Lab 04: Moving the camera

CS423: Computer Graphics

Contents

1 Overview

As you might expect from the lecture, you get very different results depending upon which camera you select in `THREE.js`. In this lab, we will consider how camera placement affects the scene.

2 Instructions

Copy the HTML file from Lab 03 into a new file named "`02-camers-lookat.html`". Change the `SCRIPT` tag that loads the Javascript file to load the file `02-cameras-lookat.js`.

Now do the same thing for the Javascript file: copy the file from Lab 03 to a new file named `02-cameras-lookat.js`. Save both files and load the HTML into your browser to confirm the things that you did in the previous lab still works.

2.1 Let's move the camera

Replace the existing `render()` function with the following code:

```
var step = 0;
function render() {
    stats.update();
    // render using requestAnimationFrame
    step += 0.02;
    if (camera instanceof THREE.Camera) {
        var x = 10 + ( 100 * (Math.sin(step)));
        camera.lookAt(new THREE.Vector3(x, 10, 0));
        lookAtMesh.position.copy(new THREE.Vector3(x, 10, 0));
    }
    requestAnimationFrame(render);
    renderer.render(scene, camera);
}
```

Save the modified Javascript file and reload the page in your browser. Note what happens.

3 Submission instructions

Please create a PDF file with the following:

- A screen-shot of your webapp displayed in the browser.

- HTML and JS files for the webapp

Attach this PDF file to the submission link in Blackboard.