

```
1  export function setupScene(containerId) {
2    const container = document.getElementById(containerId);
3
4    // Initialize scene
5    const scene = new THREE.Scene();
6
7    // Initialize camera
8    const camera = new THREE.PerspectiveCamera(45, container.clientWidth / container.
clientHeight, 1, 1000);
9
10   // Initialize renderer
11   const renderer = new THREE.WebGLRenderer({ antialias: true });
12   renderer.setSize(container.clientWidth, container.clientHeight);
13   container.appendChild(renderer.domElement);
14
15   return { scene, camera, renderer };
16 }
17
18 export function setupResizeHandler(camera, renderer, containerId) {
19   const container = document.getElementById(containerId);
20
21   window.addEventListener("resize", () => {
22     camera.aspect = container.clientWidth / container.clientHeight;
23     camera.updateProjectionMatrix();
24     renderer.setSize(container.clientWidth, container.clientHeight);
25   });
26 }
27
28 export function debounce(func, wait) {
29   let timeout;
30   return function(...args) {
31     clearTimeout(timeout);
32     timeout = setTimeout(() => func.apply(this, args), wait);
33   };
34 }
```