

SpriteKit Games

by Justin Shacklette

ACTIVISION



ACTIVISION FOUNDED IN

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17 DOMESTIC
LOCATIONS

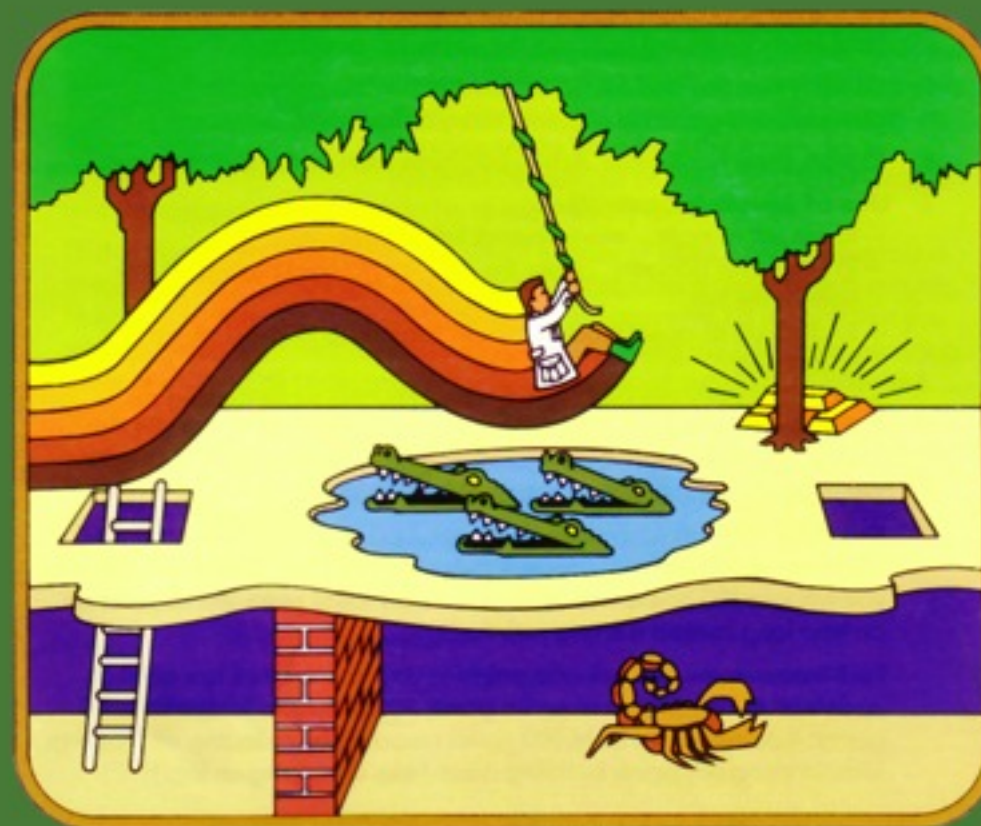
21 INTERNATIONAL
LOCATIONS

ACTIVISION®

PRESENTS

PITFALL!™

VIDEO GAME CARTRIDGE



FOR USE WITH THE
ATARI VIDEO COMPUTER SYSTEM™



Activision Game Science

- Better games...through data
 - Catch cheaters
 - Balance weapons
 - Better matchmaking
 - Much more...
- Maximize fun / minimize un-fun
- Blog:

<http://activisiongamescience.github.io>

What is SpriteKit?

- 2D game framework from Apple

sprites

animation

emitters

particles

physics

actions

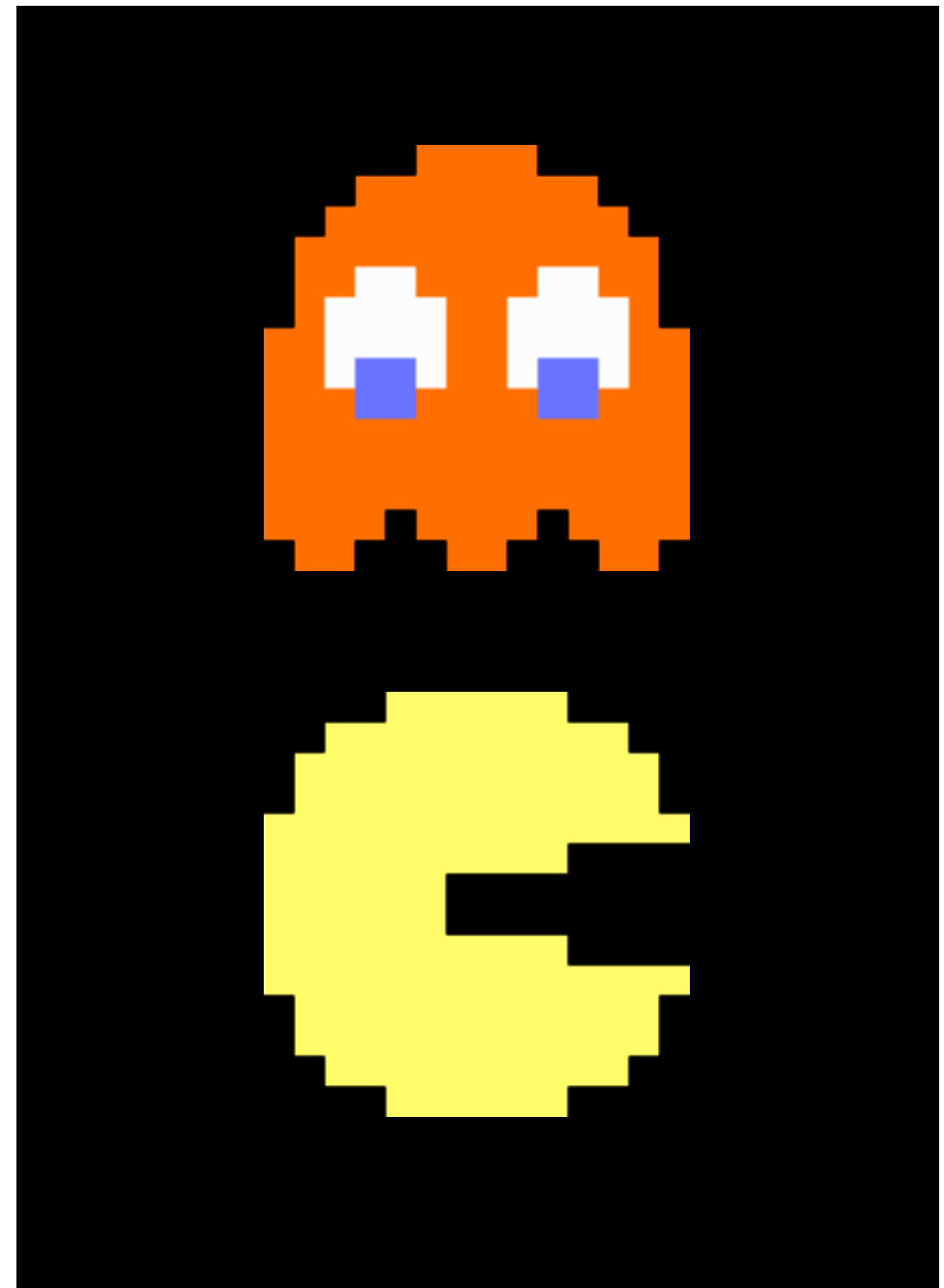
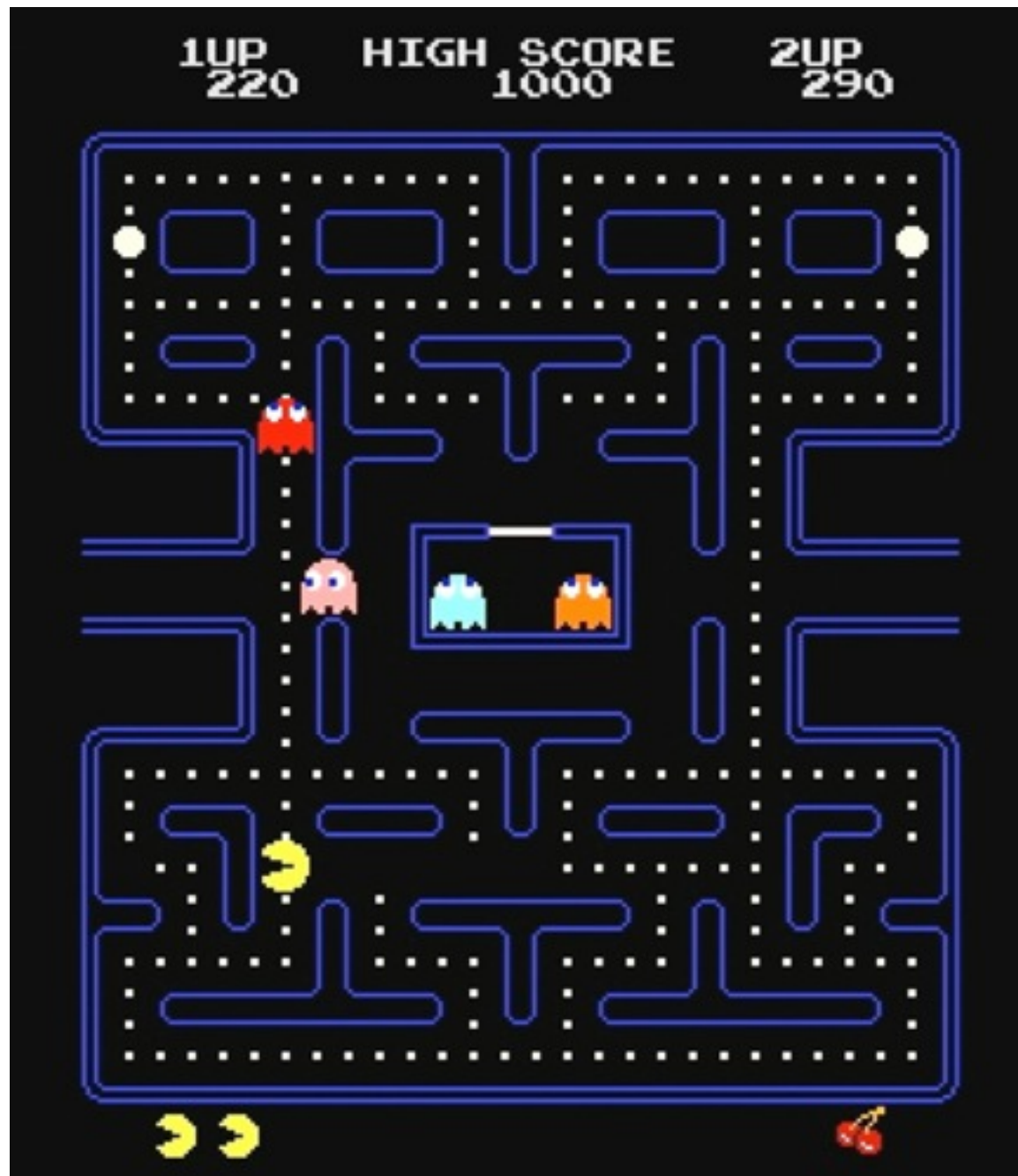
audio

events

gestures

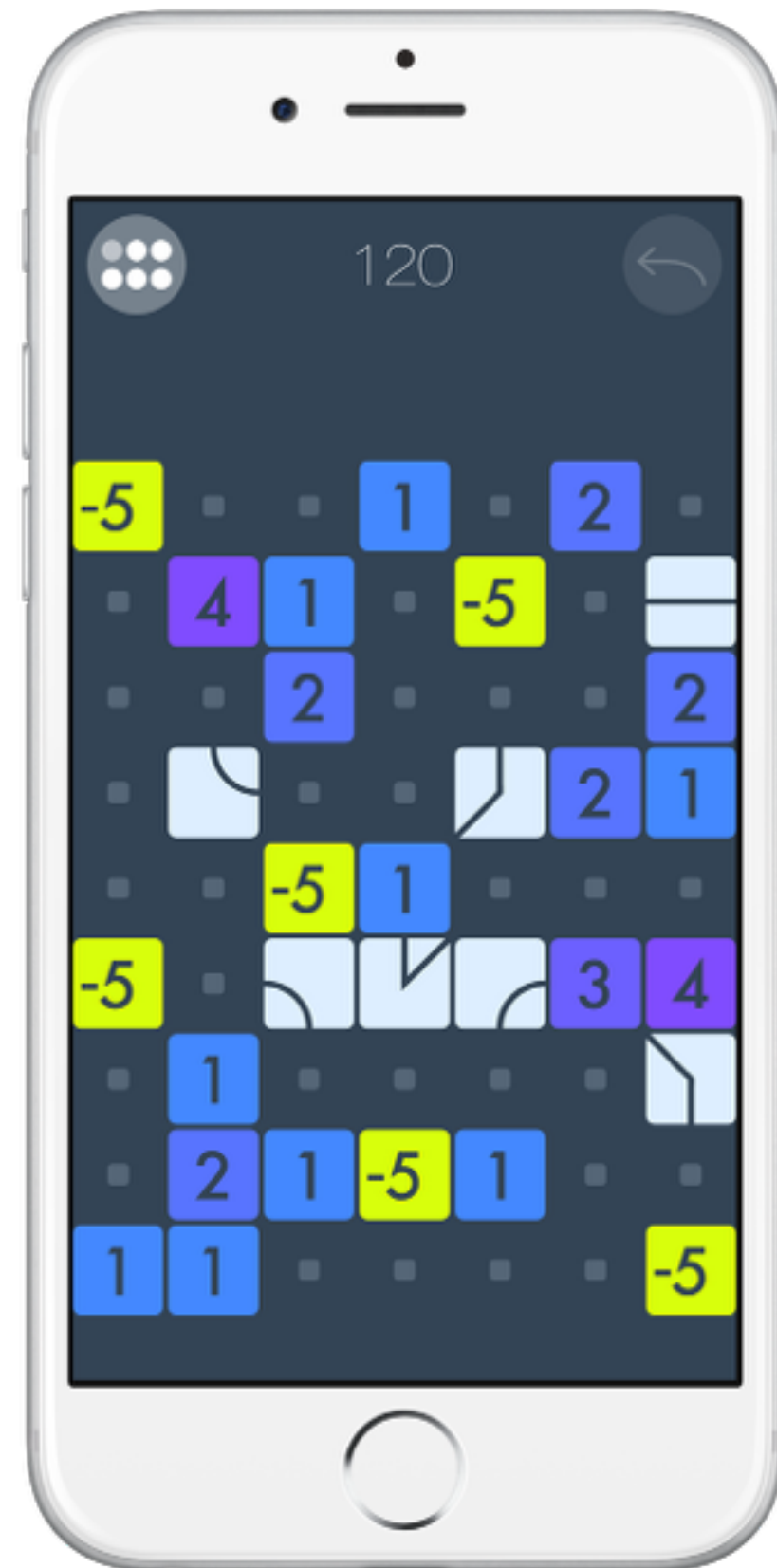
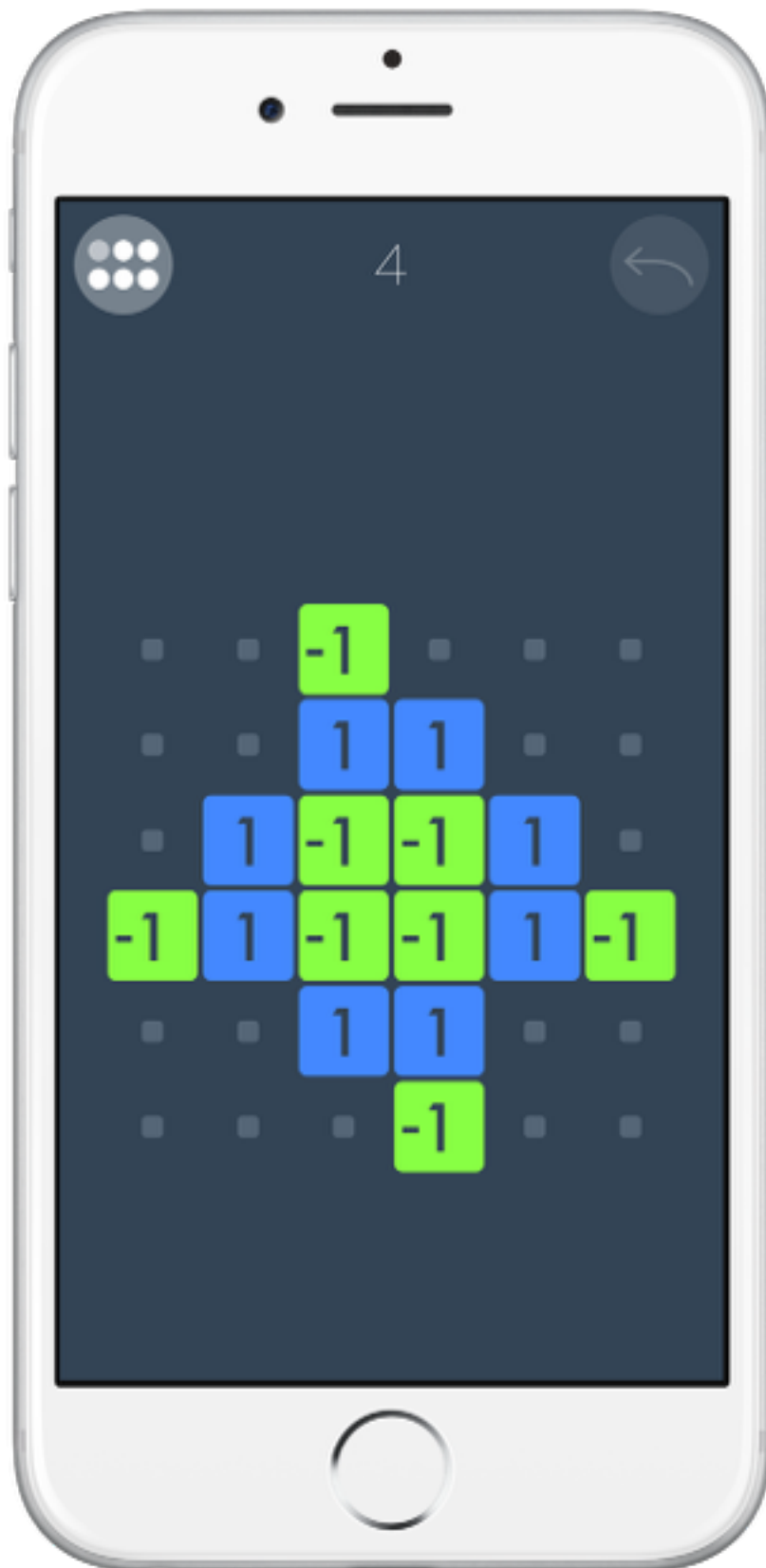
Sprites

- 2D bitmap images

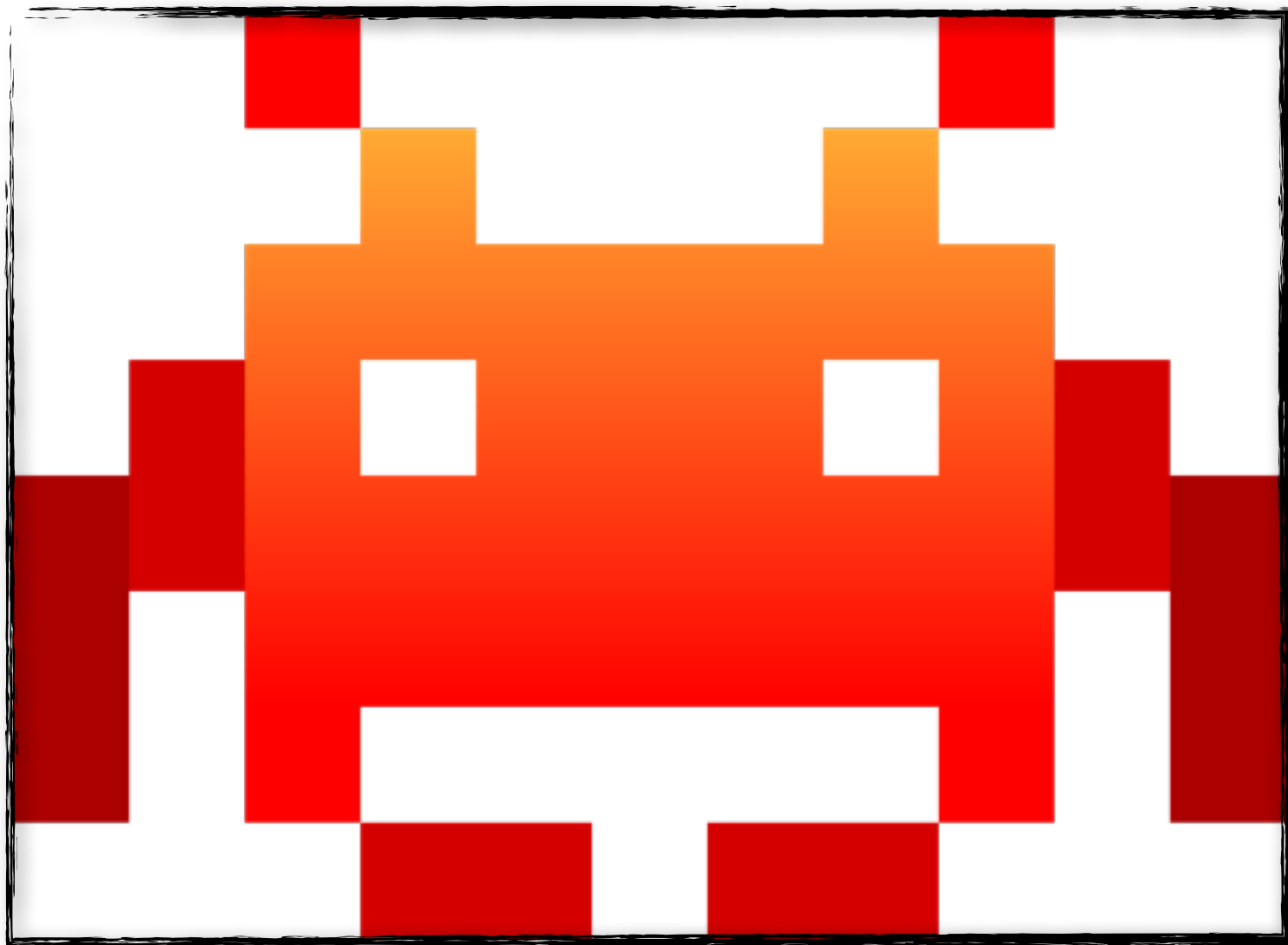


Zero+

<http://thezeroapp.com>



Sprite



PNG (44px × 32px)

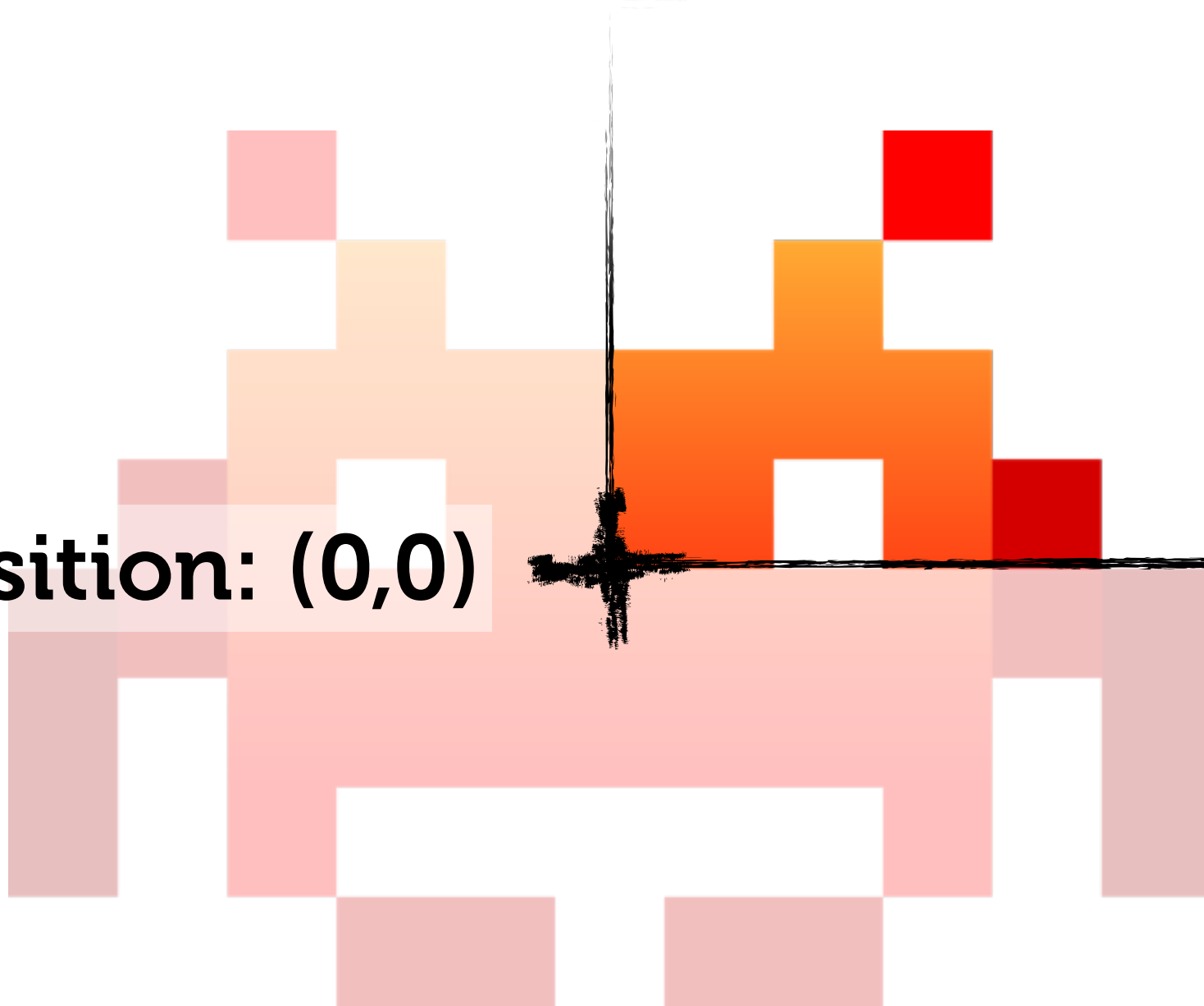
Sprite Anchor

anchor: (0.5,0.5)



Sprite Position

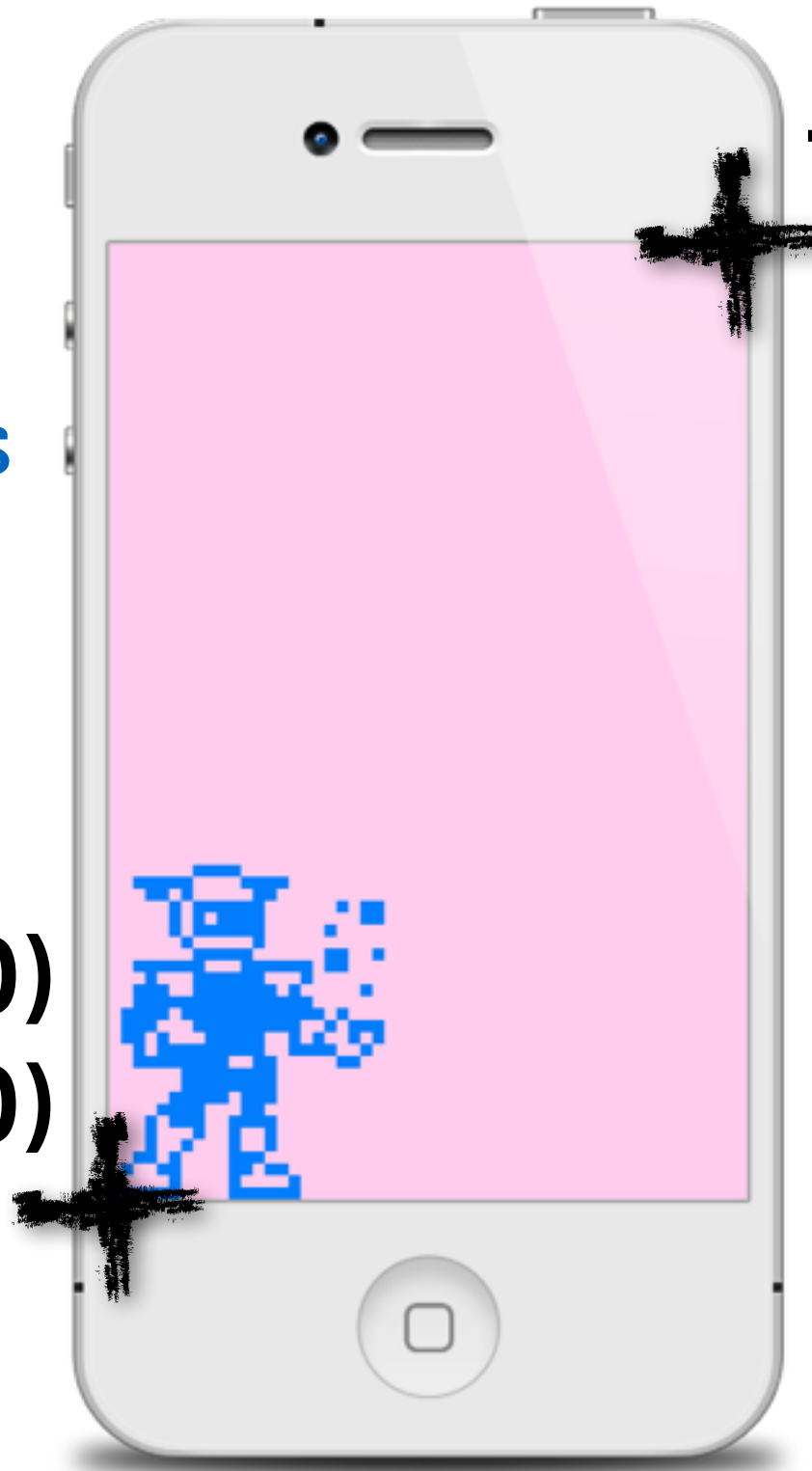
position: (0,0)



Sprite Position

Points, not pixels

anchor: (0,0)
position: (0,0)



position: (W,H)

iPhone

320 × 480

320 × 568

375 × 667

414 × 736

iPad

768 × 1024

1536 × 2048

Sprite xScale, yScale



1.0

44px × 32px

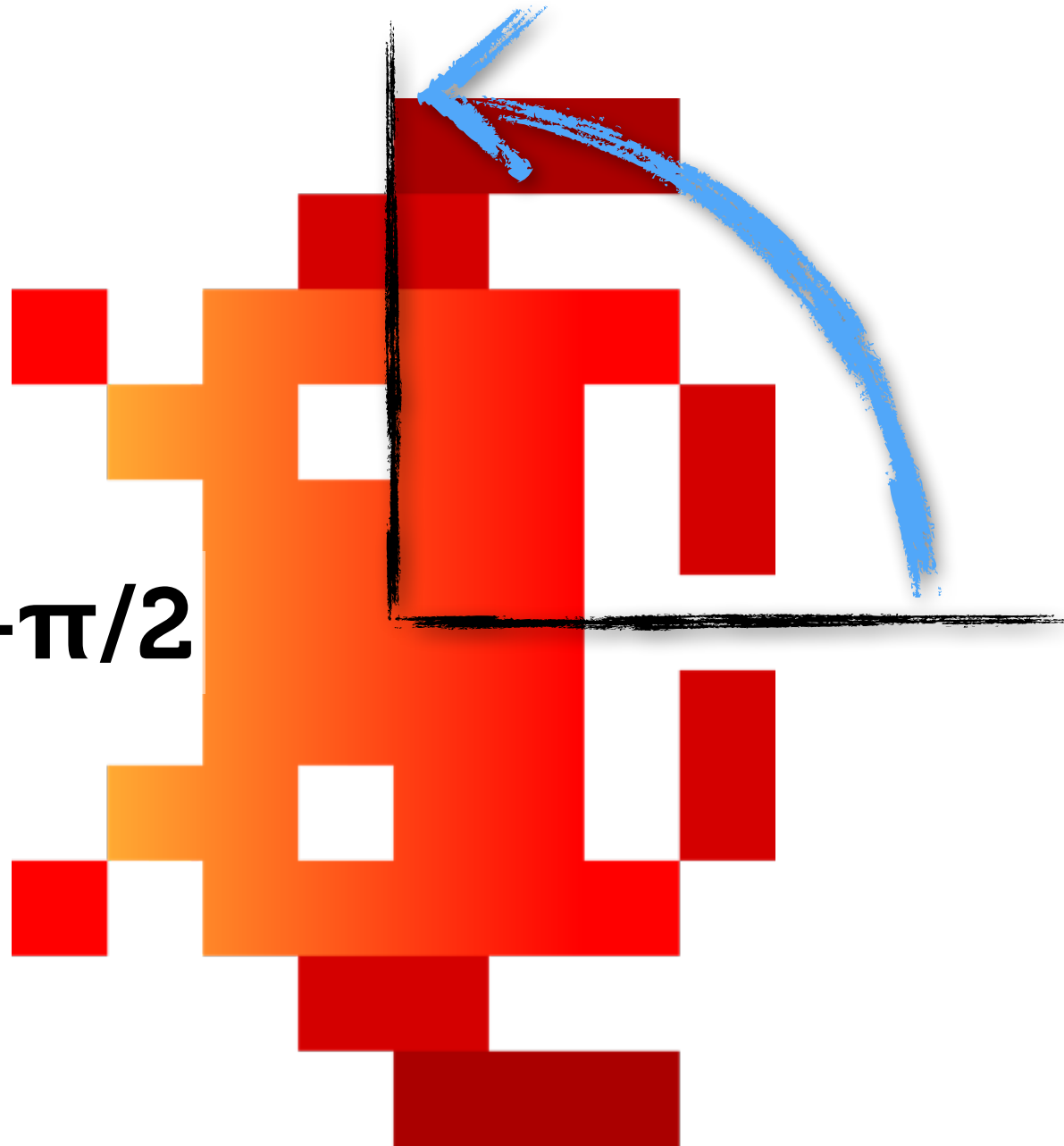


2.0

88px × 64px

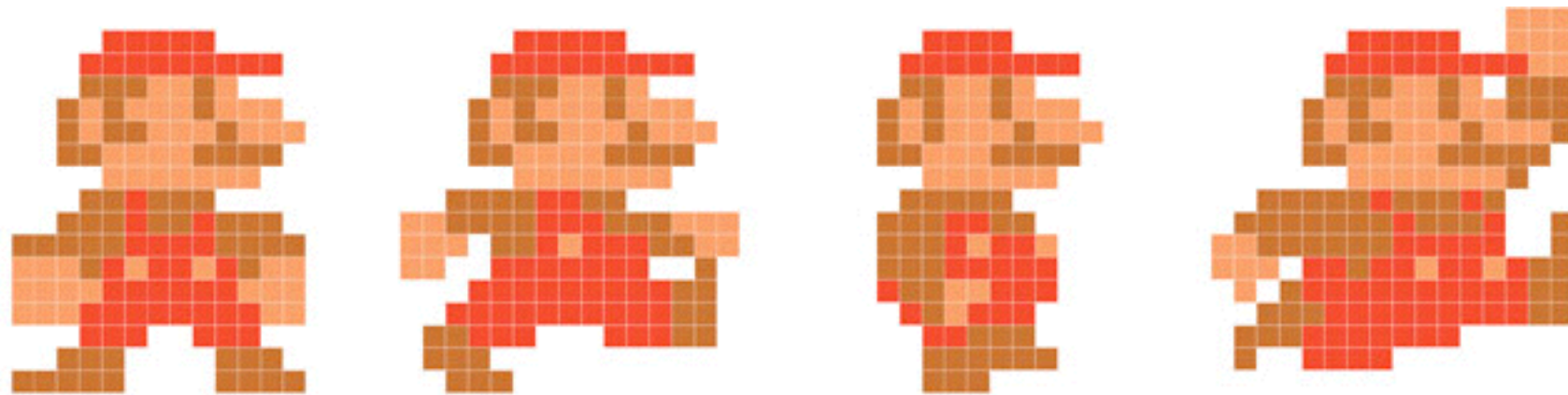
Sprite zRotation

zRotation: $+\pi/2$

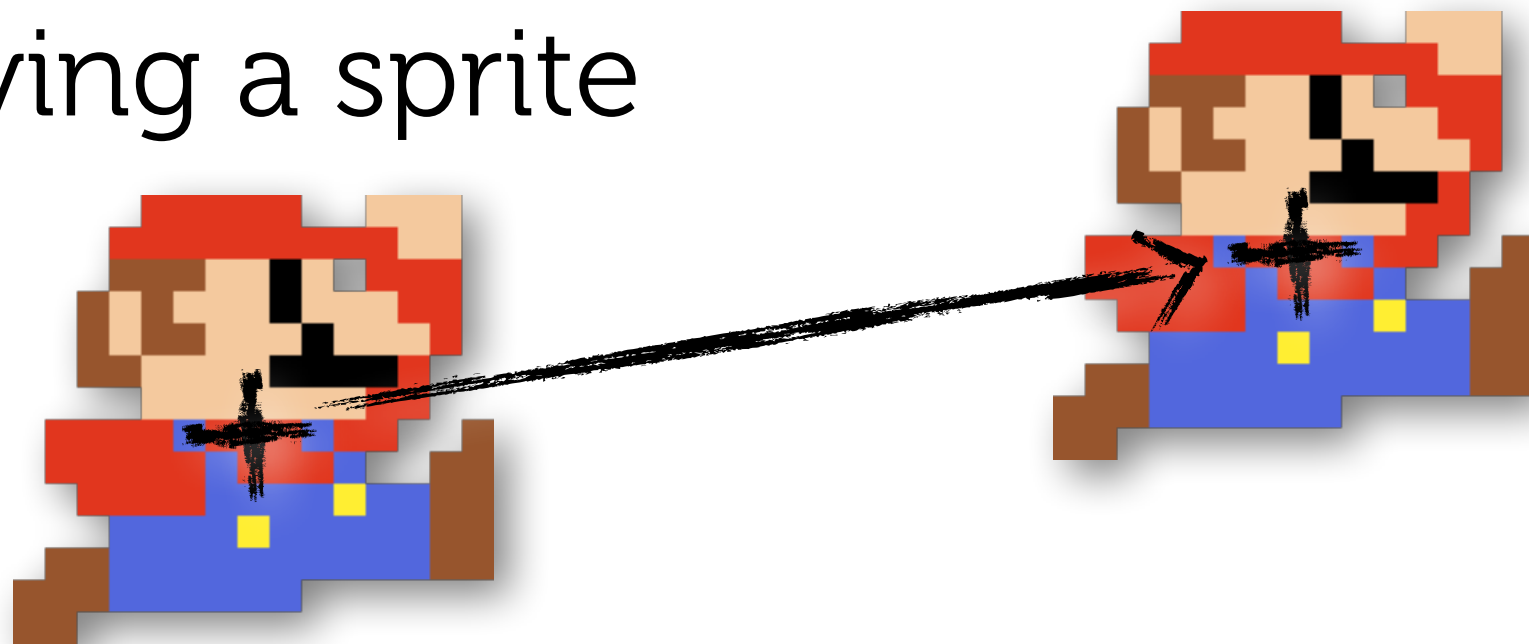


Animation

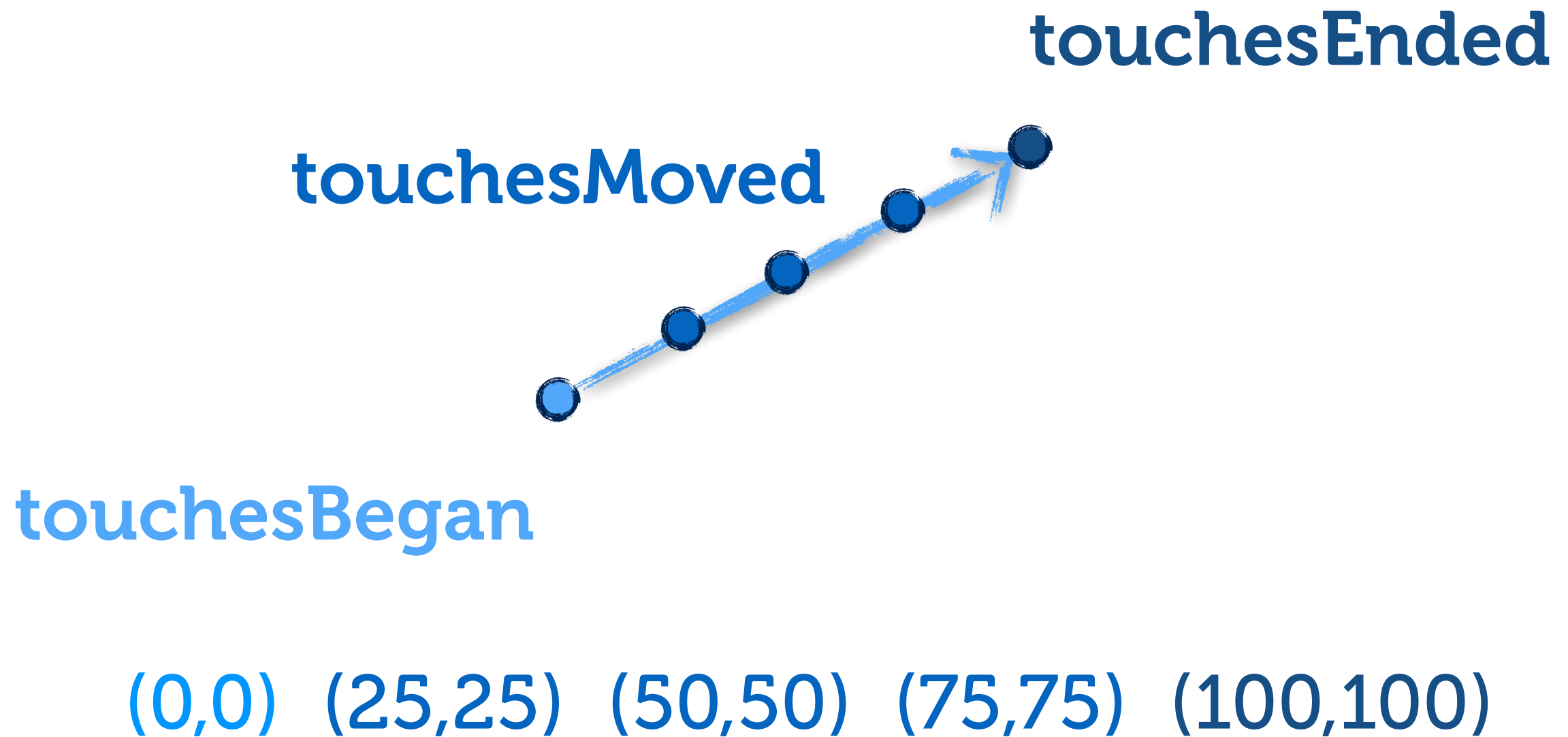
- Animating a sprite



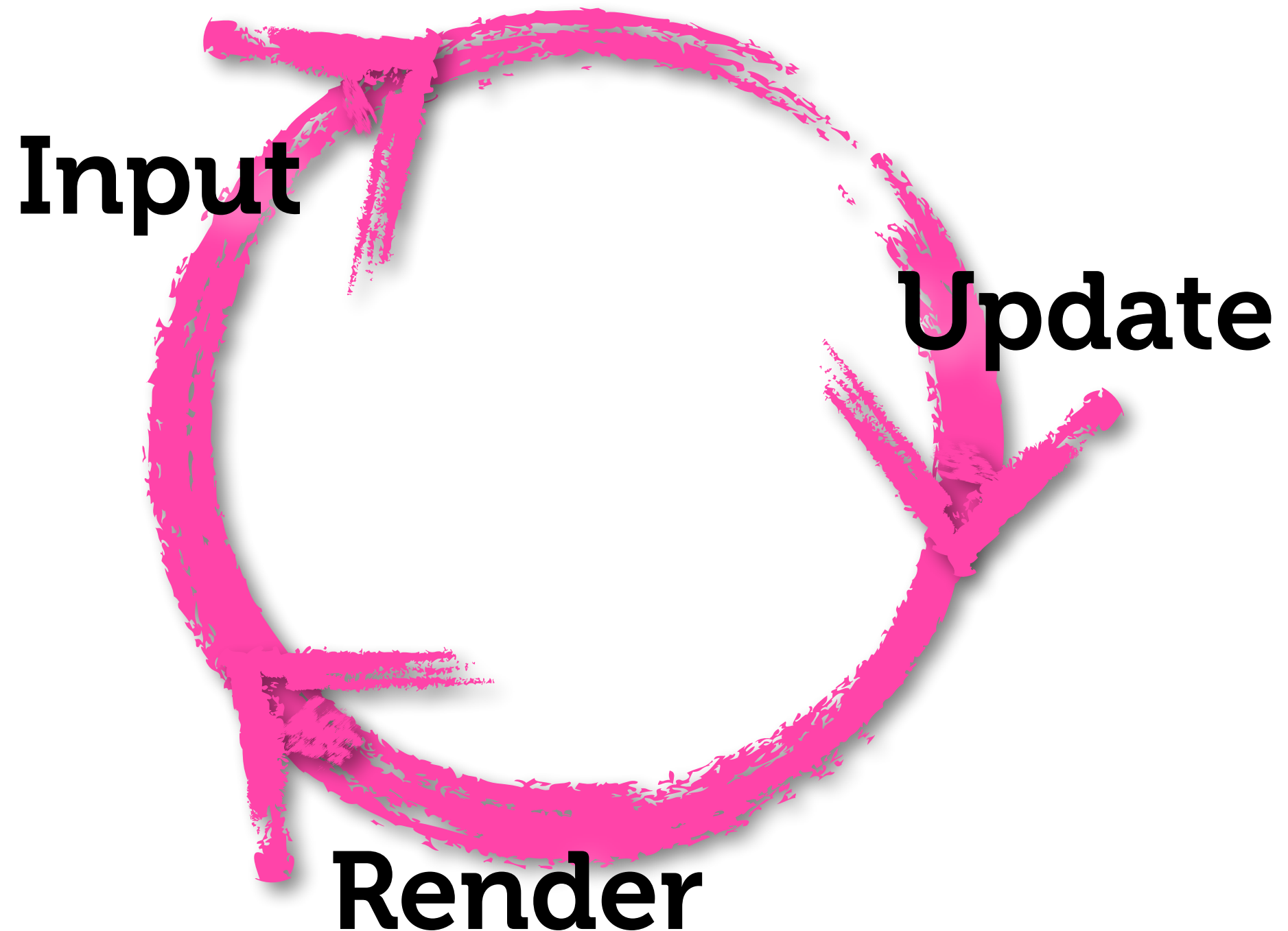
- Moving a sprite



Touch Events



The Game Loop



Actions

- Implicit - built-in actions

- fade, move, rotate, tint, ...

- ```
SKAction.moveByX(25.0, y: 75.0, duration: 0.5)
```

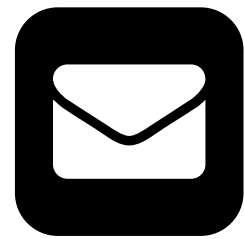
- ```
SKAction.fadeOutWithDuration(0.5)
```

- Explicit - change property every frame

- ```
self.alien.position = CGPoint(x: 100.0, y: 100.0)
```

- ```
self.alien.alpha -= 0.002
```

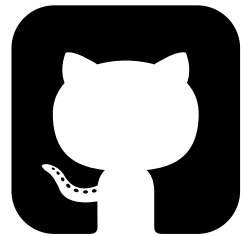
Code



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github.com/saturnboy



thezeroapp.com