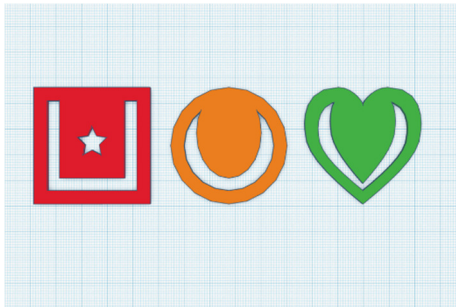




These instructions will show you how to create a 3D-model of a personalised bookmark. You can then print your 3D-model on a real 3D-printer!

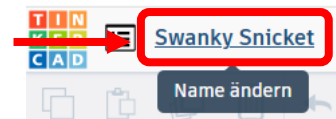


First you will design a 3D-model of a bookmark in the program Tinkercad.



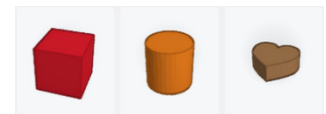
The 3D-printer will then print your design in about 10 minutes.


- 1) Give your design a name. Click on the random text in the top left corner and enter your first name.



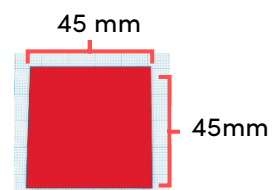
- 2) Now you can choose the shape of your bookmark. On the right side you can find different objects. **Choose one** of these 3 objects: **cube, cylinder, or heart**.

A cube will be used as an example in the instructions.



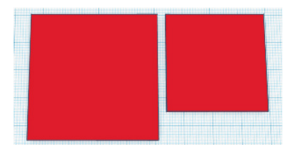
- 3) Click and drag your chosen object onto the blue workspace.
- 4) Click the small white square  in the middle of the object to change its height. Change the **height from 20mm to 1mm**.

- 5) Click one of the small white squares in one of the corners of the shape. Change the shape's **length and width to 45mm**.



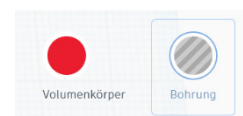
- 6) The next step is creating a hole. Copy your shape with the keyboard shortcut **Strg + C** and then paste it with **Strg + V**.

- 7) Move the copied object to the right of the original object.



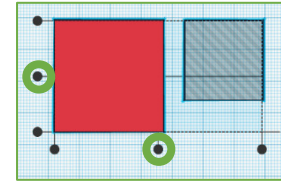
- 8) Click one of the white corners of the copied shape and modify **both values to 35 mm**. The copied shape is now slightly smaller.

- 9) Turn the smaller shape into a "hole". To do that, click it and then click the grey striped circle in the top right box.



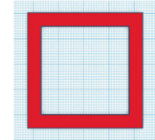
10) To align the hole, it is helpful to look at your objects from above. To do this, hold down the right mouse button and move the mouse.

11) Select all objects with the shortcut **Strg** + **A** and activate the **alignment tool** with the key **L**.



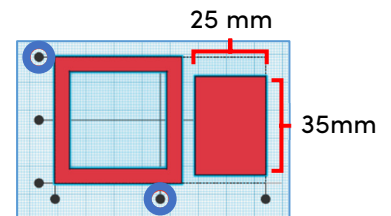
12) Align the two objects by clicking on the **black dots in the centre on the left side and below** the objects.

13) Select all objects with **Strg** + **A** and group them with **Strg** + **G**.
After a moment the striped shape will be cut out!



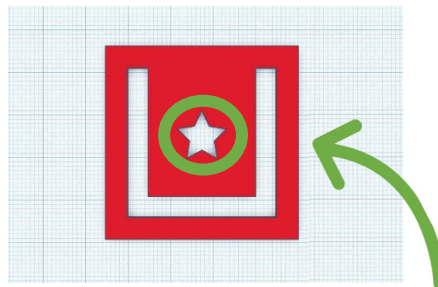
14) Next you will add the clip. Paste your copied shape again with **Strg** + **V** and change the **width to 25mm** and the **length to 35mm**.

15) Select both objects and use the alignment tool **L** to align the clip with to the **top edge** and the **horizontal centre**.



16) One more time: Select all objects with **Strg** + **A** and group them with **Strg** + **G**.

YOU ARE DONE! Ask for help to 3D print your design 😊



- You can customize your design even further. **Add shapes** or cut them out, round the corners – the possibilities are endless!
- Any shape can be a hole! Click the object and then select the striped circle on the right to turn the object into a hole.
- Is an object hovering in the air? Click it and press the key **D** to drop it.

