

Project #1: Implementing Luxo

1 Instruction

- Due: **11:59pm 7 Nov (Sun)**
- file structure
 - SOME_FOLDER/proj1/proj1.html
 - SOME_FOLDER/resources/threejs/r119/build/three.module.js
 - SOME_FOLDER/resources/threejs/r119/examples/jsm/controls/OrbitControls.js
 - SOME_FOLDER/3rdparty/dat.gui.module.js
- You can find all the required files (except `proj1.html`) in the [threejsfundamentals.org](https://github.com/gfxfundamentals/threejsfundamentals/archive/gh-pages.zip) example file.
<https://github.com/gfxfundamentals/threejsfundamentals/archive/gh-pages.zip>
- **Submit `proj1.html` and `readme.txt` only!** (in one ZIP file)
- **Do not forget pressing “submit” button after uploading your files.**

2 Requirements

- Extend `proj1-skeleton.html` to implement the whole parts of the luxor lamp.
- Extend the GUI to include the control panel as shown in the demo. The `min/max/step` values of `add` function are as follows.

part	min	max	stepsize
blue arm length (lower)	2	7	0.1
blue arm length (upper)	2	7	0.1
green joint (base)	-180	180	1
green joint (middle)	-180	180	1
green joint (head)	-180	180	1
lamp angle	10	90	1

- There are already two lights (one point + one ambient) in the scene. Add a light bulb (a spot light) on the head of the lamp as in the demo.
- Put at least four 3D models in the scene and make them cast shadows on the walls.
- Write a `readme.txt` file. In the file, describe which requirements you succeeded or failed to implement. Please do not write too much details in the file. You don't have to explain everything about your code.