



THREE.js

a 3D Javascript Library

GET STARTED

- Text Editor
- Local server
- 3D Models (optional!)
 - * Create your own – Blender/C4D/Maya/3DS Max
 - * **Free3D.com** or other online resources
 - * Clara.io

SETUP

Scene, Camera, Renderer

```
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 );
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SETUP

Adding Geometry

```
var geometry = new THREE.BoxGeometry( 1, 1, 1 );  
  
var material = new THREE.MeshBasicMaterial( { color: 0x00ff00 } );  
  
var cube = new THREE.Mesh( geometry, material );  
  
scene.add( cube );  
  
camera.position.z = 5;
```

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SETUP

Render Loop

```
function animate() {  
  
    requestAnimationFrame( animate );  
  
    renderer.render( scene, camera );  
  
}  
  
animate();
```


ANIMATION

- Similar architecture to Unity/Unreal Engine 4
- Revamped in 2015, beware of outdated support
- Animation possible for
 - * bones of skinned and rigged models
 - * morph targets (**vertices specified as JS array**)
 - * material properties (color, opacity, etc.)
 - * visibility and transforms

EXPORTING

- THREE.js ships with JSON exporter add-ons
 - * **Blender, Maya, 3DS Max, Revit**
- As well as several Python scripts for converting
 - * **FBX -> JSON**
 - * **OBJ -> JSON**
- Not all model formats contain animation data
 - * OBJ **does not**
 - * Correctly exported JSON, FBX, DAE **do**

USE CASES

- Fast 3D prototyping with Javascript
- Add 3D elements to websites
 - * Products, experimental concepts, real-time customization, infographics, simple games
- WebVR capabilities

LEARN MORE

- **Threejs.org** official documentation
 - * Still in development
 - * Always check your version against StackOverflow, Github issues, etc.
- Basic animated game demo
 - * **<https://github.com/yakudoo/TheAviator>**
- **Clara.io**
 - * Online 3D editing, free resources, exports



**THANK
YOU**

@DoubleNaeBow