

# Chapter 32: Canvas

Attribute	Description
height	Specifies the canvas height
width	Specifies the canvas width

## Section 32.1: Basic Example

The canvas element was introduced in HTML5 for drawing graphics.

```
<canvas id="myCanvas">
  Cannot display graphic. Canvas is not supported by your browser (IE<9)
</canvas>
```

The above will create a transparent HTML<canvas> element of 300×150 px in size.

You can use the **canvas** element to draw amazing stuff like shapes, graphs, manipulate images, create engaging games etc. with **JavaScript**.

The canvas's 2D *drawable layer* surface Object is referred to as CanvasRenderingContext2D; or from a HTMLCanvasElement using the .getContext("2d") method:

```
var ctx = document.getElementById("myCanvas").getContext("2d");
// now we can refer to the canvas's 2D layer context using `ctx`

ctx.fillStyle = "#f00";
ctx.fillRect(0, 0, ctx.canvas.width, ctx.canvas.height); // x, y, width, height

ctx.fillStyle = "#000";
ctx.fillText("My red canvas with some black text", 24, 32); // text, x, y
```

[jsFiddle example](#)

## Section 32.2: Drawing two rectangles on a <canvas>

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8" />
  <title>Draw two rectangles on the canvas</title>
  <style>
    canvas{
      border:1px solid gray;
    }
  </style>
  <script async>
    window.onload = init; // call init() once the window is completely loaded
    function init(){
      // #1 - get reference to <canvas> element
      var canvas = document.querySelector('canvas');

      // #2 - get reference to the drawing context and drawing API
      var ctx = canvas.getContext('2d');

      // #3 - all fill operations are now in red
      ctx.fillStyle = 'red';
```

```
// #4 - fill a 100x100 rectangle at x=0,y=0
ctx.fillRect(0,0,100,100);

// #5 - all fill operations are now in green
ctx.fillStyle = 'green';

// #6 - fill a 50x50 rectangle at x=25,y=25
ctx.fillRect(25,25,50,50);

}
</script>
</head>
<body>
  <canvas width=300 height=200>Your browser does not support canvas.</canvas>
</body>
</html>
```

This example looks like this:

