The background features a large, glowing red lantern with black outlines and vertical stripes, hanging from a black cord. To its right is a stylized, colorful fish with scales and fins. The background is a textured, dark grey.

Chinese Fish Lantern

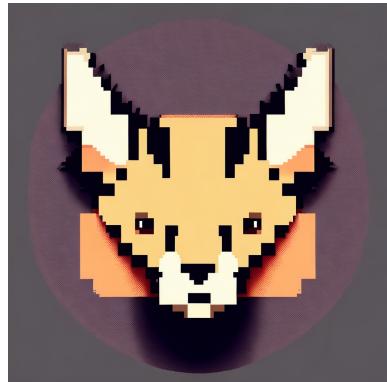
An Open Source Graphic
Project Presentation

Presentation Structure

1. Group Members
2. Idea Inspiration
3. Development
4. Product
- 5.Q&A



1. Group Members



Gengkang Lian (Paul)



Jing Zhao (Georgia)



Xiangyu Fu (Annie)



Shengyang Yu (Alex)

2.Idea Inspiration: Fish, Fish Lattern, Chinese Fish Lattern



FISH

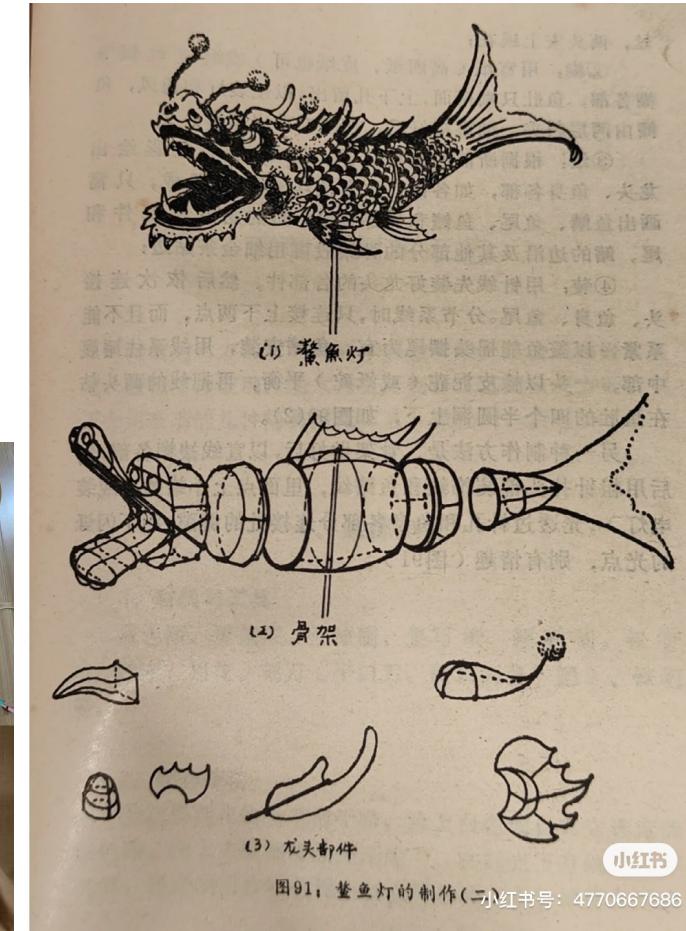
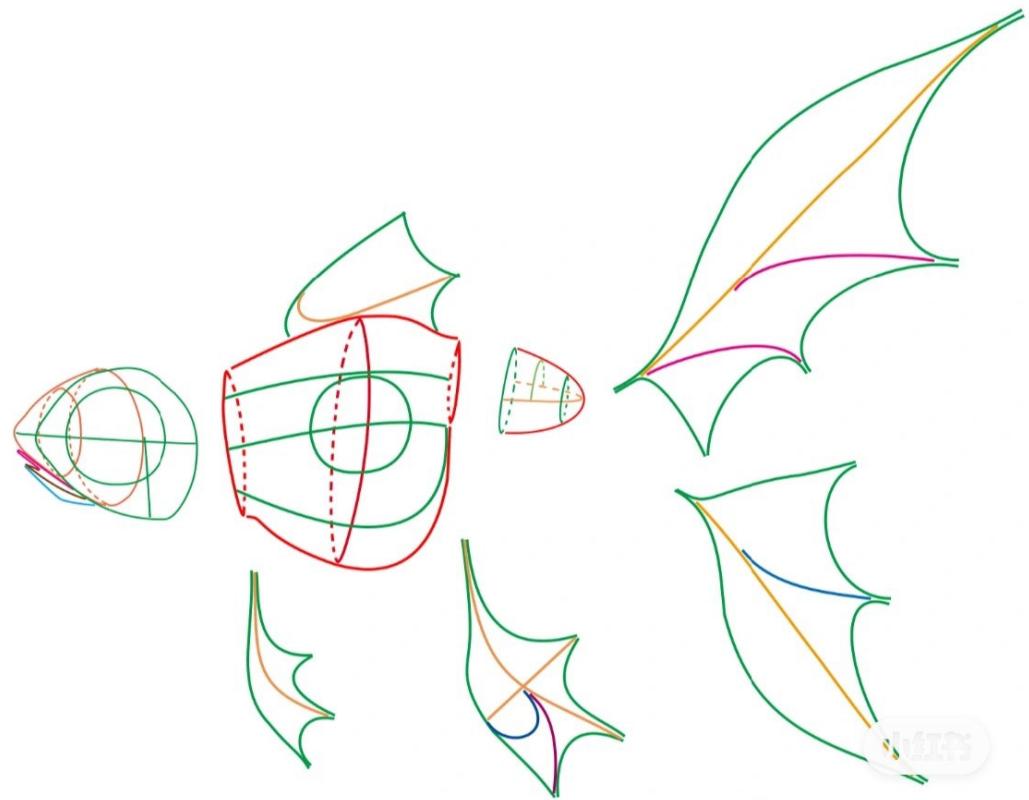
JINGLI:
luck & fortune of school and
career



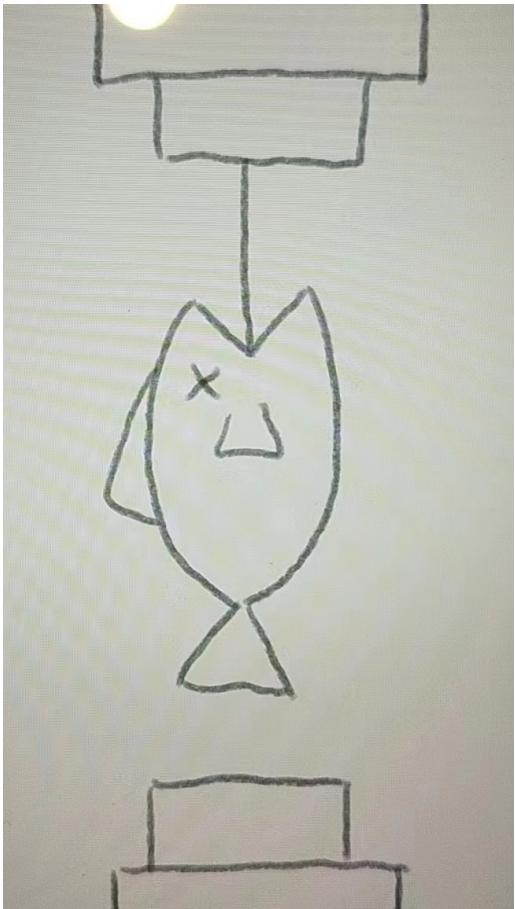
XIANYU:
lie flat & enjoy of personal life

3. Development

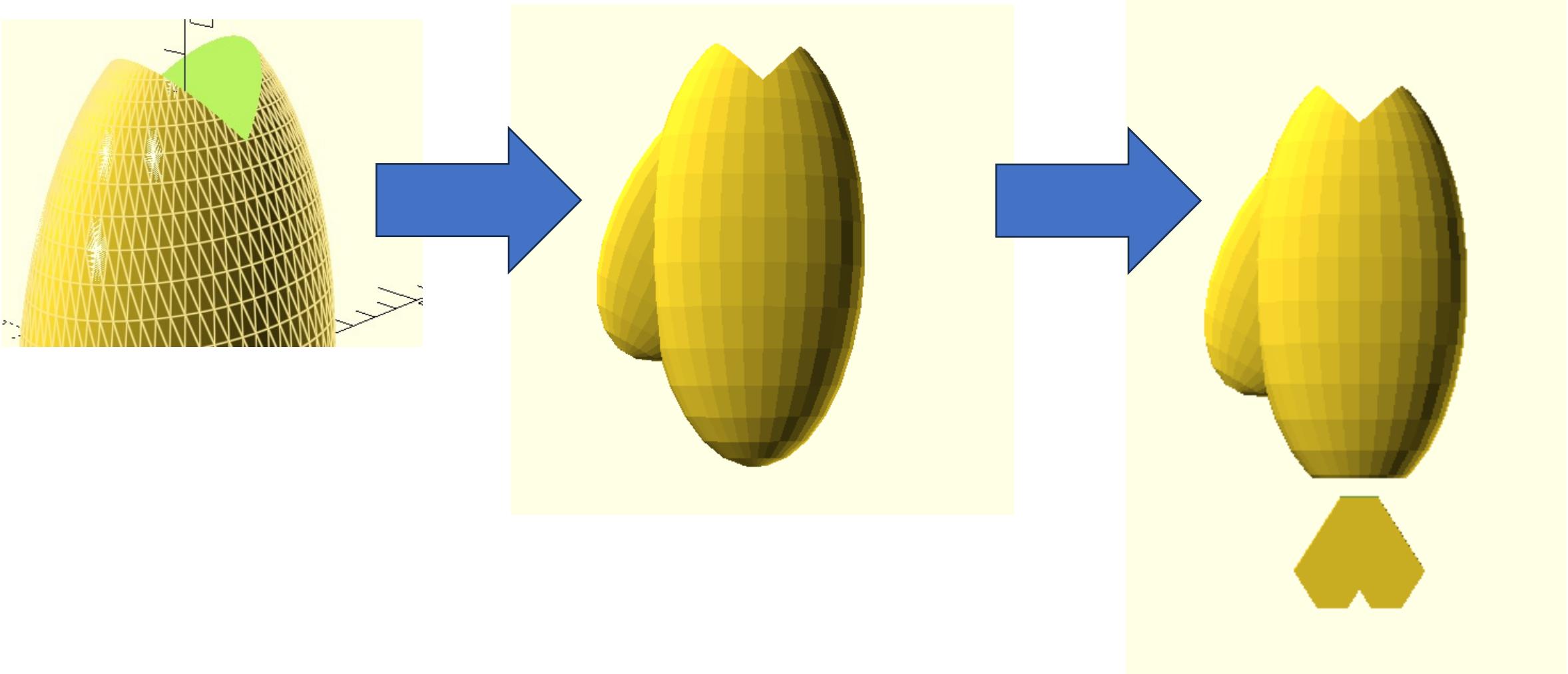
3.1 Initial Research



Rough Sketch of the model

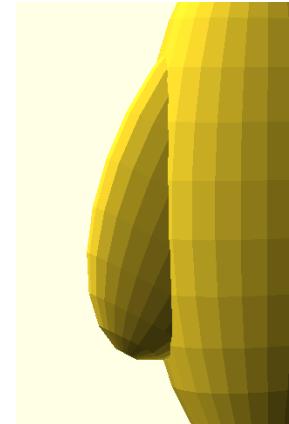


3.2 Modeling



Dorsal fin code and structure

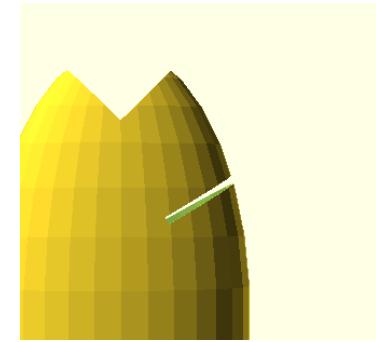
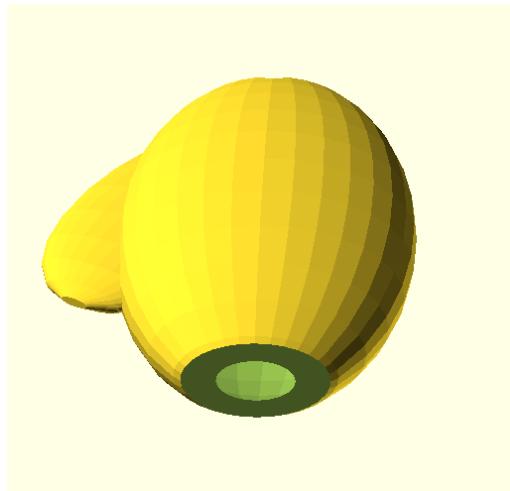
```
union() {
    difference() {
        rotate([-30,0,0])
        scale([0.15,0.5,0.9])
        translate([0,-5,0])
        sphere(r=8);
        scale([0.3,0.5,1])
        sphere(r=9.9);
    }
}
```



Hole at the lantern bottom and Fish gill

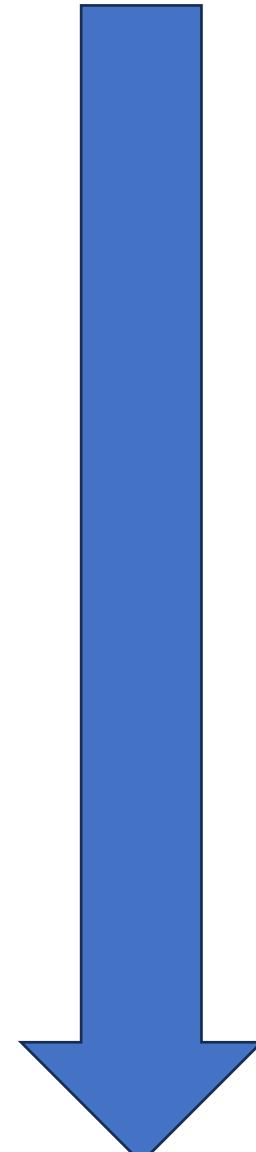
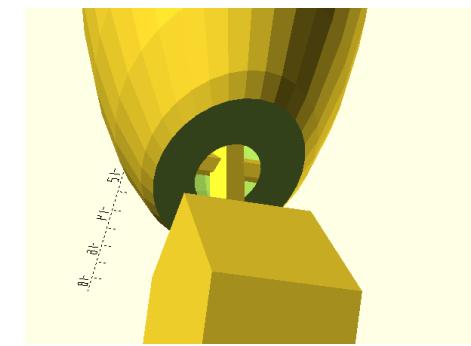
```
difference() {
    union() {
        difference() {
            rotate([-30,0,0])
            scale([0.15,0.5,0.9])
            translate([0,-5,0])
            sphere(r=8);
            scale([0.3,0.5,1])
            sphere(r=9.9);
        }
        difference() {
            scale([0.3,0.5,1])
            sphere(r=10);
            scale([0.29,0.48,0.93])
            sphere(r=10);

            translate([0,0,10])
            rotate([45,0,0])
            cube([5,4,4],center = true);
        }
    }
}
```



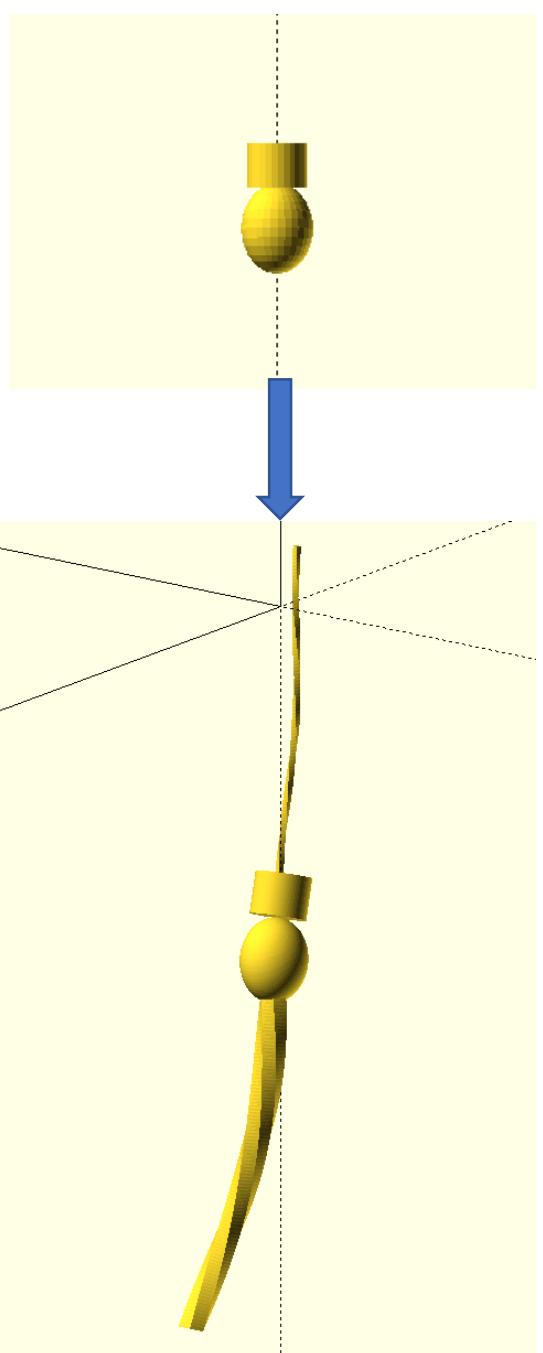
The support to hold the tail

```
translate([0,0,-10])
cylinder(4,0.3,0.3,center=true);
translate([0,0,-8.9])
rotate([90,0,90])
cylinder(2.2,0.2,0.2,center=
    true);
```



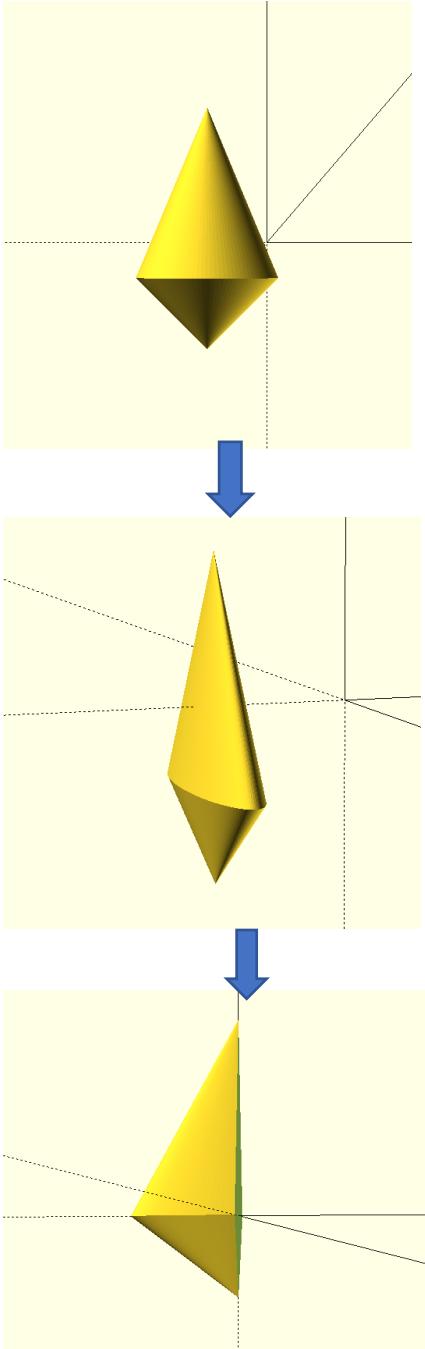
Decoration code and structure

```
5
4 translate([0,0,-105])
5 rotate([20,5,0])
6 cylinder(h=15,r=10,center =
    true,$fn=100);
7
8 translate([-3,8,-126])
9 rotate([20,10,0])
10 scale([0.8,0.8,1])
11 sphere(r=15,$fn=100);
12
13 rotate([5,0,0])
14 translate([0,-10,-40])
15 linear_extrude(height = 120,
    center = true, twist =
        380, slices = 100){
    square([2,2], center
        = true);
}
16
17 }
18
19 rotate([20,0,0])
20 translate([0,-40,-193])
21 linear_extrude(height = 120,
    center = true, twist =
        180, slices = 100){
    polygon([[3,0],[8,0
    ],[11,-4],[8,-8],[3,-8],[0,-4]]);
```



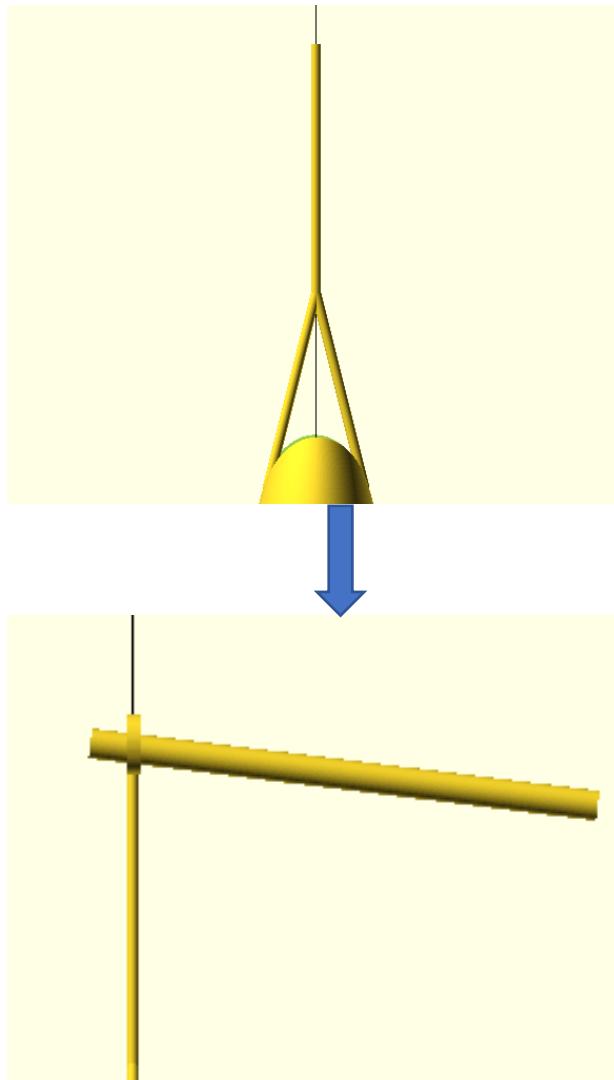
Modified dorsal fin code and structure

```
1
2
3
4 scale([0.8,0.2,0.6])
5 difference(){
6   union(){
7     rotate_extrude(angle=
        360,convexity=20,$fn=100){
        polygon([[0,0],[5,0],[0,
        12]]);
    }
11   rotate_extrude(angle=360,
        convexity=10,$fn=100){
        polygon([[0,0],[5,0],[0,-
        5]]);
    }
15   translate([0,-5,-5])
16   cube(20);
17 }
```

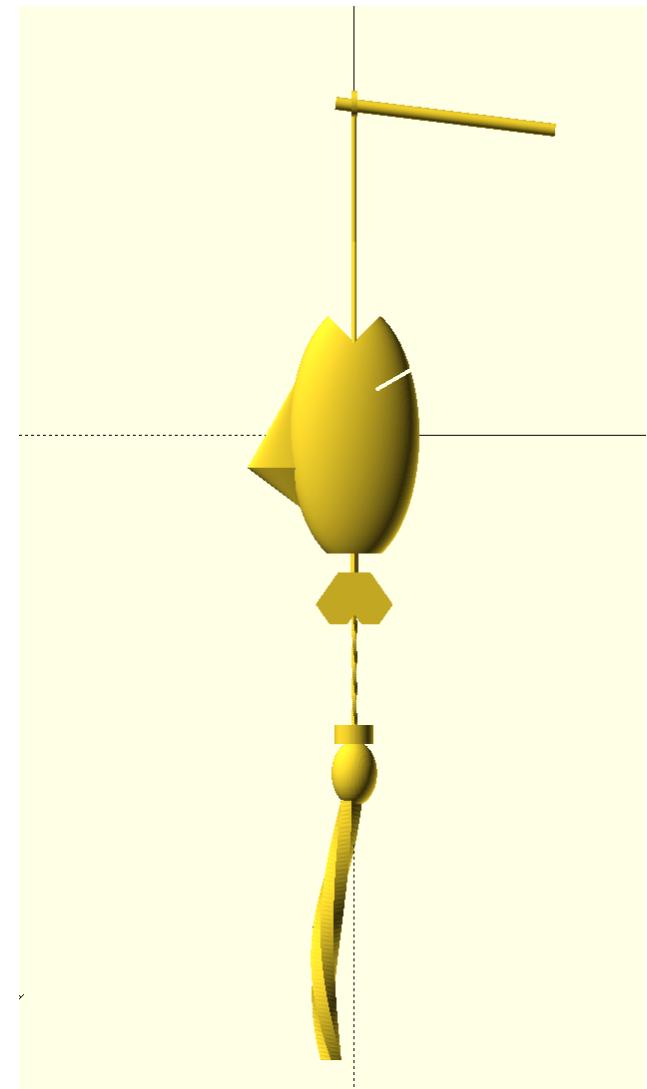


Lantern handle code and structure

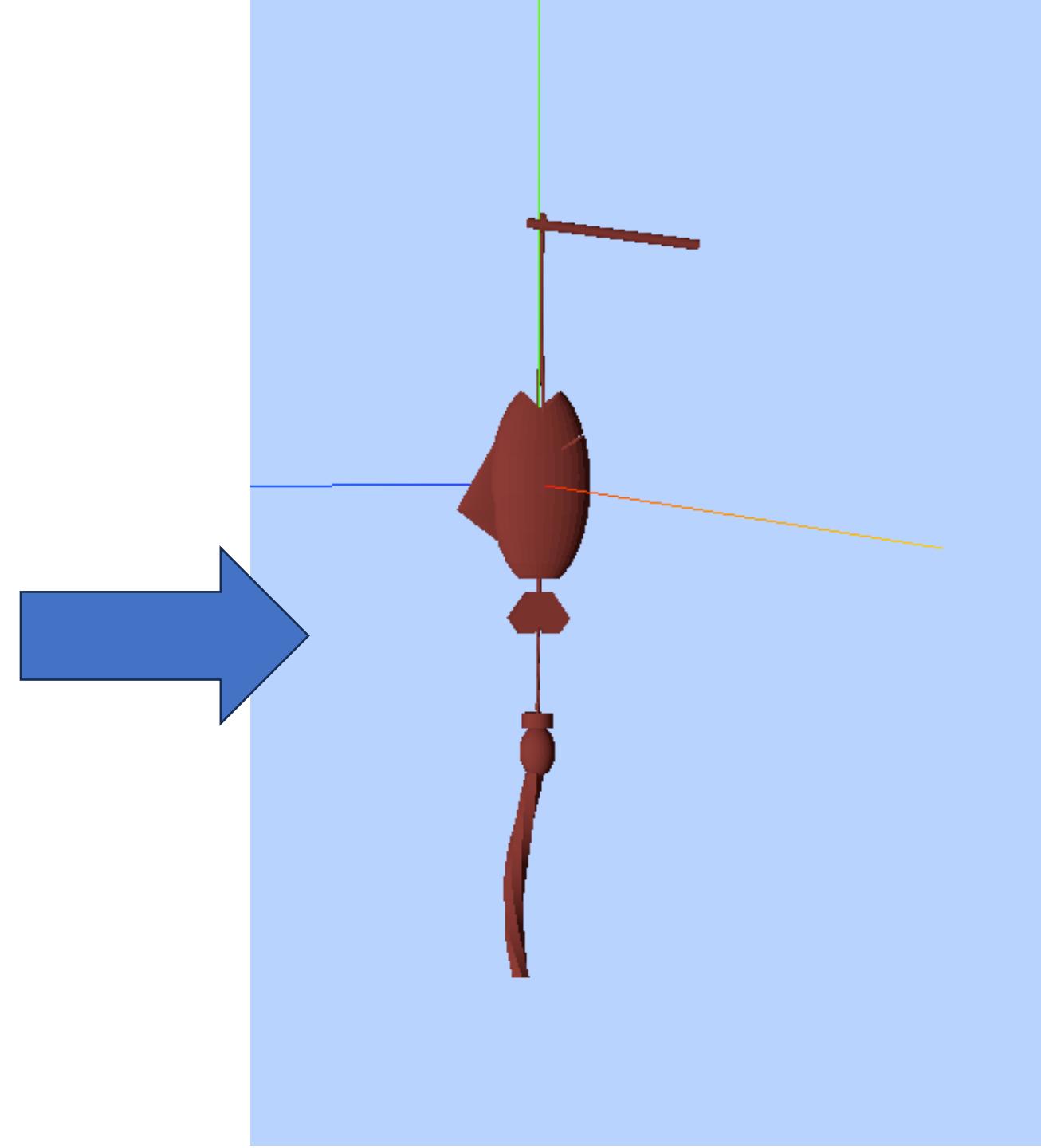
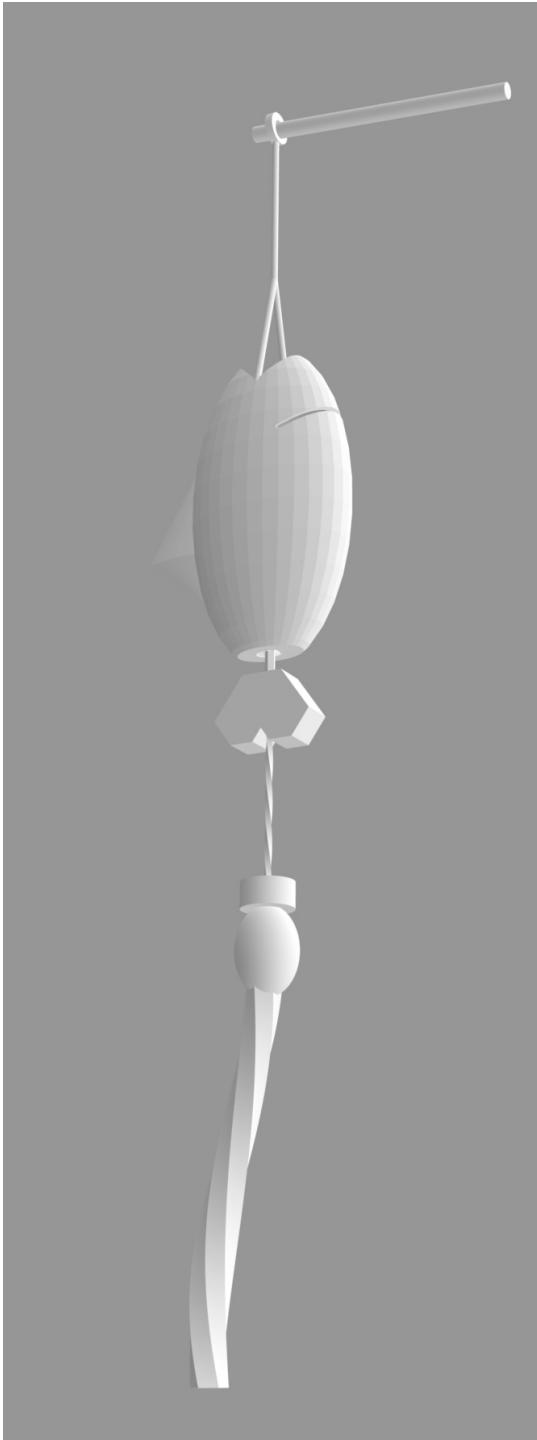
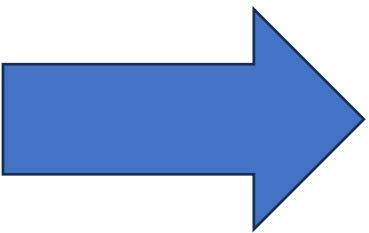
```
87 rotate([0,-14,0])
88 translate([3.6,0,6.4])
89 cylinder(h=8,r=0.2,$fn=100);
90
91 rotate([0,14,0])
92 translate([-3.6,0,6.4])
93 cylinder(h=8,r=0.2,$fn=100);
94
95 translate([0,0,14.8])
96 cylinder(h=10,r=0.2,$fn=100);
97
98
99 translate([0,7,24.5])
100 rotate([83,0,0])
101 cylinder(h=17,r=0.5,$fn=100,center =<
    =true);
102
103 translate([0,0,25.5])
104 rotate([90,0,0])
105 difference(){
106 cylinder(h=0.5,r=1,$fn=100,center=<
    =true);
107 cylinder(h=1,r=0.5,$fn=100,center=<
    =true);
108 }
```



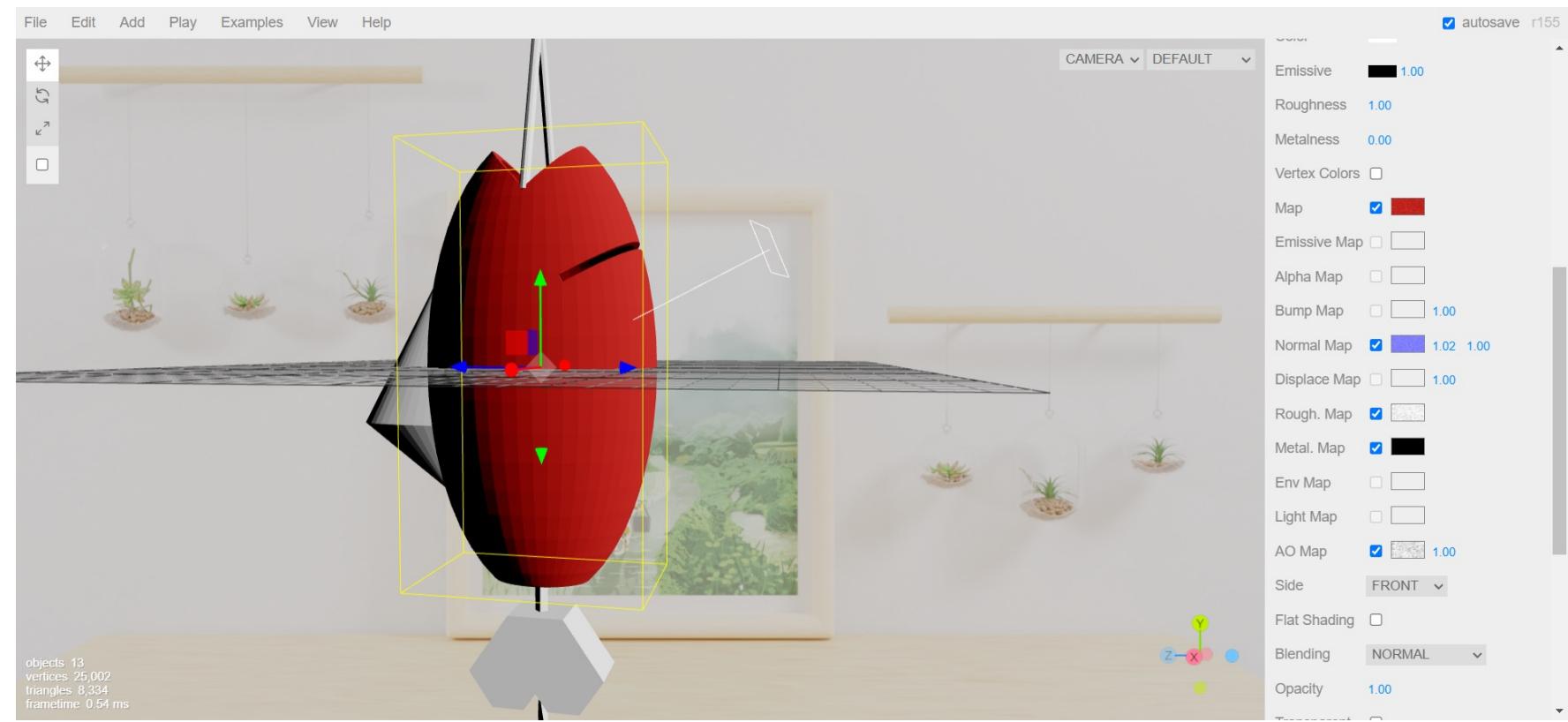
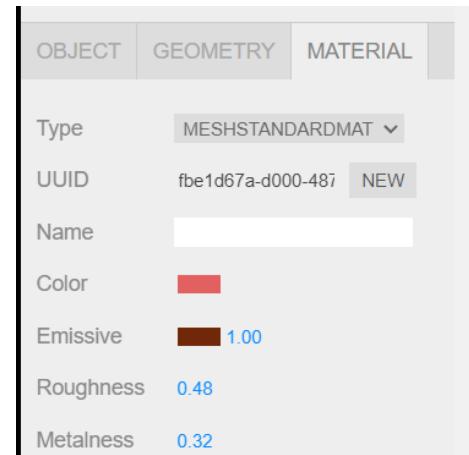
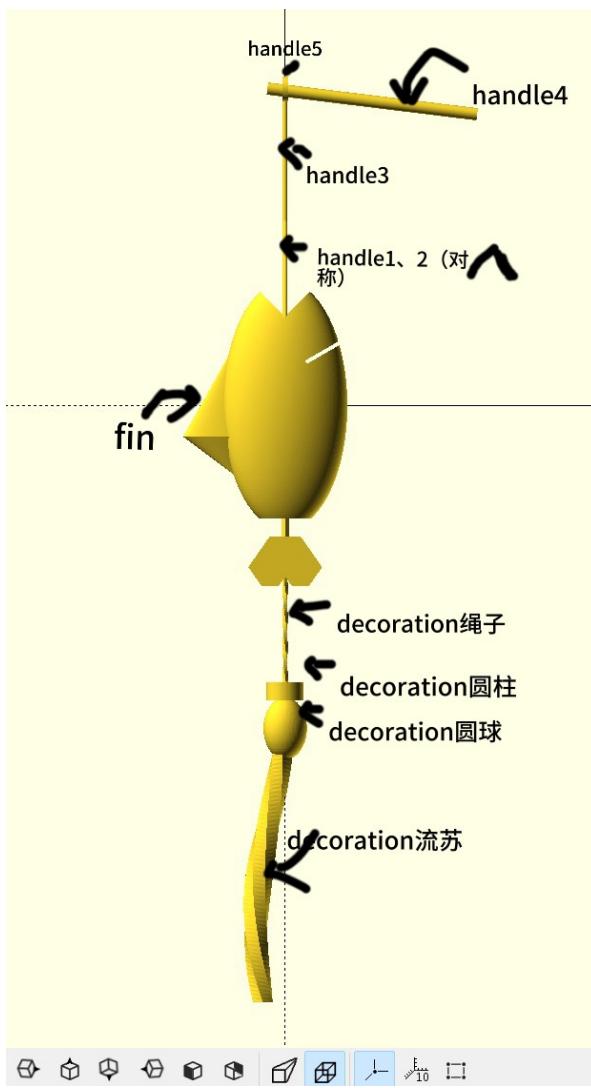
Final Model



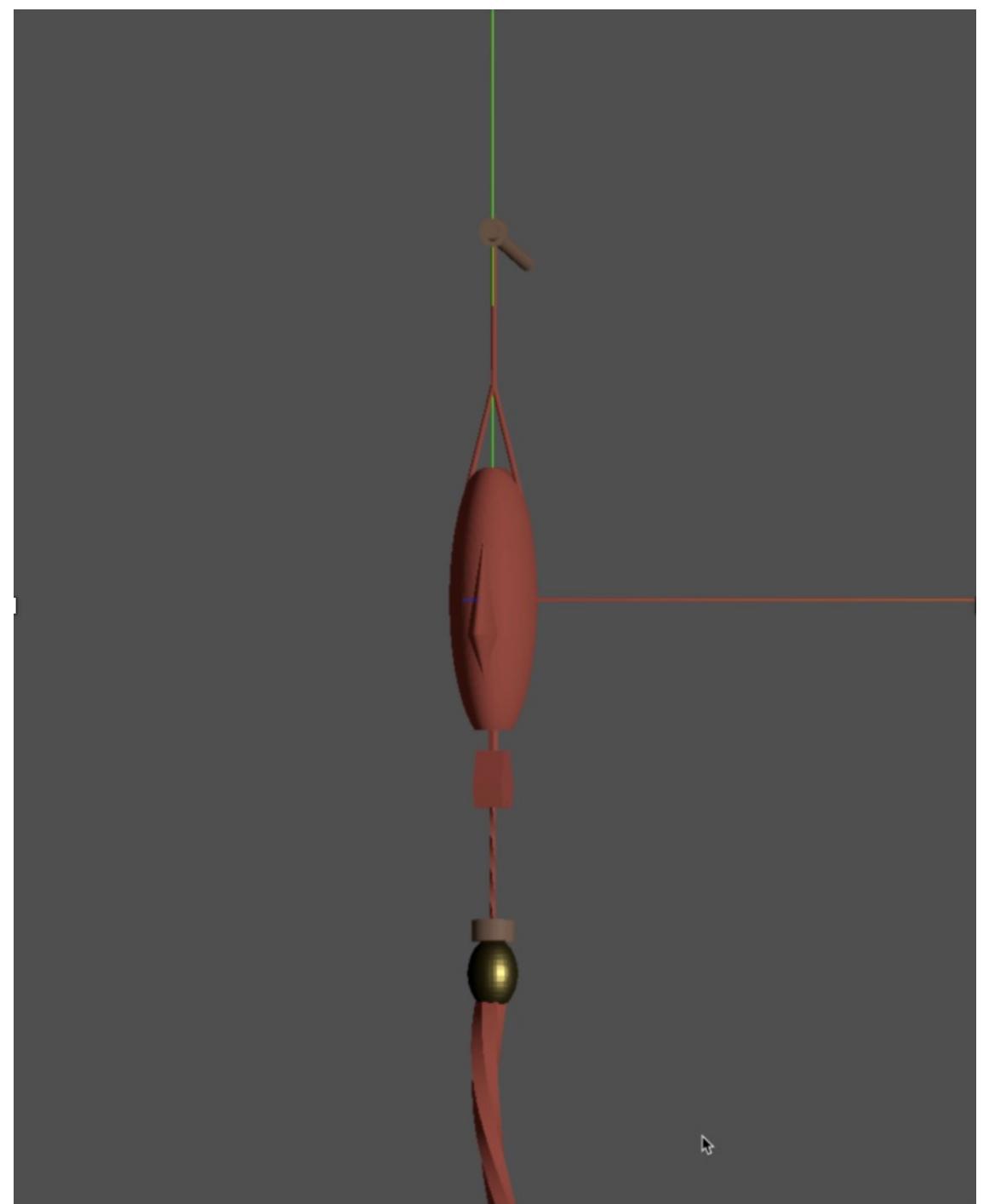
3.3 Texture



“divide and conquer”

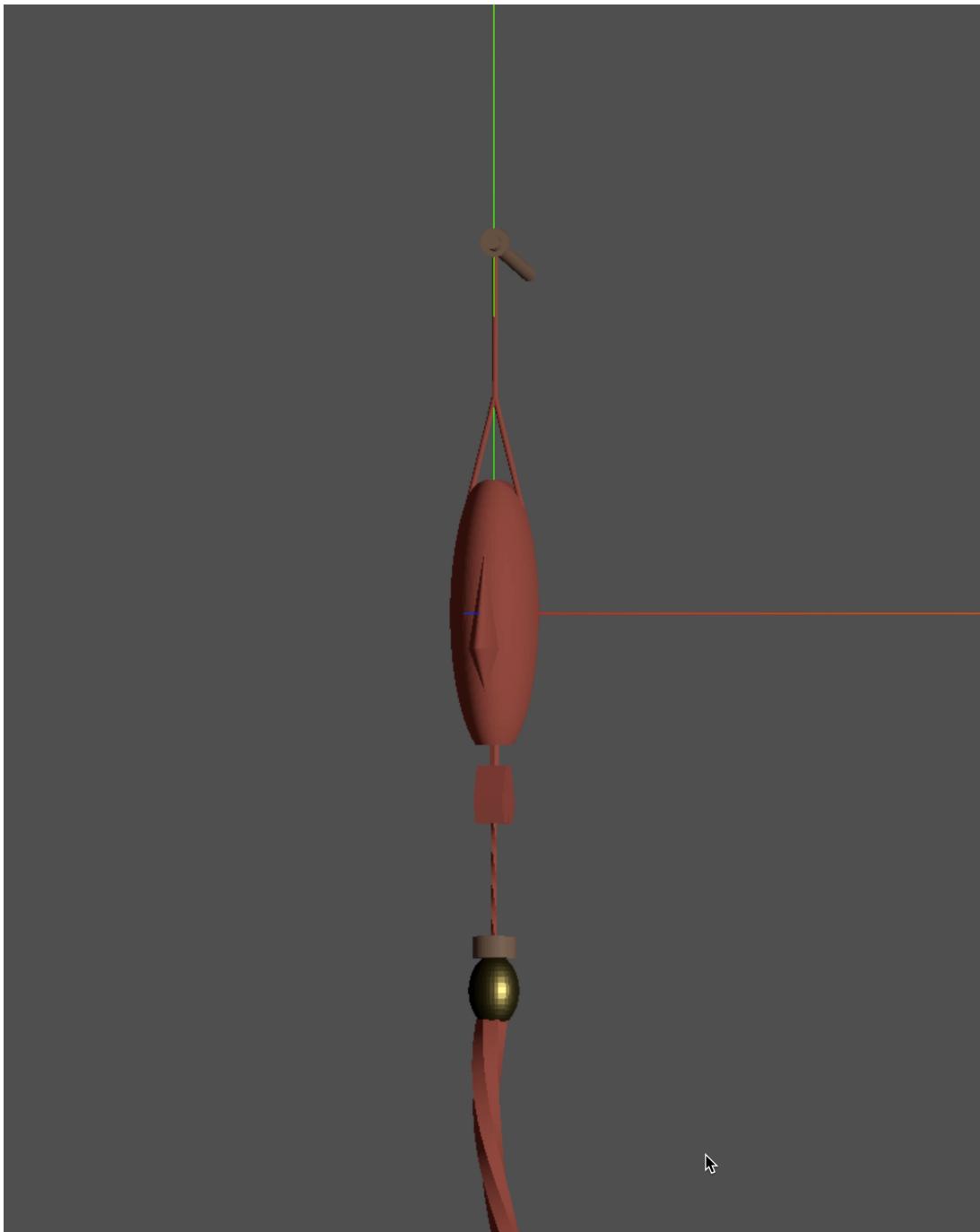


3.4 Animation



4. Product

<https://vk3002h.github.io/>





Q & A