



by Sally Ransom

Cocos2d = gaming

- Sprites
- Sound & graphics effects
- Animations
- Physics
- But... not ARC compatible (use -fno-objc-arc)
- UIKit is separate



Get it

www.cocos2d-iphone.org/download

- 1) Download latest version
- 2) Use Terminal to cd to folder
- 3) Drag and drop `install-templates.sh` onto terminal window
- 4) Press enter
- 5) Voila!

You Get NODES!



Nodes are... everything

Layers are subviews

Scenes are screens

Sprites are objects



Scenes

- CC = cocos2d as UI = UIKit
- Subclassed from CCLayer or CCLayerColor
- Can use Touch Events Protocol
- Can use Accelerometer
- Built in scene transitions with CCTransition

Scenes

Scene : CCLayer

interface

```
#import "cocos2d.h"

@interface BaseScene : CCLayer

@property (nonatomic, assign) CGSize screensize;

+ (CCScene *)scene;
```

or with background color...

```
@interface BaseScene : CCLayerColor
...
@implementation BaseScene

- (id)init {
    self = [super initWithColor:ccc4(45,45,45,255)];
    ...
}
```

implementation

```
#import "BaseScene.h"

@implementation BaseScene

+ (CCScene *)scene {
    CCScene *scene = [CCScene node];
    BaseScene *layer = [BaseScene node];
    [scene addChild: layer];

    return scene;
}

- (id)init {
    if( (self = [super init])) {
        isTouchEnabled_ = YES;
        // do setup
    }
    return self;
}

- (CGSize)screensize {
    return [[CCDirector sharedDirector] winSize];
}
```



scene transitions

```
- (void)goToScene:(id)sender {
    [[CCDirector sharedDirector] replaceScene:[BasicScene scene]];
}

- (void)flipToScene:(id)sender {
    [[CCDirector sharedDirector] replaceScene:[CCTransitionFlipX transitionWithDuration:1.0
                                                                    scene:[MenuScene scene]]];
}
```


Layers

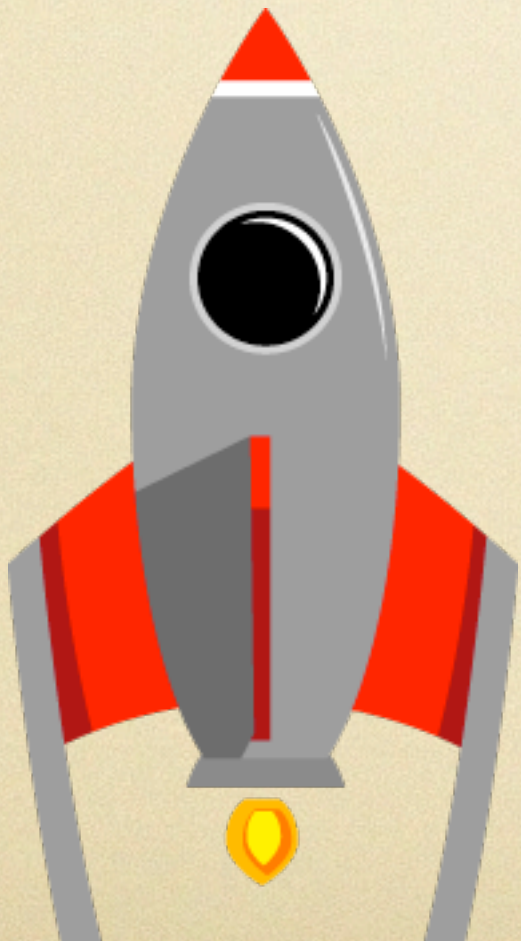
- Subclassed from CCNode
- Layers are subviews for Scenes
- Does not conform to Touch Events Protocols



Sprites

Add a simple sprite to a scene

```
- (void)addMySprite {  
    CCSprite *mySprite = [CCSprite  
        spriteWithFile:@"myspriteimage.png"];  
    mySprite.position = ccp(self.screenSize.width/2,  
        self.screenSize.height/2);  
  
    [self addChild:background z:1];  
}
```



Add a subclassed sprite to a scene

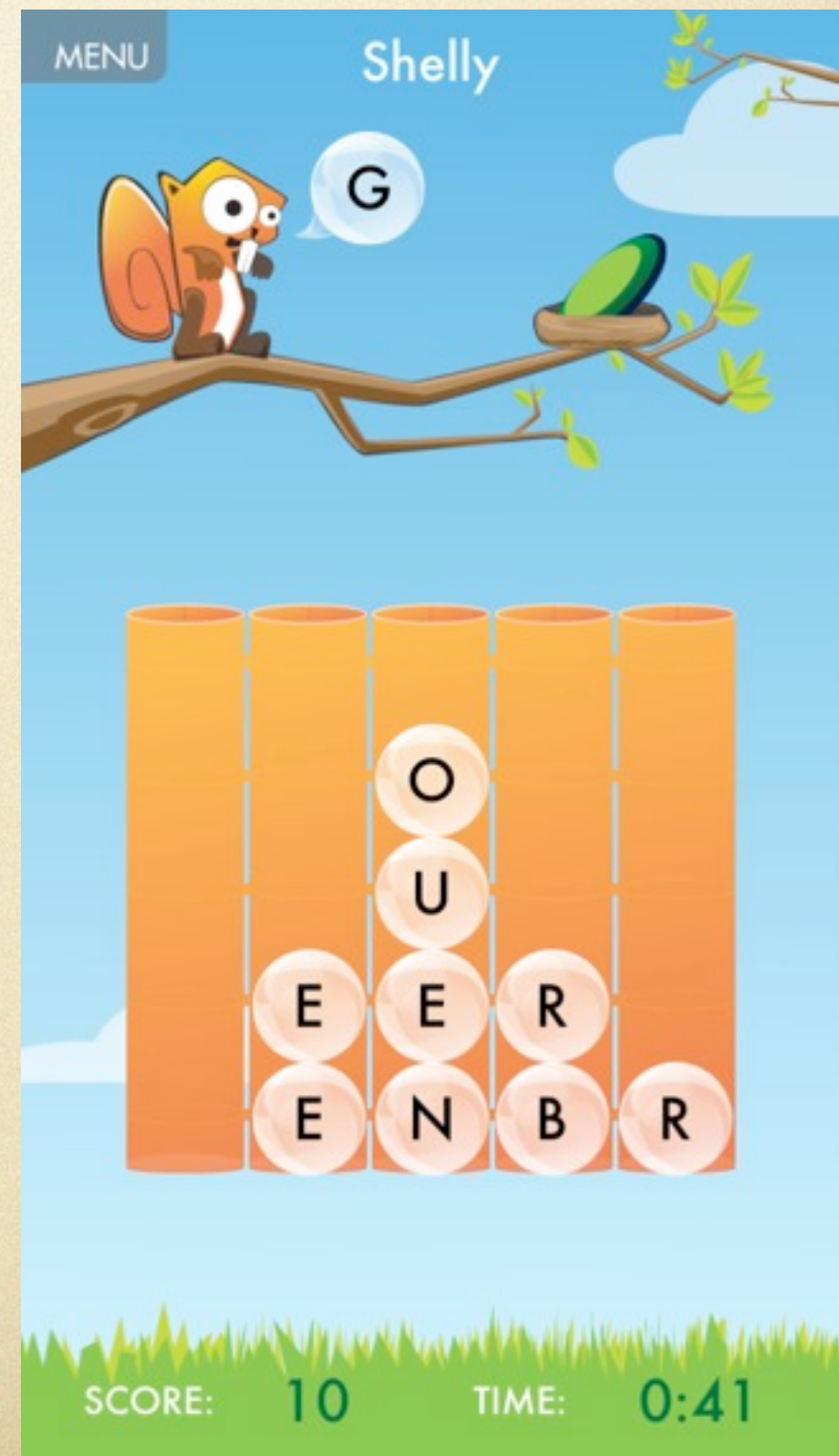
```
#import "cocos2d.h"  
  
@interface MySprite : CCSprite  
  
@end
```

```
#import "MySprite.h"  
  
@implementation MySprite  
  
- (id)init {  
    self = [super init];  
  
    if (self) {  
        CCTexture2D *texture = [[CCTextureCache  
sharedTextureCache] addImage:@"myspriteimage.png"];  
        CGRect rect = CGRectZero;  
        rect.size = texture.contentSize;  
        [self setTexture:texture];  
        [self setTextureRect:rect];  
    }  
  
    return self;  
}
```

```
- (void)addMySprite {  
    MySprite *mySprite = [MySprite alloc] init];  
    mySprite.position = ccp(self.screenSize.width/2,  
        self.screenSize.height/2);  
  
    [self addChild:background z:1];  
}
```


Relative Positioning

- relative to other objects
- relative to screen
- relative z position

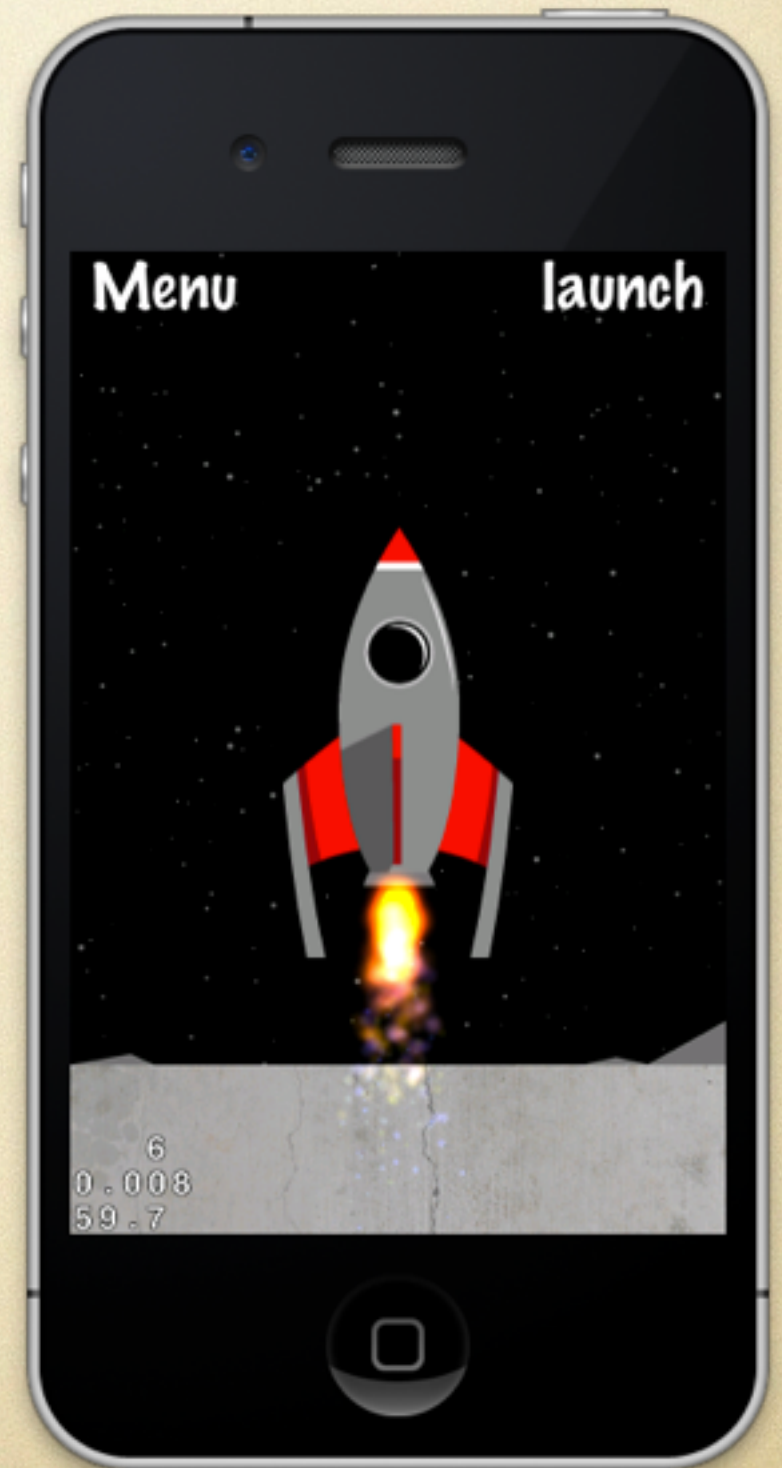


Animations

- CCAction is a single action
- [aSprite runAction:myAction];
- CCSequence is a sequence of actions
- [aSprite runAction:mySequence];
- Works on any node!

Particle Emitters

- Organized animation using particles
- Cocos2d has default particle emitters
- You can make your own!
- Particle Designer by 71Squared



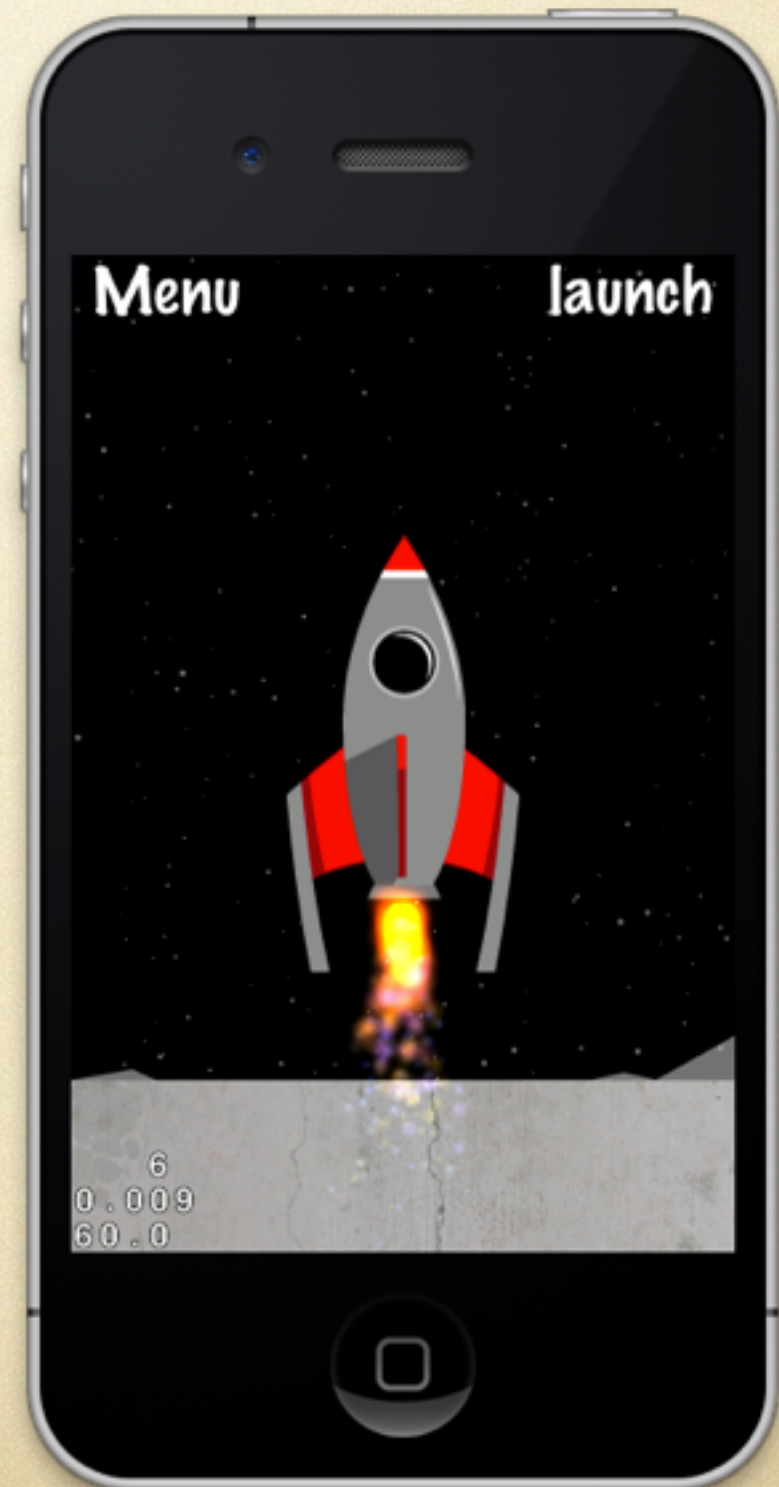
Physics

- Use Box2d framework
- Worlds
- Gravity
- Bodies with shape, friction, and density



Looking at Code

- menu
- sprites
- animations
- particle emitters



Big Thanks to...

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&

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...for providing graphics

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- codered3.com
- chaione.com
- [get WordWhat!?](#)
- [github.com / sallyransom](https://github.com/sallyransom)

