Web Apps Development

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Part II - Advanced Features

Device Orientation API - Part I

Homework Feedback

- Code Formatting. (http://jsbeautifier.org)

- Event Handlers, Handler Functions, & Back Holes (*e*, *e.target*, and *this* inside handler funct.)
  - Classes vs Instances (Do not call classes straight - or lose all your instances)

Homework Feedback

Increasing Flexibility

The problem:

So far, all of our objects are created within the width and height of the document. How do I make my object flexible enough to allow for other different dimensions?

Increasing Flexibility

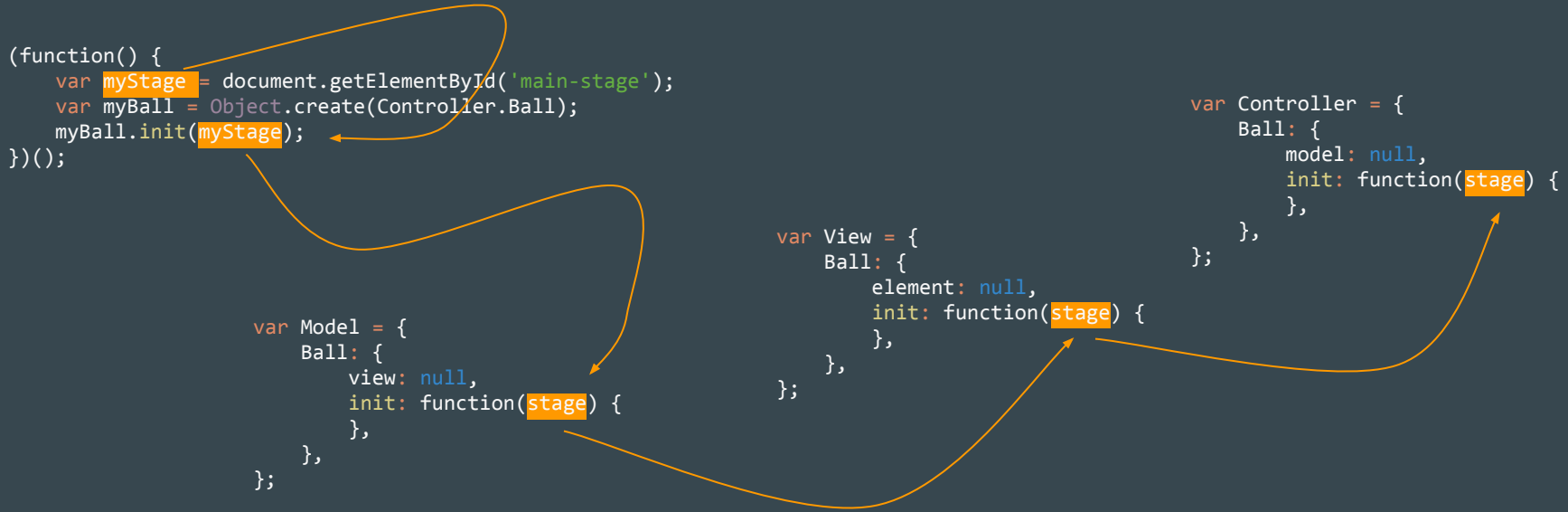
Generic Functions

```
xPos: function() {
    return this.generateRandomPositionForBody(document.documentElement.clientWidth);
},
yPos: function() {
    return this.generateRandomPositionForBody(document.documentElement.clientHeight);
},
```

must go!

Increasing Flexibility

Generic Functions



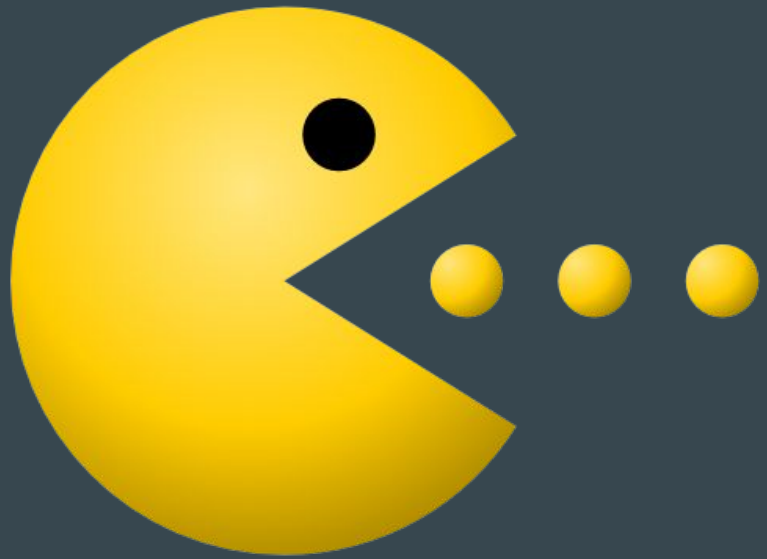
Exercise

Add flexibility

Homework 1

Implement a new widget called screensaver in the dashboard application using our newly adapted “ball object”.

Homework 2



Create our Pacman

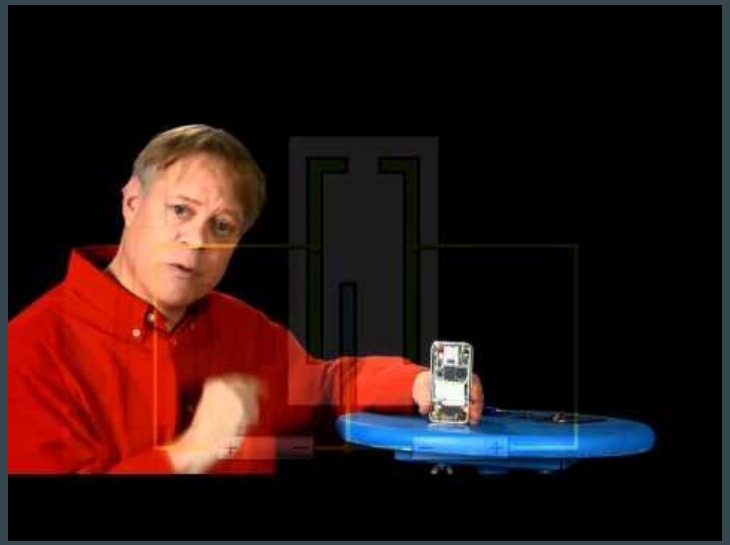
Device Motion & Orientation

Device Motion & Orientation

Tap into the device's sensor (MEMs: Micro-electro-mechanical systems)

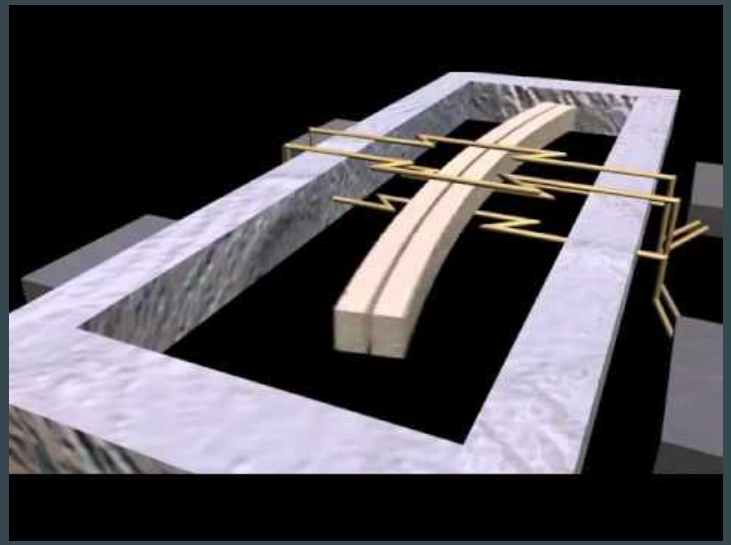
Accelerometer

Measures linear accelerations.



Gyroscope

Measures rotation changes.



Processing Motion Events

Event Handler should be added to the window element

Device Motion Event has 4 different properties

```
window.addEventListener("devicemotion", handleMotion);
```

DeviceMotionEvent.acceleration

DeviceMotionEvent.accelerationIncludingGravity

DeviceMotionEvent.rotationRate

DeviceMotionEvent.interval

Demo

Possibilities

https://itunes.apple.com/us/app/motion-synth/id945266624?mt=8

Final Project

https://github.com/leonardomra/web-apps-dev-course/tree/master/PE03-DeviceMotion/FinalProject