

iOS Gesture Recognizers





@jonathanpenn

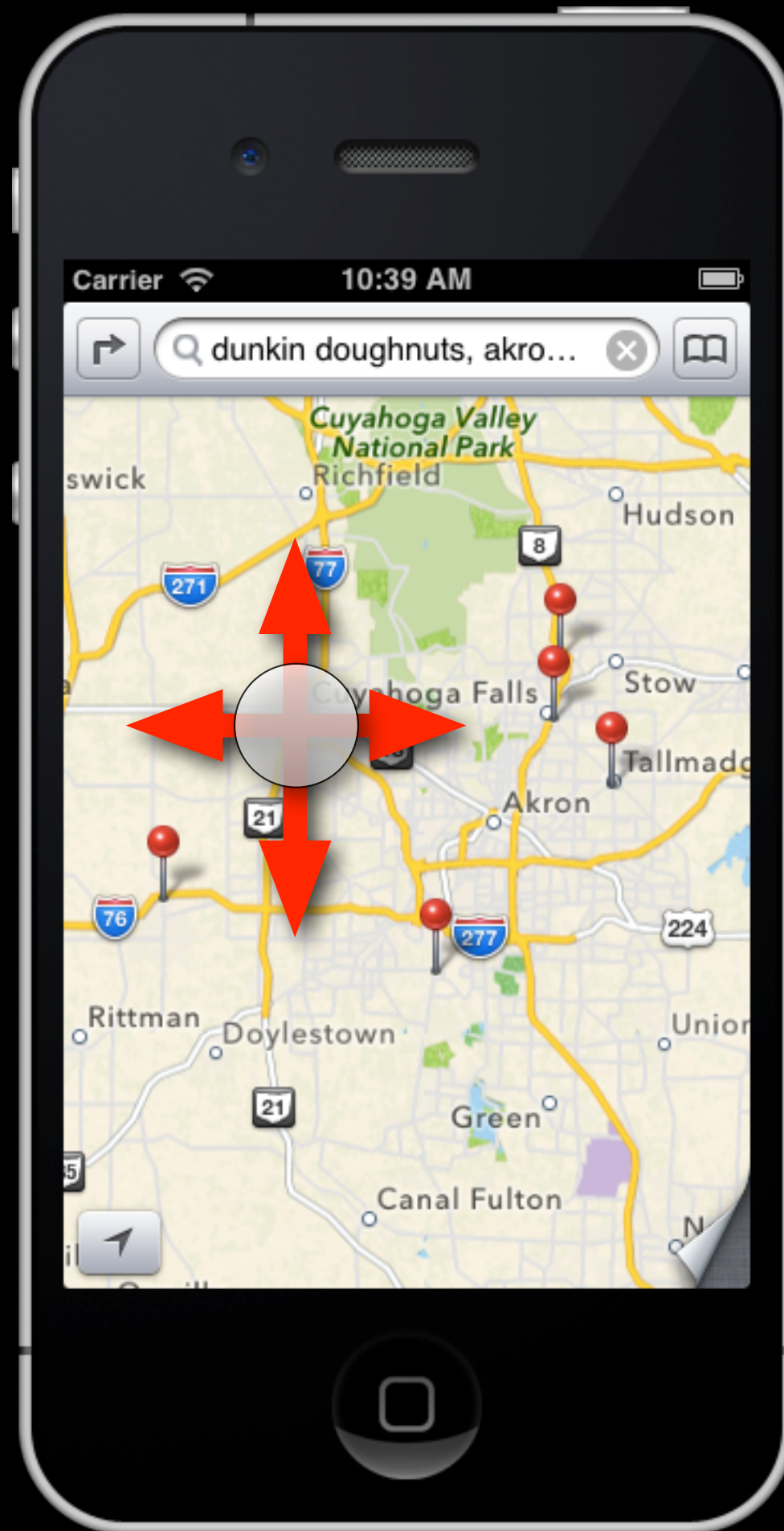


**RUBBER CITY
WIZARDS**

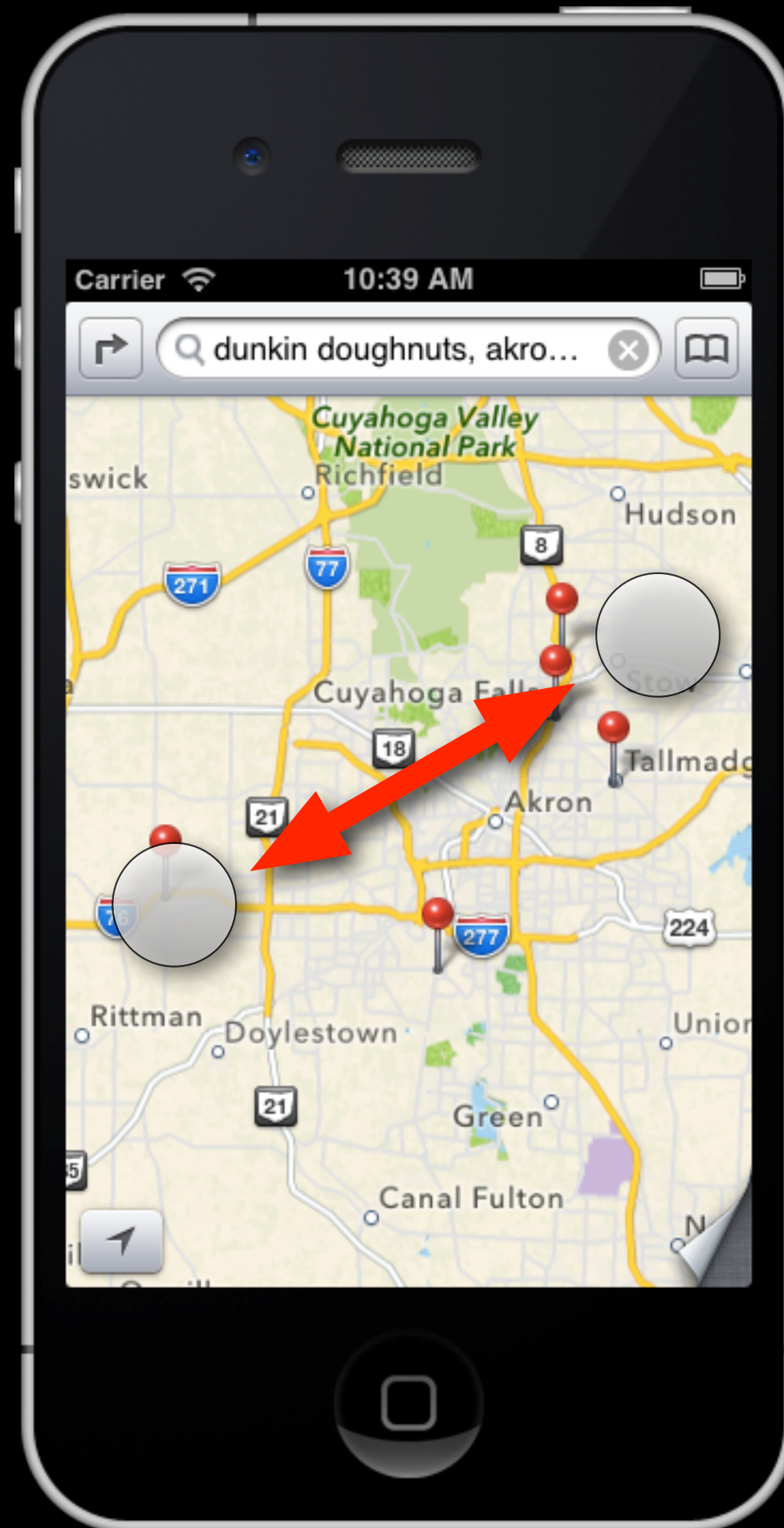
Slides n' Sample Code

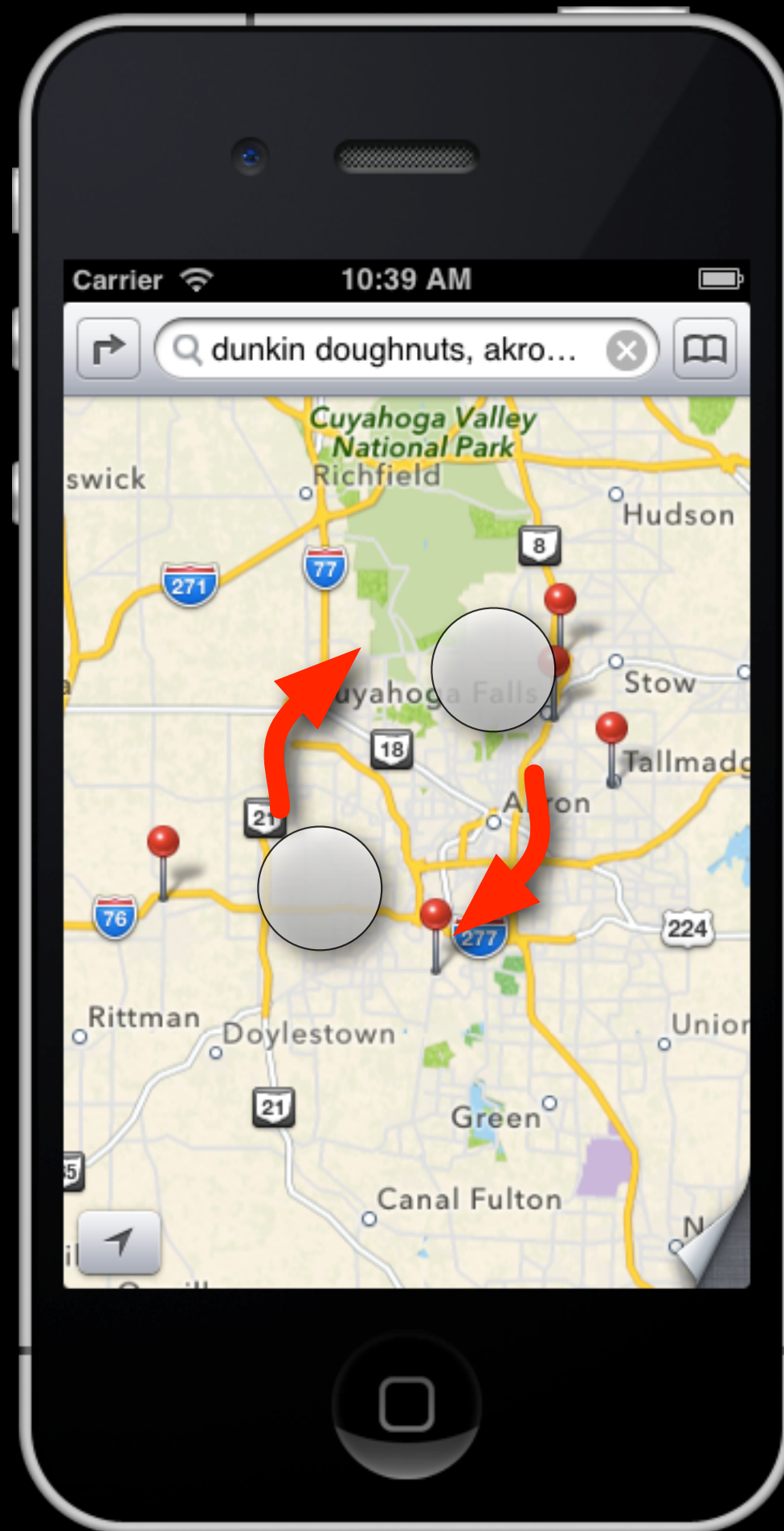
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The problem...









- (void)touchesBegan:(NSSet *)touches
withEvent:(UIEvent *)event
- (void)touchesMoved:(NSSet *)touches
withEvent:(UIEvent *)event
- (void)touchesEnded:(NSSet *)touches
withEvent:(UIEvent *)event

```
- (void)touchesBegan:(NSSet *)touches  
    withEvent:(UIEvent *)event  
{  
    remember when, where for the touches  
}
```

```
- (void)touchesMoved:(NSSet *)touches  
    withEvent:(UIEvent *)event  
{  
    if one finger:  
        is user panning?  
        adjust offset  
    if two fingers:  
        am I rotating? what angle?  
        am I pinching? what scale?  
}
```

```
- (void)touchesMoved:(NSSet *)touches  
    withEvent:(UIEvent *)event  
{  
    if one finger:  
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    if two fingers:  
        am I rotating? what angle?  
        am I pinching? what scale?  
}
```

```
- (void)touchesEnded:(NSSet *)touches  
    withEvent:(UIEvent *)event  
{  
    did we already pan?  
    did we already rotate?  
    did we already pinch?  
    did we move to far for a tap?  
    did we wait to long for a tap?  
    if not: then TAP!  
}
```

```
- (void)touchesEnded:(NSSet *)touches  
    withEvent:(UIEvent *)event  
{  
    did we already pan?  
    did we already rotate?  
    did we already pinch?  
    did we move to far for a tap?  
    did we wait to long for a tap?  
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    did we wait to long for a tap?  
    if not: then TAP!  
}
```

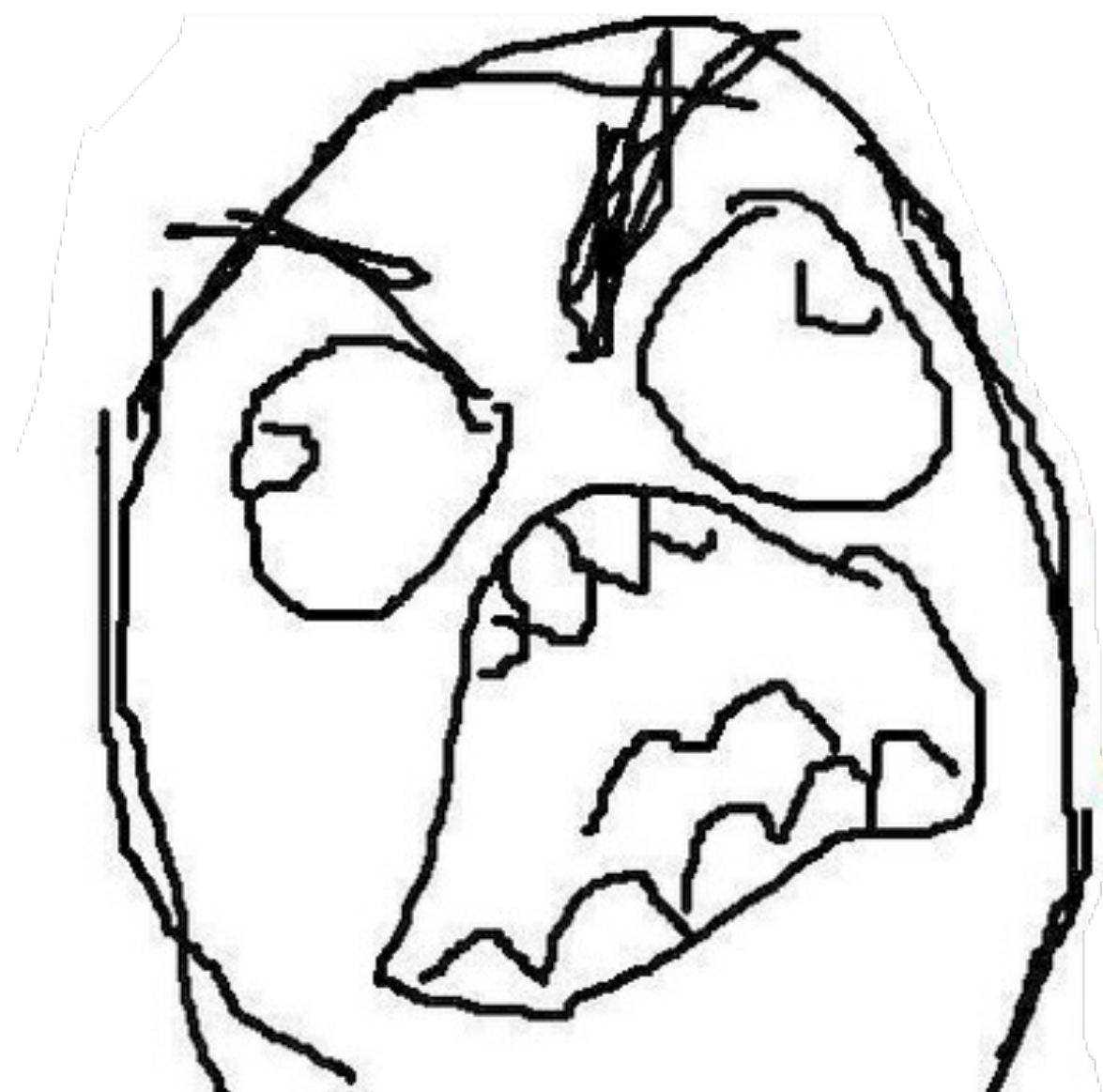


```
- (void)touchesEnded:(NSSet *)touches  
    withEvent:(UIEvent *)event  
{  
    did we already pan?  
    did we already rotate?  
    did we already pinch?  
    did we move to far for a tap?  
    did we wait to long for a tap?  
    if not: then TAP!  
}
```

```
- (void)touchesEnded:(NSSet *)touches  
    withEvent:(UIEvent *)event  
{  
    did we already pan?  
    did we already rotate?  
    did we already pinch?  
    did we move to far for a tap?  
    did we wait to long for a tap?  
    if not: then TAP!  
}
```

Phew!

But wait, there's more...



What we want...


```
- (void)panned:(id)coordinates  
{  
    // ...  
}
```

```
- (void)tapped:(id)coordinates  
{  
    // ...  
}
```

```
- (void)doubleTapped:(id)coordinates  
{  
    // ...  
}
```



UIView



target/action

- (void)tapped:

How do they work?

possible



recognized

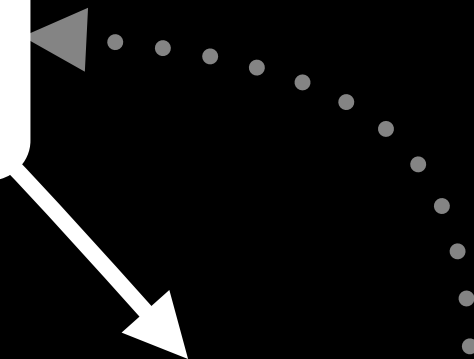
failed



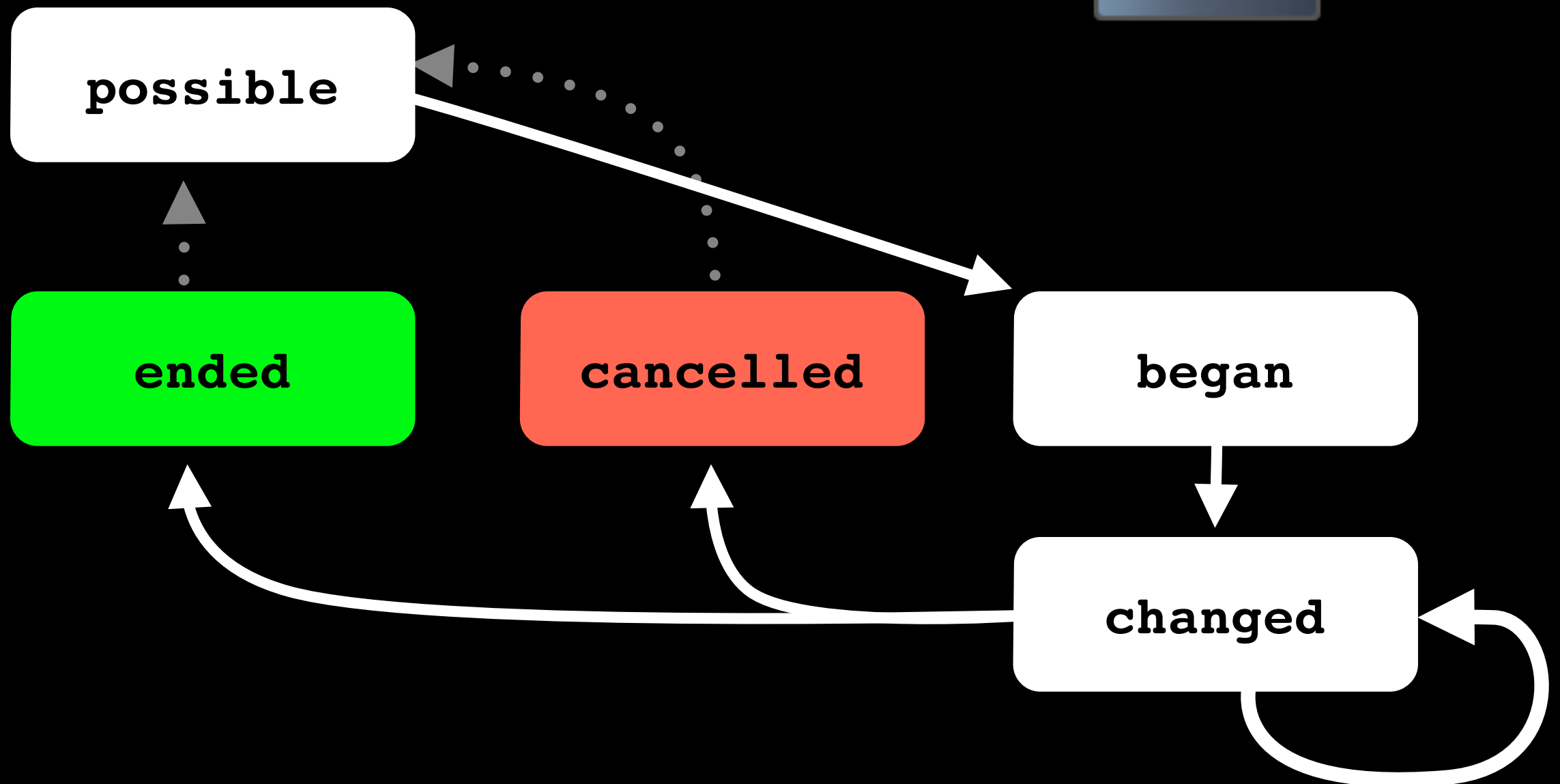


possible

recognized



failed



```
- (void)panned:(id)recognizer  
{  
    // ...  
}
```

```
- (void)tapped:(id)recognizer  
{  
    // ...  
}
```

```
- (void)doubleTapped:(id)recognizer  
{  
    // ...  
}
```

A long press by any other name
takes just as long.

By our powers combined....



UIViewController

<UIGestureRecognizerDelegate>

- (BOOL)gestureRecognizer:...
shouldRecognizeSimultaneouslyWithGestureRecognizer:...

```
- (void)pinched:(id)recognizer  
{  
    // ...  
}
```

```
- (void)rotated:(id)recognizer  
{  
    // ...  
}
```

Reduce. Reuse. Recognize.



To the Demo!

Walkthrough Example

github.com/jonathanpenn/GestureExample

Mark's Gesture Lab

github.com/markd2/GestureLab



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for more info...

rubbercitywizards.com/stuff