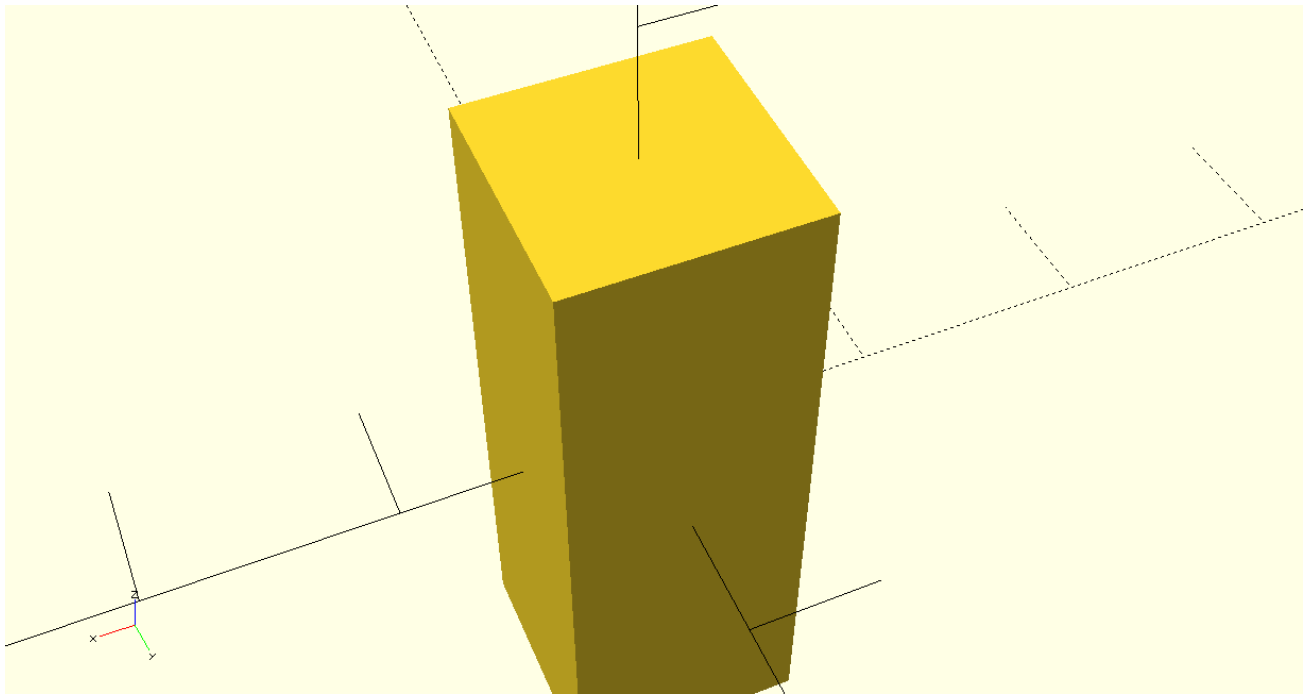
Modeling

Wooden cabinet

```
1  $fn = 50;
2
3  cube([10,10,29], center = true);
4
```

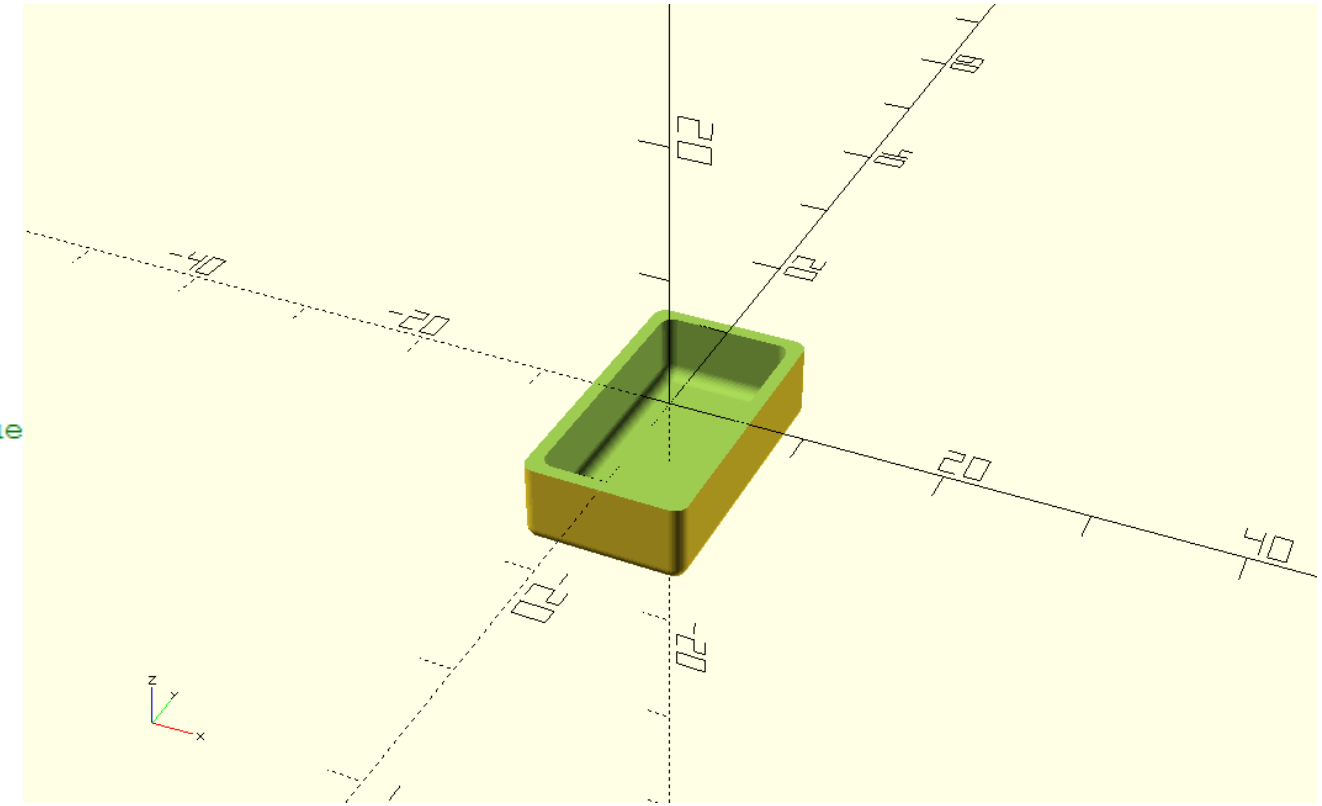
Code



Model

Box

```
1  $fn = 50;
2
3  difference(){
4  minkowski(){
5       cube([10,20,10], center = true);
6       sphere(1);
7  }
8
9  // chop off the top
10
11 translate([0,0,5])cube([13,23,10], center = true
12
13
14 // Hollow inside
15
16 minkowski(){
17      cube([8,18,8], center = true);
18      sphere(1);
19 }
20 }
```



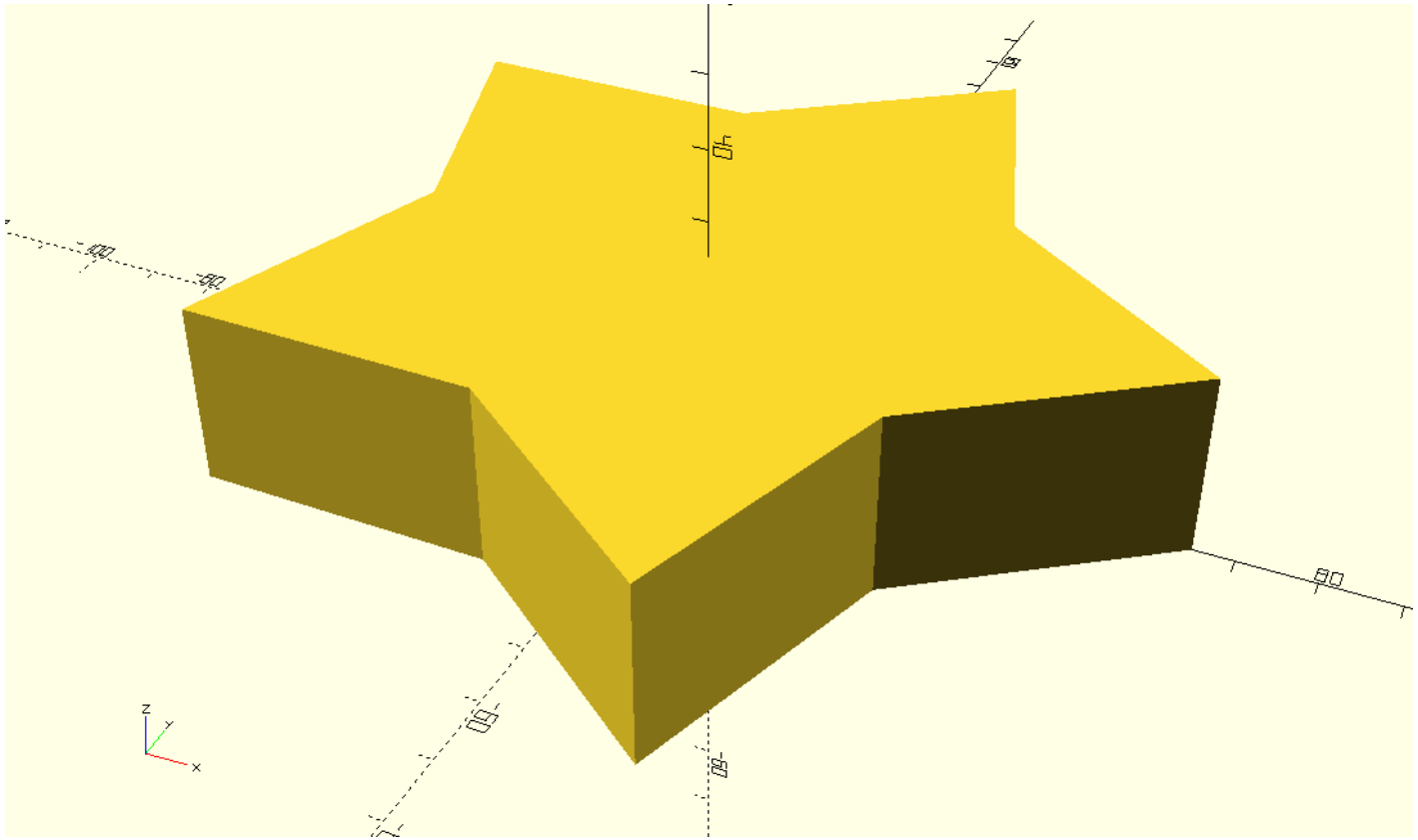
Code

Model

Star-shaped pastry

```
side_length = 40;
angle = 36; // angle between the sides of the
    rhombus in degrees

height = side_length * sin(angle);
width = side_length * cos(angle);
thickness = 25; // The thickness of the 3D
    shape (5 times the previous thickness)

module rhombus() {
    polygon(points = [
        [0, 0],
        [width, height],
        [2 * width, 0],
        [width, -height]
    ]);
}

module star() {
    // Draw the first rhombus
    rhombus();

    // Rotate and draw the other four rhombuses
    for (i = [1:4]) {
        rotate([0, 0, i * 72]) {
            rhombus();
        }
    }
}

// Extrude the 2D shape to create a 3D object
linear_extrude(height = thickness) {
    star();
}
```

Code



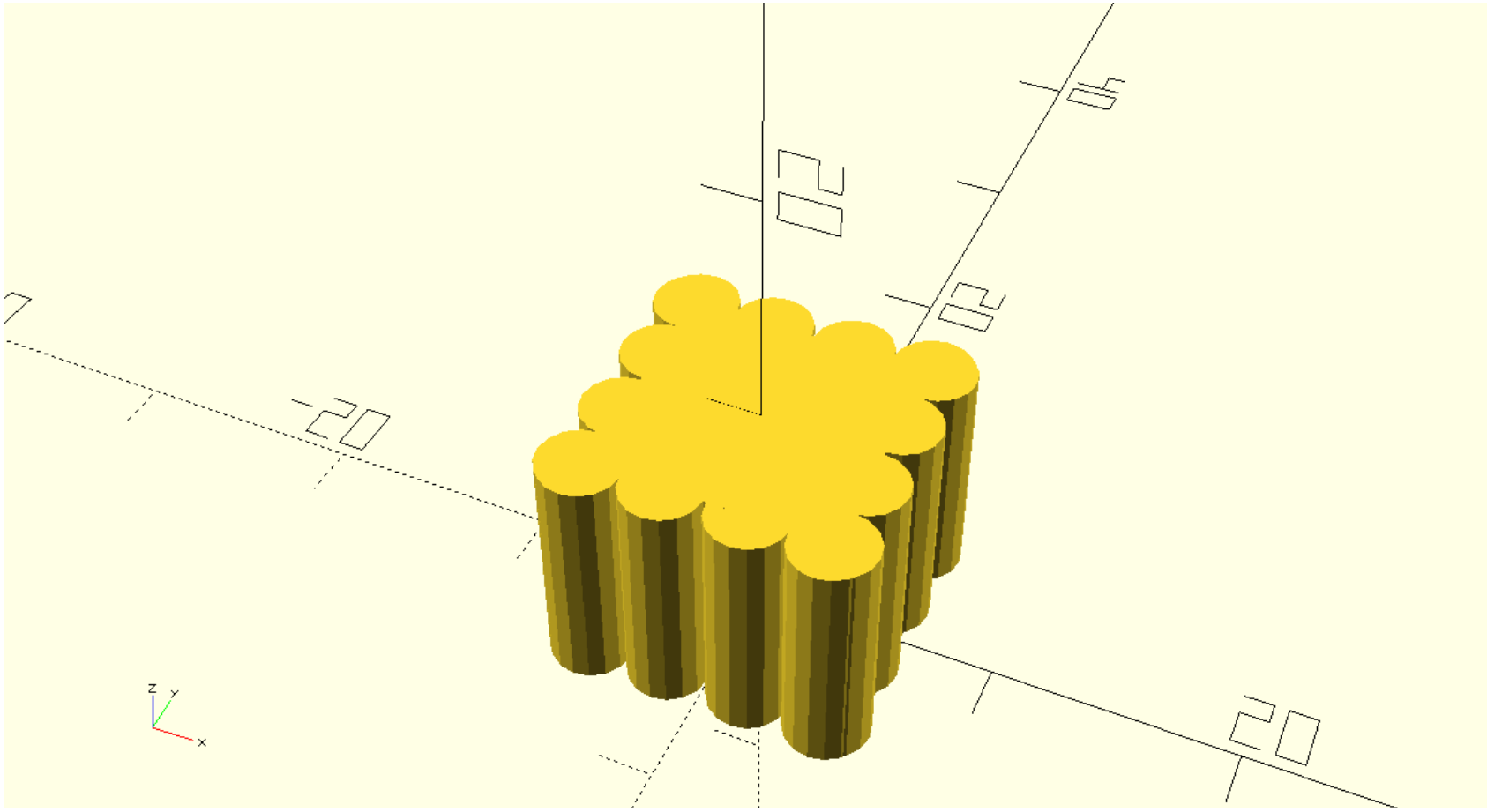
Model

Mooncake

```
overlap = 0.1; // desired overlap between cylinders
num_cylinders = 4; // number of cylinders
s = 10; // length of square side

r = s/6; // radius of cylinders
h = s; // height of square and cylinders

total_cylinder_length = r * 2 * num_cylinders + overlap * (num_cylinders - 1);
spacing = (s - total_cylinder_length) / 2;

translate([-s/2 + r/2 + overlap/2 - r - overlap + (r + overlap) / 2, -5, 0]) cube([s, s, h]);

for (i=[0:num_cylinders-1]) {
    translate([-(total_cylinder_length/2) + r + i * (2 * r + overlap), -5, 0]) cylinder(h=h, r=r, $fn=16);
}

// Second side
translate([0, s/2 - r/2 - overlap/2 + r + overlap - (r + overlap) / 2, 0]) rotate([0, 0, 90]);

for (i=[0:num_cylinders-1]) {
    translate([5, -(total_cylinder_length/2) + r + i * (2 * r + overlap), 0]) rotate([0, 0, 90]) cylinder(h=h, r=r, $fn=16);
}

// Third side
translate([s/2 - r/2 - overlap/2 + r + overlap - (r + overlap) / 2, 0, 0]) rotate([0, 0, 180]);

for (i=[0:num_cylinders-1]) {
    translate([-(total_cylinder_length/2) + r + i * (2 * r + overlap), 5, 0]) rotate([0, 0, 180]) cylinder(h=h, r=r, $fn=16);
}

// Fourth side
translate([0, -s/2 + r/2 + overlap/2 - r - overlap + (r + overlap) / 2, 0]) rotate([0, 0, -90]);

for (i=[0:num_cylinders-1]) {
    translate([-5, -(total_cylinder_length/2) + r + i * (2 * r + overlap), 0]) rotate([0, 0, -90]) cylinder(h=h, r=r, $fn=16);
}
```

Code

Mooncake



Model