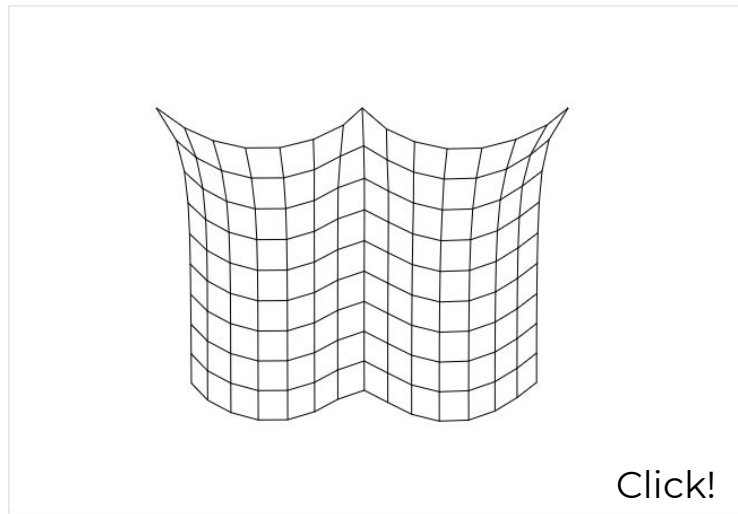# Canvas

HTML Canvas

To draw graphics, on the fly, with JavaScript

- No more flash

- Just HTML and JavaScript

- Utilities:
  - Browser games
  - To display 2D and 3D models
  - Simulations /Interactive animations

Click!

HTML Canvas

First we need a canvas tag and its attributes (width and height)

```
<canvas id="myCanvas" width="200" height="100" style="border:1px solid #000000;">
Your browser does not support the HTML5 canvas tag.
</canvas>
```
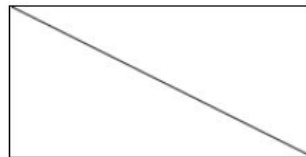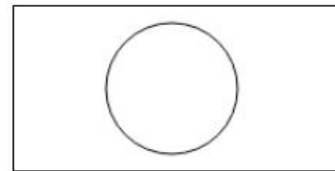
With some JavaScript, we can display different images

```
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");
// Be careful! (0,0) is top left
ctx.moveTo(0,0);
ctx.lineTo(200,100);
ctx.stroke();
```

HTML Canvas

```
var c = document.getElementById("myCanvas");
var ctx = c.getContext("2d");
ctx.beginPath();
ctx.arc(95,50,40,0,2*Math.PI);
ctx.stroke();
```



```
var c=document.getElementById("myCanvas");
var ctx=c.getContext("2d");

// Create gradient
var grd=ctx.createLinearGradient(0,0,200,0);
grd.addColorStop(0,"red");
grd.addColorStop(1,"white");

// Fill with gradient
ctx.fillStyle=grd;
ctx.fillRect(10,10,150,80);
```