

# Basic three.js Programming in Chrome

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# The Chrome Development Platform

- Reading source code
  - Open Chrome
  - Load a Webpage
  - Press ctrl + shift + i

The screenshot displays the Chrome Development Platform interface. On the left, the **three.js / docs** sidebar is visible, showing a search bar and a list of documentation topics. The main content area, titled **Creating a scene**, provides an introduction to three.js and includes a code block for creating a scene. The code defines a scene, camera, and renderer, and appends the renderer to the document body. Below the code, a note explains the purpose of the code. On the right, the Chrome DevTools interface is shown, with the **Sources** panel displaying the **index.css** file. The **Console** panel at the bottom shows a warning message: **Unable to add filesystem: <permission denied>**.

three.js / docs

Creating a scene

The goal of this section is to give a brief introduction to three.js. We will start by setting up a scene, with a spinning cube. A working example is provided at the bottom of the page in case you get stuck and need help.

Before we start

Before you can use three.js, you need somewhere to display it. Save the following HTML to a file on your computer, along with a copy of [three.js](#) in the js/ directory, and open it in your browser.

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset=utf-8>
    <title>My first three.js app</title>
    <style>
      body { margin: 0; }
      canvas { width: 100%; height: 100% }
    </style>
  </head>
  <body>
    <script src="js/three.js"></script>
    <script>
      // Our Javascript will go here.
    </script>
  </body>
</html>
```

That's all. All the code below goes into the empty <script> tag.

Creating the scene

To actually be able to display anything with three.js, we need three things: scene, camera and renderer, so that we can render the scene with camera.

```
var scene = new THREE.Scene();
var camera = new THREE.PerspectiveCamera( 75, window.innerWidth / window.innerHeight, 0.1, 1000 );

var renderer = new THREE.WebGLRenderer();
renderer.setSize( window.innerWidth, window.innerHeight );
document.body.appendChild( renderer.domElement );
```

Let's take a moment to explain what's going on here. We have now set up the scene, our camera and the renderer.

index.css

```
@font-face {
  font-family: 'Inconsolata';
  src: url('files/inconsolata.woff') f
  font-weight: normal;
  font-style: normal;
}

* {
  box-sizing: border-box;
}

html {
  height: 100%;
}

body {
  background-color: #ffffff;
  margin: 0px;
  height: 100%;
  color: #555;
  font-family: 'Inconsolata';
  font-size: 15px;
  line-height: 18px;
  overflow: hidden;
}

h1 {
  margin-top: 30px;
  margin-bottom: 40px;
  font-size: 25px;
  font-weight: normal;
}

h2 {
  color: #454545;
  font-size: 18px;
  font-weight: normal;
  margin-top: 20px;
}

h3 {
  color: #666;
  font-size: 16px;
  font-weight: normal;
  margin-top: 20px;
}
```

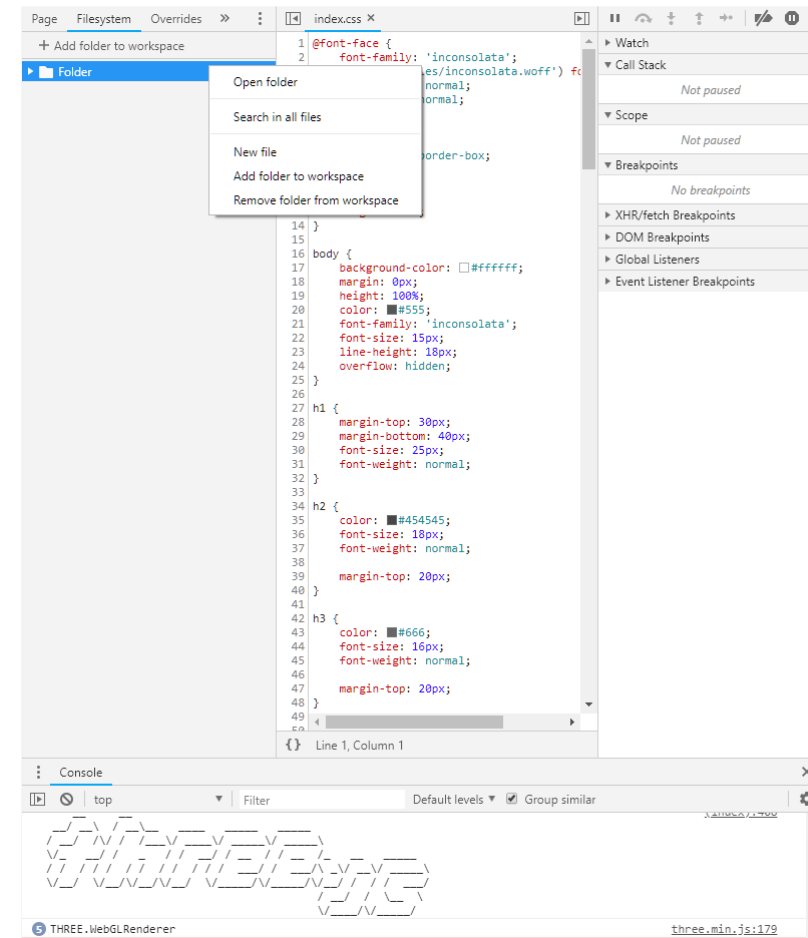
Console

THREE.WebGLRenderer

Unable to add filesystem: <permission denied>

# The Chrome Development Platform

- Editing local source code
- Setting up a “workspace”
  - Filesystem → Right click → Add folder to workspace
  - Give access to the folder
- Adding source files
  - Right click the folder you created under Filesystem → New file
  - Give it a name
  - To view the file: Right click → Copy link address → Paste on address bar



# Writing Basic HTML

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- Editing source code
  - New a file, rename it as “test.html”
  - Double click a file to edit it
  - Edit
  - ctrl + s to save
  - F5 to refresh

```
<html>
<head>
<title>
My First Webpage
</title>
</head>

<body>
This is a testing page.
</body>
</html>
```

# Creating a Canvas

---

```
<html>
<head>
<title>
My First Webpage
</title>

<style>
body { margin: 0; }
canvas { width: 100%; height: 100% }
</style>

</head>

<body>
This is a testing page.
</body>
</html>
```

# Loading the three.js Library

---

```
<html>
<head>
<title>
My First Webpage
</title>

<style>
body { margin: 0; }
canvas { width: 100%; height: 100% }
</style>

</head>

<body>
This is a testing page.
<script src="https://threejs.org/build/three.js"></script>
</body>
</html>
```

# Loading Your Own JavaScript File

---

- New a file, rename it as “myscript.js”

```
<html>
<head>
<title>
My First Webpage
</title>

<style>
body { margin: 0; }
canvas { width: 100%; height: 100% }
</style>

</head>
```

```
<body>
This is a testing page.
<script src="https://threejs.org/build/three.js"></script>
<script src="myscript.js"></script>
</body>
</html>
```

# Editing JavaScript File

---

- Double click “myscript.js” to edit it
- ctrl + s to save
- F5 to refresh

```
var i;  
  
for (i=0; i<10; i++)  
{  
    document.write("Output by scripts! ");  
}
```



# The End

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Any Questions?