

CC Lab: Week 04

Advanced Canvas!

Instructor: Paweena Prachanronarong

Before we get started...

Who's going to Maker Faire this weekend?

<http://makerfaire.com/>

HOMEWORK

Class today

1. Go over some more Canvas basics
2. Some advanced Canvas - KineticJS
3. Now that I'm advanced, what can I do with Canvas and KineticJS?
4. Break off into pairs for the homework assignment
5. Individual help on previous Canvas assignment, if needed

GOING BACK TO THE BASICS

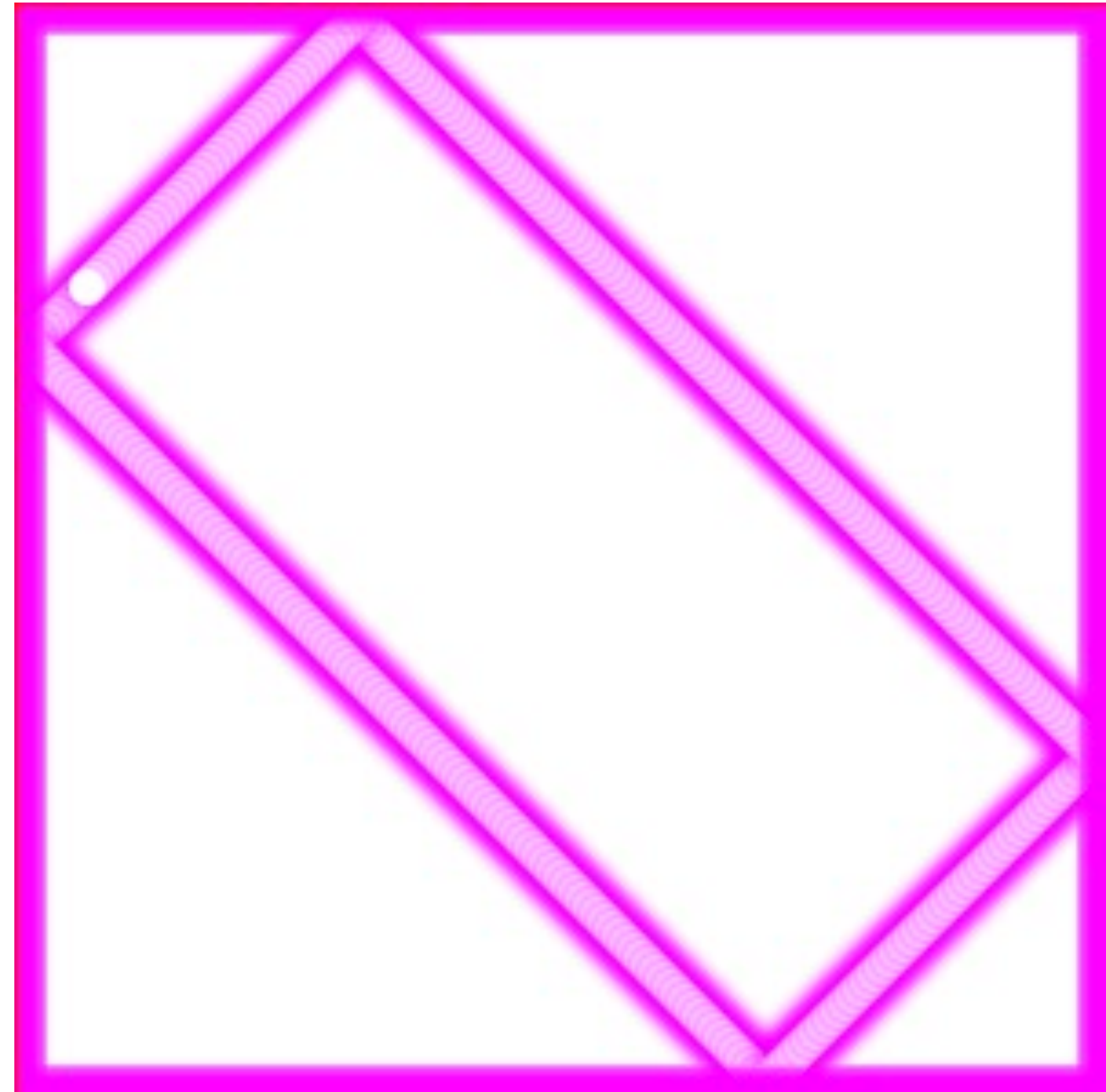
DOWNLOAD FILES

<http://lovepawena.com/CCLab/week04-examples.zip>

The Famous Bouncing Ball Example

Thanks, Helen!

Open "**01-bouncing-ball.html**"



Placing an Image into Canvas

Open "02-
placing-
img.html"

```
02-placing-img.html x
1 <!DOCTYPE HTML>
2 <html>
3   <head>
4     <style>
5       body {
6         margin: 0px;
7         padding: 0px;
8       }
9     </style>
10  </head>
11  <body>
12    <!-- sets canvas to 1024 x 1024 because the background image is 1024 x 1024 --
13    <!-->
14    <canvas id="myCanvas" width="1024" height="1024"></canvas>
15    <script>
16      //getElementById to find our <canvas>, set it to 2D bc this is 2D
17      var canvas = document.getElementById('myCanvas');
18      var context = canvas.getContext('2d');
19      var imageObj = new Image();
20
21      imageObj.onload = function() {
22        //where to draw image at top left
23        context.drawImage(imageObj, 0, 0);
24      };
25      //image source
26      imageObj.src = 'http://www.lovepawena.com/CCLab/mario-bg.jpg';
27    </script>
28  </body>
29 </html>
```

Line 1, Column 1 Spaces: 2 HTML

GETTING A BIT MORE ADVANCED

KineticJS

- HTML5 Canvas framework
- JavaScript library
- helps simplify interactive applications, so you can do things like make games!

Dragging Images with KineticJS

Open "04-dragging-img.html"

Animating Images with KineticJS

Open "05-moving-img.html"

**NOW THAT YOU'RE
ADVANCED...**

Cool Canvas Examples

- <http://www.effectgames.com/demos/canvacycle/>
- <http://andrew-hoyer.com/andrewhoyer/experiments/cloth/>
- <https://developer.mozilla.org/en-US/demos/detail/zen-photon-garden/launch>
- <http://www.chromeexperiments.com/arcadefire/>

Cool KineticJS Examples

- <http://simplecar.herokuapp.com/>
- http://www.baptistebrunet.com/games/tetris_js/
- <http://codefedonarts.com/2013/02/13/interactive-pie-chart-with-kineticjs-tutorial/>

Homework :-)

1. Order Arduino kits - we will need them on October 1!
2. Create a simple game or data visualization using KineticJS or advanced canvas techniques.

For this assignment, we will be working in pairs and/or groups.

4. Post code and references to the blog (**can include people too!**).
5. Write about one thing you learned on your own on the blog.

References:

- <http://www.html5canvastutorials.com/tutorials/html5-canvas-tutorials-introduction/>
- http://www.nihilologic.dk/labs/canvas_sheet/HTML5_Canvas_Cheat_Sheet.pdf
- <http://kineticjs.com/>
- <http://www.html5canvastutorials.com/kineticjs/>