Group 5 Week 5

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Basic Death Screen (Cut to Black)

```
var scene1 = new THREE.Scene();
var scene2 = new THREE.Scene();
var scene = scene1;
```

```
function checkDeath(){
    doomGuyBBox.setFromObject(doomGuy);
    doomGuyBBox.min.x -= 3;
    doomGuyBBox.min.y -= 3;
    doomGuyBBox.min.z -= 3;
    doomGuyBBox.max.x += 3;
    doomGuyBBox.max.y += 3;
    doomGuyBBox.max.z += 3;
    if(doomGuyBBox.containsPoint(camera.position) && !seeDoomGuy){
        scene =  scene2;
    }

}
```

General Advisory Against Sunk Cost Fallacy

- We have a much better monster freezing implementation now, suggested by one of you smart people via peer feedback.
- From Week 3!! But we were really set on raycasters.

Suggestions: could you use a large invisible cone to represent vision and if the monster is colliding with the cone it stops?

Cone Proved Tricky, So it's a Box for Now

```
var geometry = new THREE.BoxGeometry( 100, 100, 100 );
var material = new THREE.MeshBasicMaterial( {color: 0xffff00} );
material.transparent = true;
material.opacity = 0;
cube = new THREE.Mesh( geometry, material );
camera.add(cube);
cube.position.set(0, 0, -75);
```

```
cubeBBox.setFromObject(cube);
```

- Cube is added to CAMERA, not Scene
- Position is Set Relative to Camera
- setFromObject is called continually in Render function.

```
//  if(doomCollisions[0]  ){
//        seeDoomGuy = true;
//      walk.stop();
//        still.play();

//  }
    if(cubeBBox.intersectsBox(doomGuyBBox)){
        seeDoomGuy = true;
        walk.stop();
        still.play();
    }
    else{
        seeDoomGuy = false;
    }
```

Rotation

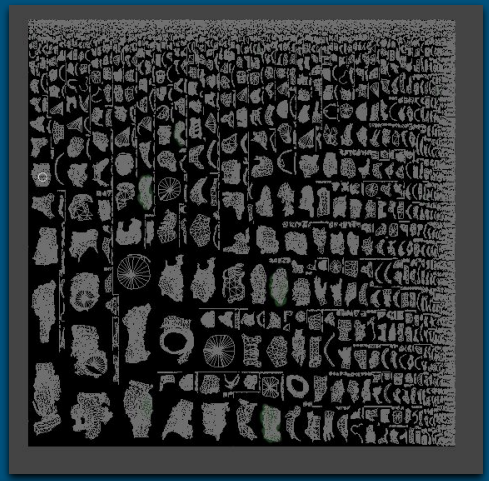
- Model rotates based on the difference of the x and z positions of the camera and model.
- Math.atan2
- Call in the animate function

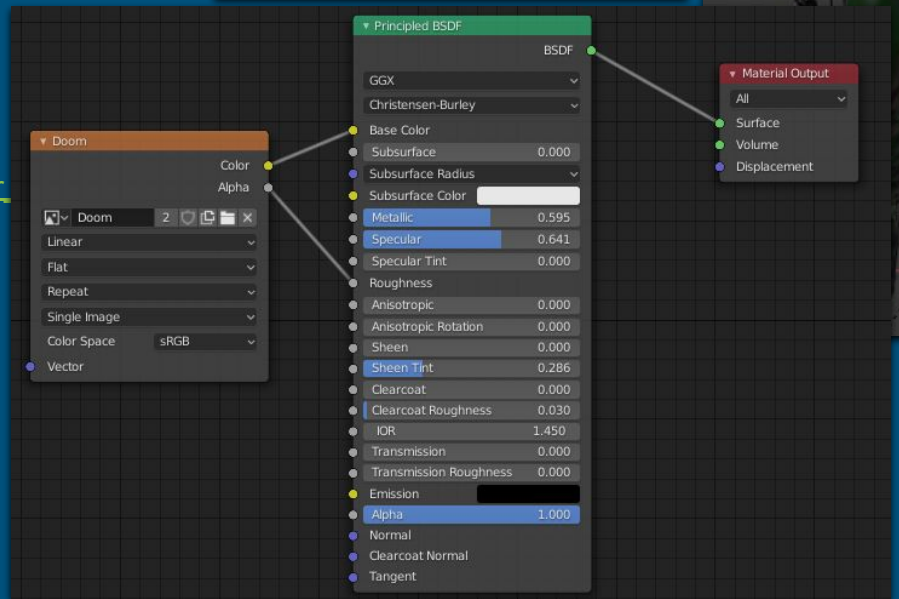
```
function follow() {
    doomGuy.rotation.y = Math.atan2( ( camera.position.x - doomGuy.position.x ), ( camera.position.z - doomGuy.position.z) );
}
```

```
follow();
```

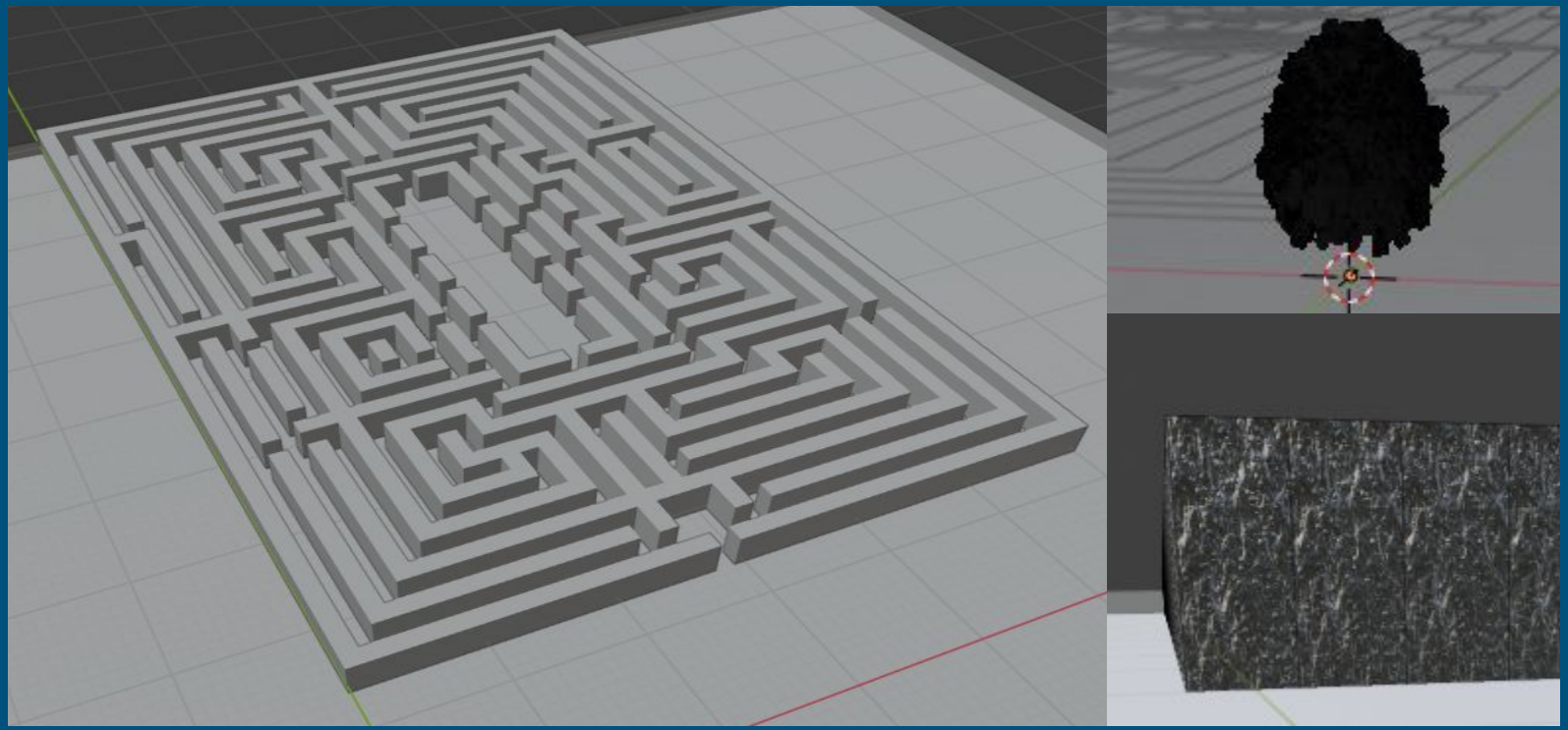
Texturing

- Smart UV Project(UV Unwrapped) and Texture painted the model.
- Getting the textures to appear
  - Principled BSDF
  - Connect the Doom textures and the Material output in the shader editor
- https://docs.blender.org/manual/en/latest/render/shader_nodes/shader/principled.html





Maze Model



Title Screen

What’s Next

- Texturing maze, adding object to the house
- Switch collision to bounding box
- Title Screen/Pixel Art
- Refactoring