

OpenSCAD

the Joy of 3D modelling at your programming finger tips



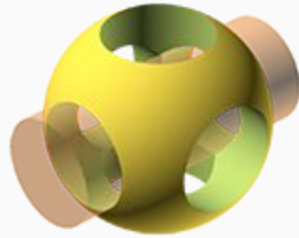
3D Printers are affordable



Modellers are not

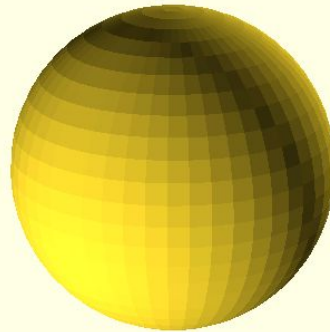


OpenSCAD to the Rescue!



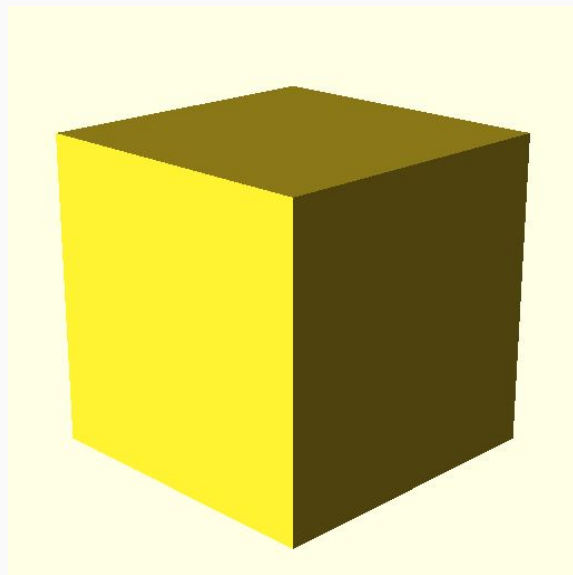
Modules

```
sphere();
```



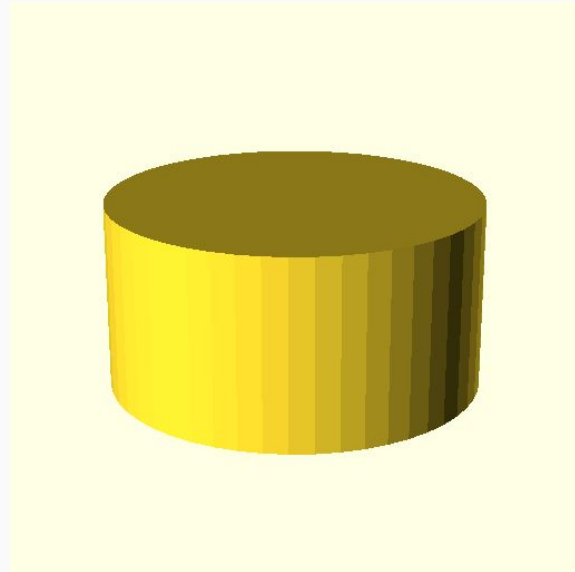
Modules

`cube();`



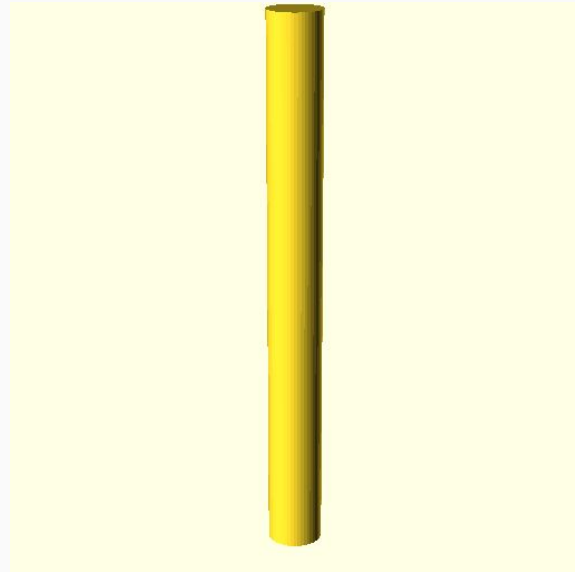
Modules

`cylinder();`



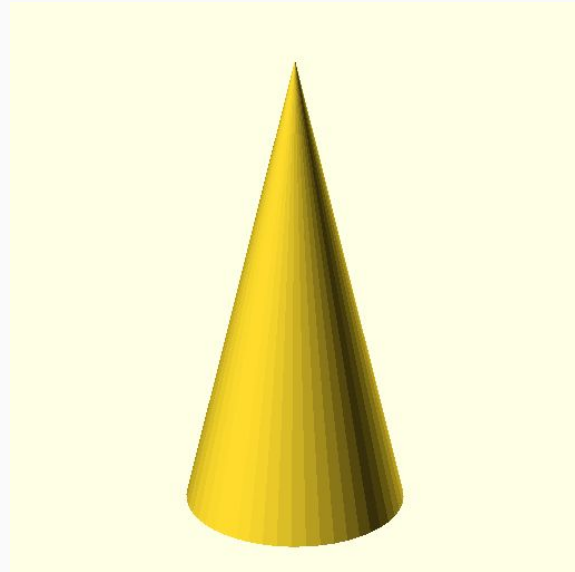
Modules

```
cylinder(20);
```



Modules

```
cylinder(h=20, r1=5, r2=0);
```

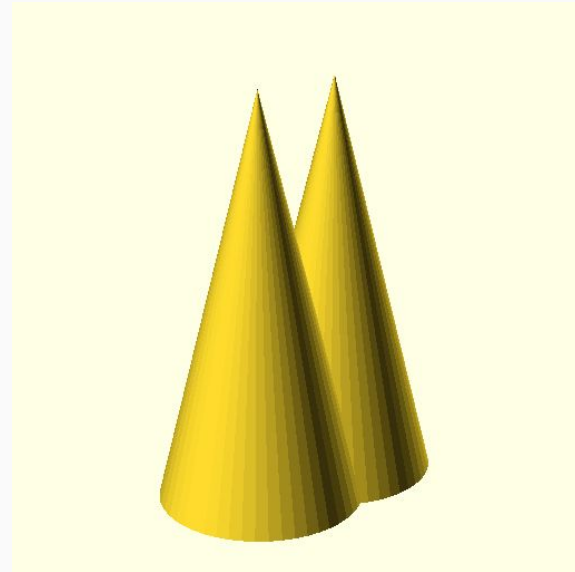


Modules

```
cylinder(h=20, r1=5, r2=0);
```

```
translate([5, 0, 0])
```

```
cylinder(h=20, r1=5, r2=0);
```

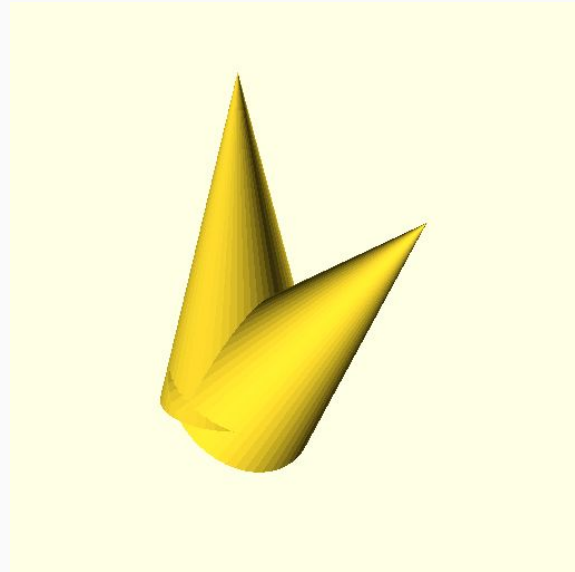


Modules

```
cylinder(h=20, r1=5, r2=0);
```

```
rotate([45, 0, 0])
```

```
cylinder(h=20, r1=5, r2=0);
```

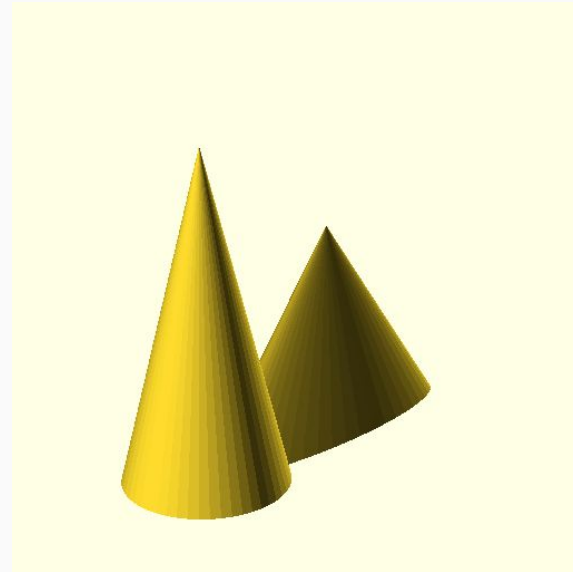


Modules

```
cylinder(h=20, r1=5, r2=0);
```

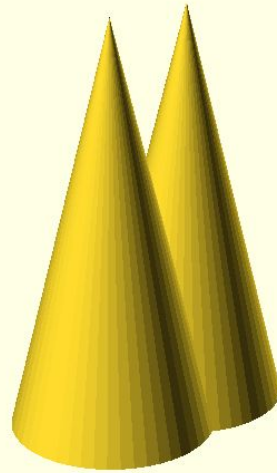
```
translate([5, 0, 0]) scale([2, 1/2, 2/3])
```

```
cylinder(h=20, r1=5, r2=0);
```



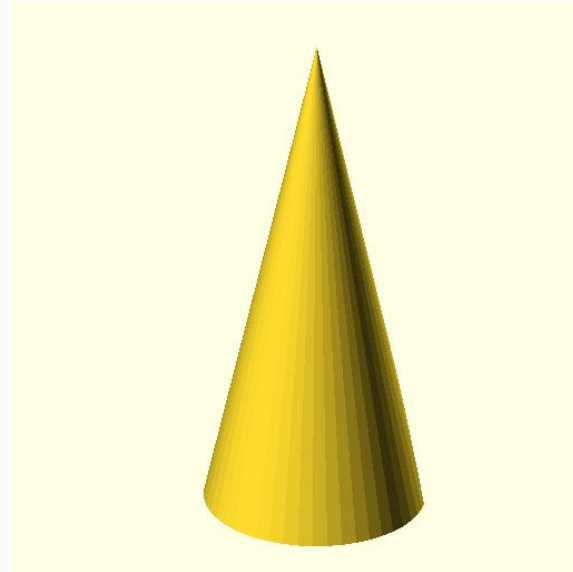
Modules

```
union() {  
    cylinder(h=20, r1=5, r2=0);  
    translate([5, 0, 0])  
    cylinder(h=20, r1=5, r2=0);  
}
```



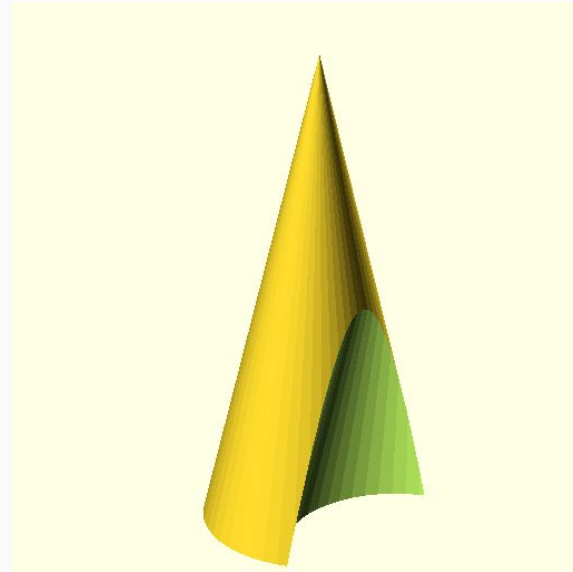
Modules

```
difference() {  
    cylinder(h=20, r1=5, r2=0);  
    translate([5, 0, 0])  
    cylinder(h=20, r1=5, r2=0);  
}
```



Modules

```
rotate([0, 0, -90]) difference() {  
    cylinder(h=20, r1=5, r2=0);  
    translate([5, 0, 0])  
    cylinder(h=20, r1=5, r2=0);  
}
```



Modules

```
intersection() {  
    cylinder(h=20, r1=5, r2=0);  
    translate([5, 0, 0])  
    cylinder(h=20, r1=5, r2=0);  
}
```



Variables

```
variable_name := value;
```

“Standard Library”

abs

sign

sin

cos

...

includes

`include <file.scad>`

`use <file.scad>`

