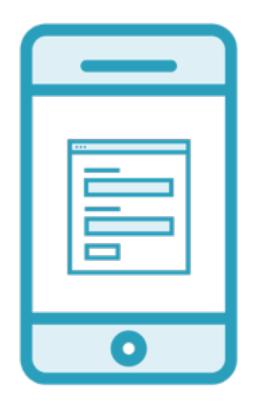
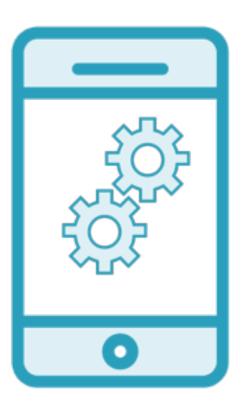
# Creating the UI

## Our Two Fold Process



The User Interface



The Logic

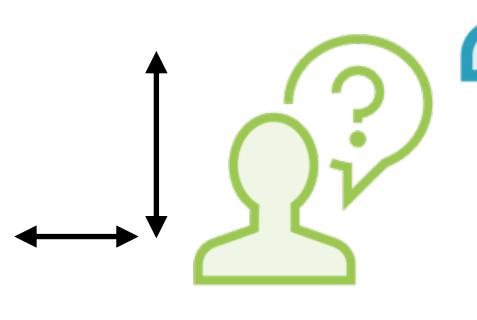


The Logic

The User Interface

## Our Two Fold Process



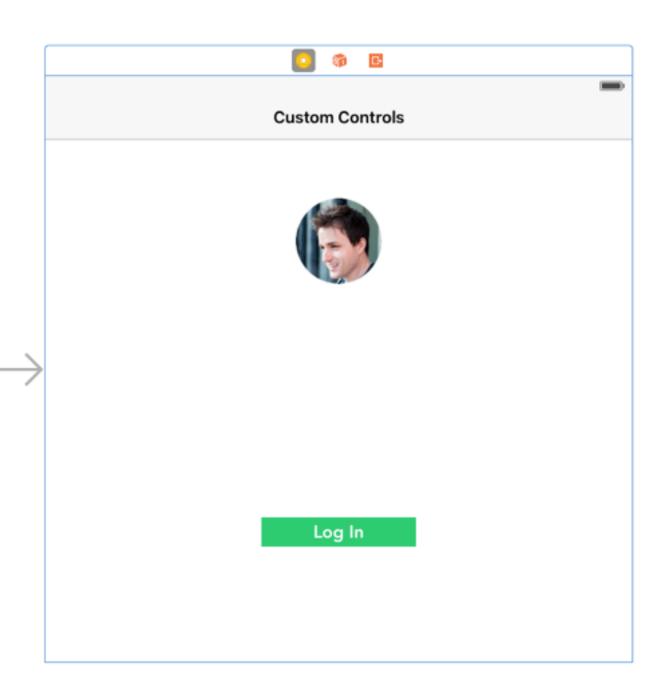




The User Interface

myControl.frame = CGRectMake(0,0,200,200);

```
self.inputEmail = LogInField(frame:
    CGRectMake(self.view.width/2 - 100,
    self.view.centerY - 20, 200, 40), type: .Email)
self.view.addSubview(inputEmail)
```



class MyControl: ...?

■ What do I subclass?

# Objects for Creating Custom Controls



```
import UIKit

let responder = UIResponder()

//A responder handling motion
responder.motionBegan(UIEventSubtype.MotionShake,
withEvent: UIEvent())

//A responder handling touches
responder.touchesBegan(Set([UITouch()]),
withEvent: UIEvent())
```

- ◀ Handling motion
- **◄** Handling touch

```
import UIKit
let aView = UIView()

let anotherView = UIView()
aView.addSubview(anotherView)

let aViewController = UIViewController()
aViewController.view.addSubview(anotherView)
```

let aSwipe = UISwipeGestureRecognizer()

aView.addGestureRecognizer(aSwipe)

```
◆Draws and manages content within a rectangular area
```

- ◆ Can house subviews
- **▼Every UIViewController has a view property**

```
import UIKit
let aControl = UIControl()
func doSomething() {}
let aViewController = UIViewController()
aControl.addTarget(aViewController, action:
Selector(doSomething()), forControlEvents: .TouchUpInside)
// aViewController == The "Thing"
// doSomething == The Action
// Touching inside the control == The Event
// doSomething() is invoked when the slider moves
let aSlider = UISlider()
aSlider.addTarget(aViewController, action:
Selector(doSomething()), forControlEvents: .ValueChanged)
```

**▼Focused towards creating controls**

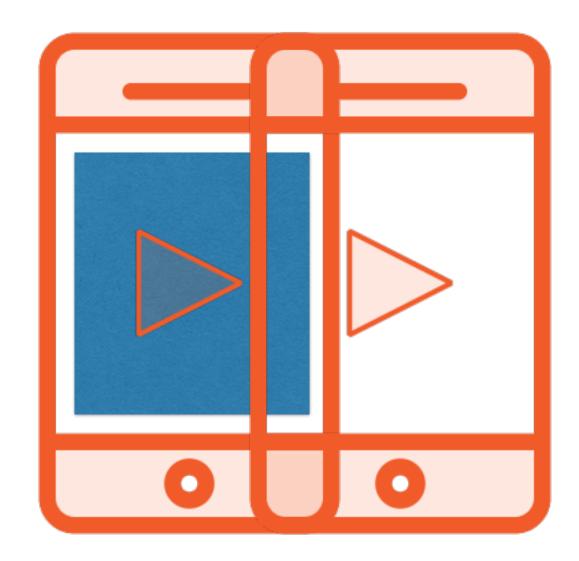
■ Target-Action built in

◆Target-Action being used for a UISlider

### Which To Use?

#### **UIViews Are:**

- Multipurpose
- Might be just a container



#### **UIControls Are:**

- Very focused
- Just for controls

**Project Overview** 

**Adding Files** 

**Creating Constructors** 

Add properties for the user interface

Layout our views

Add our control to a view controller

Hide and show animations

Implement UITextFieldDelegate

Setup Auto Layout constraints

Use custom control on a storyboard