

My First Tinkercad Guide

Oct 5, 2026 · @DJ

Welcome, designer!

Tinkercad is a free website where you build 3D models out of simple shapes, like digital building blocks. By the end of this guide you will have made your own **name keyring** that could be 3D printed.

You will need:

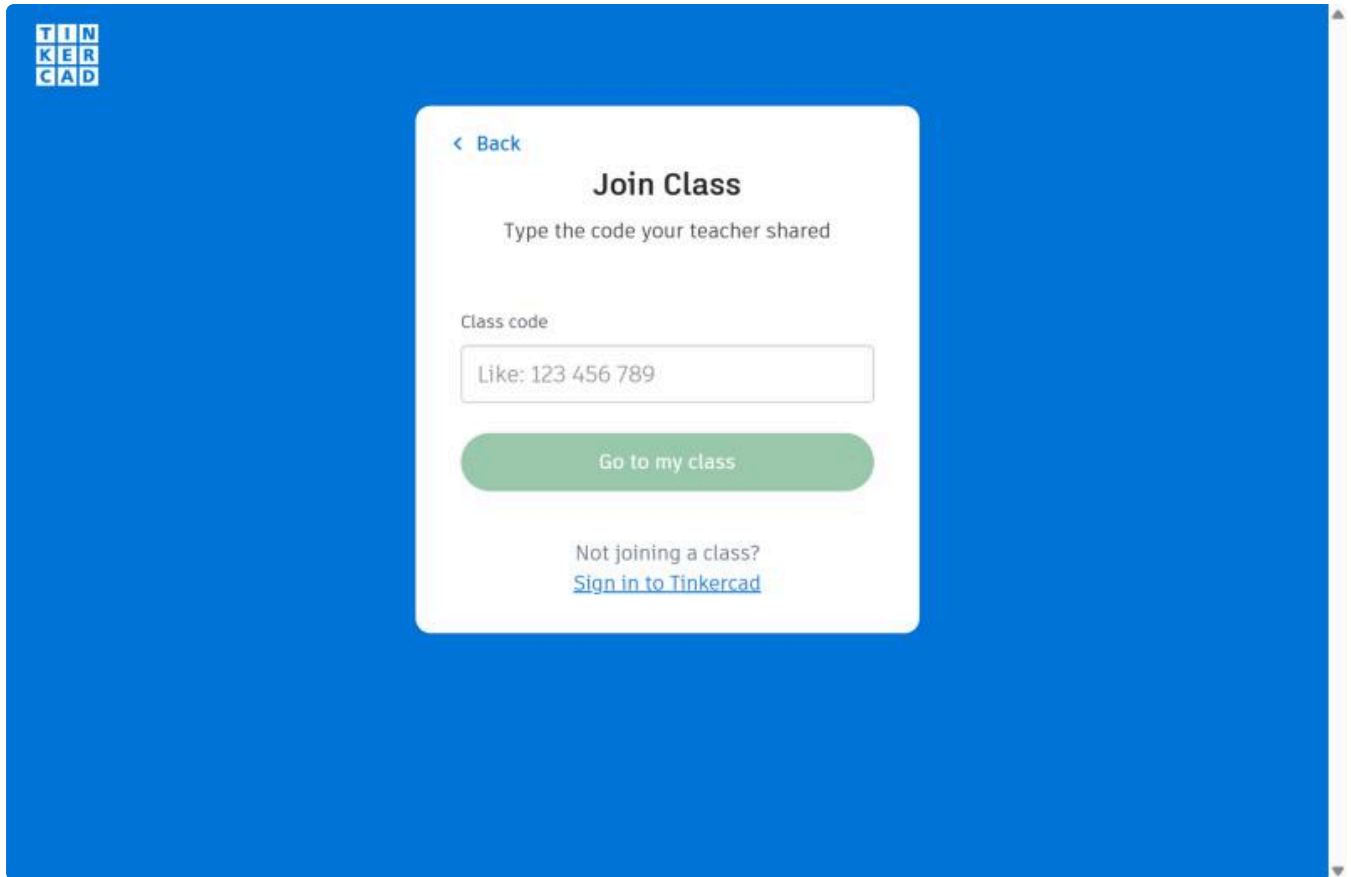
- A computer or laptop with a mouse (a mouse is much easier than a trackpad)
- Your class code or login from your teacher
- About 45 minutes

How to use this guide: do one step at a time. Read the step, look at the picture, then try it. When you finish a step, tick the box.

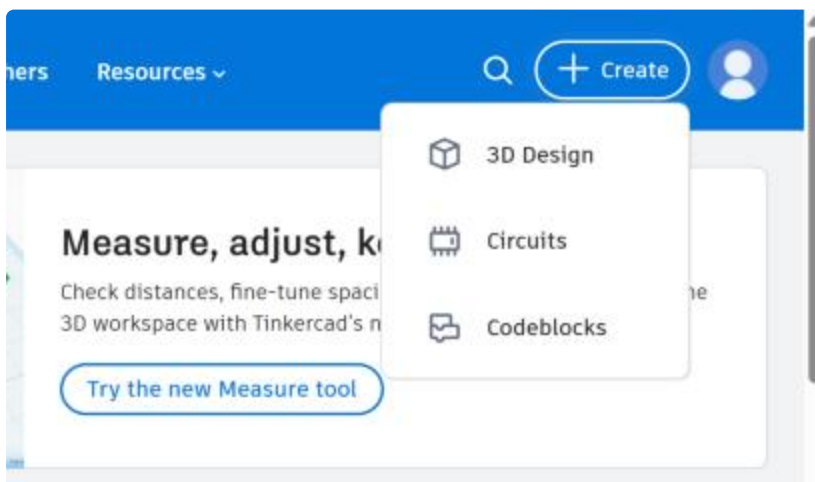
Golden rule: if something goes wrong, press **Ctrl + Z** to undo it. You cannot break Tinkercad!

Step 1: Log in and start a new design

1. Open your web browser and go to **www.tinkercad.com/joinclass**.
2. Type the **class code** your teacher gives you, then click **Go to my class**.
3. Type your **name in lowercase letters** (for example: amy), then log in.



4. Click the **+ Create** button at the top right.
5. Click **3D Design**. A new design opens with a funny made-up name. You will change it later.



- ☐ I have logged in and opened a new 3D design

The screenshot shows the Tinkercad workspace with several annotations:

- Design name:** A line points to the text "Brave Fluffy Robot" in the top toolbar, with the instruction "click it to rename".
- View Cube:** A line points to the 3D view cube icon on the left, with the instruction "drag it to look around".
- View buttons:** A line points to the four circular view buttons (top, bottom, left, right) on the left, with the instruction "home, fit all, zoom in, out".
- Toolbar:** A line points to the top toolbar area, with the instruction "Toolbar: copy, delete, undo".
- Group and Align:** A line points to the "Group" and "Align" buttons in the top toolbar, with the instruction "Group and Align".
- Shapes panel:** A line points to the "Shapes" panel on the right, which contains various 2D and 3D shape icons. The instruction is "Shapes panel drag shapes from here".
- Workplane:** A line points to the blue grid in the center of the workspace, with the instruction "Workplane: the blue grid where you build".

This is what the real screen looks like when you start:



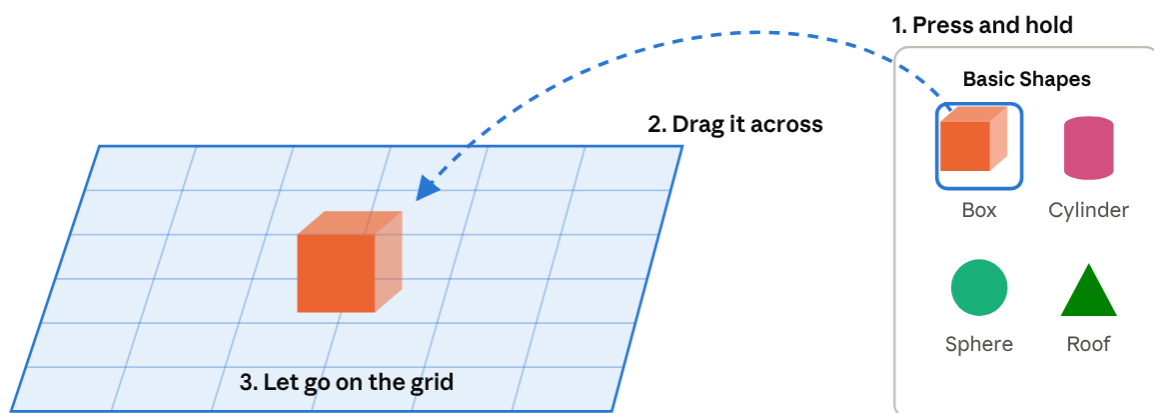
Before you build, find each of these parts on your own screen:

- **Workplane** is the blue grid in the middle. Everything you build sits on it.
- **Shapes panel** is on the right. It holds all the shapes you can use.
- **View Cube** is top left. It helps you look at your model from different sides.
- **View buttons** sit under the View Cube: Home, Fit all, Zoom in and Zoom out.
- **Toolbar** is along the top: Copy, Paste, Duplicate, Delete, Undo and Redo.
- **Group and Align** are top right. You will use them later.

☐ I can point to the Workplane, Shapes panel and View Cube

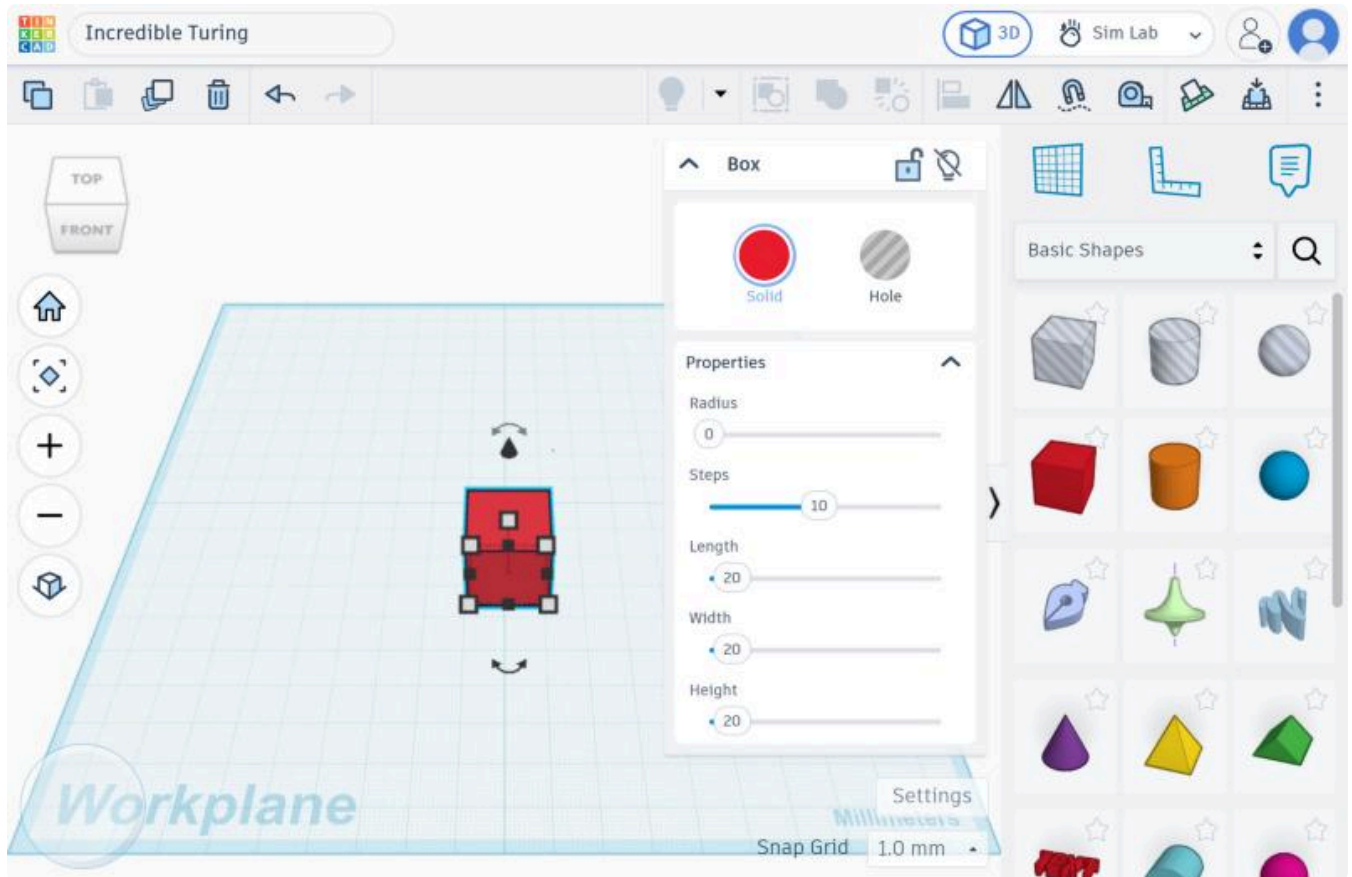
Step 3: Add your first shape

Press, drag and let go to add a shape



Dragging a Box from the Shapes panel

1. Find the **Box** in the Shapes panel.
2. Press and **hold** the left mouse button on it.
3. Drag it onto the blue Workplane.
4. Let go. Your box appears!



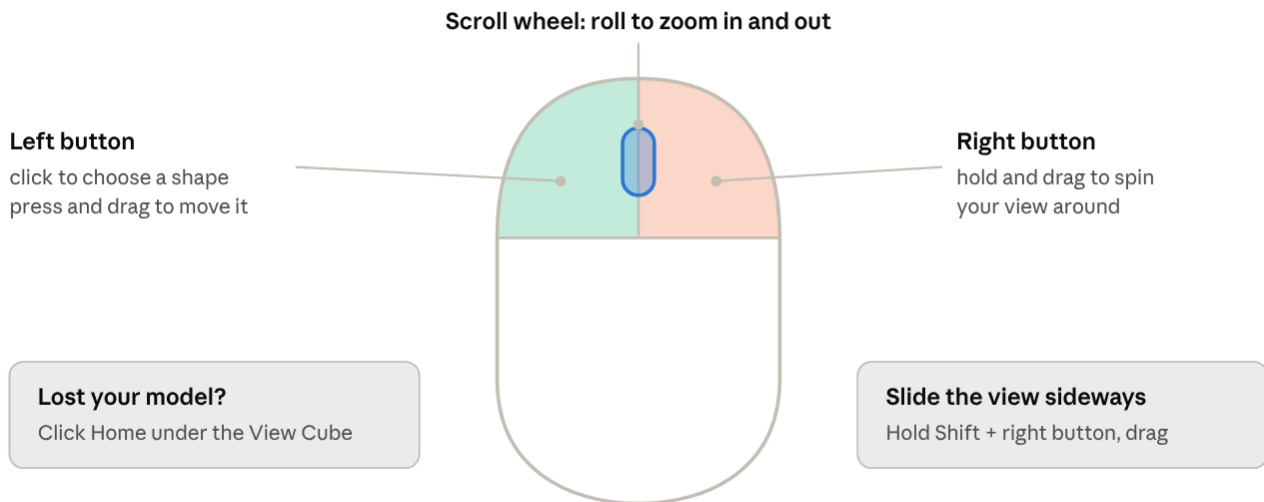
Choosing a shape: click once on a shape on the Workplane to select it. Click on an empty part of the grid to unselect it.

Getting rid of a shape: select it and press the **Delete** key.

☐ I added a box, then a cylinder and a sphere

Step 4: Look around your model

Your mouse does three different jobs

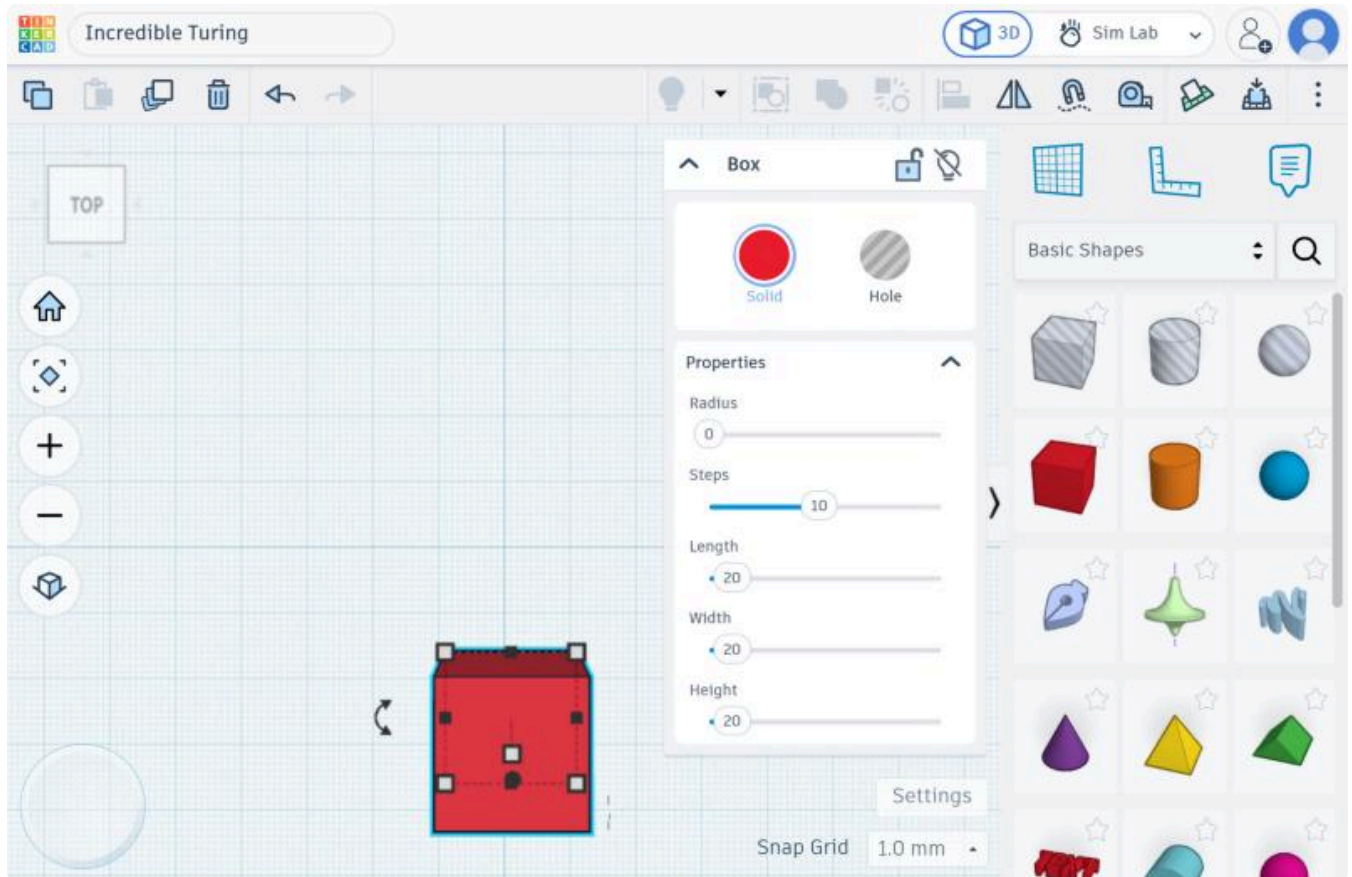


What each mouse button does in Tinkercad

Designers look at their models from every side. Try each of these:

1. **Spin around:** hold the **right** mouse button and drag. The whole Workplane turns.
2. **Zoom:** roll the scroll wheel forwards to get closer, backwards to move away.
3. **Use the View Cube:** click the word **TOP** on the cube to look straight down. Click **FRONT** to look from the front.
4. **Go home:** click the little **house** button to go back to the normal view.

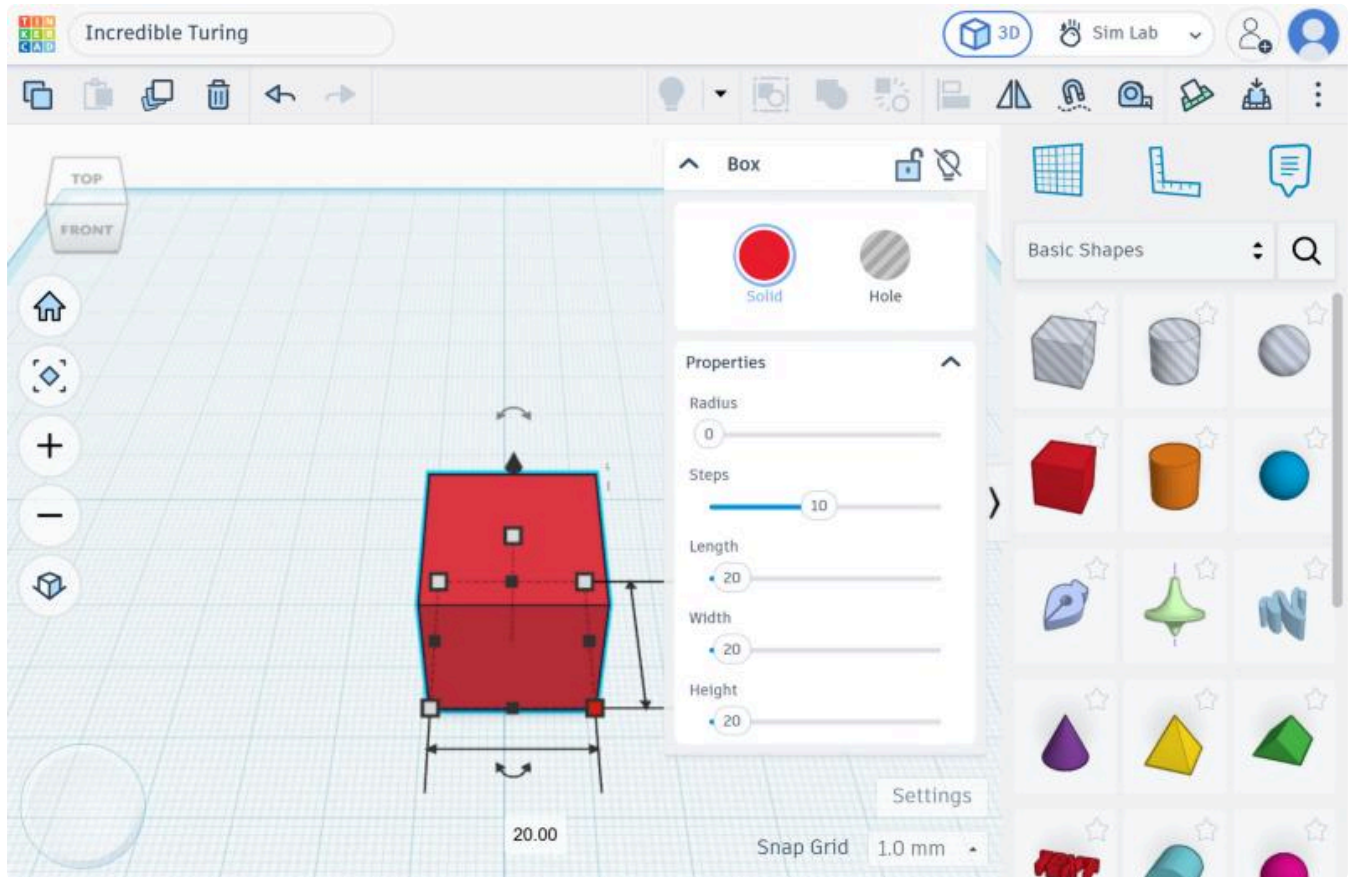
Here is the box after clicking **TOP** on the View Cube. You are looking straight down at it:



☐ I can spin, zoom and go back home

Step 5: Make shapes bigger and smaller

Click your box to select it. Little squares called **handles** appear around it.



1. Drag a **white square on a corner** to change how long and wide the box is.
2. Drag a **small black square on a side** to stretch the box in just one direction.
3. Drag the **white square on the top** to make the box taller or shorter.
4. When you point at a handle, numbers appear (like the 20.00 above). These are **millimetres (mm)**. Click a number, type a new one and press **Enter**.
5. You can also use the **Length**, **Width** and **Height** sliders in the Shape window.
6. Hold **Shift** while dragging a corner to make the shape bigger without squashing it.

Try it: make your box 40 mm long, 20 mm wide and 10 mm tall.

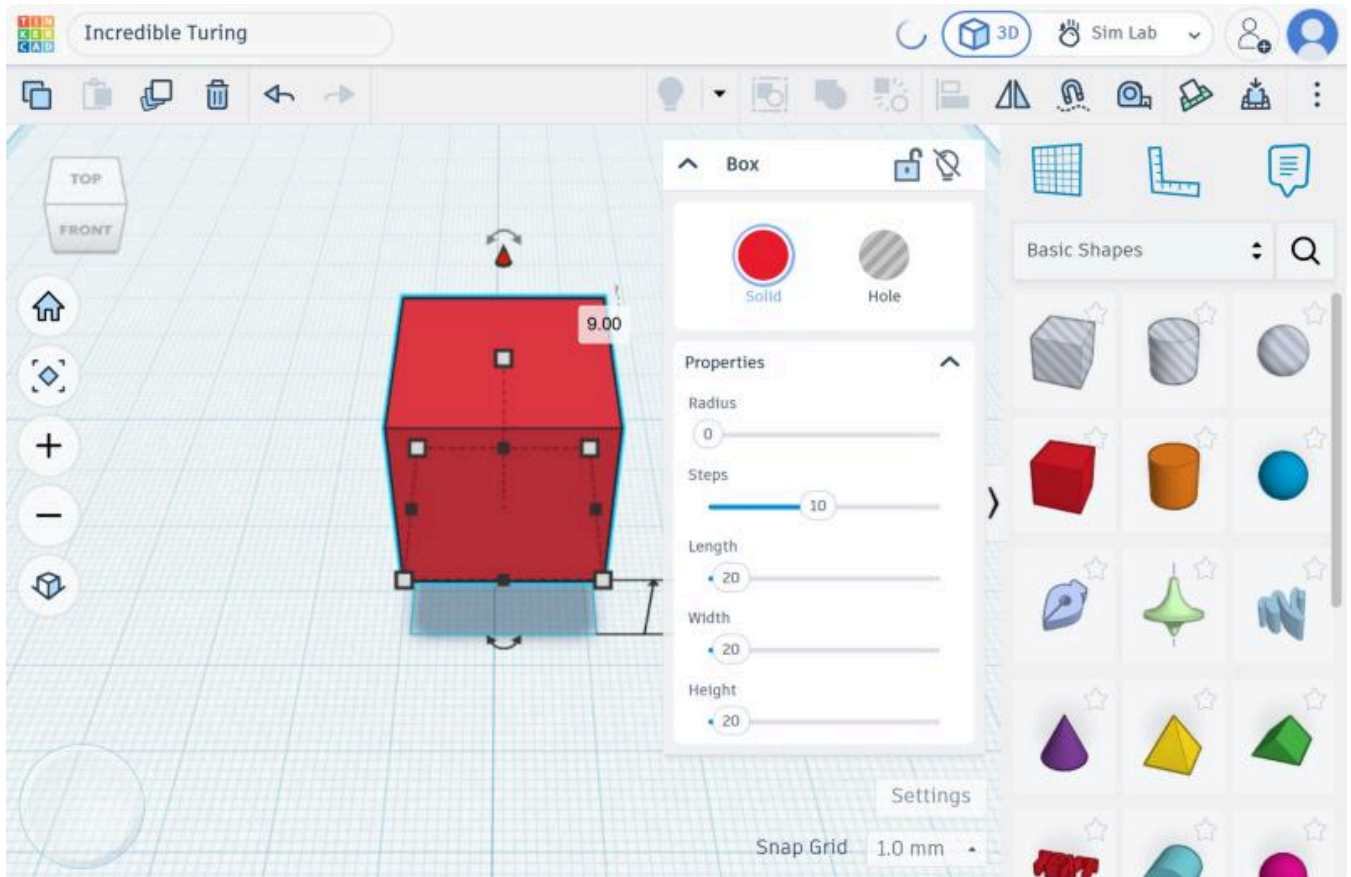
☐ I changed the size of a shape by dragging and by typing

Step 6: Lift and turn shapes

Shapes can float in the air and spin around.

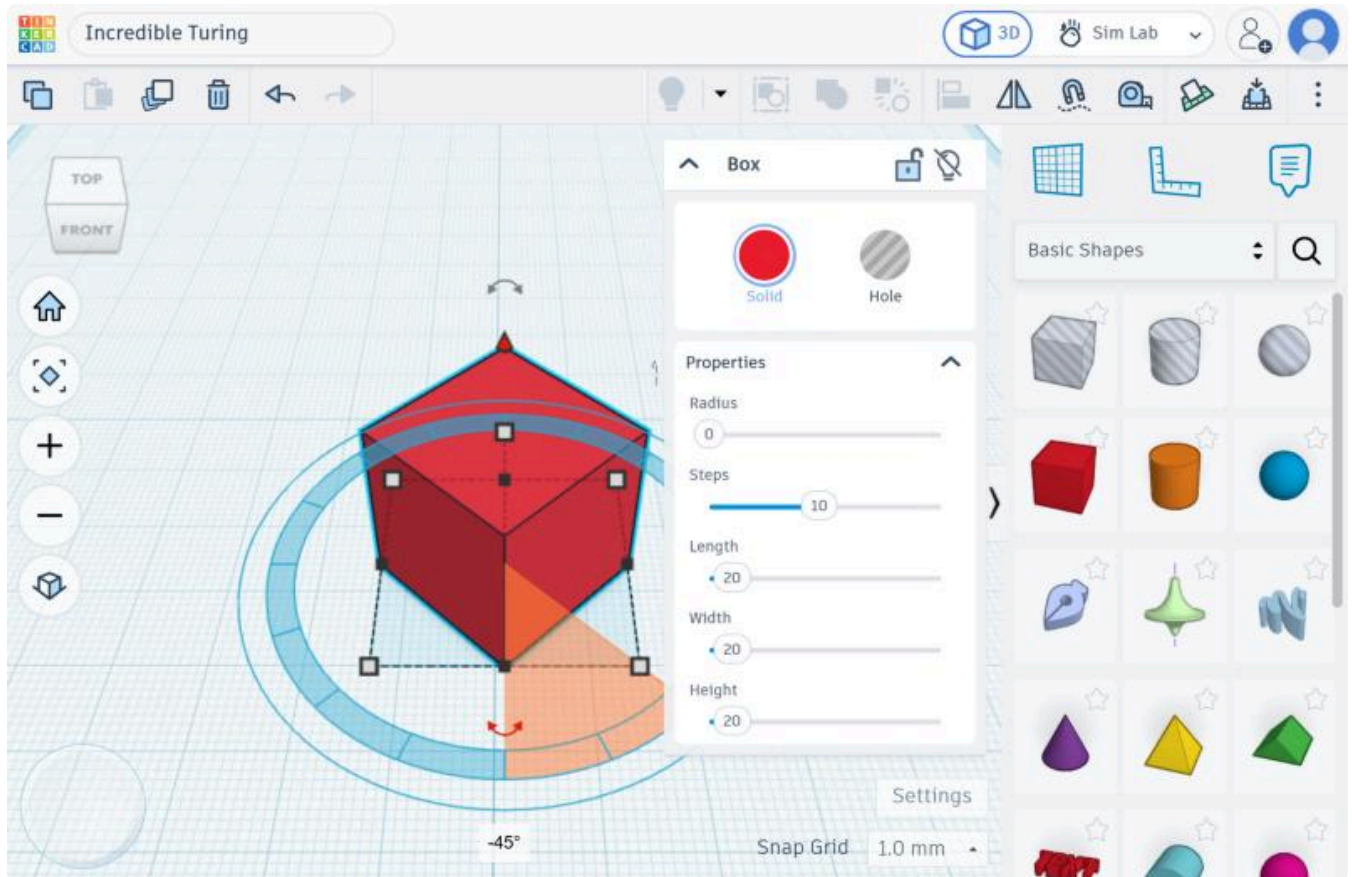
To lift a shape off the ground:

1. Select the shape.
2. Find the small **black cone** above it.
3. Drag the cone up. The shape floats!
4. To put it back on the ground, select it and press the **D** key (D for drop).



To turn a shape:

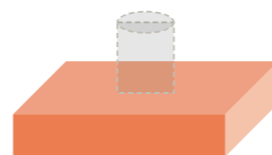
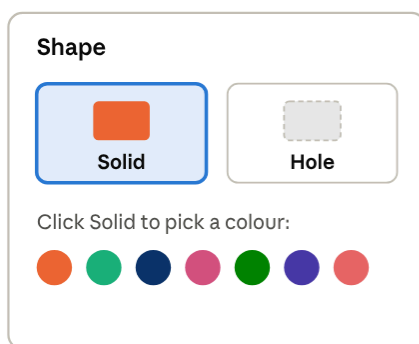
1. Select the shape.
2. Move your mouse near it. **Curved arrows** appear.
3. Drag a curved arrow to spin the shape. Numbers show you the angle.
4. Hold **Shift** while you drag to turn in neat 45 degree jumps.



- ☐ I lifted a shape and dropped it back down
- ☐ I turned a shape on its side

Step 7: Change colours and make holes

Pick a colour, or make a shape a Hole to cut it out



a Hole cylinder in a box

Union Group



a real hole!

The Shape window, and how a Hole cuts a shape

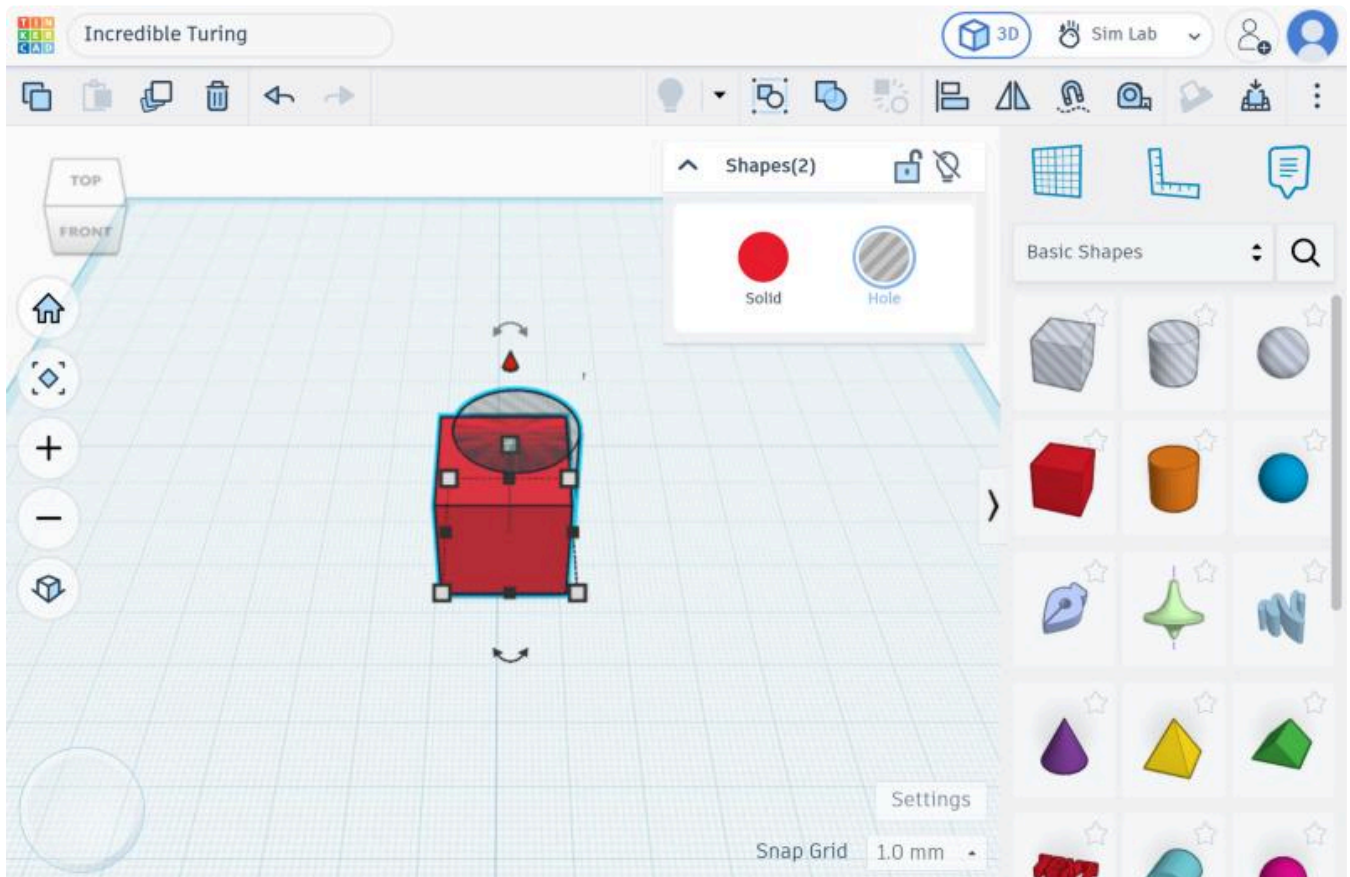
When you select a shape, a small **Shape** window opens near the top right.

To change colour:

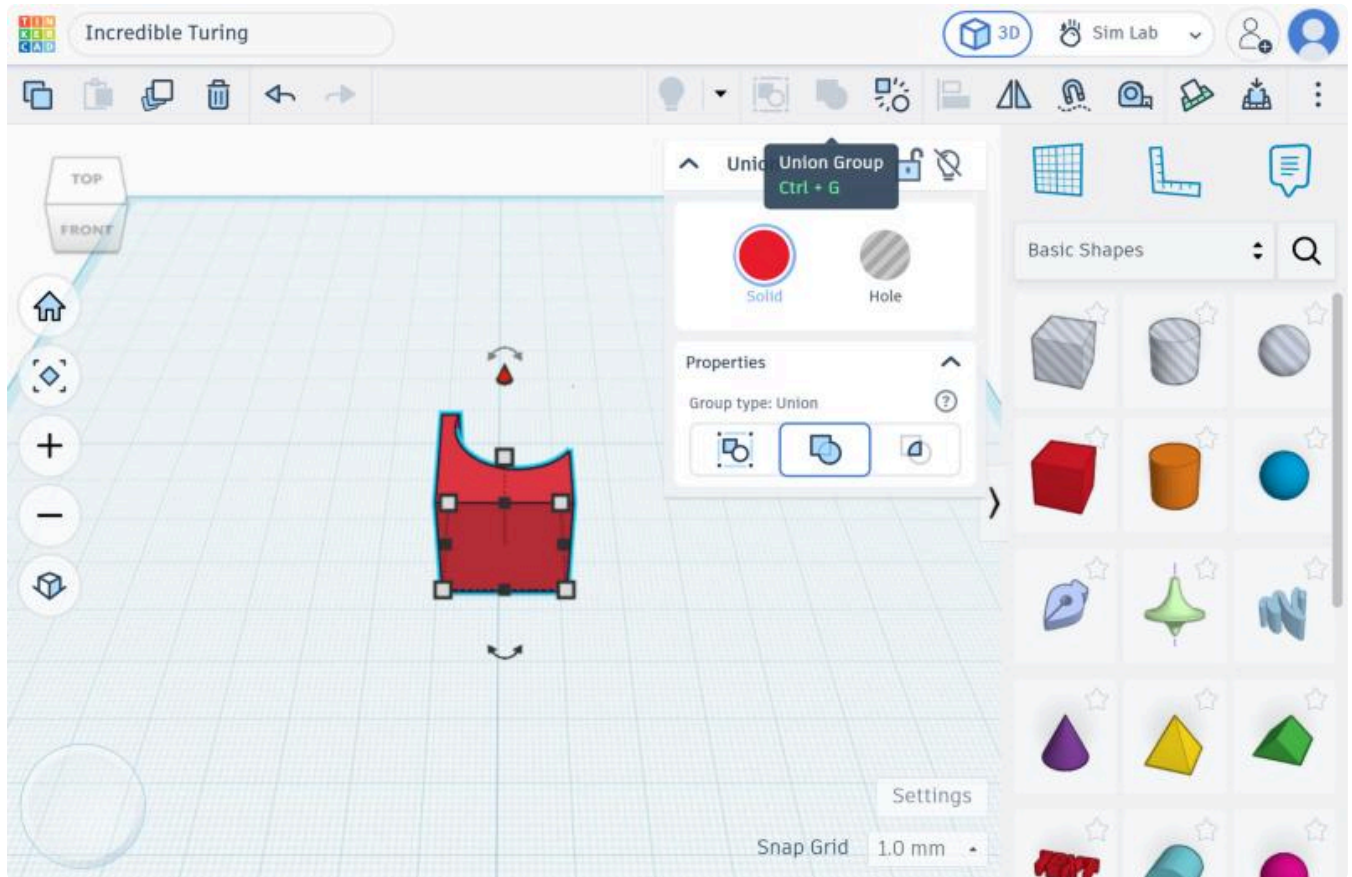
1. Click the **Solid** button.
2. Pick a colour you like.

To make a hole:

1. Drag a **Cylinder** onto the Workplane next to your box.
2. With the cylinder selected, click **Hole** in the Shape window. It turns see-through and stripy. (The stripy grey shapes at the top of the Shapes panel are already holes.)
3. Drag the hole so it pokes into the box.
4. Press **Ctrl + A** to select both shapes.



5. Click the **Union Group** button in the top toolbar, or press **Ctrl + G**. The hole cuts a piece out of the box!



Holes are how you make things like a keyring loop, windows in a house or the inside of a cup.

- ☐ I changed a shape's colour
- ☐ I made a hole in a shape

Step 8: Group and line up shapes

Choosing more than one shape:

- Hold **Shift** and click each shape, or
- Drag a box around the shapes with the mouse, or
- Press **Ctrl + A** to choose everything.

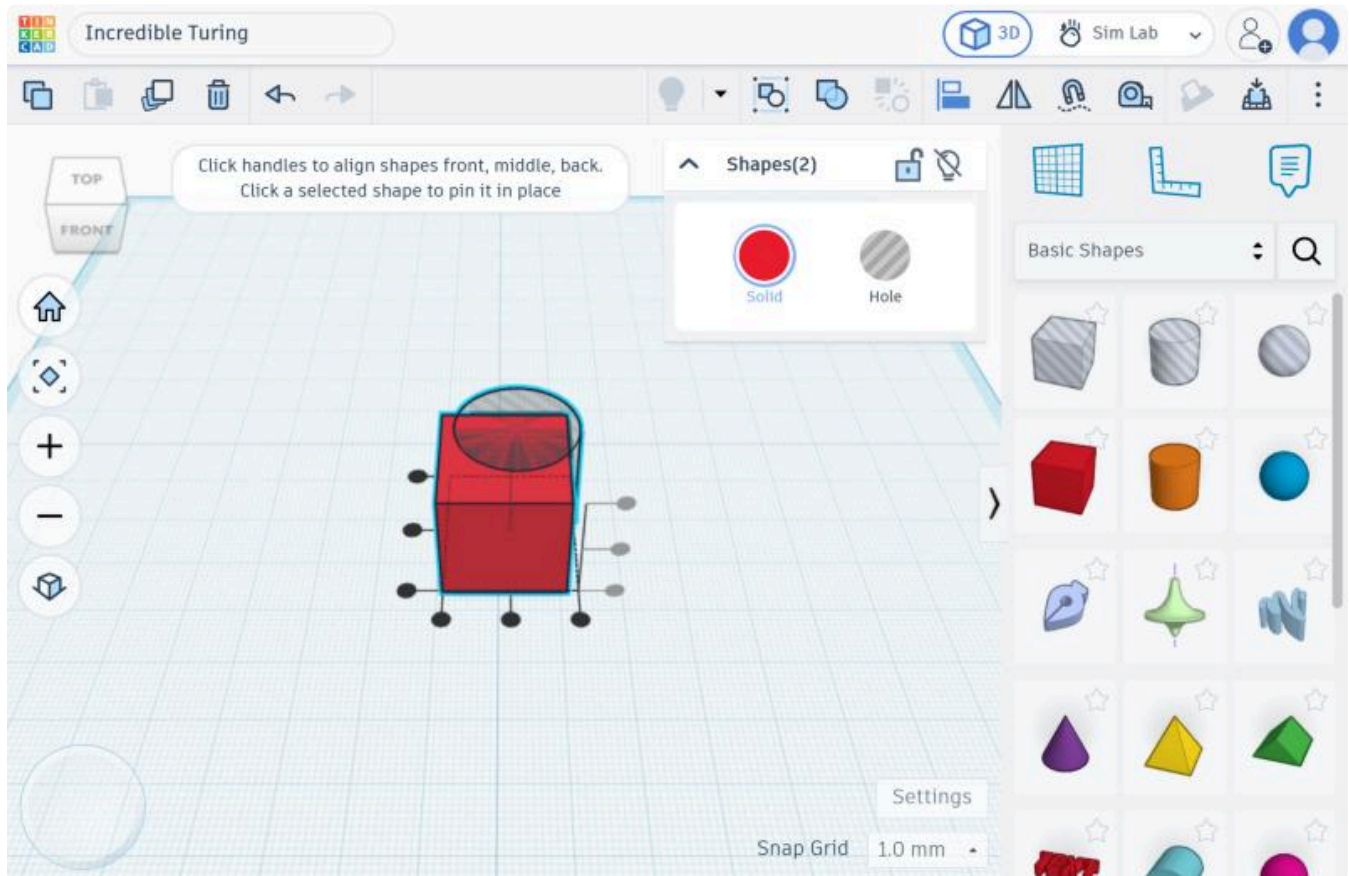
Two kinds of group:

Button	Keys	What it does
Union Group	Ctrl + G	Joins shapes into one big shape. Holes cut pieces away.
Bundle Group	Ctrl + B	Keeps shapes together so they move as one, without joining them.

Changed your mind? Select the group and press **Ctrl + Shift + G** to ungroup it.

Lining shapes up with Align:

1. Choose two or more shapes.
2. Click the **Align** button in the top toolbar.
3. Little black dots appear around the shapes. Click a **middle dot** to line the shapes up through their centres.



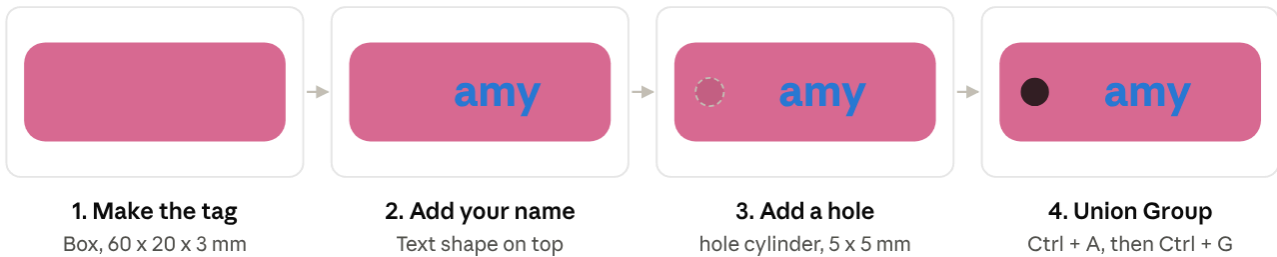
Align is the neat way to put a hole right in the middle of a shape.

- ☐ I joined two shapes with Union Group
- ☐ I lined two shapes up with Align

Step 9: Project - make a name keyring

Now use everything you have learned to make a keyring with your name on it.

A name keyring is built in four steps (seen from the top)



The four stages of the name keyring

Part 1: The tag

1. Drag a **Box** onto the Workplane.
2. Make it **60 mm** long, **20 mm** wide and **3 mm** tall.
3. In the Shape window, slide **Radius** up a little to give it round corners.
4. Pick a colour you like.

Part 2: Your name

1. Scroll down the Shapes panel and find **Text**.
2. Drag it **on top of** your tag. It sits on the tag's top.
3. In the Shape window, click in the text box, delete the word TEXT and type your name.
4. Make the letters **3 mm** tall. Resize them so they fit on the tag, leaving space at one end.
5. Give your name a different colour so it stands out.

Part 3: The keyring hole

1. Drag a stripy **Cylinder hole** to the empty end of your tag.
2. Make it **5 mm** long and **5 mm** wide.
3. Make it **10 mm** tall so it goes right through the tag.

Part 4: Finish it

1. Press **Ctrl + A** to select everything.
 2. Press **Ctrl + G** (Union Group). The hole is cut through and your keyring is one shape!
 3. Spin around it to check it from every side.
- ☐ My keyring has a tag, my name and a hole
 - ☐ I grouped it into one shape

Saving, shortcuts and challenges

Saving and naming your design

- Tinkercad **saves your work by itself** as you go. You do not need a save button.
- To give your design a proper name, click its funny name at the top left, type a new name (like *amy keyring*) and press **Enter**.
- To find it again, go back to **My Designs** on your dashboard.

Handy keyboard shortcuts

Keys	What they do
Ctrl + Z	Undo (fixes mistakes!)
Ctrl + Y	Redo
Ctrl + D	Duplicate (make a copy of a shape)
Ctrl + A	Select everything
Ctrl + G	Union Group
Ctrl + Shift + G	Ungroup
D	Drop a floating shape onto the Workplane
Delete	Remove the selected shape

Oops! Quick fixes

- **Something went wrong?** Press Ctrl + Z until it's fixed.
- **Can't see your model?** Click the Home button under the View Cube.
- **A shape is floating?** Select it and press D.
- **Moved the wrong shape?** Click on empty grid to unselect, then click the right one.

Challenges for fast finishers

- ☐ Add a border around your keyring using a hole box that is slightly smaller than the tag
- ☐ Add a star or heart from the Shapes panel
- ☐ Build a house with a roof, a door hole and windows
- ☐ Make a robot from at least six shapes, then Bundle Group it

My Tinkercad checklist

- ☐ I can add, move and delete shapes
- ☐ I can change size, colour and angle
- ☐ I can make holes and group shapes
- ☐ I made and named my own keyring