

Tinkercad

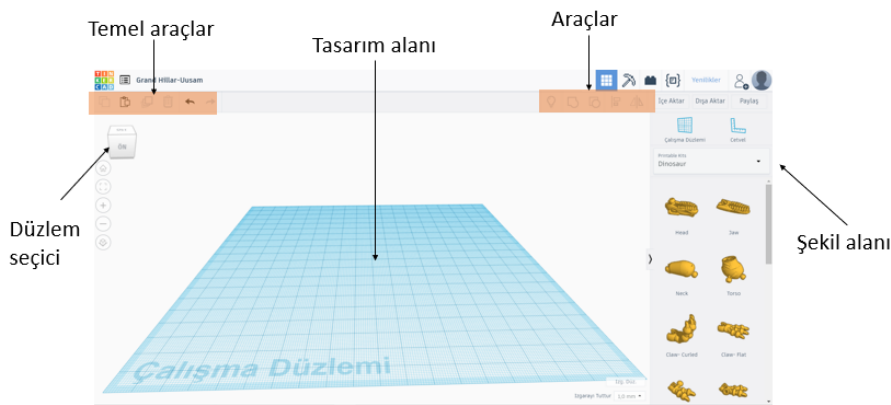
Tinkercad is a browser-based 3D design and modeling tool that is easily accessible to everyone. It works on all web browsers on Windows, Mac, or Linux.

When modeling in Tinkercad, you use given simple geometric shapes. By manipulating these shapes, adjusting their dimensions and positions, you create your model. In other words, you work by adding and subtracting shapes to build your design.

You can download and print the models you create using Tinkercad on 3D printers. This way, by using this simple program and 3D printers, you can quickly turn your ideas into reality.

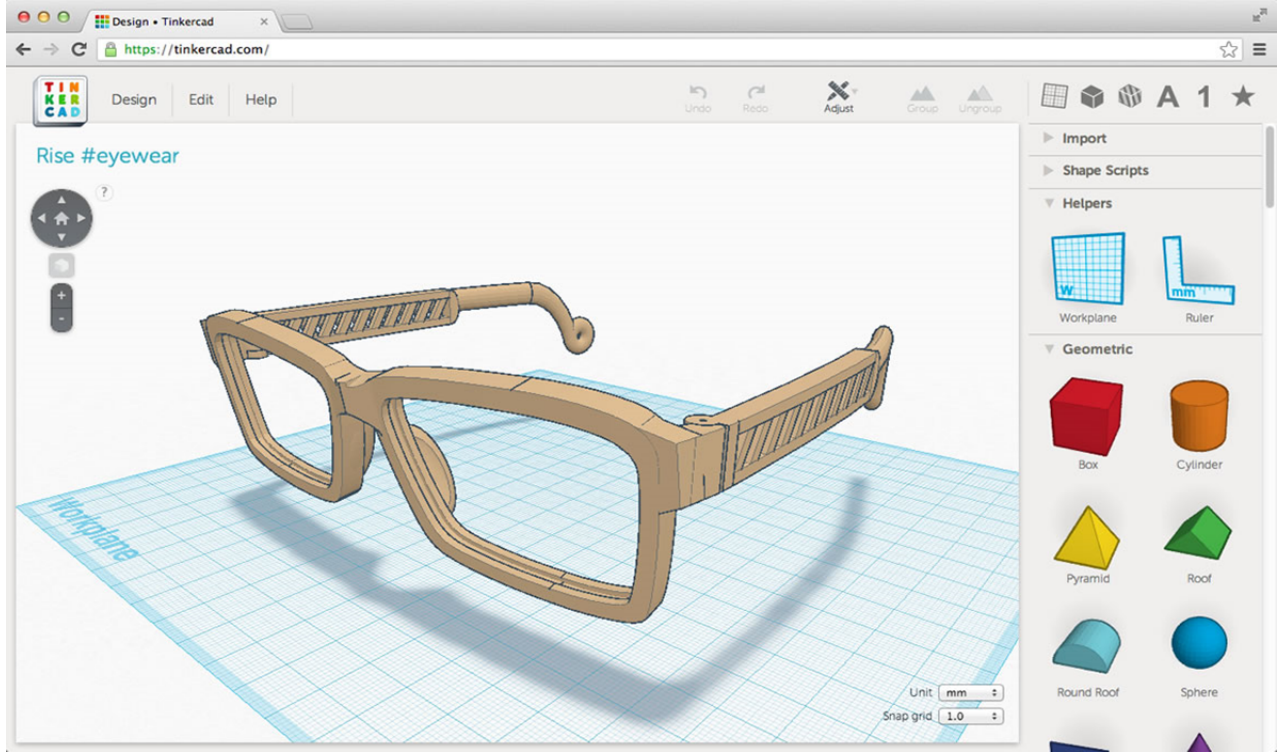


Tinkercad Workspaces

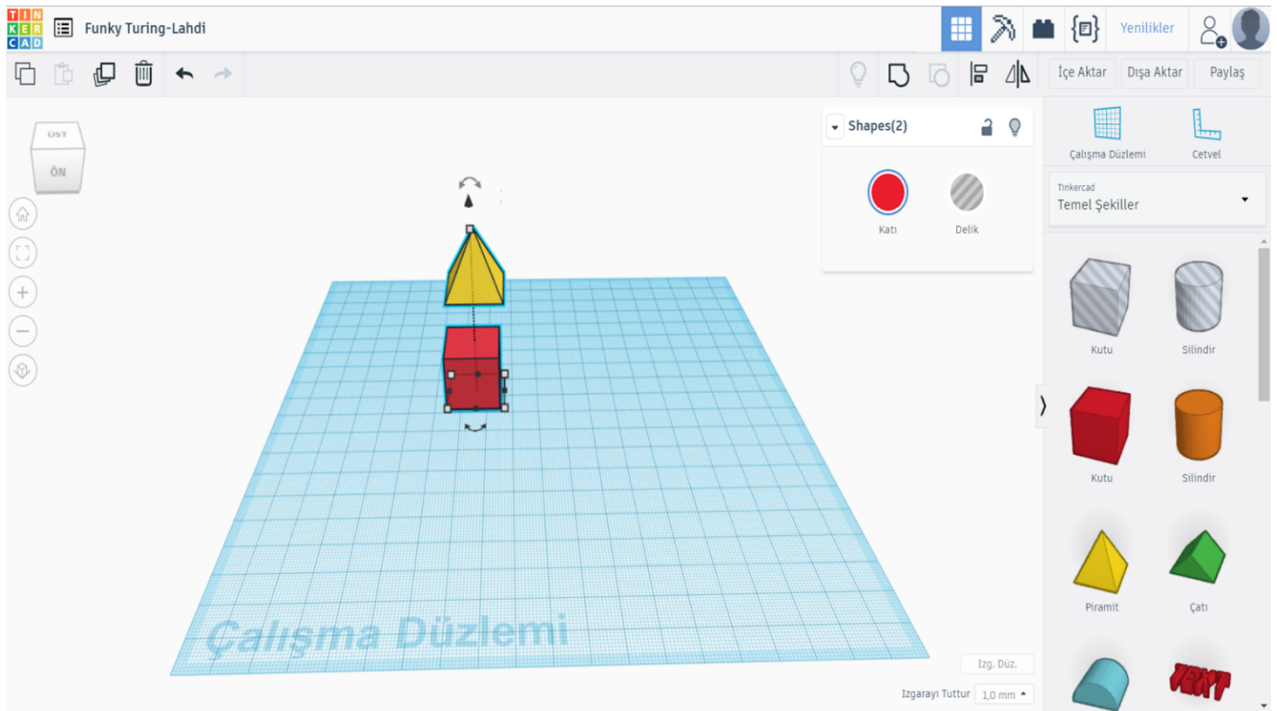


Possible Applications

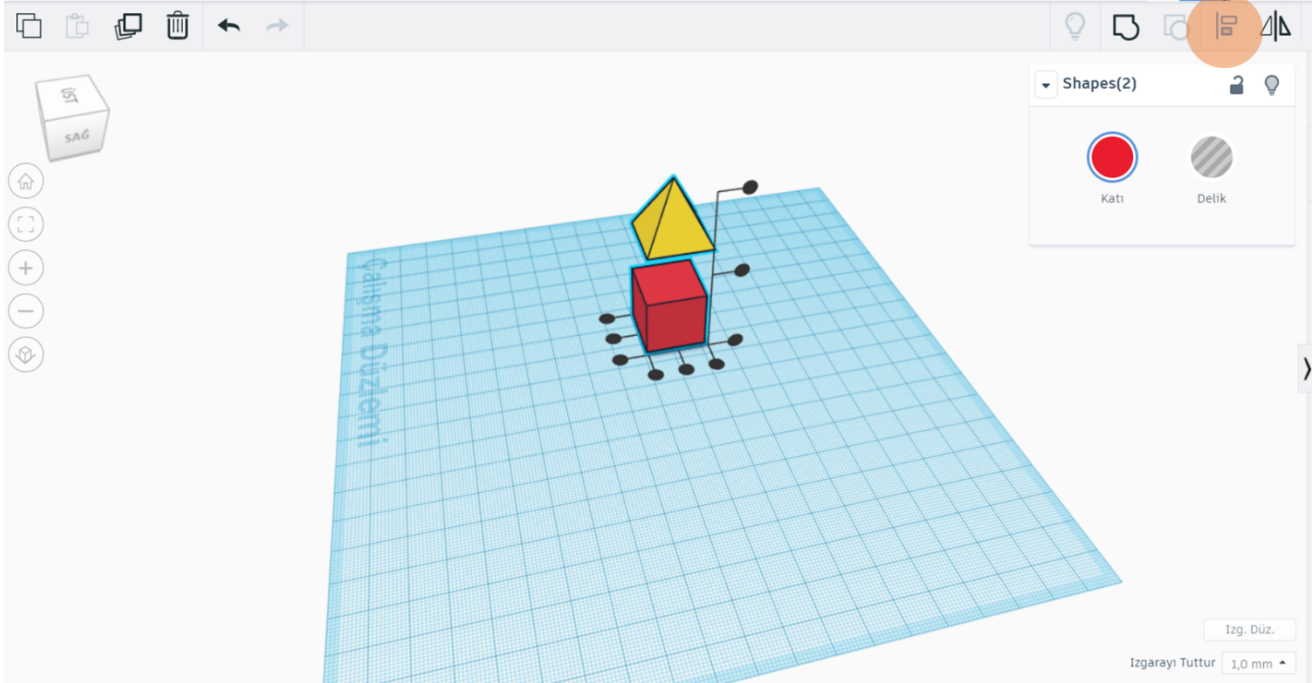
Toys, Prototypes, Home decor, Robot parts, Minecraft models, Jewelry design etc.



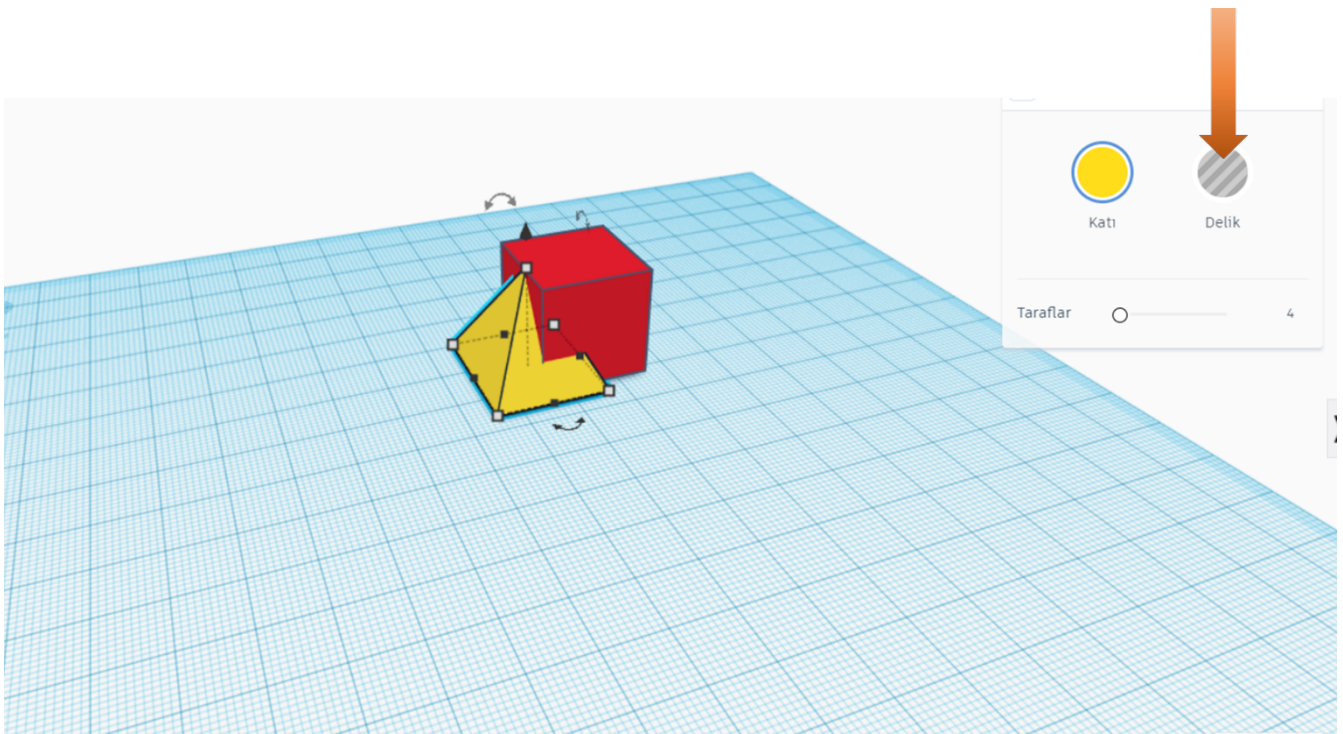
We can choose the desired shape from the Shapes menu and do whatever we want.



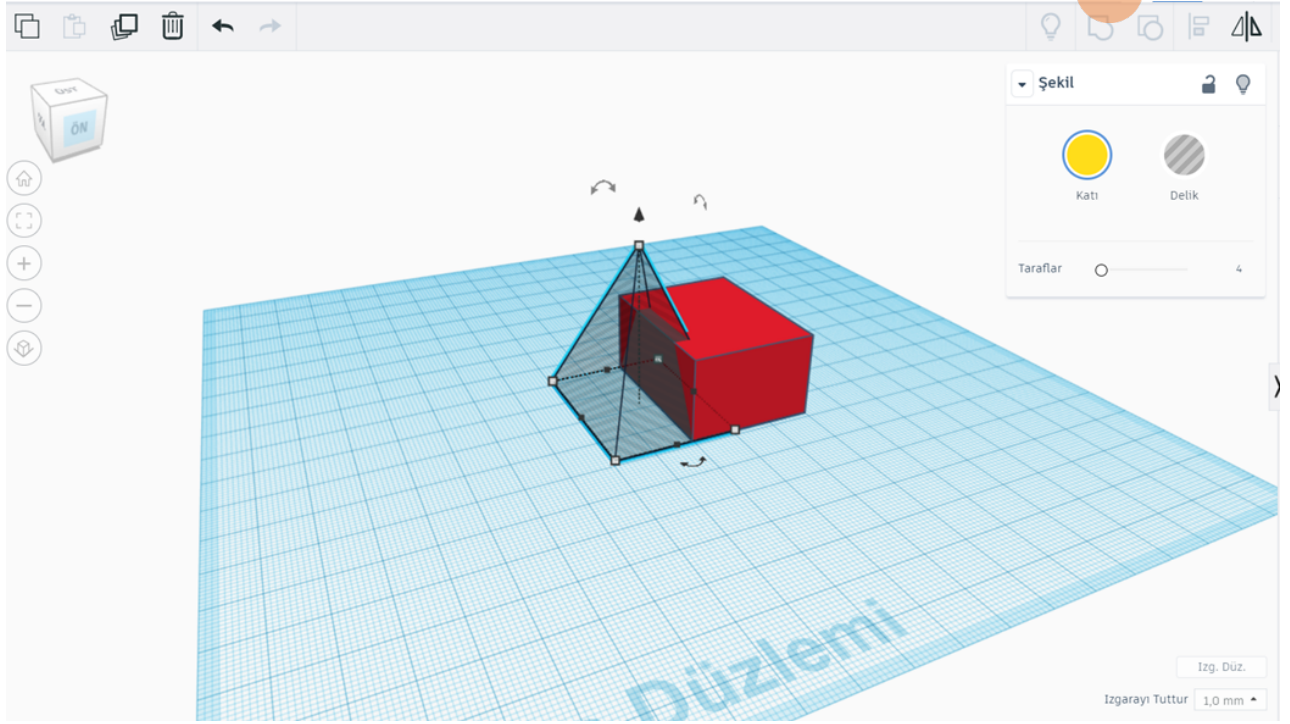
The alignment button aligns our shape in the X, Y, and Z planes..



To perform the cut operation, we select the part to be cut and click on the hole option. This selected part will now become transparent, and then with our command, we will cut the part we want.



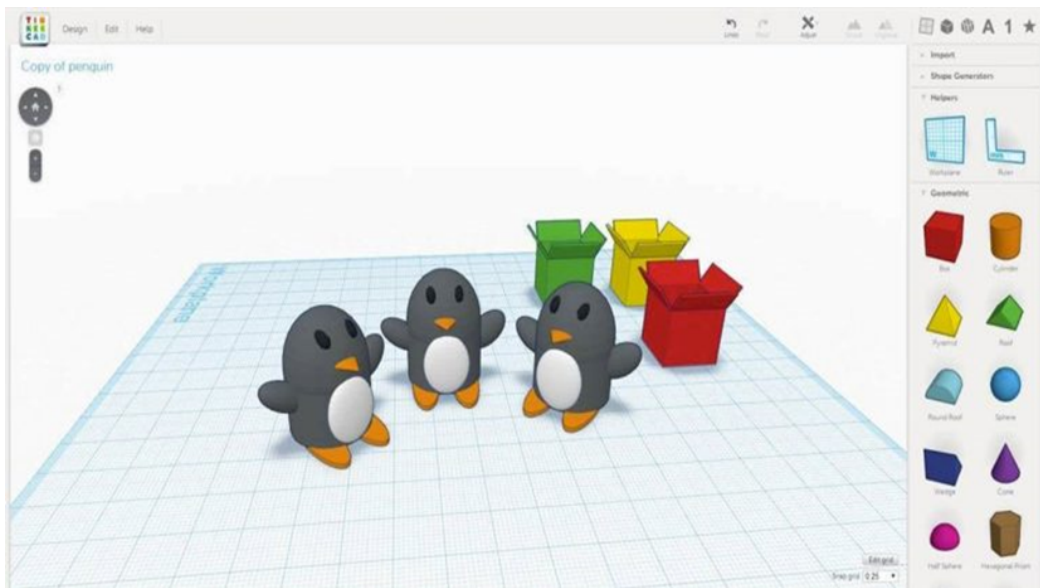
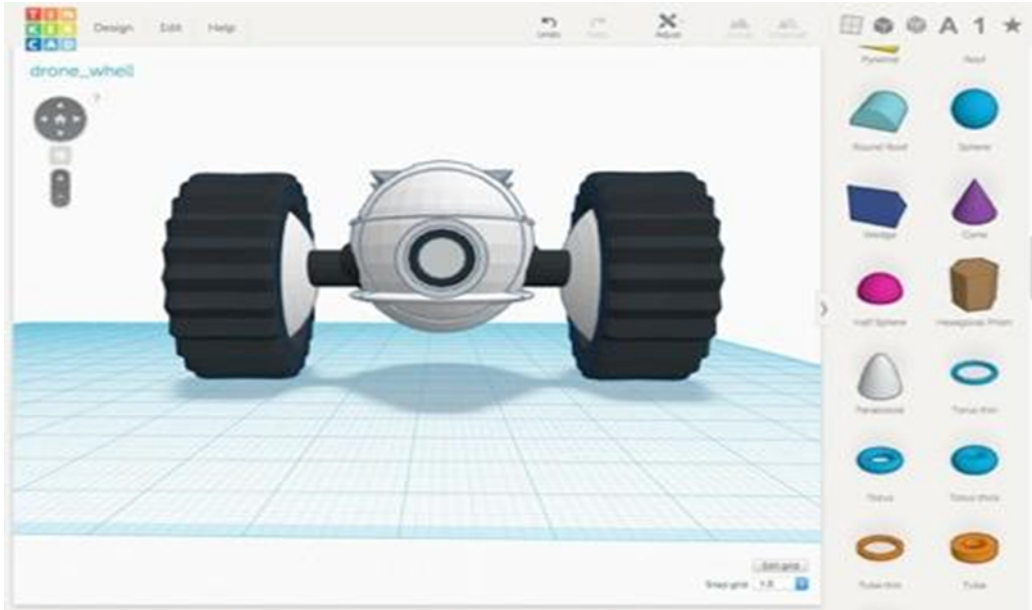
After the hole operation, when we select all the parts and click on the group button, it will combine our two pieces into a single piece. Since one of our parts has a hole, it will cut the other part when grouped.

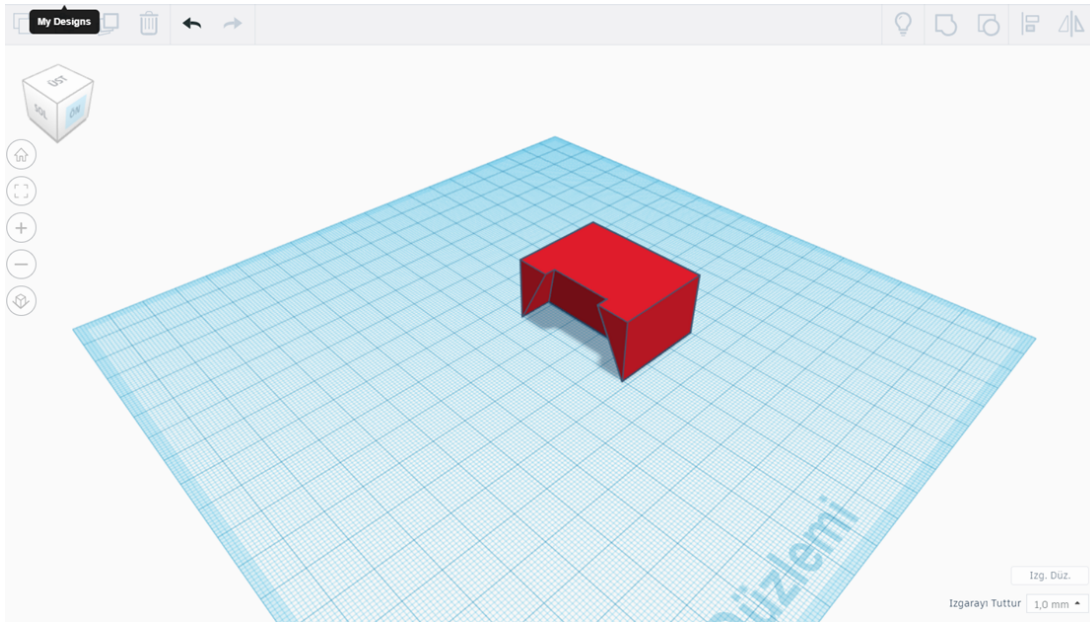


The ungroup button is used to make our grouped objects independent again after grouping them together.



Sample Designs



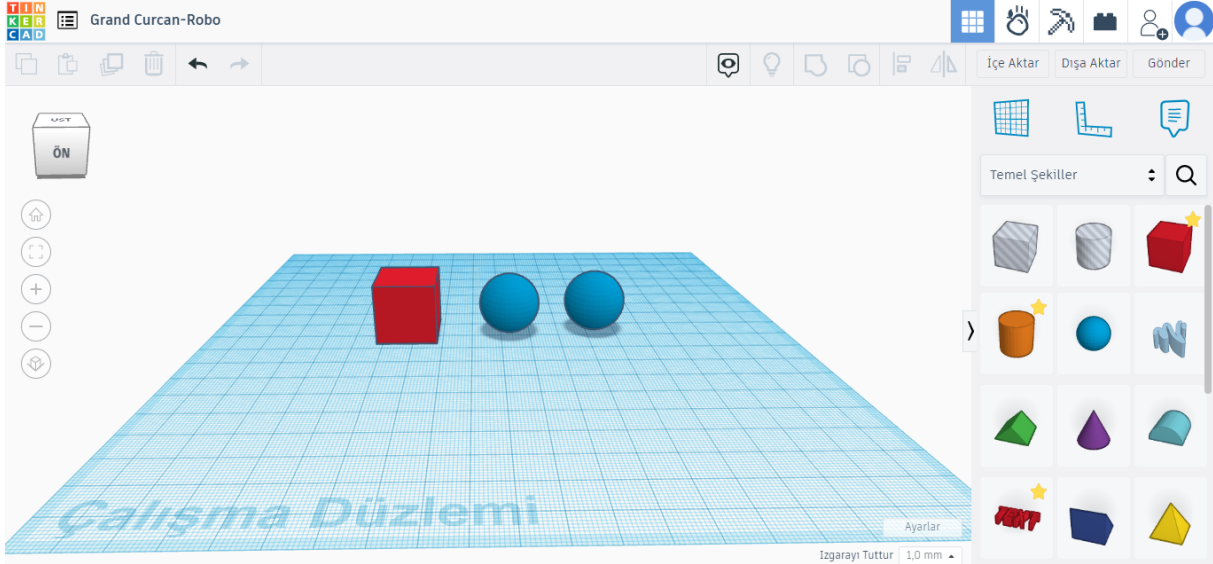


Cube Application

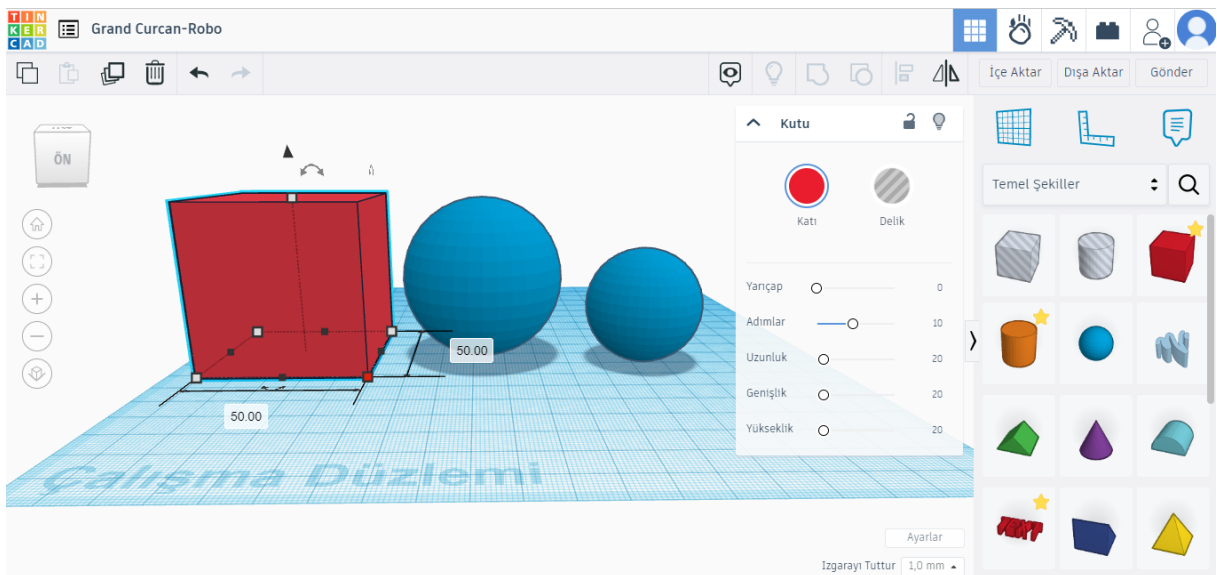
In this application, we will make a cube with a perforated sphere inside, and then place a smaller perforated sphere inside the perforated sphere, allowing the inner ball to float in the air.

Now let's proceed with our application.

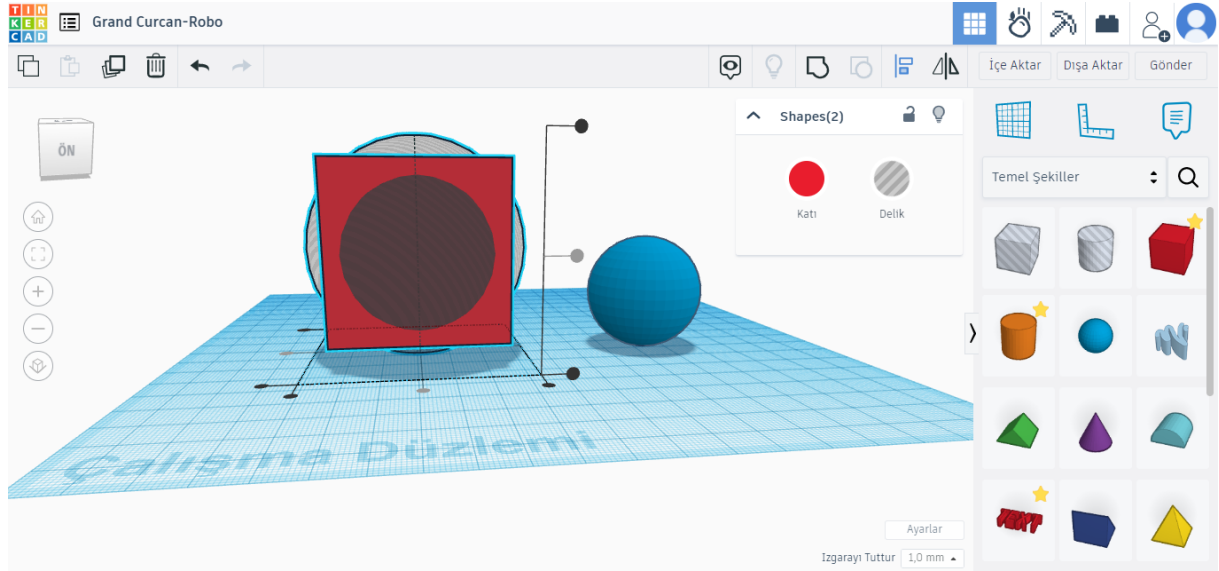
First of all, we take the necessary shapes. 1 cube, 2 spheres.



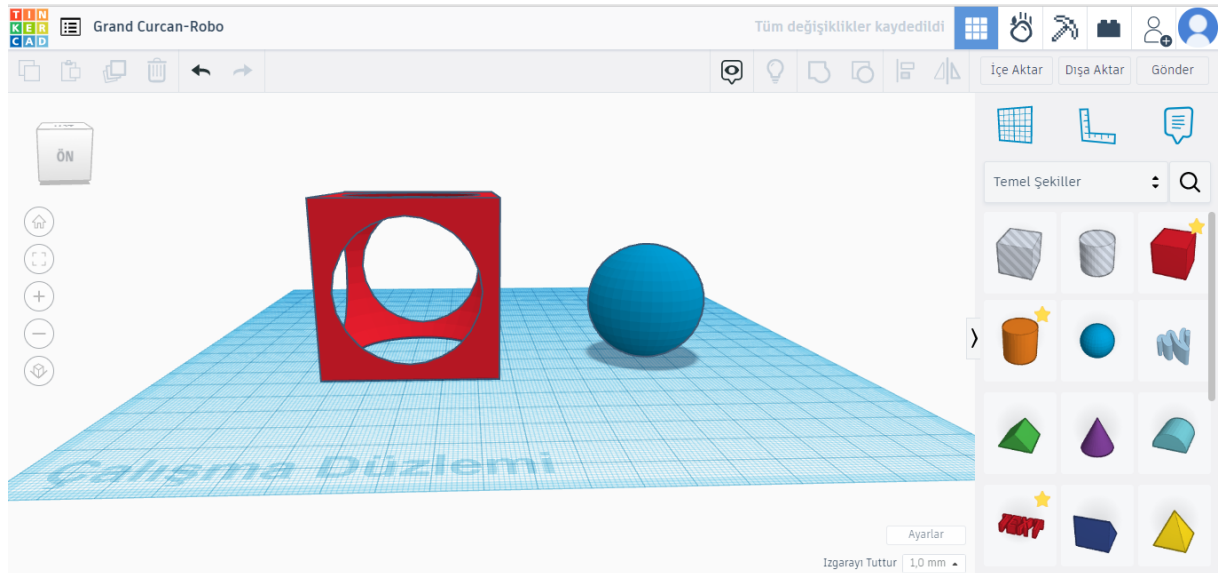
Now, we set the dimensions of the cube to 50, the dimensions of the larger sphere to 65, so that we can achieve a perforated appearance when we place the sphere inside. We set the dimensions of the smaller sphere to 35.



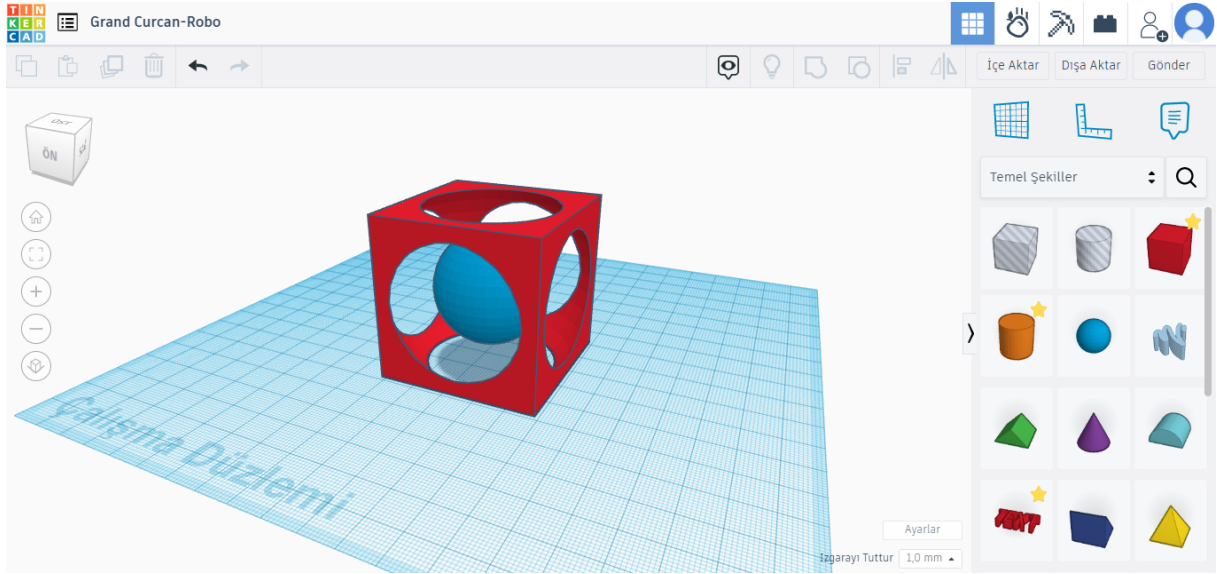
Then, we make the larger sphere perforated and align it inside the cube in a nested manner.



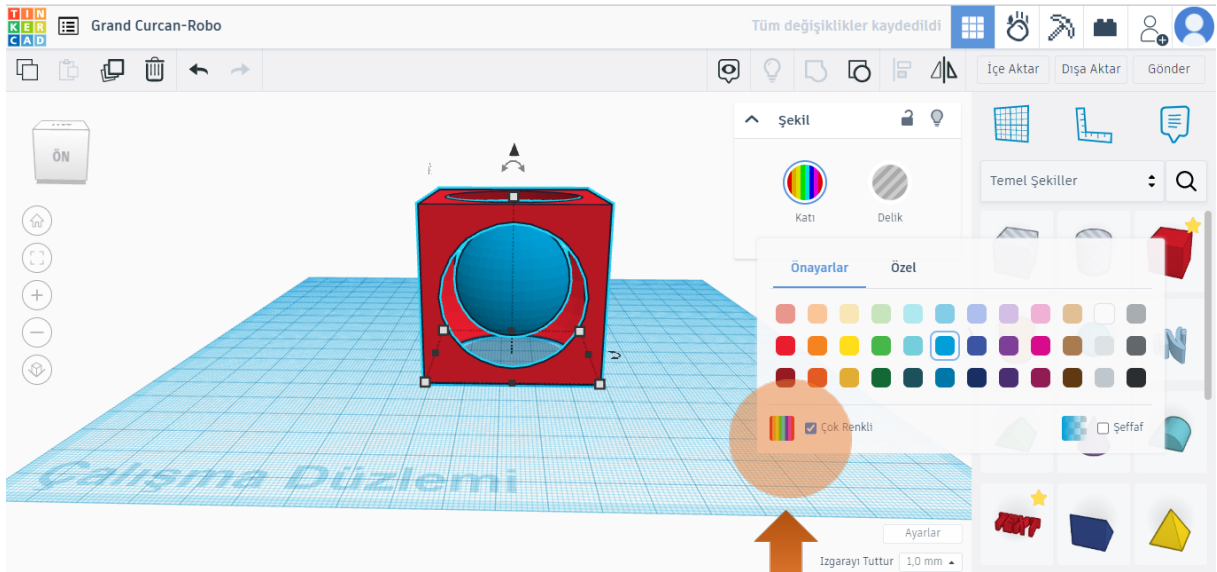
After the alignment, we group these two shapes.



Now, it's time to place the small sphere inside our cube. Let's first position and align our sphere inside the cube.



Now, we can group our shape. However, when we group them, both shapes become the same color. To prevent this, we need to open the multi-color tab after clicking on the Solid



section in the Shape part.

When the operations are completed, our cube will be ready.