How Layout Works

⚙ System calls:

   ⚙ updateConstraints

   ⚙ layoutSubviews

   ⚙ display

⚙ Request using (work is done on next render pass):

   ⚙ setNeedsUpdateConstraints

   ⚙ setNeedsLayout

   ⚙ setNeedsDisplay

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How Layout Works

⚙ Force immediate update using:
  ⚙ updateConstraintsIfNeeded (not usually used)
  ⚙ **layoutIfNeeded**
  ⚙ displayIfNeeded - on CALayer (not usually used)

⚙ UIViewController participation:
  ⚙ updateViewConstraints
  ⚙ view[Will/Did]LayoutSubviews

Animating Constraints

```swift
// (Optional) Make sure previous changes are laid out without animation
view.layoutIfNeeded()

// Make changes to constraints to animate (including adding or removing some)
width.constant = 100
UIView.animateWithDuration(0.5) { () -> Void in
  self.view.layoutIfNeeded()
}
```

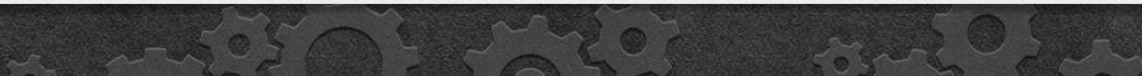# Auto Layout and other Frameworks

⚙ UIView transforms ❌

⚙ UIDynamicAnimator ❌

⚙ UIMotionEffect ✅

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Demo

Challenge