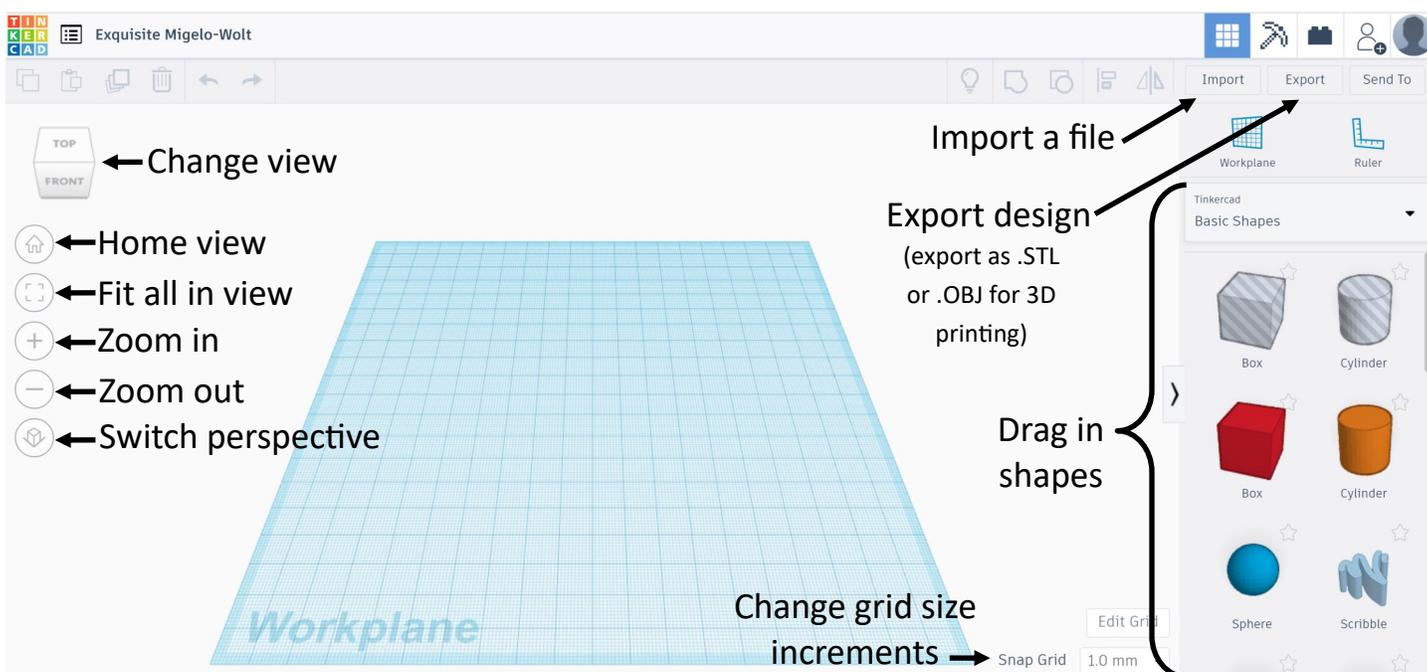


Tinkercad



Tinkercad is a free, easy-to-use app for 3D design, electronics, and coding. It's used by teachers, kids, hobbyists, and designers to imagine, design, and make anything!

1. Go to Tinkercad.com and click Join Now in the top right corner. Create a personal account with your email address.
2. From your dashboard, click Create a new design. 
3. You will be taken to a blank workplane. From here, you can drag in shapes from the right side toolbar. Any shape can be converted to a “hole” rather than a shape. When you group together a regular shape with a “hole,” the hole is cut out of the shape. This creates endless possibilities!



See the next page for more details about creating designs!

Creating designs

Copy



To copy an object, click on the object and then select Copy.

Paste



To paste the object that you copied, select Paste.

Duplicate



To duplicate an object without copying it first, select Duplicate and another copy will appear on top of the object.

Group



To combine objects you must group them together. In the example below we are creating a hole in the circle in order to create a keychain. To do this, we need to group together the circle and a cylinder “hole.” The cylinder “hole” will be cut out of the circle when they are grouped together.

To group objects:

Click one object, then hold the **SHIFT** button, then click the other object. Then click the Group button.

Moving and Resizing Objects

To move an object around the workplane, click and drag the center of the object to the desired location. To raise or lower an object, click and drag the arrow above or underneath the object.

To resize an object, click and drag the squares surrounding the object. To make an object taller or shorter, drag the square in the center of the object up or down.

