

The background features a light gray grid of squares. Overlaid on this is a large blue circular graphic consisting of a thick outer ring and a lighter blue inner circle. Three smaller blue circles of varying sizes are scattered around the main graphic: one in the upper right, one in the lower left, and one in the middle right.

Final Project

Group 3



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Zoe-Zhiyi Huang

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Lisa-Ziqi Ma

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IEric-Qirui Zhai

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Team Report and GitHub Website Production

BNorton-Yuehao Liu



MODELING

Zeo-Zhiyi HuangE



```
1 $fn=100;
```

```
2
```

```
3 module lantern() {
```

```
4   color("red")
```

```
5   scale([1,1,0.8])
```

```
6   sphere(r=20);
```

```
7
```

```
8   //上下盖子
```

```
9   color("gold")
```

```
10  translate([0,0,16])
```

```
11  cylinder(h=1, r=11, center=true);
```

```
12
```

```
13  color("gold")
```

```
14  translate([0,0,15])
```

```
15  cylinder(h=3, r=10, center=true);
```

```
16
```

```
17  color("gold")
```

```
18  translate([0,0,-15])
```

```
19  cylinder(h=3.5, r=10, center=true);
```

```
20
```

```
21  // 筋
```

```
22  for (r=[0, 30, 60,90,120,150]) {
```

```
23    color("gold")
```

```
24    translate([0, 0, 0])
```

```
25    rotate([90,0,r])
```

```
26    scale([1,0.8,1])
```

```
27    cylinder(h=0.8, r=20.5, center=true);
```

```
28  }
```

```
29
```

```
30  for (angle=[0:10:360]) {
```

```
31    rotate([0,0,angle])
```

```
32    translate([7,0,-24])
```

```
33    cylinder(h=8, r=0.4);
```

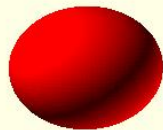
```
34  }
```

```
35
```

```
36
```

```
37
```

```
38 }
```



```
7 for (i = [0:2]) {  
8   translate([0, 0, i*43])  
9     lantern();  
10 }
```



```

42 module bbb() {
43     translate([0,0,-29])
44     cylinder(h=160, r=0.8);
45
46     translate([0,0,-30])
47     union() {
48         sphere(r=2);
49         translate([0,0,-2.3])
50         cylinder(h=2, r=2.2);
51         translate([0,0,-3.8])
52         cylinder(h=3, r=2.6);
53     }
54
55     for (angle=[0:30:330]) {
56         rotate([0,0,angle])
57         translate([2.1,0,-57])
58         cylinder(h=25, r=0.3);
59     }
60
61     translate([0,0,104])
62     union() {
63         sphere(r=2);
64         translate([0,0,-2.3])
65         cylinder(h=2, r=2.2);
66         translate([0,0,-3.8])
67         cylinder(h=3, r=2.6);
68     }
69 }
70

```



```
单击以添加断点
1 <html lang="zh">
2
3 <head>
4   <meta charset="UTF-8" />
5   <meta name="viewport" content="width=device-width, initial-scale=1" />
6   <title>Three.js 飞入动画示例</title>
7   <style>
8     body { margin: 0; overflow: hidden; }
9     canvas { display: block; }
10  </style>
11 </head>
12 <body>
13   <script src="https://cdn.jsdelivr.net/npm/three@0.132.2/build/three.min.js"></script>
14   <script src="https://cdn.jsdelivr.net/npm/three@0.132.2/examples/js/loaders/GLTFLoader.js"></script>
15   <script src="https://cdn.jsdelivr.net/npm/three@0.132.2/examples/js/controls/OrbitControls.js"></script>
16
17   <script>
18     // 场景相机渲染器
19     const scene = new THREE.Scene();
20
21     // 轨道控制器
22     const controls = new THREE.OrbitControls(camera, renderer.domElement);
23     controls.target.set(0,0,0);
24     controls.update();
25
26     // 光源
27     const ambientLight = new THREE.AmbientLight(0xffffff, 0.5);
28     scene.add(ambientLight);
29
30     const directionalLight = new THREE.DirectionalLight(0xffffff, 0.8);
31     directionalLight.position.set(10, 20, 10);
32     directionalLight.castShadow = true;
33     scene.add(directionalLight);
34
35     // 点光源跟随模型
36     const pointLight = new THREE.PointLight(0xffffff, 1, 100);
37     scene.add(pointLight);
38   </script>
19 </body>
20 </html>
```

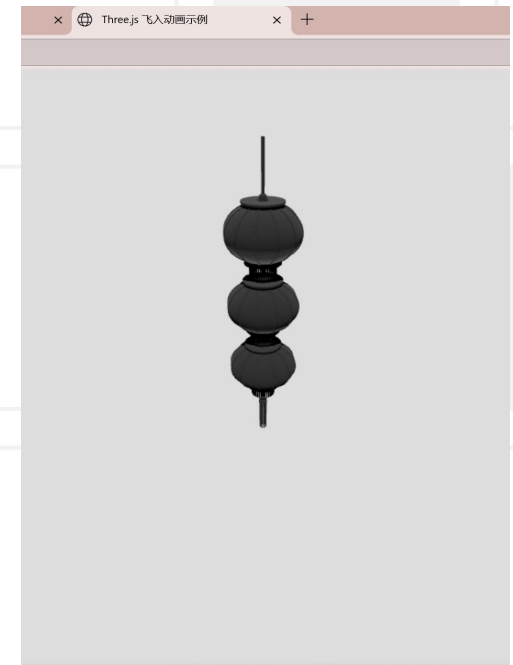
```
C:\Users\86138>cd C:\Users\86138\Desktop\final
```

```
C:\Users\86138\Desktop\final> http-server
Starting up http-server, serving ./
```

```
http-server version: 14.1.1
```

```
http-server settings:
CORS: disabled
Cache: 3600 seconds
Connection Timeout: 120 seconds
Directory Listings: visible
AutoIndex: visible
Serve GZIP Files: false
Serve Brotli Files: false
Default File Extension: none
```

```
Available on:
  http://192.168.1.13:8080
  http://127.0.0.1:8080
Hit CTRL-C to stop the server
```

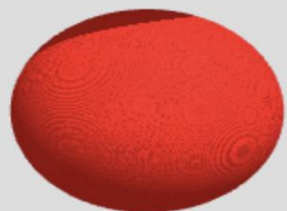
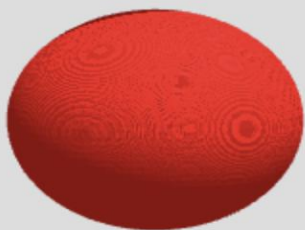
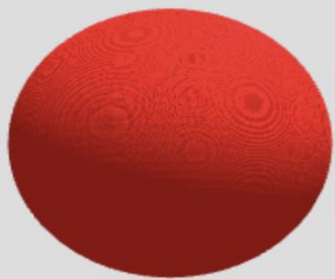




Render

Body part, Frame part, Tassel part

Body part



RGB



rgb: (0.729, 0.118, 0.118)

opacity: 0.93



TEXTURE

roughness: 0.8

metalness: 0.0



LIGHT

emissive: (0.3, 0.0, 0.0)

emissiveIntensity: 0.4

Frame part



RGB



rgb: (0.71, 0.59, 0.0)

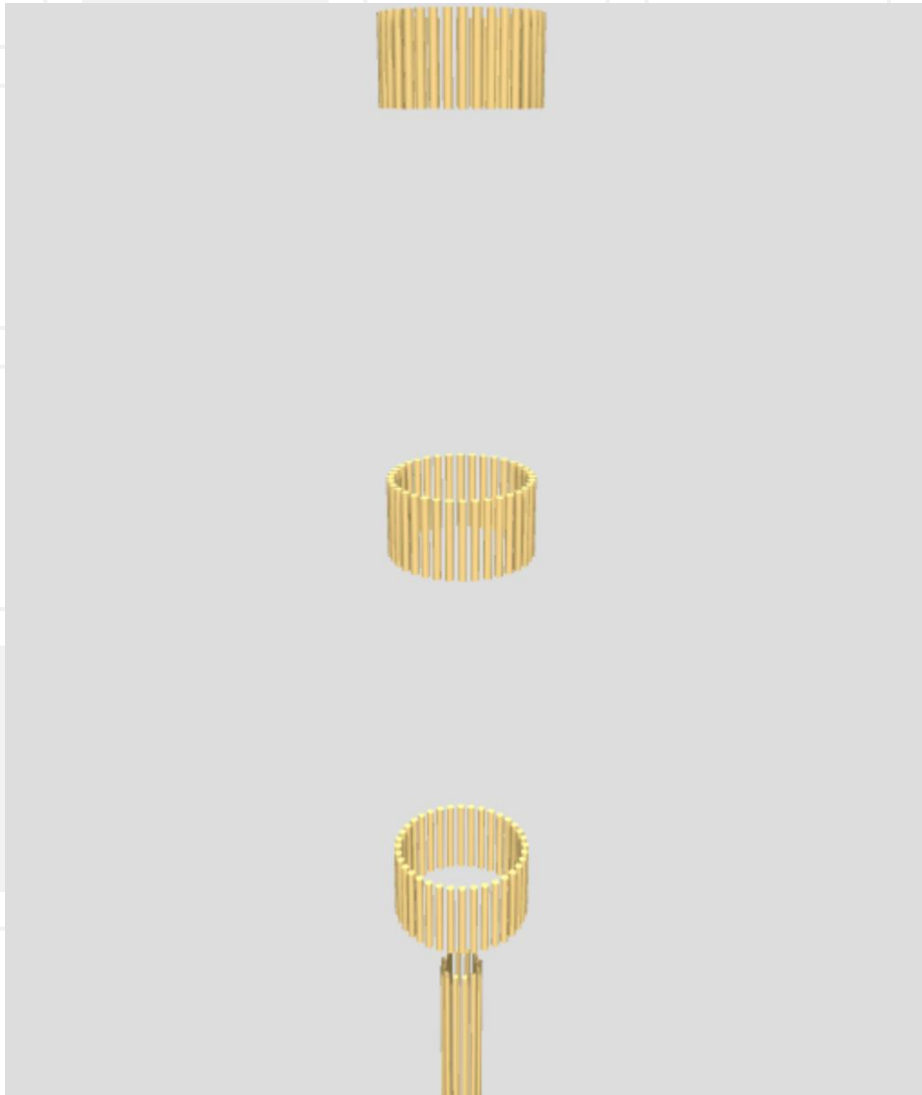


TEXTURE

roughness: 0.5

metalness: 0.3

Tessel part



RGB



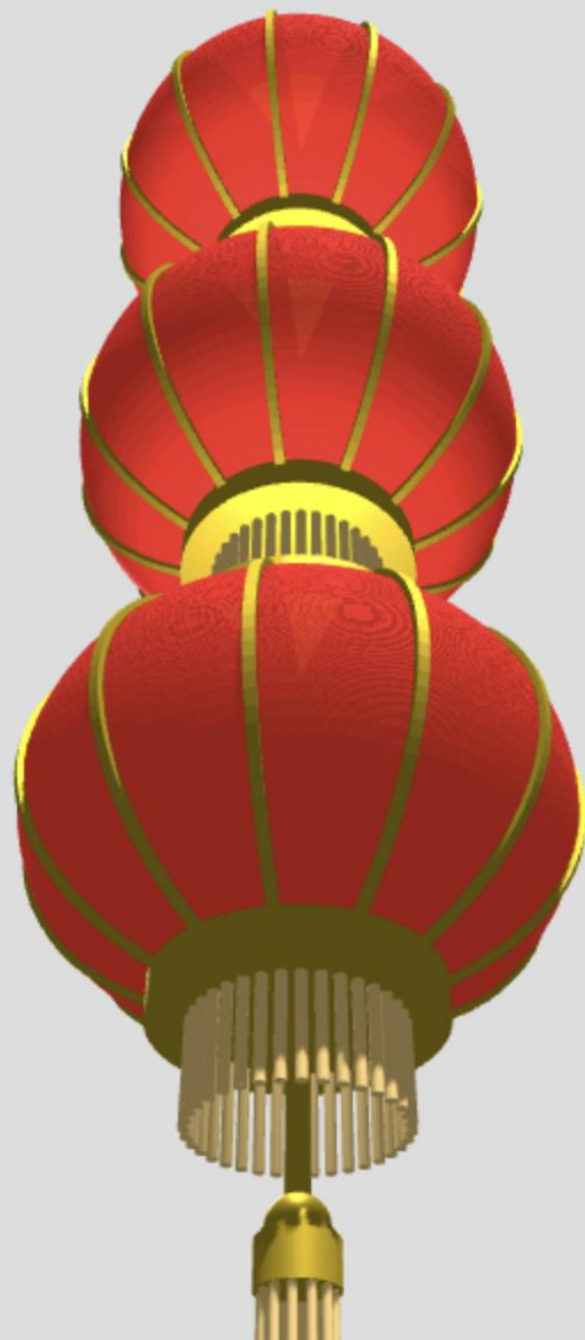
rgb: (0.71, 0.59, 0.35)



TEXTURE

roughness: 0.5

metalness: 0.0

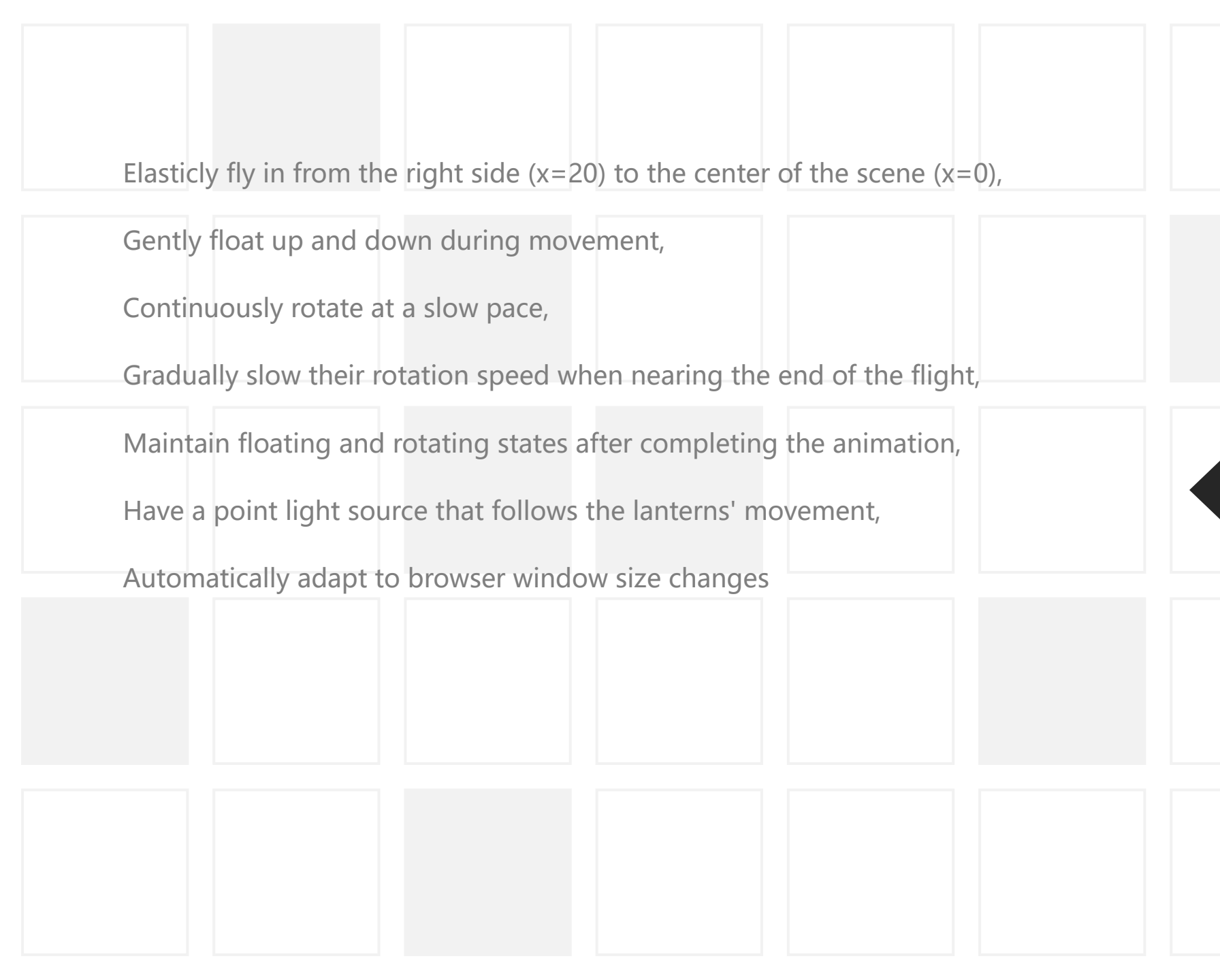




Animation production part

The animation part about lanterns was produced here

Eric-Qirui Zhai



Elastically fly in from the right side ($x=20$) to the center of the scene ($x=0$),

Gently float up and down during movement,

Continuously rotate at a slow pace,

Gradually slow their rotation speed when nearing the end of the flight,

Maintain floating and rotating states after completing the animation,

Have a point light source that follows the lanterns' movement,

Automatically adapt to browser window size changes

Design goal



Code

```
162 let isModelLoaded = false;
163 const animationState = {
164   flyingProgress: 0,
165   flyingDuration: 240,
166   rotationSpeed: 0.01,
167   floatIntensity: 0.3
168 };
169
170 function easeOutElastic(t){
171   const p = 0.3;
172   return Math.pow(2, -10 * t) * Math.sin((t - p / 4) * (2 * Math.PI) / p) + 1;
173 }
174
175 function animate(){
176   requestAnimationFrame(animate);
177
178   if(isModelLoaded && lanternGroup.children.length > 0){
179     if(animationState.flyingProgress < animationState.flyingDuration){
180       animationState.flyingProgress++;
181       const progress = animationState.flyingProgress / animationState.flyingDuration;
182       const easedProgress = easeOutElastic(progress);
183
184       lanternGroup.position.x = 20 * (1 - easedProgress);
185       lanternGroup.position.y = Math.sin(Date.now() * 0.003) * animationState.floatIntensity;
186     }
```



PLEASE ADD TITLE

```
.78 if(isModelLoaded && lanternGroup.children.length > 0){
.79     if(animationState.flyingProgress < animationState.flyingDuration){
.80         animationState.flyingProgress++;
.81         const progress = animationState.flyingProgress / animationState.flyingDuration;
.82         const easedProgress = easeOutElastic(progress);
.83
.84         lanternGroup.position.x = 20 * (1 - easedProgress);
.85         lanternGroup.position.y = Math.sin(Date.now() * 0.003) * animationState.floatIntensity;
.86
.87         if(progress > 0.7){
.88             animationState.rotationSpeed = 0.005;
.89         }
.90     } else {
.91         lanternGroup.position.y = Math.sin(Date.now() * 0.003) * animationState.floatIntensity;
.92     }
.93
.94     lanternGroup.rotation.y += animationState.rotationSpeed;
.95     pointLight.position.copy(lanternGroup.position);
.96 }
.97
.98 controls.update();
.99 renderer.render(scene, camera);
.100 }
.101 animate();
.102
.103 window.addEventListener('resize', () => {
.104     camera.aspect = window.innerWidth / window.innerHeight;
.105     camera.updateProjectionMatrix();
```




Team Report and GitHub Website Production

Norton_Yuehao Liu

notdinner / notdinner.github.io

<> Code

Issues

Pull requests

Actions

Projects

Wiki

notdinner.github.io

Public

Pin

Watch 0

main

Go to file

+

<> Code

notdinner

Add files via upload

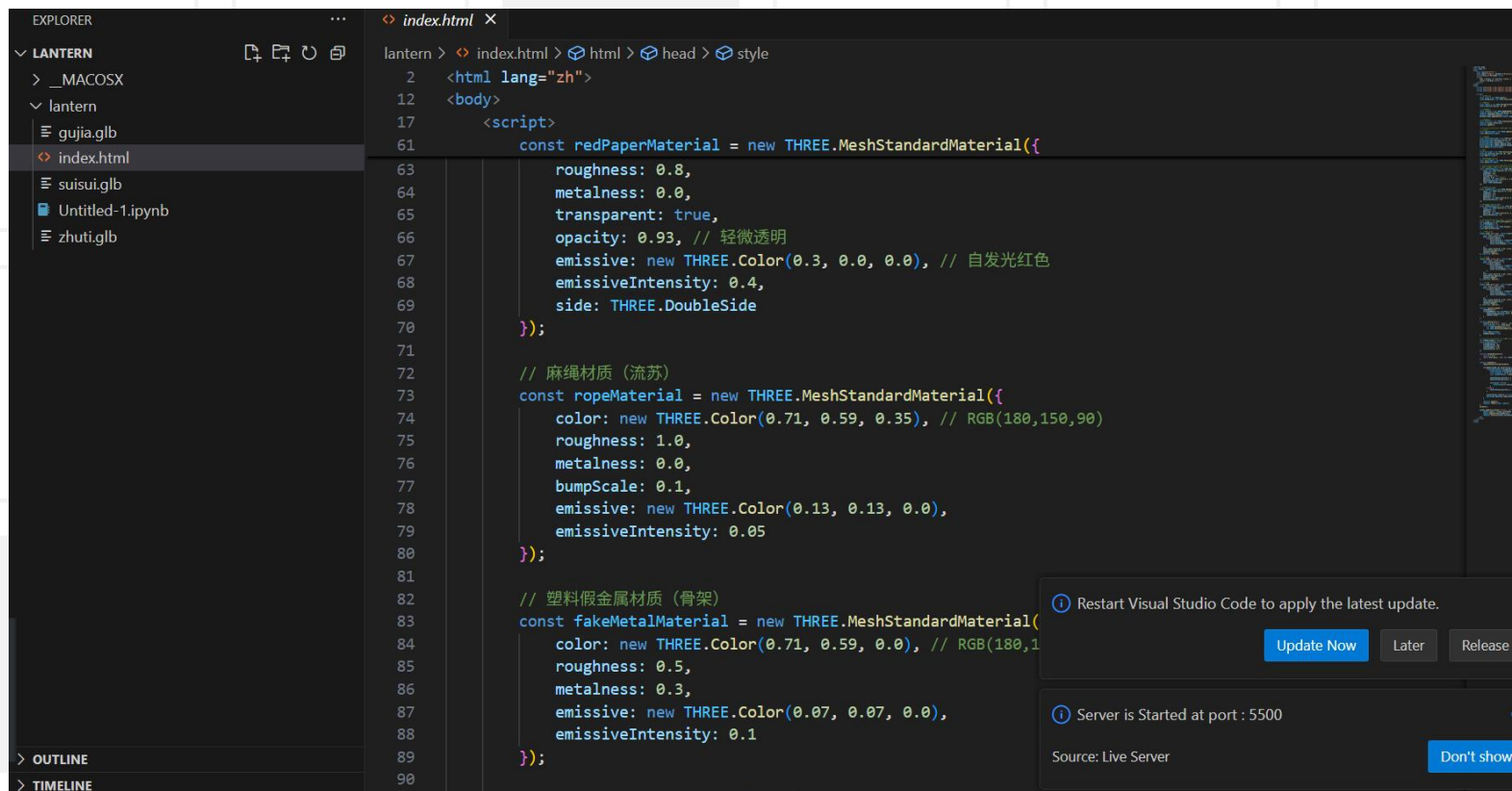
5dab30e · 1 hour ago

README.md	Initial commit	2 hours ago
gujia.glb	Add files via upload	1 hour ago
index.html	Add files via upload	1 hour ago
suisui.glb	Add files via upload	1 hour ago
zhuti.glb	Add files via upload	1 hour ago

README



GitHub website



teaching
assistant's
help

P

啊这咋塞啊

yy 🐼 y

你网站做好了没

一根葱

你咋做网站的就咋弄呗

yy 🐼 y

看看代码

一根葱

不就多命名四个文件夹然后往里面放东西吗

一根葱

My group
members'
help

P



THANK YOU