

Meshes & Geometry

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pluralsight 
hardcore dev and IT training

Introduction

- **Meshes, Geometry & Materials**
- **Inbuilt Geometry**
- **Creating Geometry**
- **Modifying Existing Geometry**
- **Loaders & Exporters**

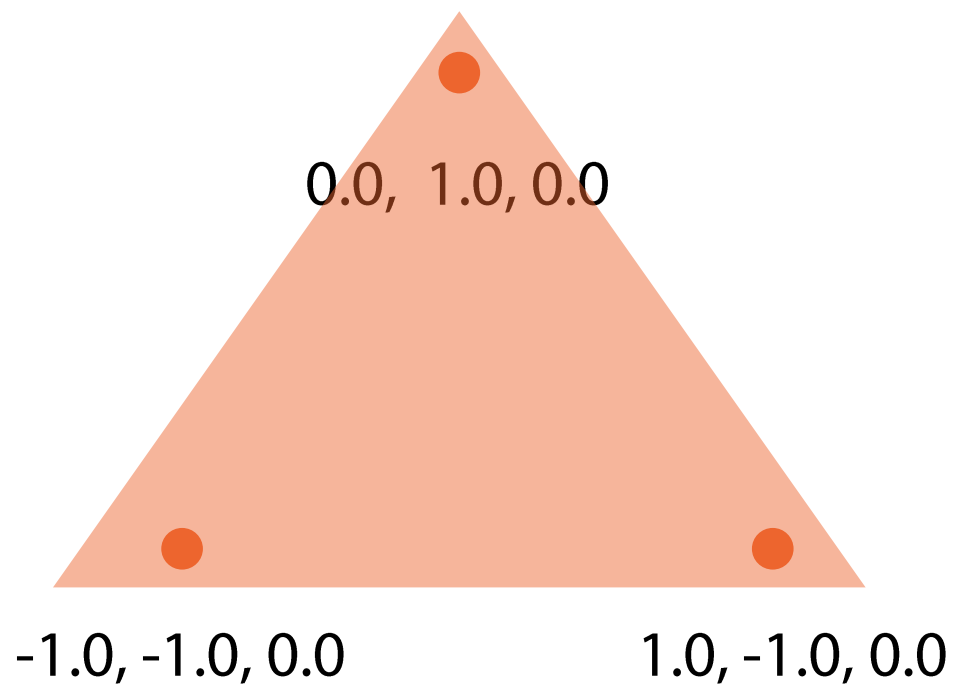
Meshes



Hello Three.js Demo

```
box = new THREE.Mesh(  
    new THREE.BoxGeometry(20,20,20),  
    new THREE.MeshBasicMaterial({color: 0xFF0000})  
);
```

Custom Geometry



Types of Geometry

- **Inbuilt Geometry**
- **Custom Geometry**
- **Exported Geometry**

Inbuilt Geometry



SphereGeometry

THREE.SphereGeometry

(

radius,

widthSegments,

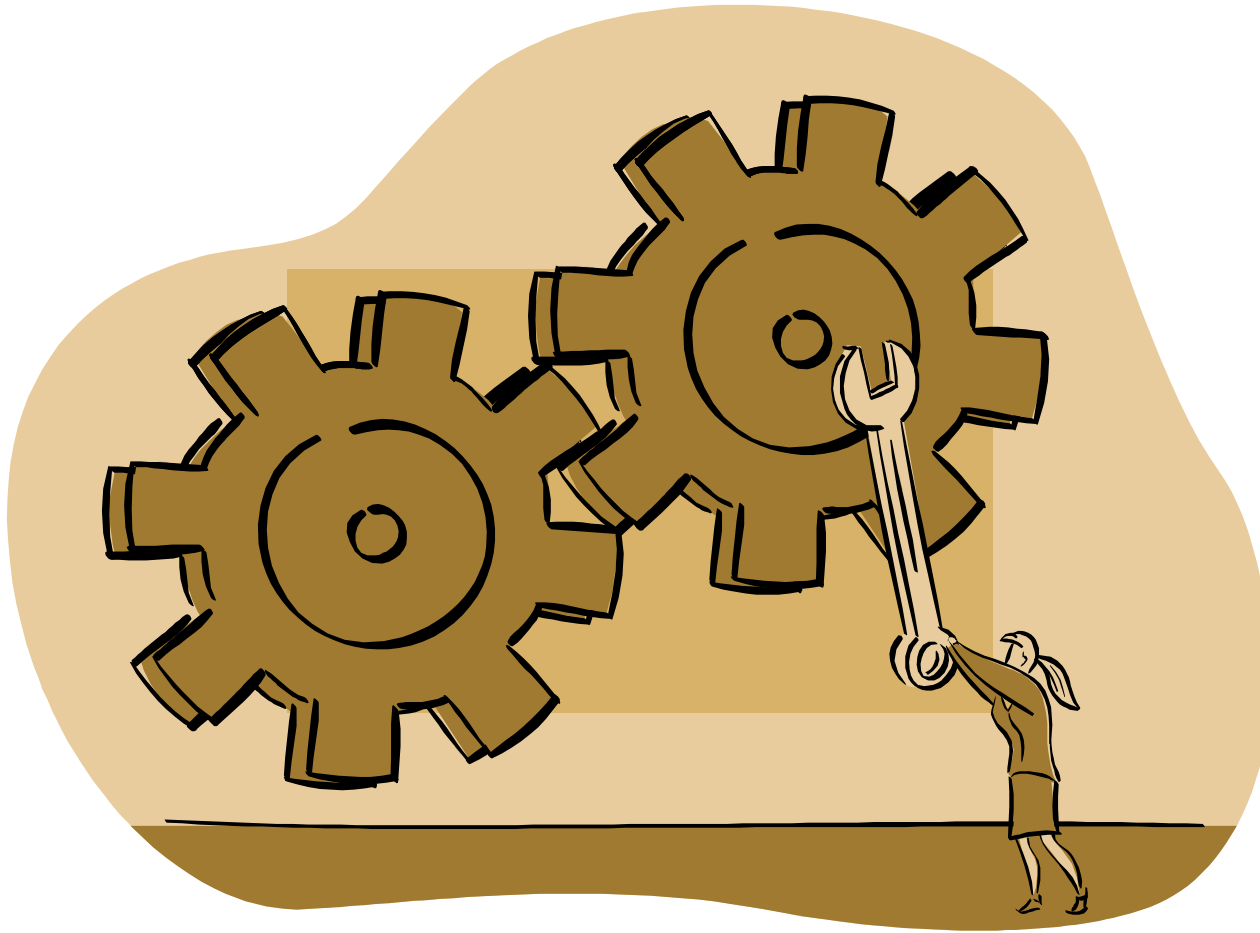
heightSegments

)

Creating Geometry



Modifying Geometry



Loaders & Exporters



Exporting Geometry & Scenes



Loader Support

- Three.js own format (.js)
- Wavefront .obj (widely used)
- Collada (most applications will support this)
- STL (3D printing)
- CTM (openCTM)
- VTK (Visualization toolkit)
- PDB (protein databank!)
- PLY (3d scanner)

Summary

- Out the box Geometry
- Creating Geometry from scratch
- Modifying Existing Geometry
- Loaders & Exporters