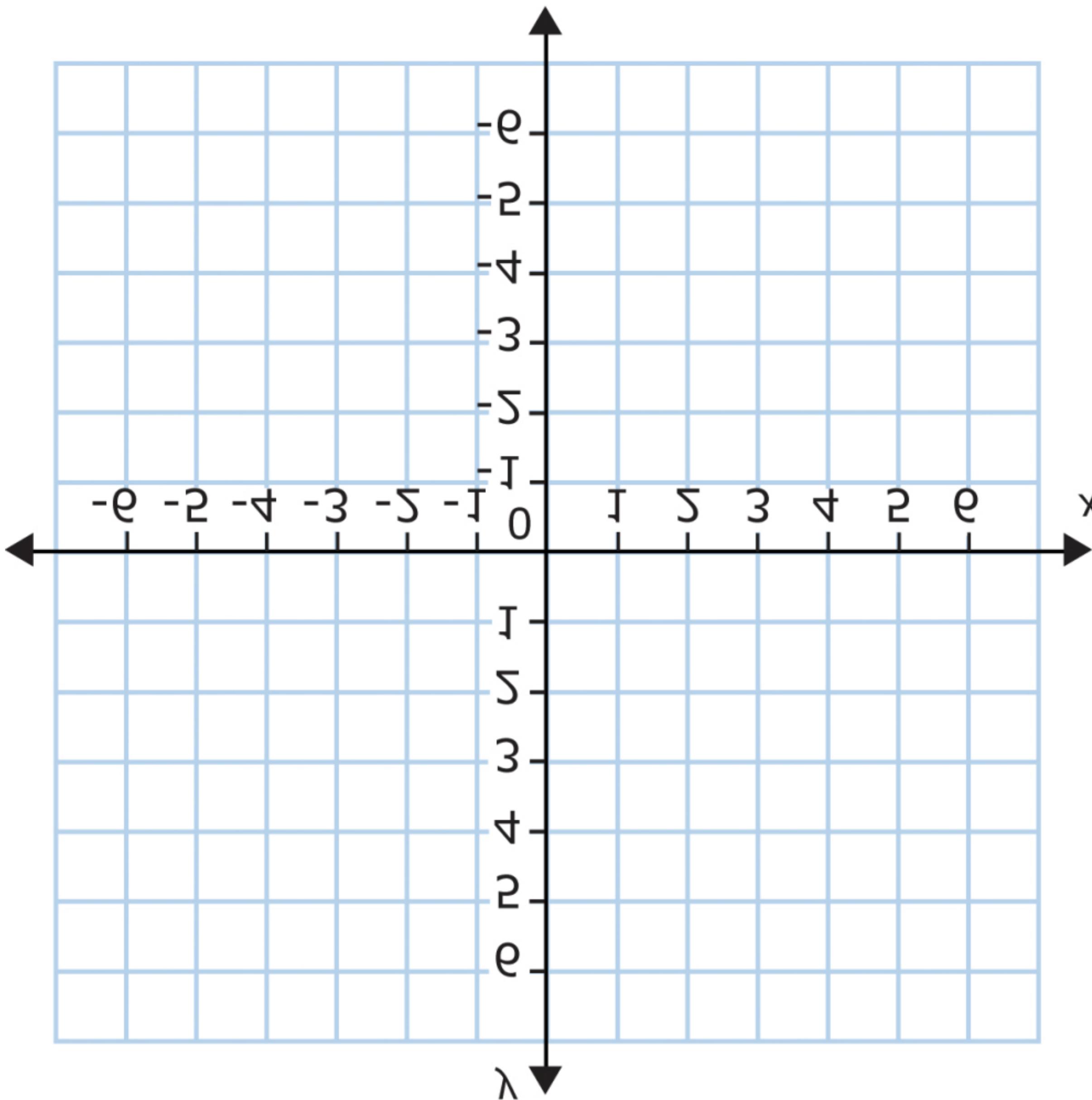
UIKit



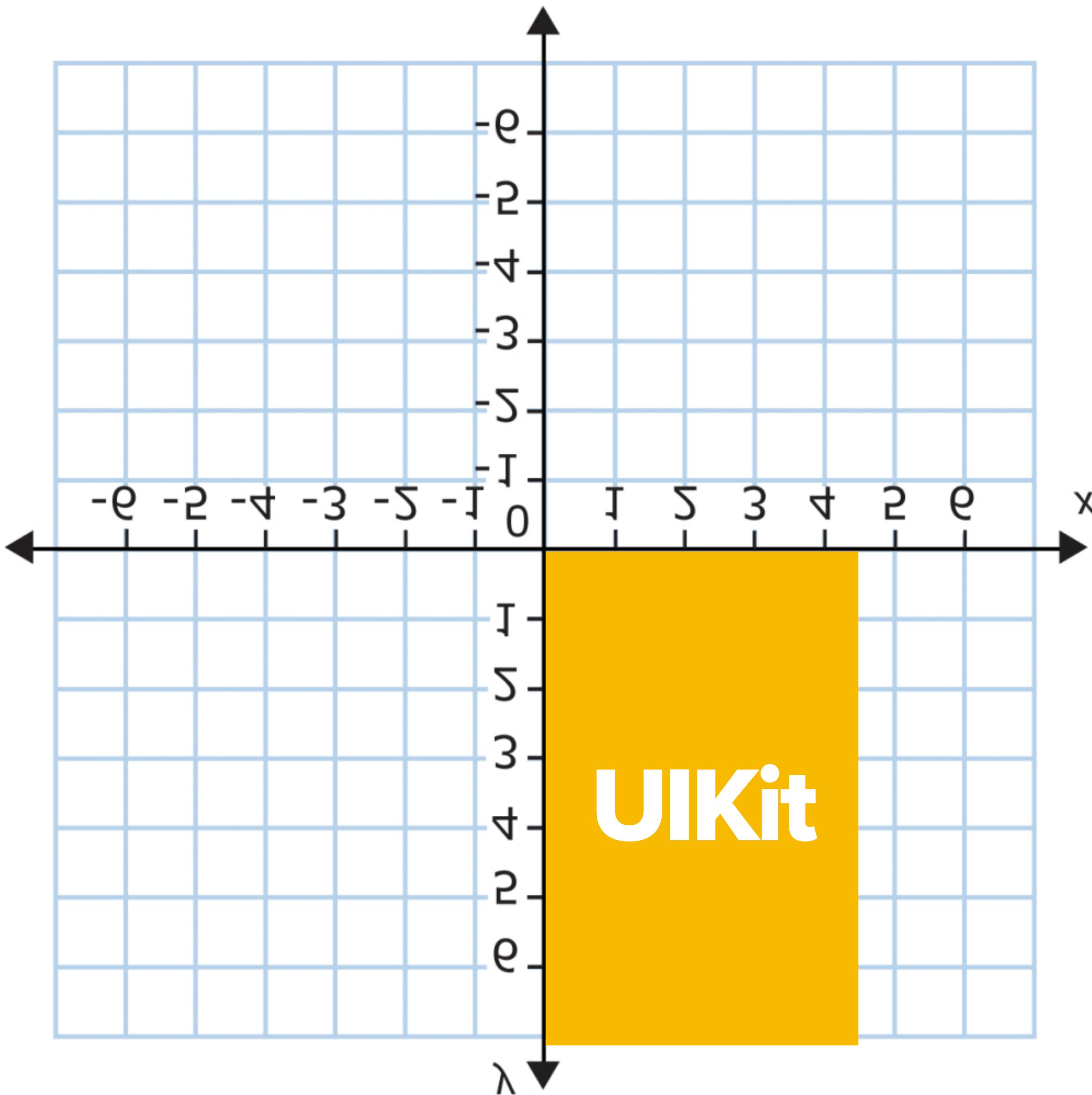
UIKit



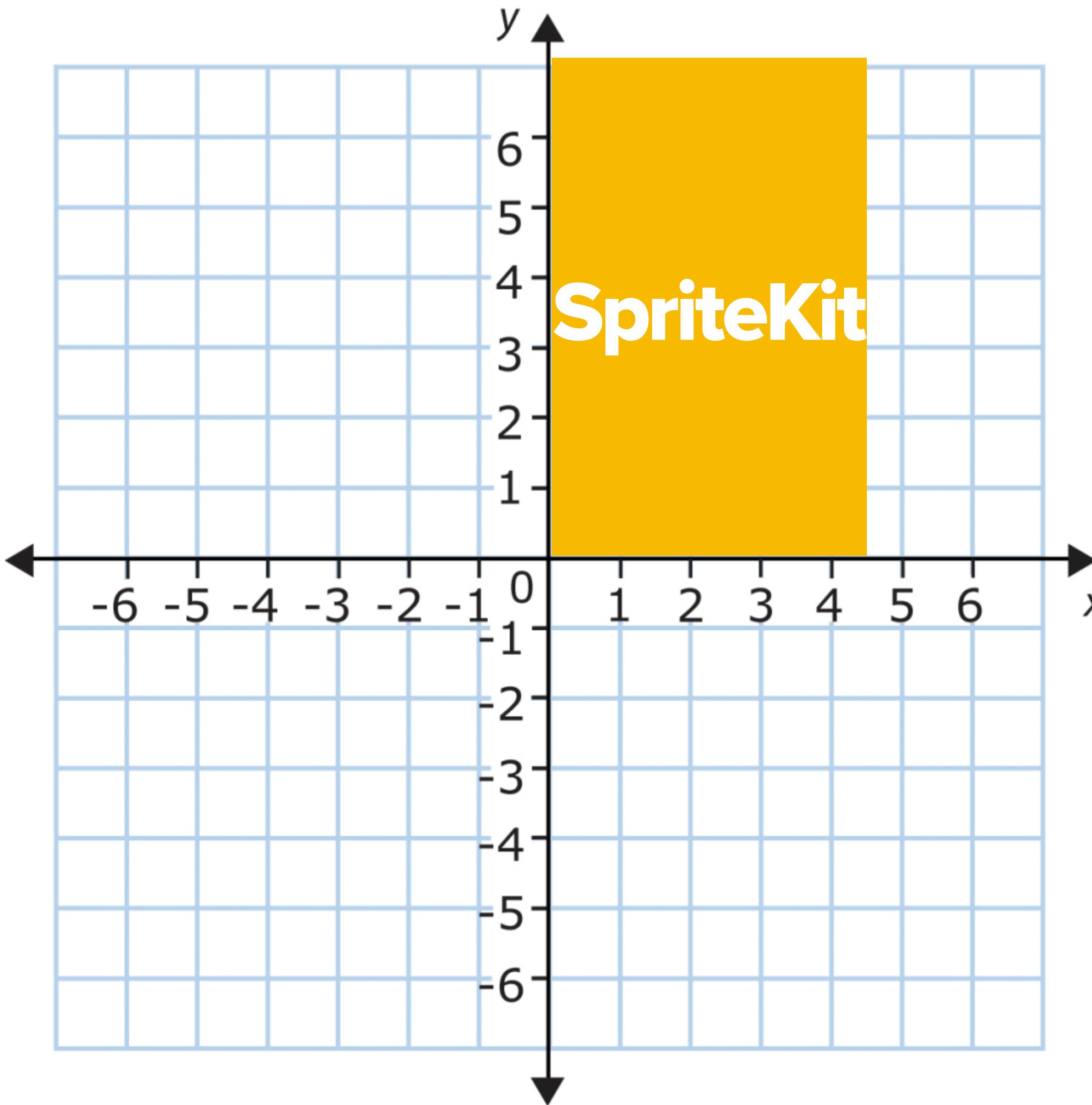
UIKit



UIKit



SpriteKit



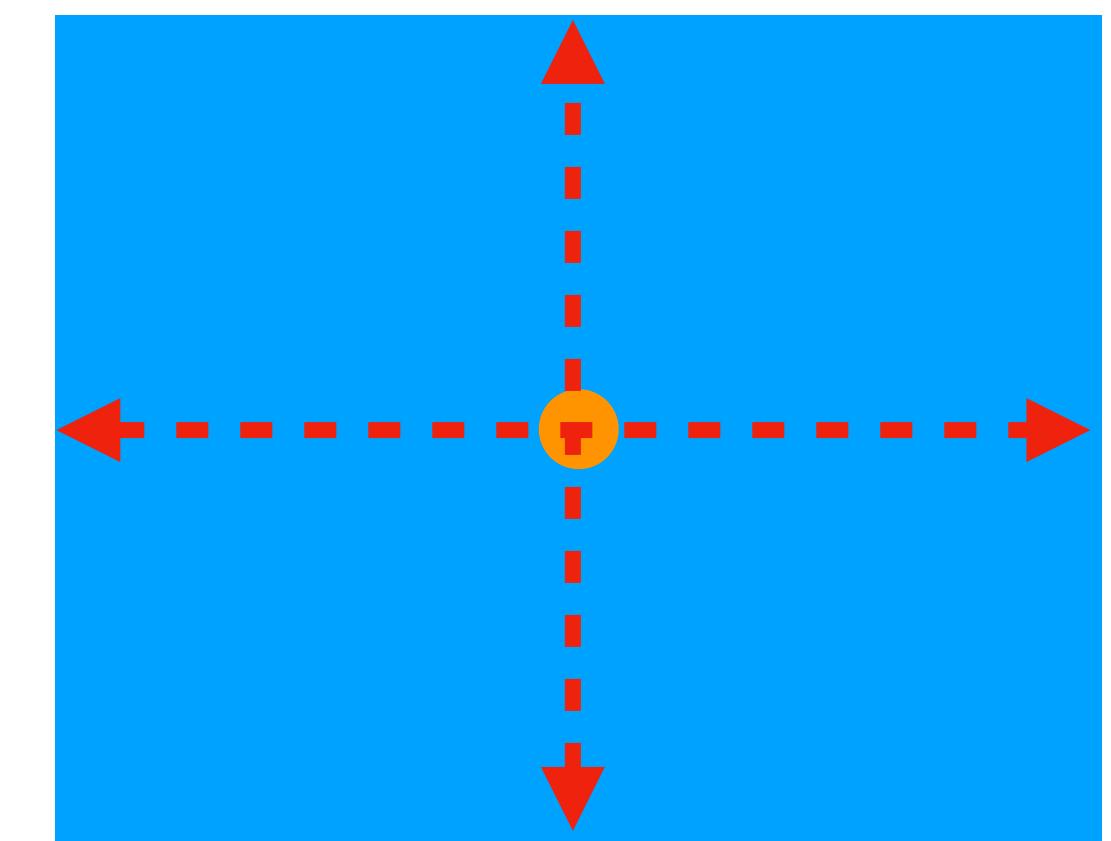
Anchor Point



Anchor Point

```
let blueSquare = SKSpriteNode(color: .blue, size: CGSize(width: 300, height: 300))
```

Anchor Point



SKSpriteNode

Anchor Point

```
print(blueSquare.anchorPoint)
// CGPoint(x: 0.5, y: 0.5)
```

Anchor Point



Anchor Point

```
blueSquare.anchorPoint = CGPointMake(x: 0, y: 0)
```

Anchor Point



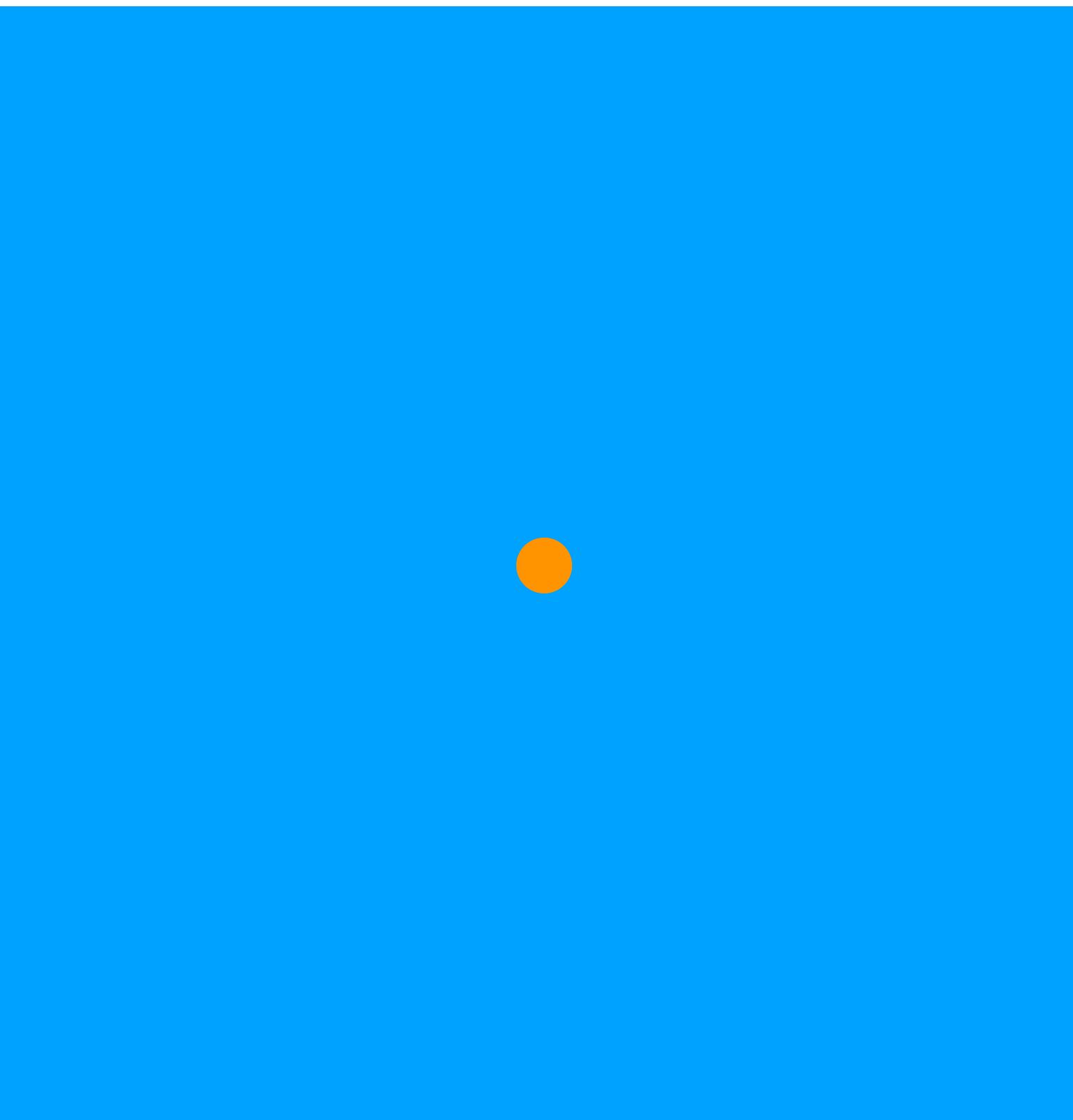
Anchor Point

```
blueSquare.anchorPoint = CGPointMake(x: 1, y: 1)
```

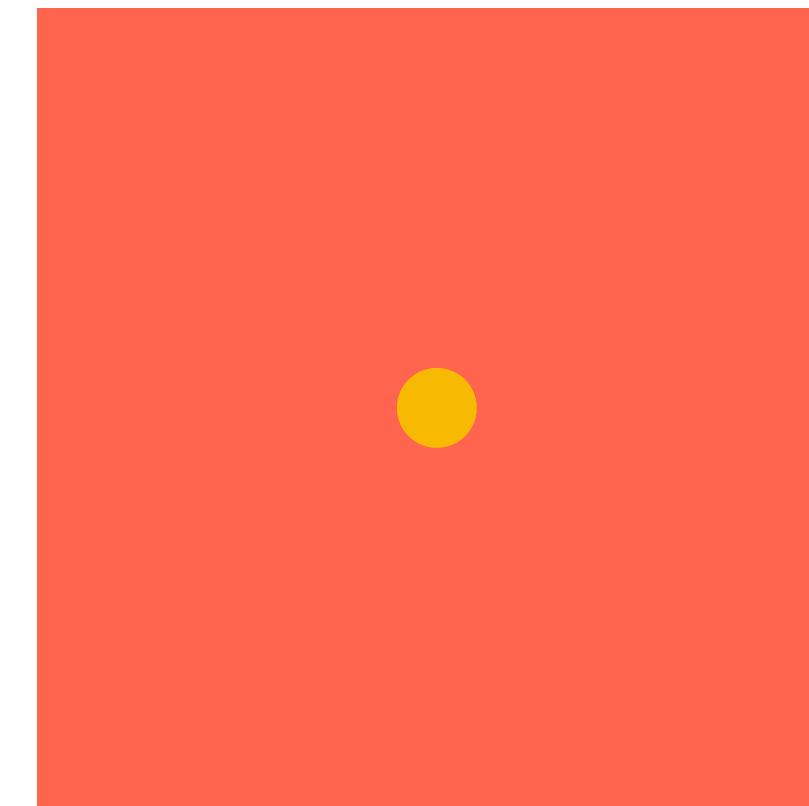
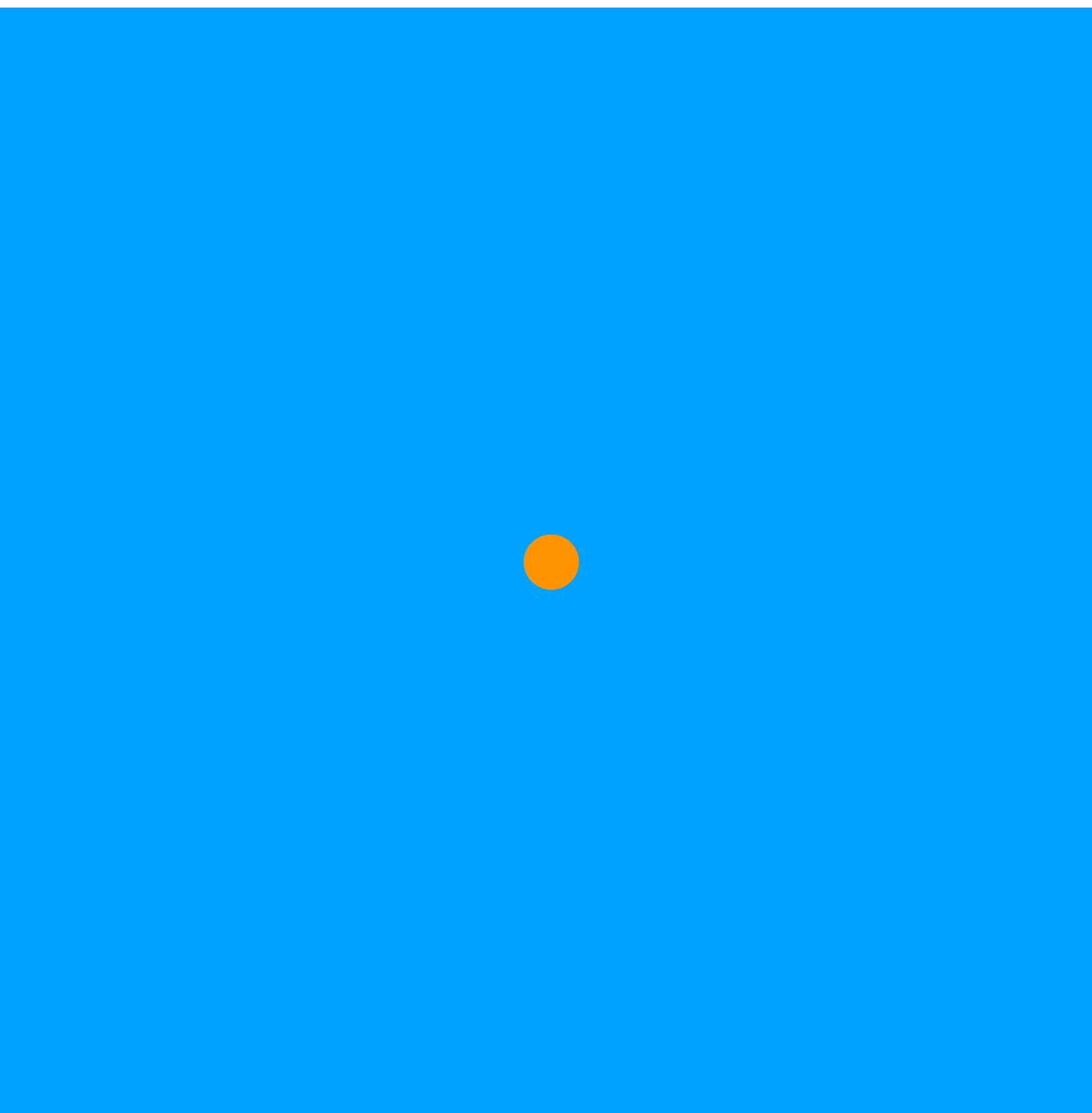
Anchor Point



Anchor Point



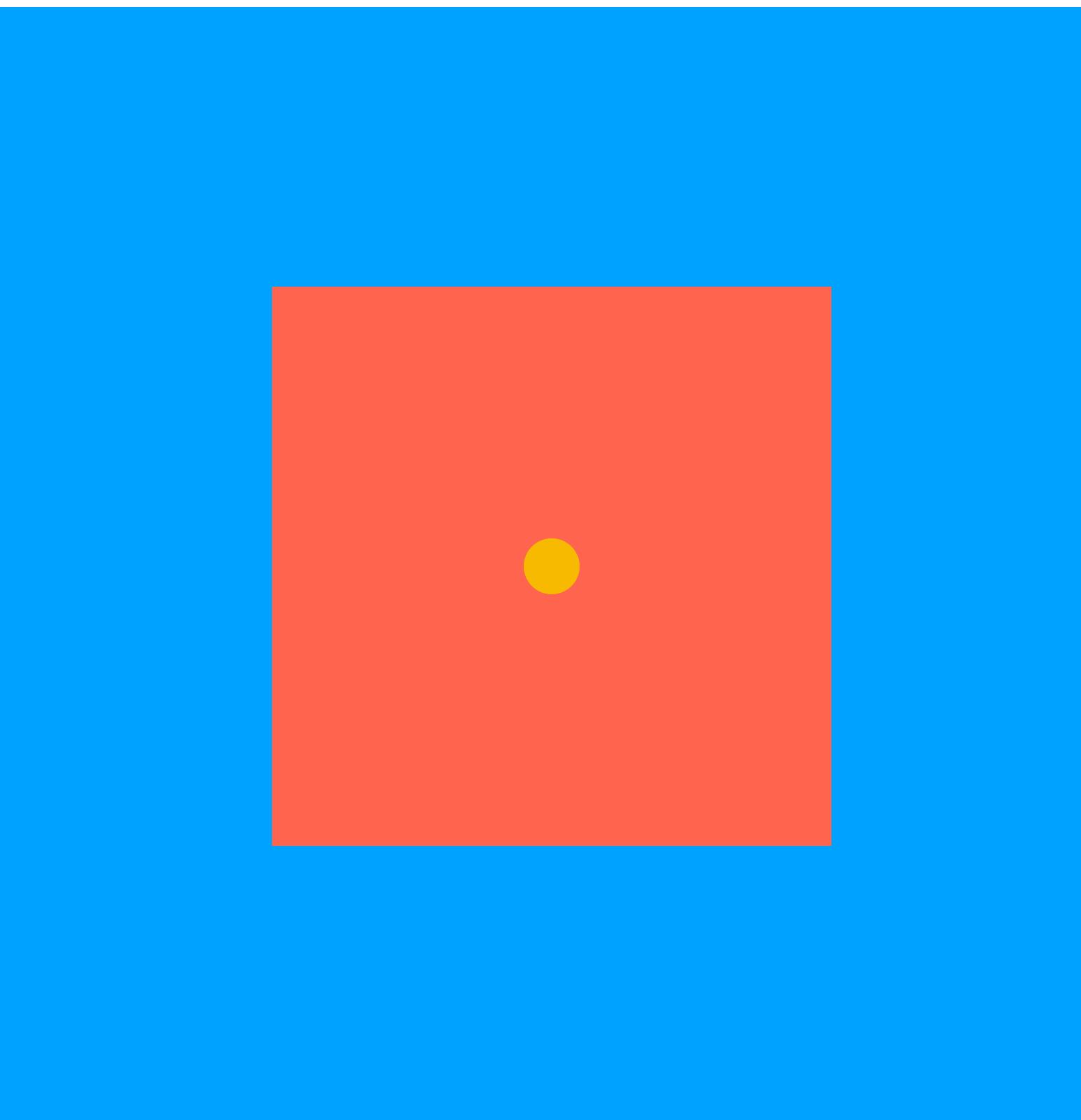
Anchor Point



Anchor Point

```
blueSquare.addChild(orangeSquare)
```

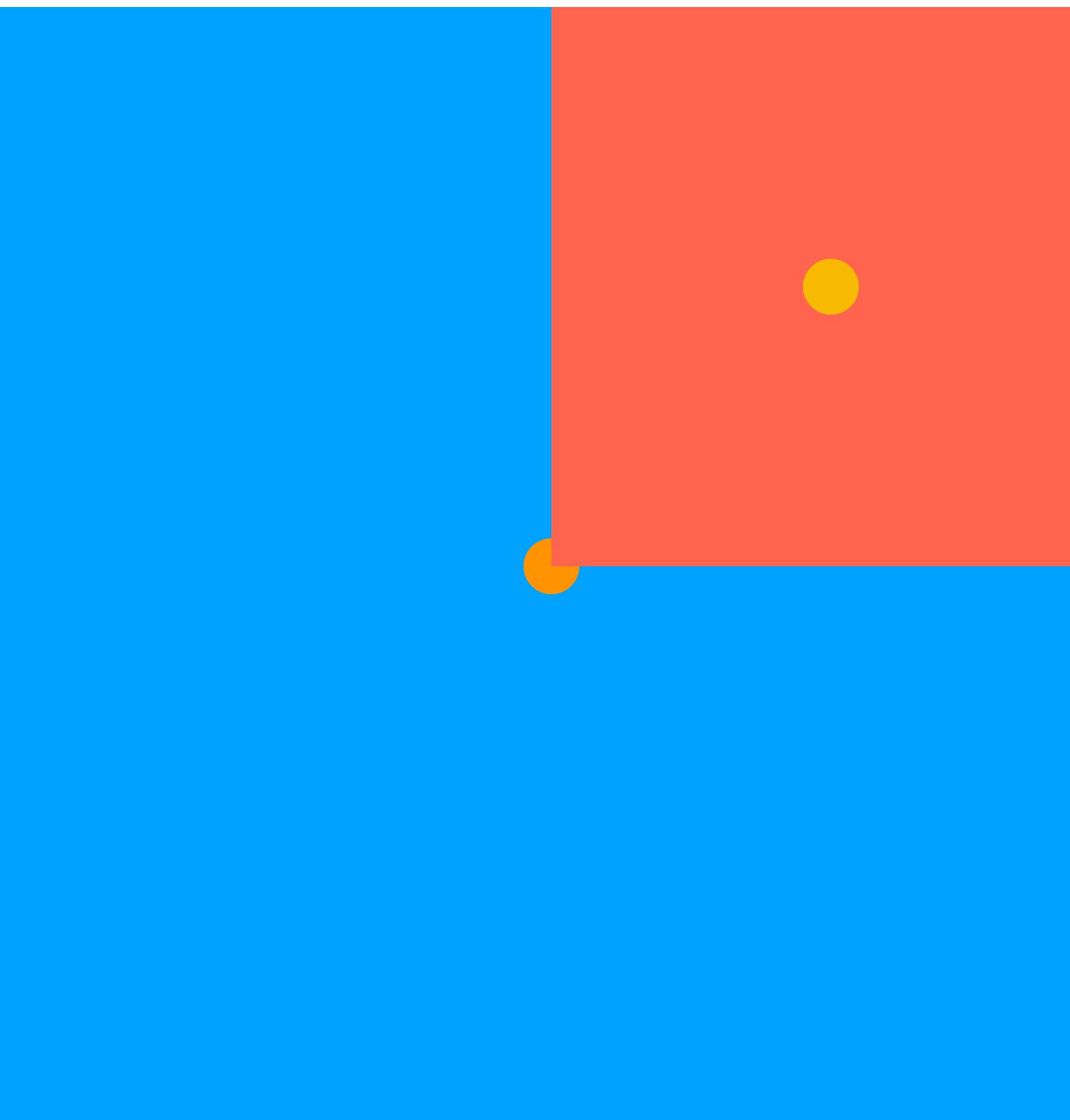
Anchor Point



Anchor Point

```
orangeSquare.position = CGPointMake(  
    x: orangeSquare.size.width/2,  
    y: orangeSquare.size.height/2  
)
```

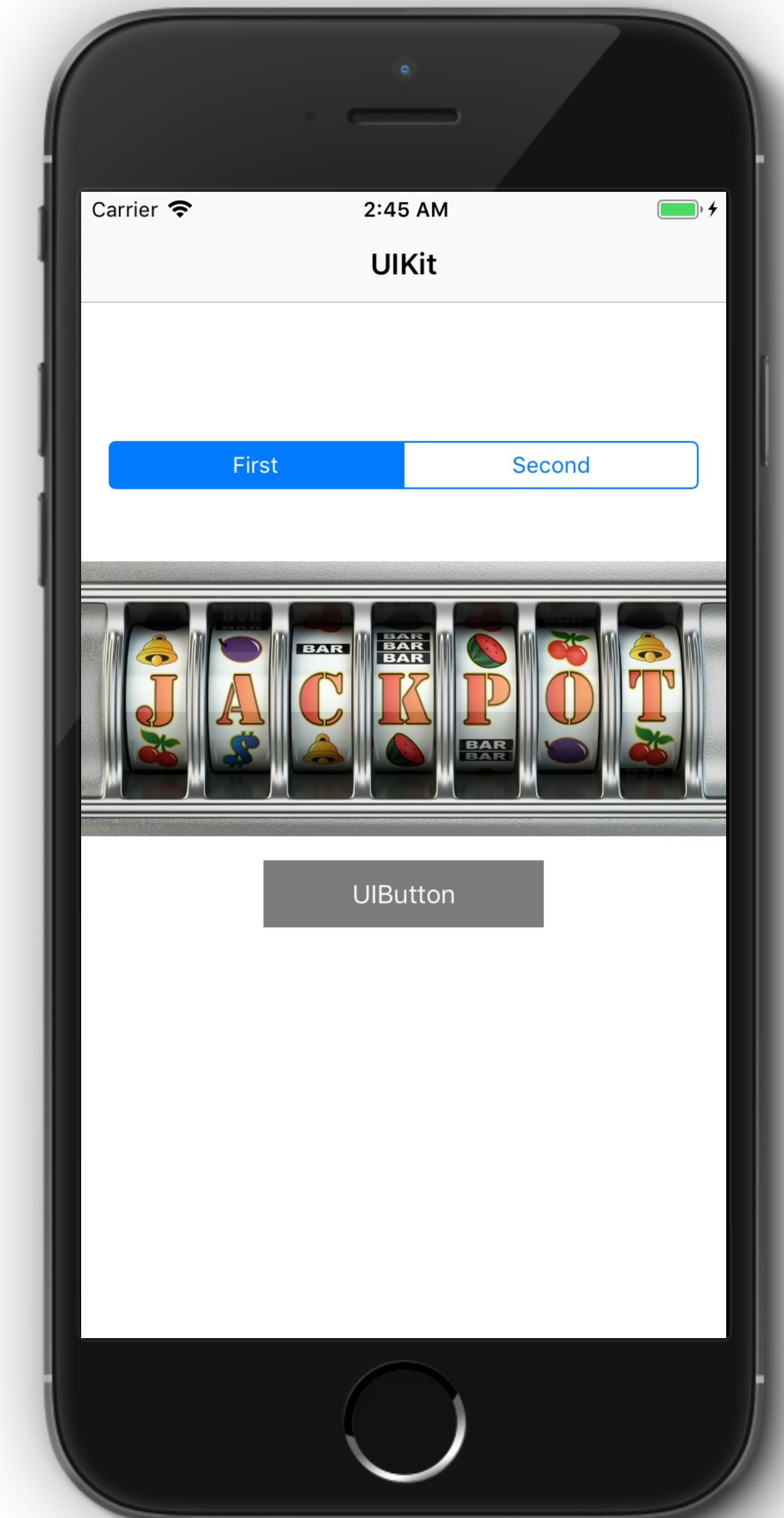
Anchor Point



Let's code!

Can I use UIKit and SpriteKit together?

UIKit + SpriteKit



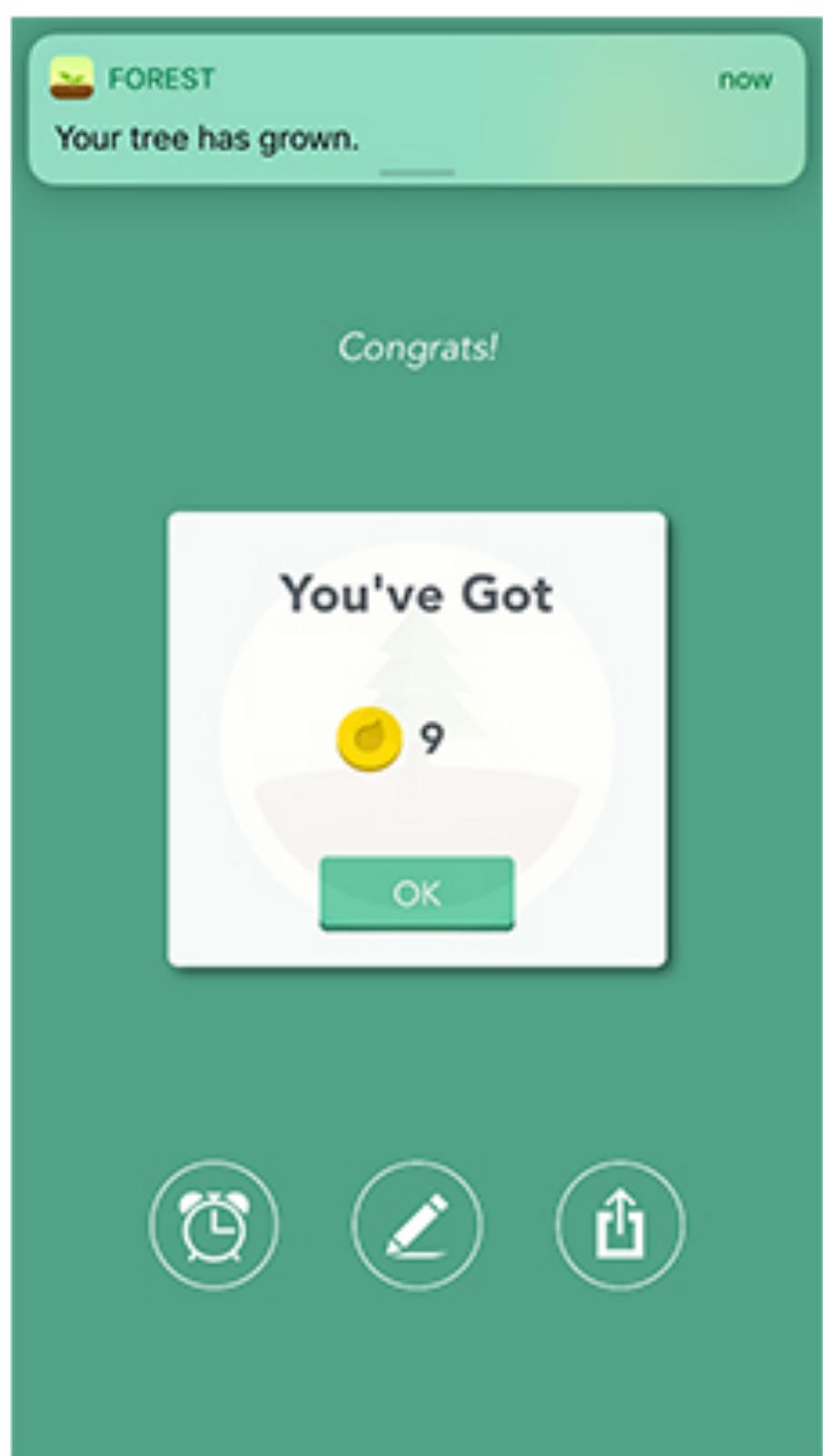
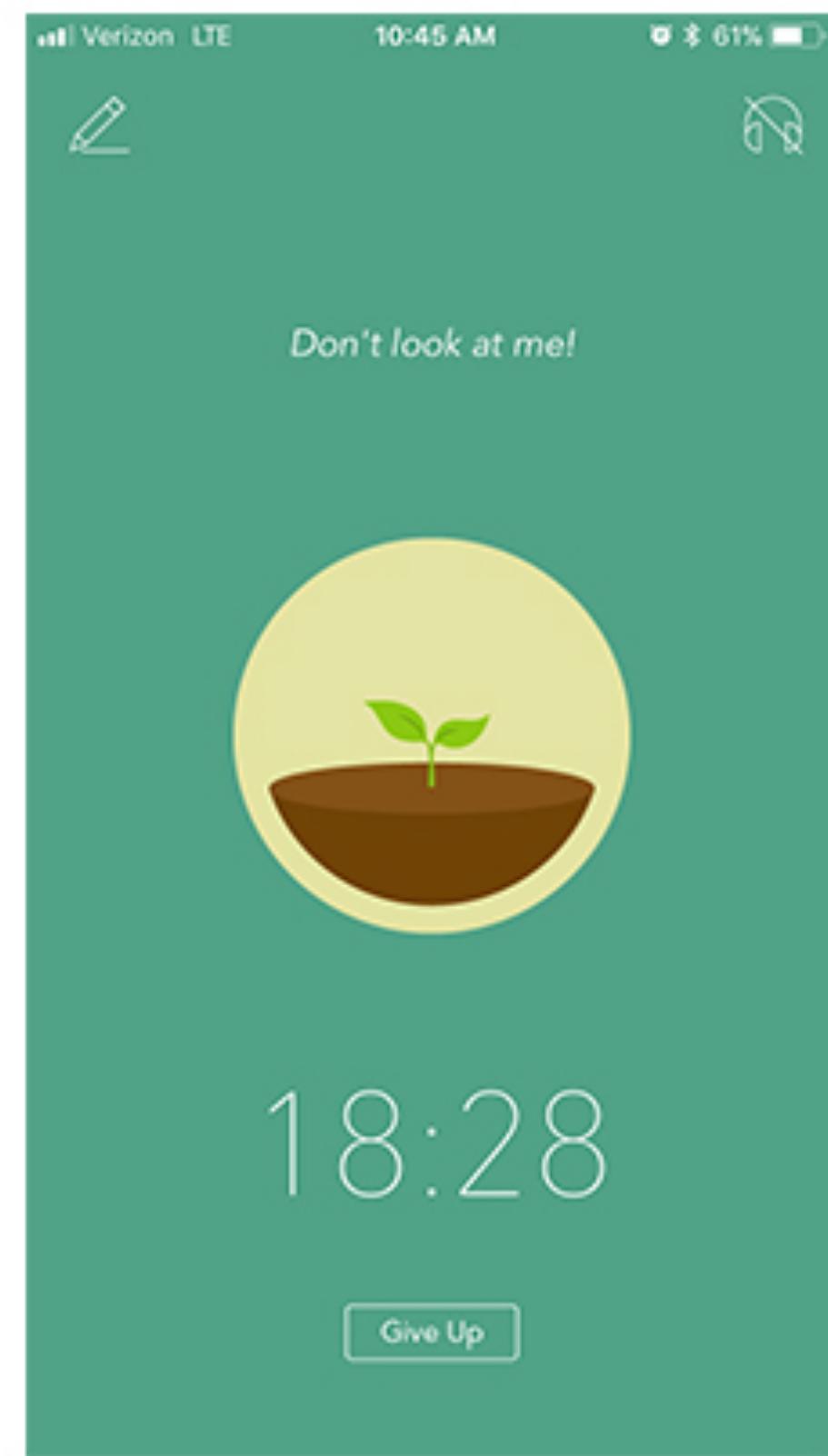
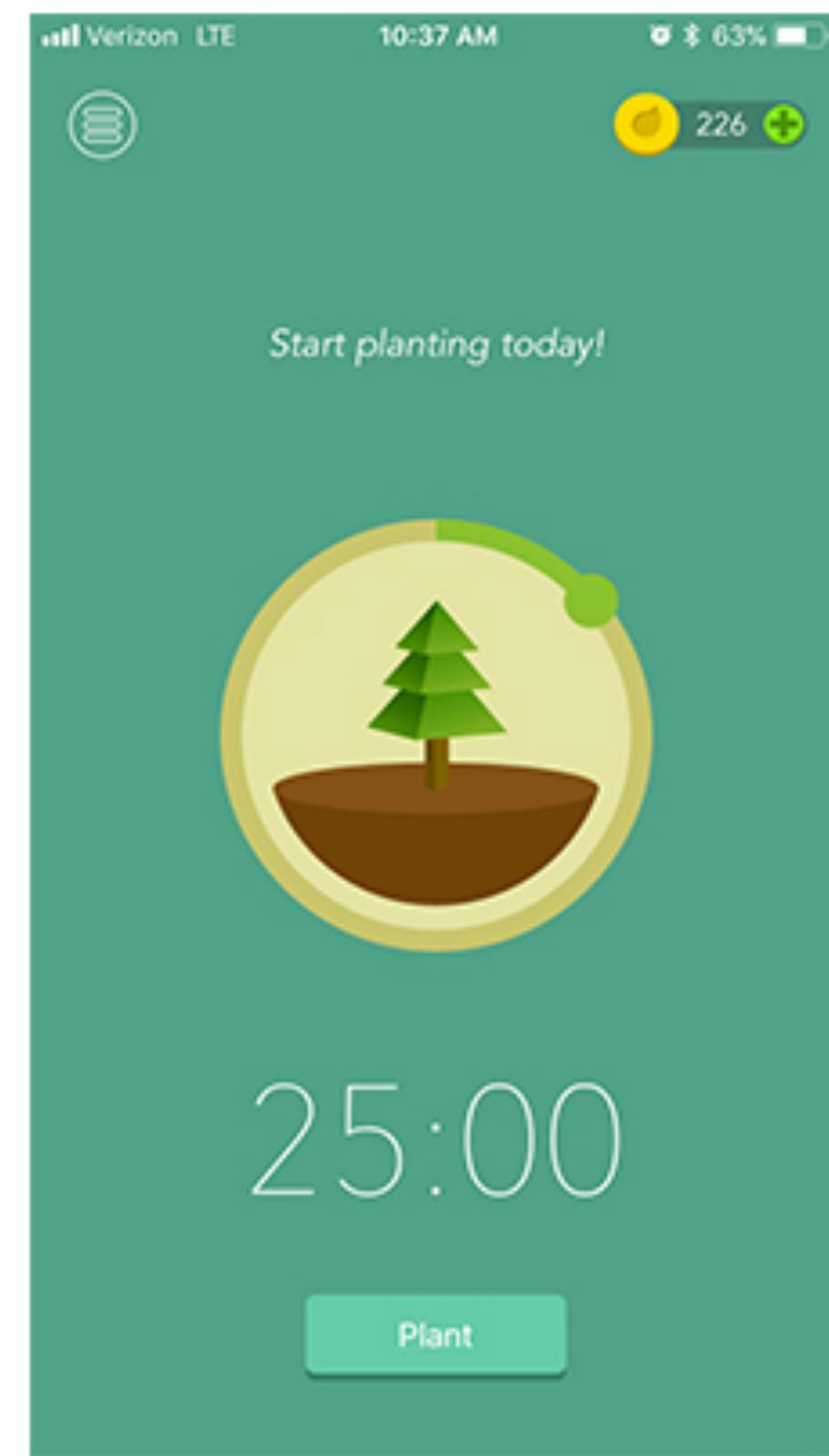
Adding SpriteKit to UIKit

```
var spriteKitGameView: SKView  
spriteKitGameView = GameView()  
  
if let gameView = spriteKitGameView as? UIView {  
    addSubview(gameView)  
}
```

Adding SpriteKit to SwiftUI

```
struct ContentView: View {  
    var body: some View {  
        SpriteView(scene: GameScene())  
    }  
}
```

Why would i use SpriteKit?





0 / 100

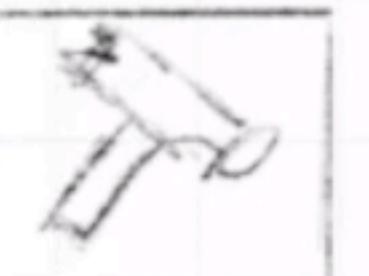
0 / 100
0 / 10

0 / 100

80%



WE CREATED A PROTOTYPE
IN SWIFT, USING SPRITEKIT



Why would i use SpriteKit?

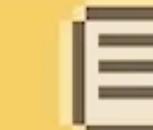
- 2D game in Apple Ecosystem
- Iphone, iPad, AppleTV, Mac & Apple Watch
- Game Widgets
- Gamify my app
- Prototype
- Swift



Where do I start?



HOTDOG VS CANDYLAND





What else can I do with SpriteKit?



Physics

SKFieldNode

dragField

electricField

magneticField

radialGravityField

linearGravityFieldWithVector

noiseFieldWithSmoothness

turbulenceFieldWithSmoothness

velocityField

vortexField

customField



SKFieldNode

dragField

electricField

magneticField

radialGravityField

linearGravityFieldWithVector

noiseFieldWithSmoothness

turbulenceFieldWithSmoothness

velocityField

vortexField

customField



SKFieldNode

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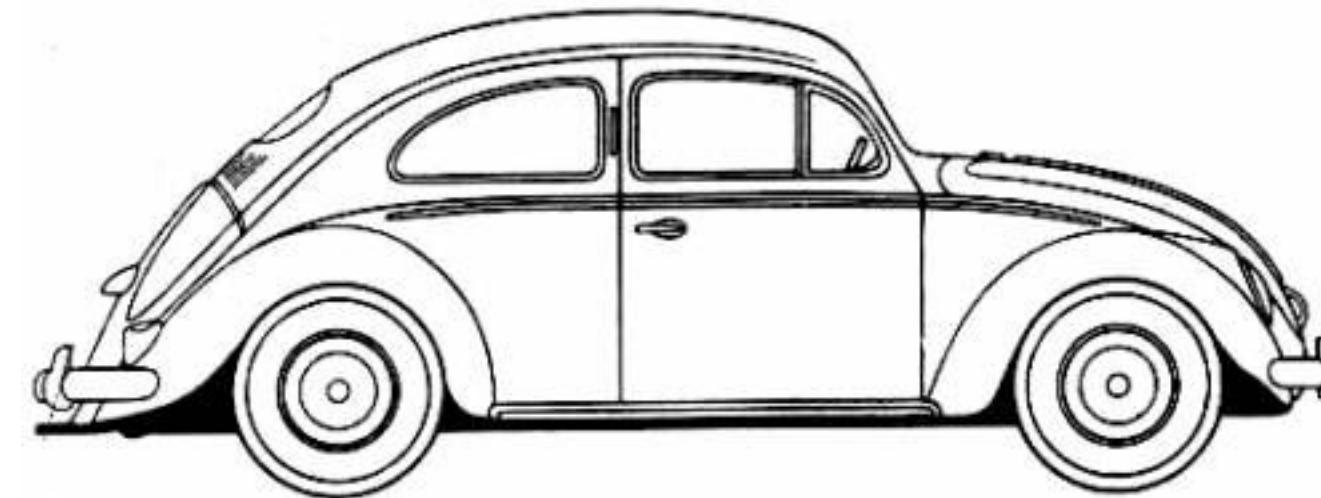
noiseFieldWithSmoothness

turbulenceFieldWithSmoothness

velocityField

vortexField

customField



SKFieldNode

dragField

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linearGravityFieldWithVector

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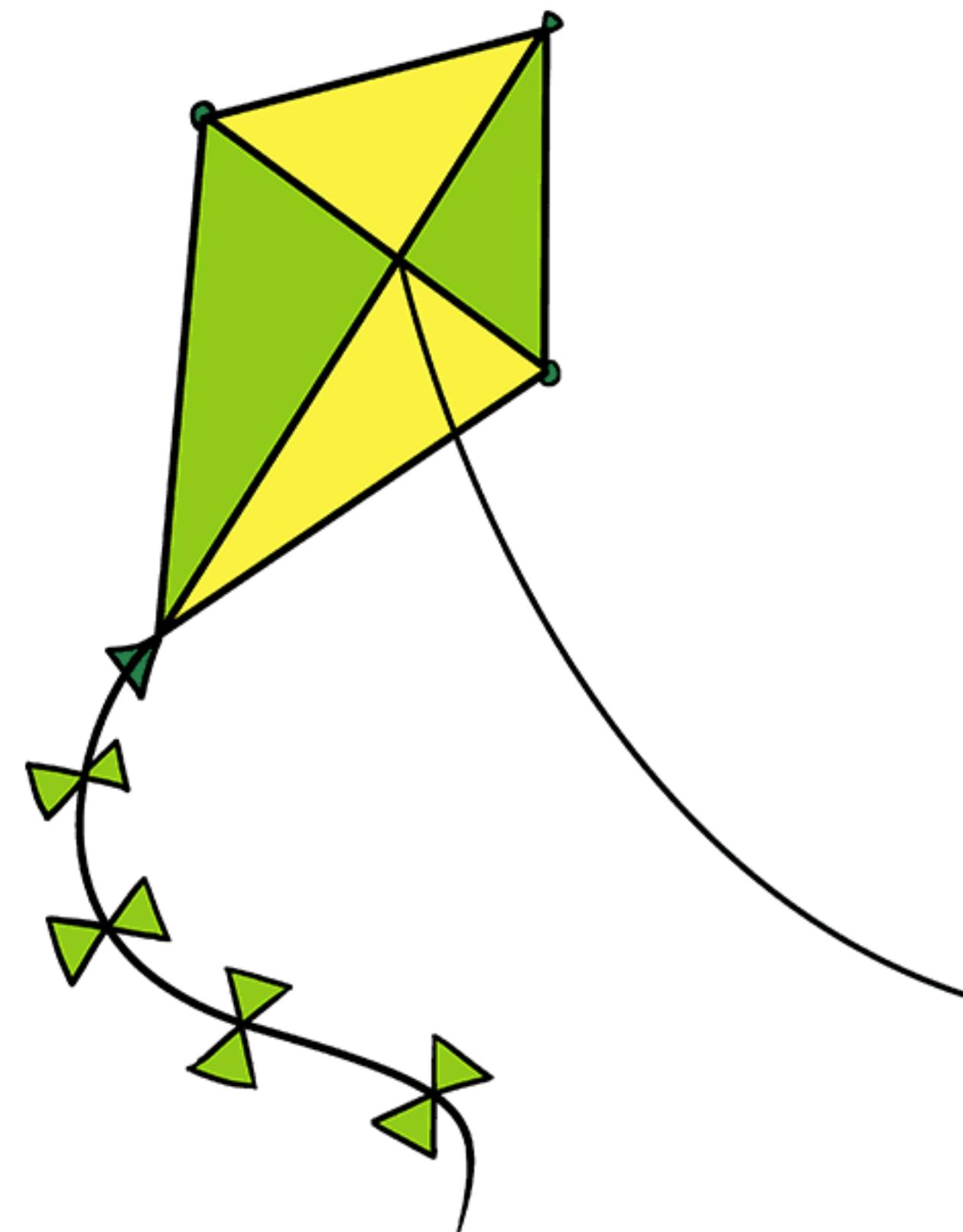
noiseFieldWithSmoothness

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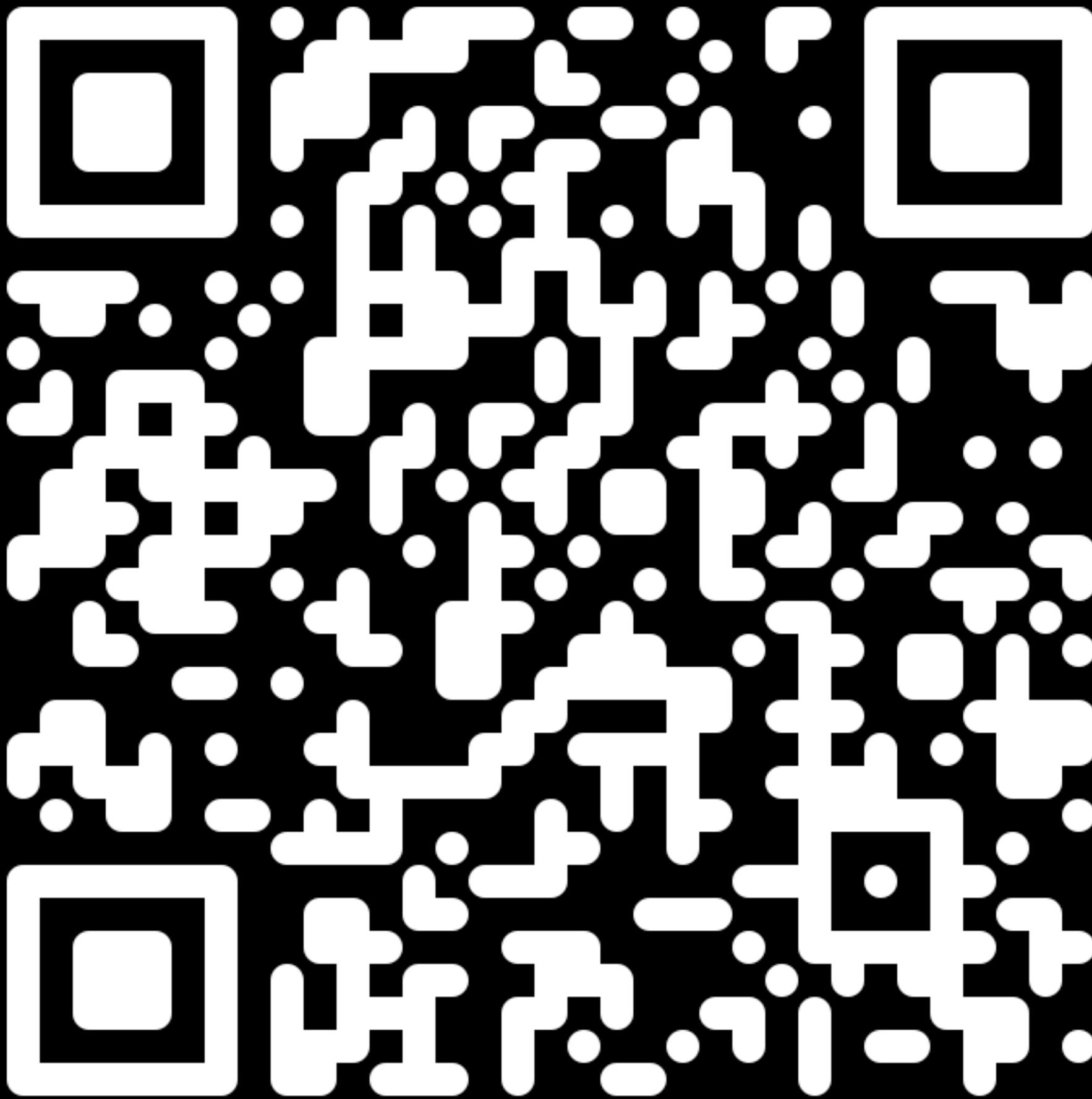
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Repositório da talk no GitHub