

Diving into Interface Builder and NSLayoutConstraint



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Module Overview



Interface Builder Tools

Build a Splash Screen

NSLayoutConstraint API

Rebuild Splash Screen in Code

Menu Screen

NSLayoutConstraint

Verbose

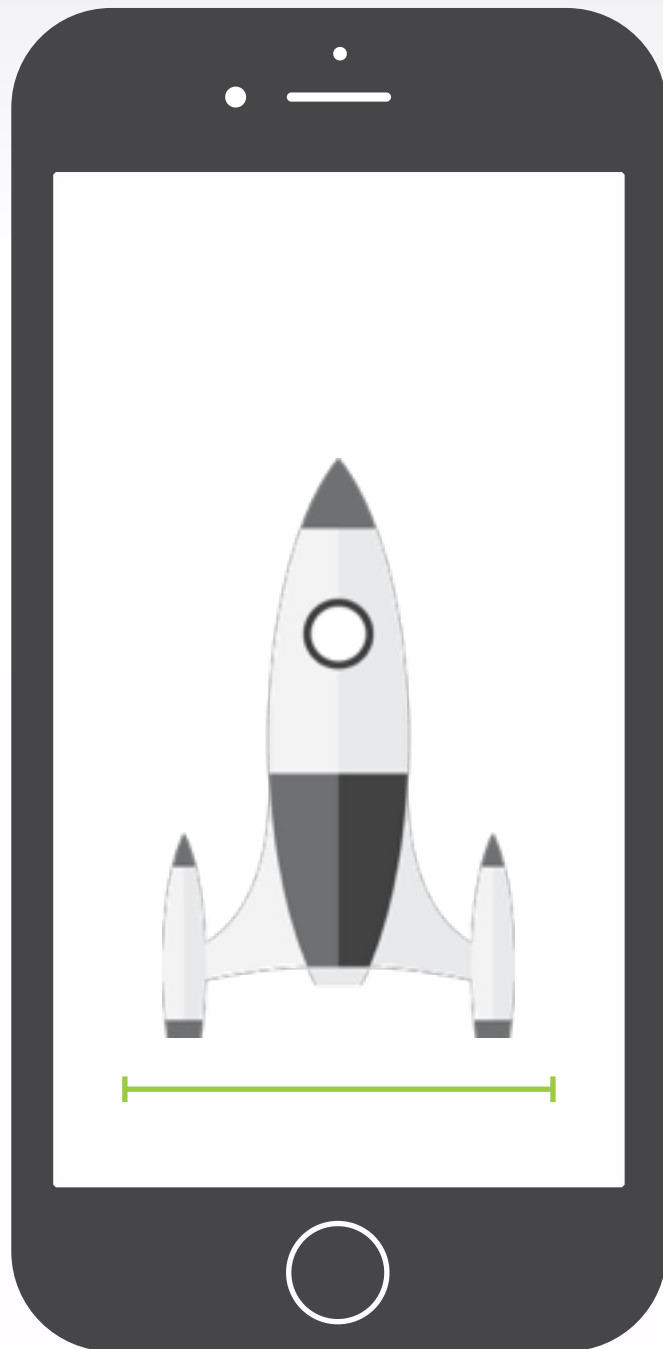
Difficult to Master

Flexible

```
let constraint = NSLayoutConstraint(  
    item: AnyObject,  
    attribute: NSLayoutConstraintAttribute,  
    relatedBy: NSLayoutConstraintRelation,  
    toItem: AnyObject?,  
    attribute: NSLayoutConstraintAttribute,  
    multiplier: CGFloat,  
    constant: CGFloat  
)
```

NSLayoutConstraint

Width



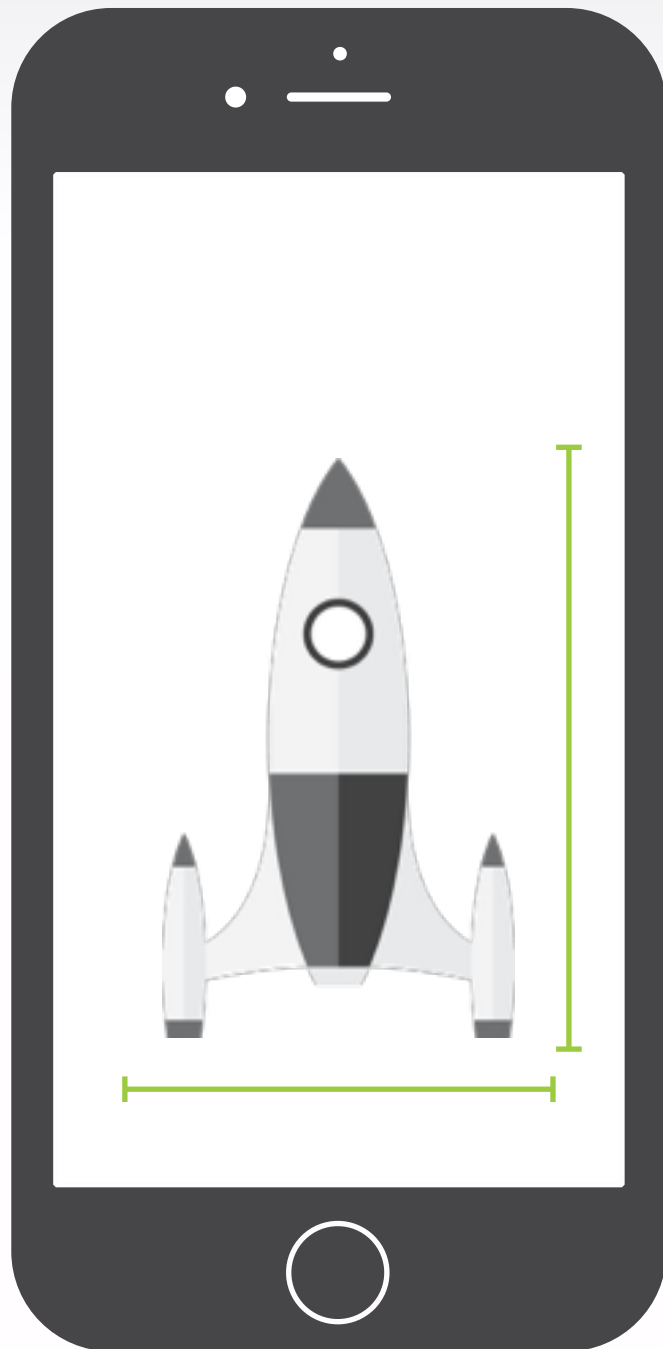
```
let image = UIImage(named: "rocketShip")
let rocketShipView = UIImageView(image: image)
```

```
let constraint = NSLayoutConstraint(
    item: rocketShipView,
    attribute: NSLayoutConstraint.Width,
    relatedBy: NSLayoutConstraint.Equal,
    toItem: nil,
    attribute: NSLayoutConstraint.NotAnAttribute,
    multiplier: 1.0,
    constant: 200.0
)
```

```
rocketShipView.addConstraint(constraint)
```

NSLayoutConstraint

Aspect Ratio



```
let image = UIImage(named: "rocketShip")
let rocketShipView = UIImageView(image: image)
let imageSize = imageView.bounds.size

let aspectRatio = imageSize.width / imageSize.height

let constraint = NSLayoutConstraint(
    item: rocketShipView,
    attribute: NSLayoutConstraint.Width,
    relatedBy: NSLayoutConstraint.Equal,
    toItem: rocketShipView,
    attribute: NSLayoutConstraint.Height,
    multiplier: aspectRatio,
    constant: 1.0
)

rocketShipView.addConstraint(constraint)
```

Summary



Interface Builder Tools

NSLayoutConstraint API

Built a Splash Screen

Storyboard Assistant Editor

Adaptive Menu Screen

Think about the Relationships