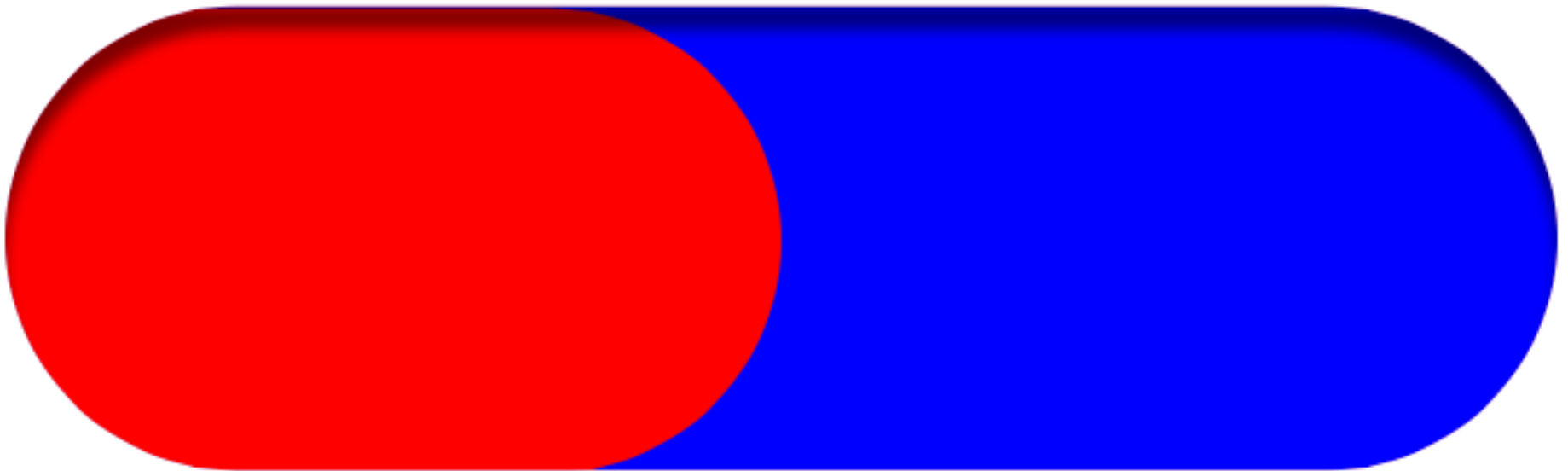# Custom UIViews from CALayers

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Create a Progress View

Simplest Way

- Get 3 Images
  - Background, Completion, Shadow
- Fixed size, colors :(
- Boooooooring :(

More Fun Way

- Use 2 CAShapeLayers

    - For the Background, Completion

- Set a shadow on one and mask it out

CAShapeLayer

- Draws using a CGPath

- Use UIBezierPath as an easy way to create your CGPath

Shadows

- Just some properties on CALayer

  - @property CGColorRef shadowColor

  - @property float shadowOpacity

    - I don't know why this isn't a CGFloat

  - @property CGSize shadowOffset

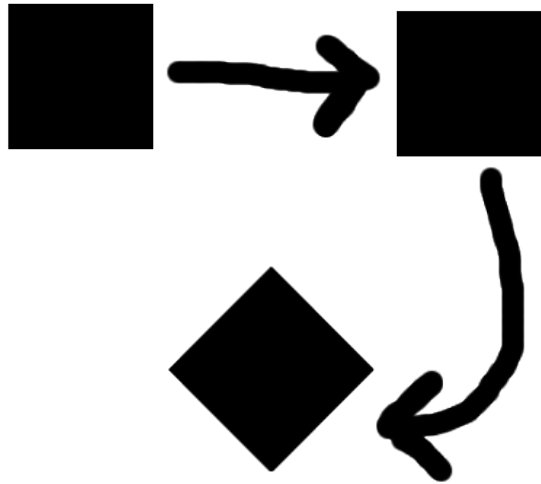 - @property CGFloat shadowRadius

Live Coding

- Coding from scratch

- Don't worry. I practiced, and I have a series of granular git commits to back me up.

- Follow along:

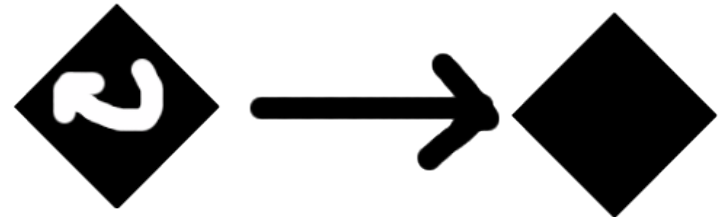   - git clone https://github.com/hborders/HBProgressView.git

AffineTransform

- Move, Scale, Rotate
- Order Matters!

Translate then rotate
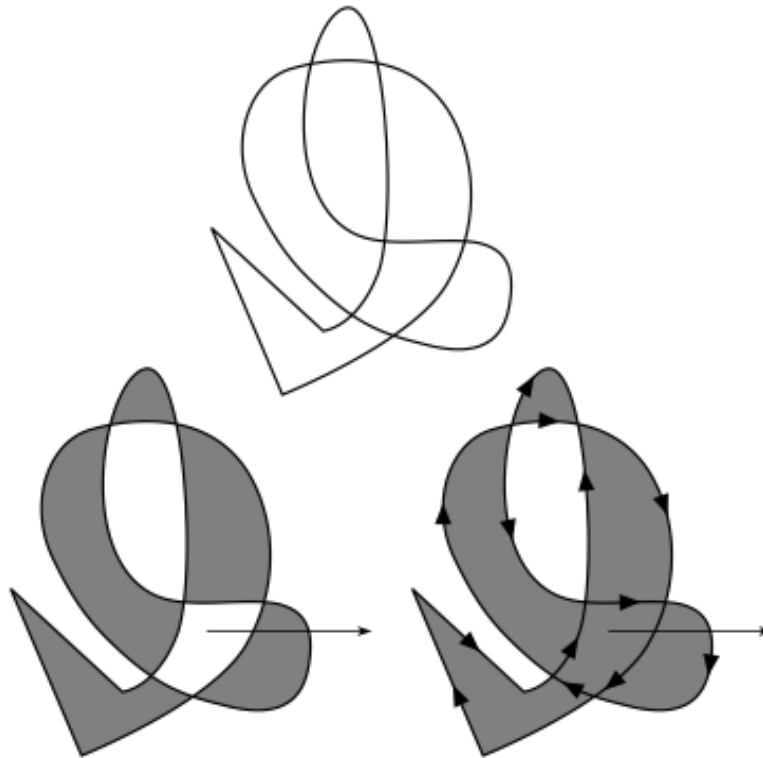(Assuming we start at the origin)

Rotate then translate
(Assuming we start at the origin)

More Live Coding

Inside or Outside?

- Even-Odd vs. Non-Zero Winding

Next Steps

- Make completionFactor animatable

  - https://github.com/briancoyner/Core-Animation-Pie-Chart

- Try Other CoreAnimation Demos

  - https://github.com/bobmccune/Core-Animation-Demos