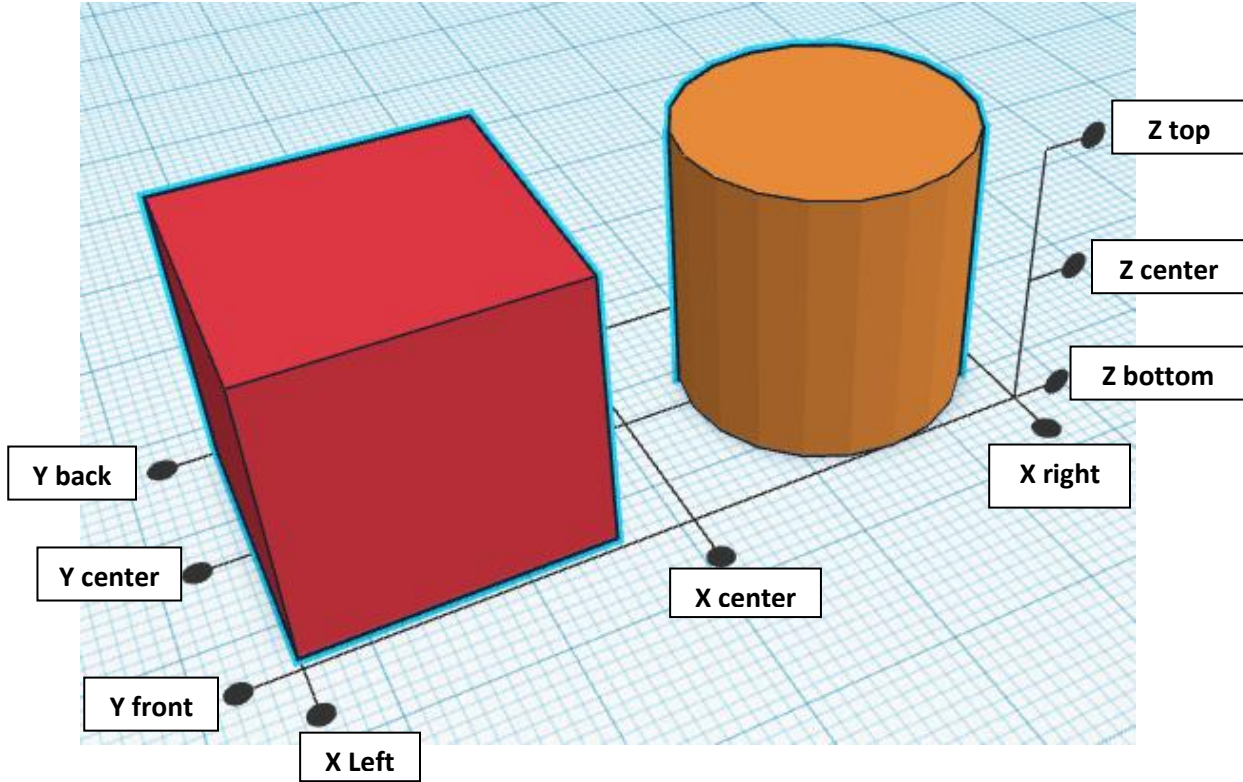# Bookmark
with 2 colors
Project

Reference to Aligning, Flip direction, Move direction, and Rotate direction.

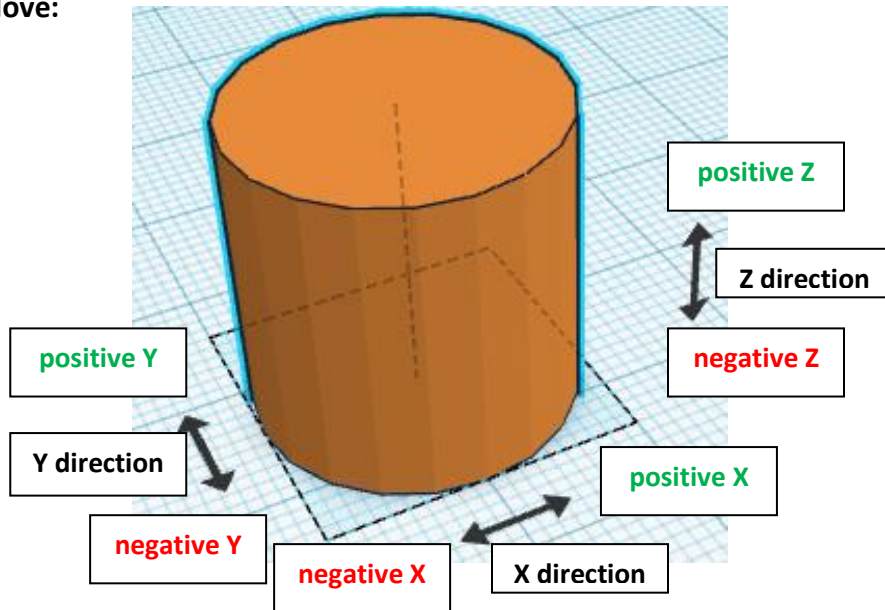**Always be in the "home view" when doing any of these!!!**
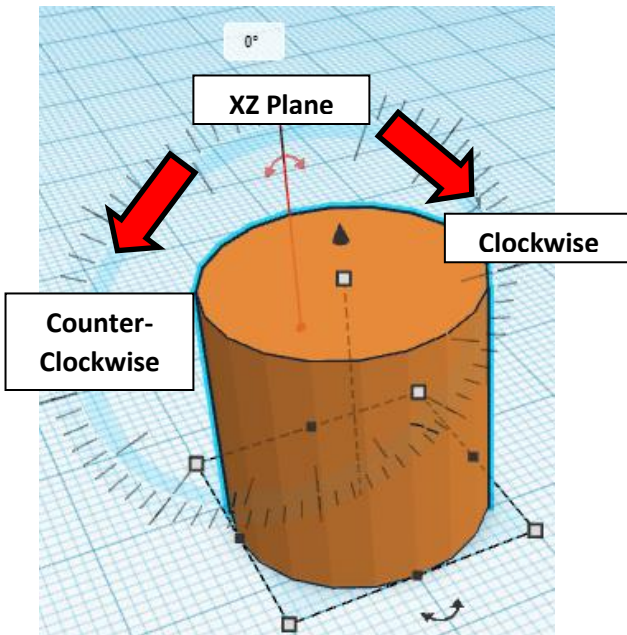
Home view
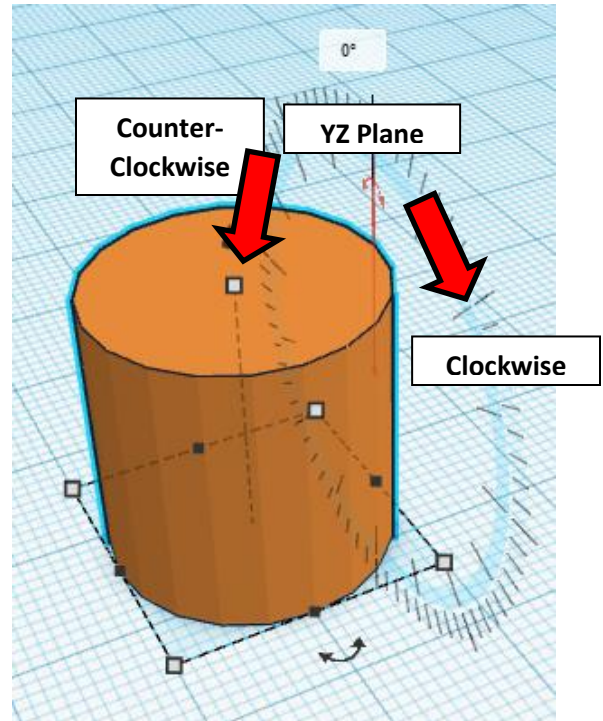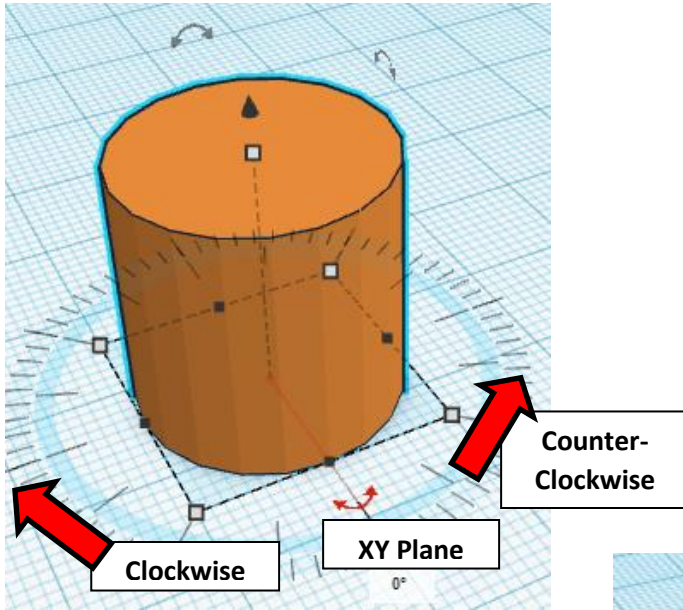
Aligning:

Flip or Mirror and Move:

Rotate:

Counter-Clockwise

Clockwise

XY Plane

0°

Counter-Clockwise

YZ Plane

Clockwise
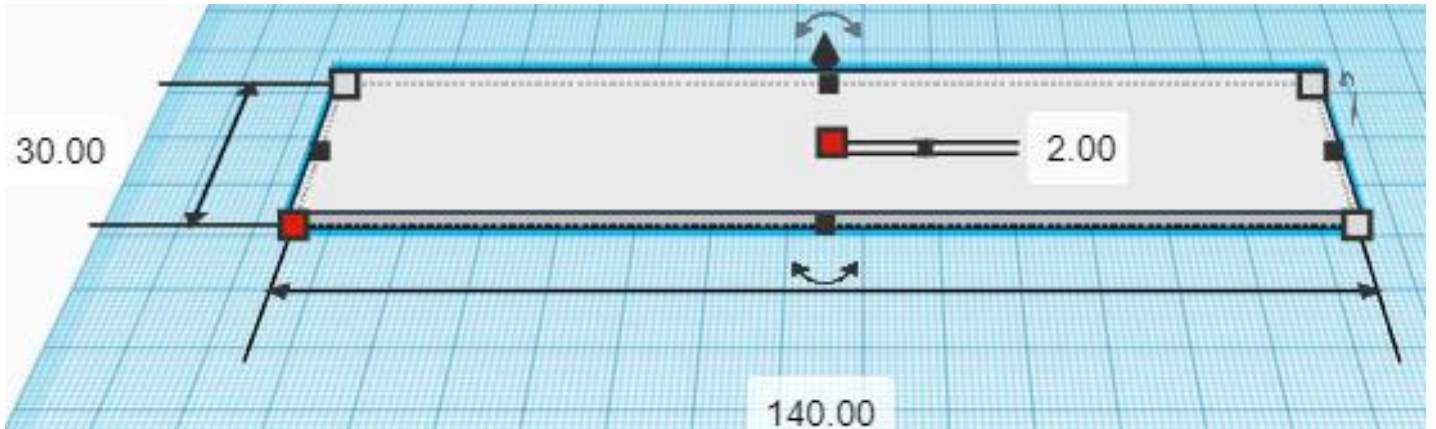
0°

0°

XZ Plane

Clockwise

Counter-Clockwise

Bookmark with 2 colors:

Base:

Bring in a Box, located in Basic Shapes on the left 2 shapes down.
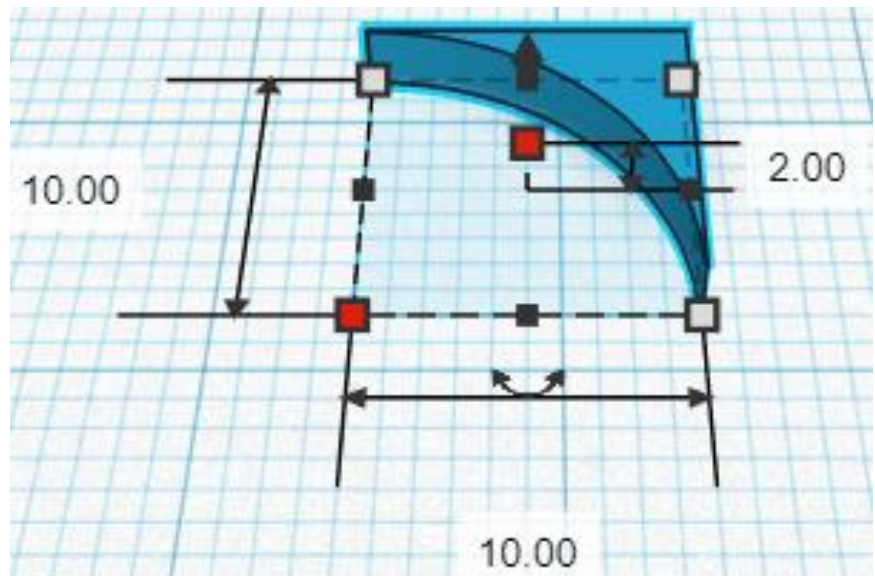From now on this will be called the **Base**.

Change the dimensions to
140mm X direction,
30mm Y direction, and
2mm Z direction.

Bring in a MetaFillet, located in All, (things in All move each time that TinkerCad adds items to All), this was last seen on page 11, on the bottom left.
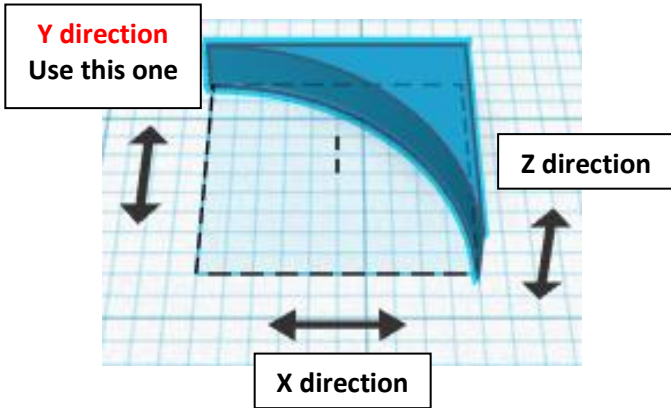From now on this will be called the **Corner Cutout**

Change the dimensions to
10mm X direction,
10mm Y direction, and
2mm Z direction.

Duplicate Corner Cutout 1 time

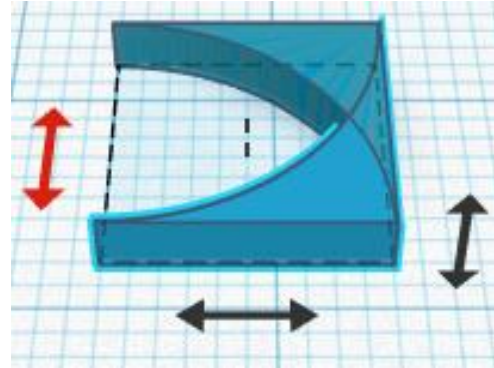**Flip** Corner Cutout in Y direction.

Before   After

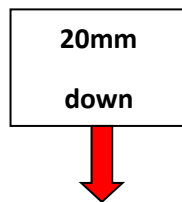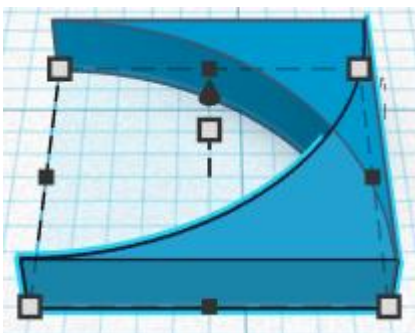From now on this new flipped part will be called the **Bottom Cutout**

Move Bottom Cutout (Must be in home view for this to work!)
move forward in negative Y direction 20mm

Hint: Select Bottom Cutout and push down arrow key 20 times.
      or
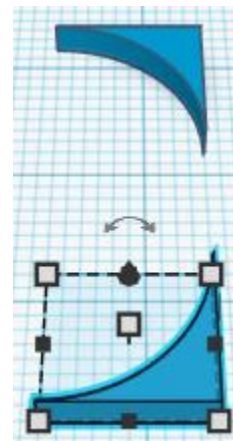   Select Bottom Cutout and hold down shift and push down arrow key 2 times.

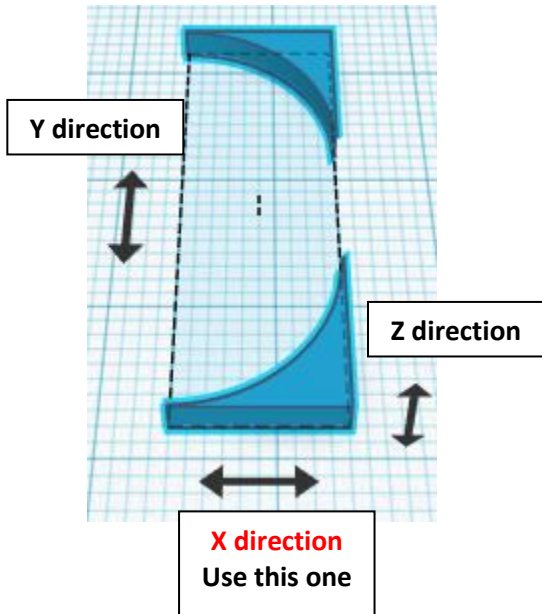   Before   After
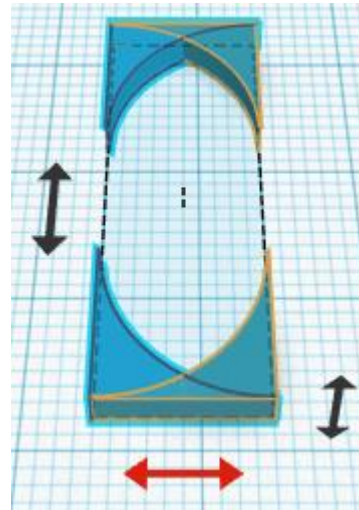

Group Corner Cutout and Bottom Cutout
From now on this will be called the **Right Cutouts**

Duplicate Right Cutouts 1 time

Flip Right Cutouts in X direction.

Before   After

Y direction

Z direction
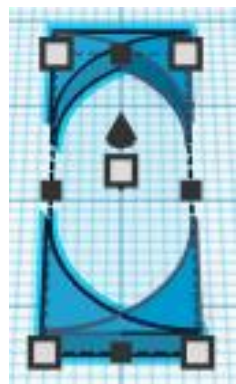
X direction
Use this one

From now on this new flipped part will be called the **Left Cutouts**
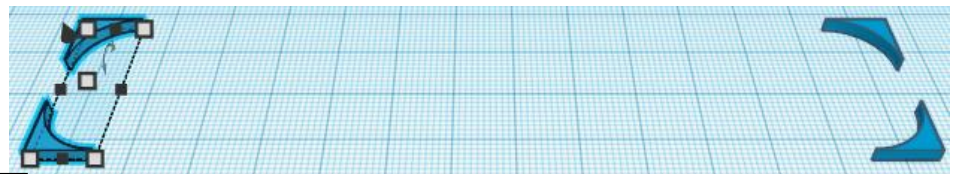

Move Left Cutouts   (Must be in home view for this to work!)
move left in negative X direction 130mm

Hint: Select Left Cutouts and push left arrow key 130 times.
         or
         Select Left Cutouts and hold down shift and push left arrow key 13 times.

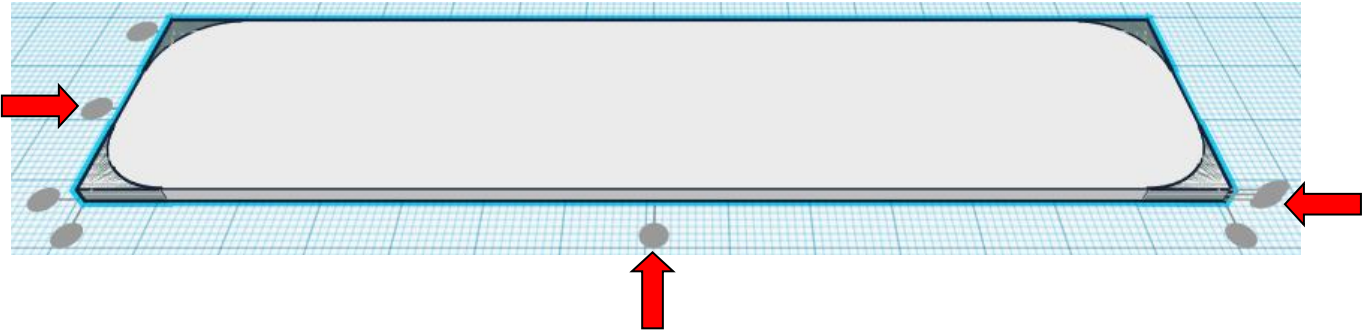Before   After

130mm

left

Group Right Cutouts and Left Cutouts
From now on this will be called the **Cutouts**

Change <u>Cutouts</u> to **Hole** by selecting <u>Cutouts</u> and typing "h".

Align <u>Base</u> and <u>Cutouts</u>

centered in X direction,
centered of Y direction, and
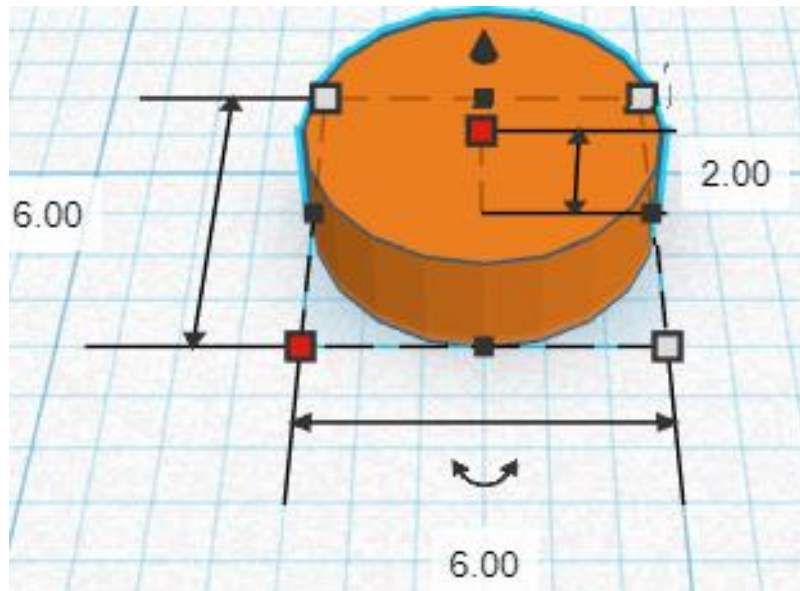bottom of Z direction.

Group <u>Base</u> and <u>Cutouts</u>
From now on this will be called the **Base**

Bring in a Cylinder, located in Basic Shapes on the right 2 shapes down.
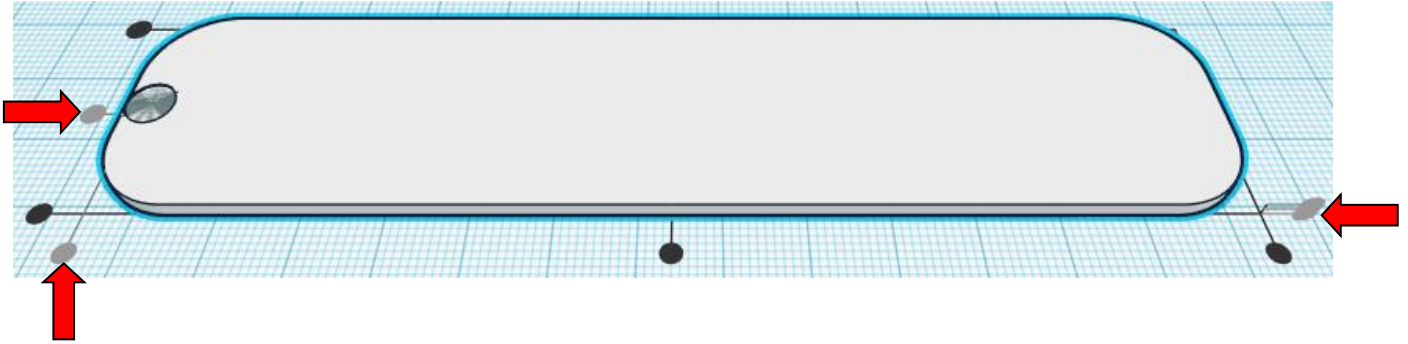From now on this will be called the **Hole Cutout**.

Change the dimensions to
6mm X direction,
6mm Y direction, and
2mm Z direction.

Change Hole Cutout to **Hole** by selecting Hole Cutout and typing "h".

Align Base and Hole Cutout

left in X direction,
centered of Y direction, and
bottom of Z direction.

Move Base   (Must be in home view for this to work!)
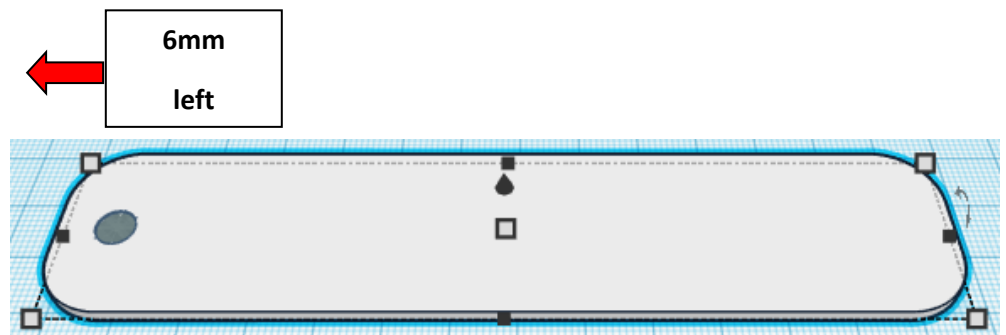move left in negative X direction 6mm

Hint: Select Base and push left arrow key 6 times.

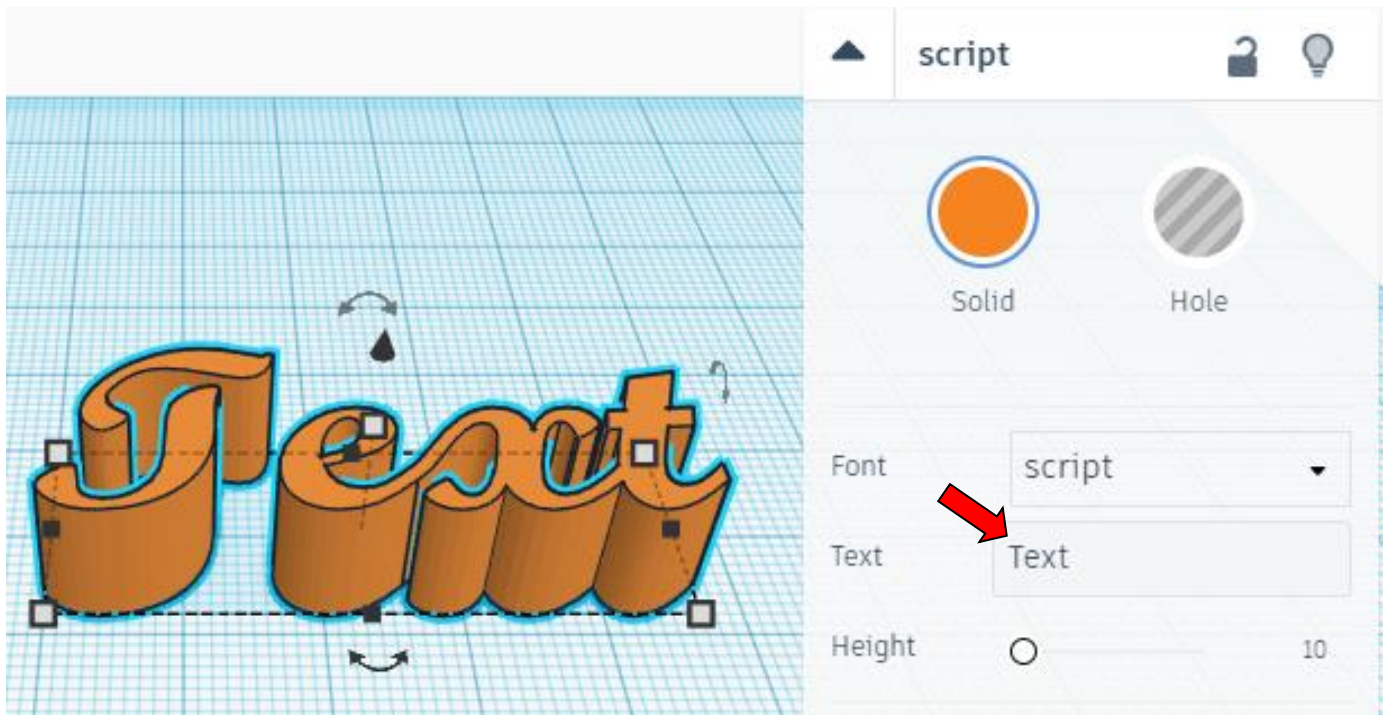Before   After
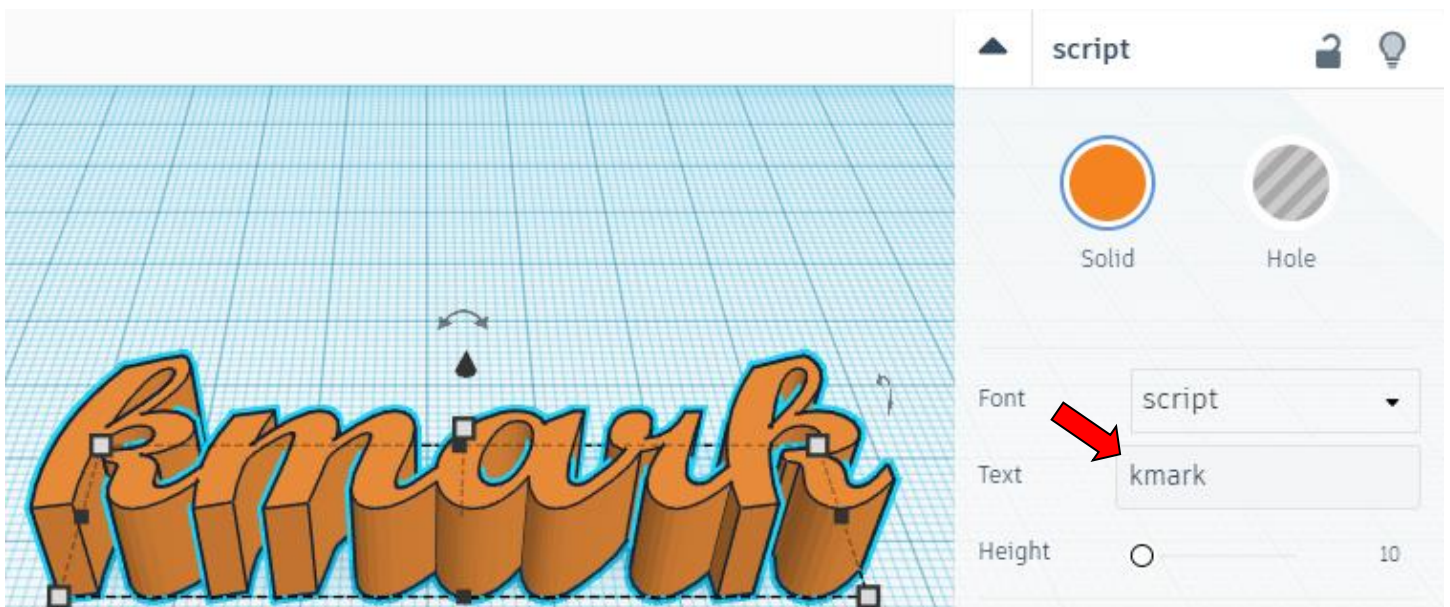

6mm

left

Group Base and Hole Cutout
From now on this will be called the **Base**

Bring in a Script, located in All, (things in All move each time that TinkerCad adds items to All), this was last seen on page 2, on the right 2nd from top.
From now on this will be called the **kmark**

In the Text area change the **text** to **kmark**

Change the dimensions to
70mm X direction,
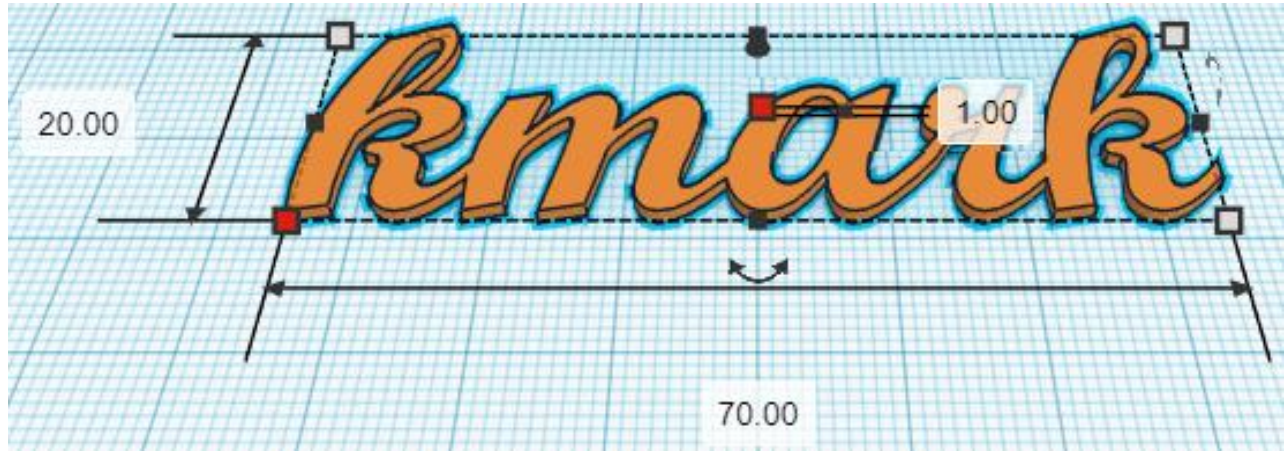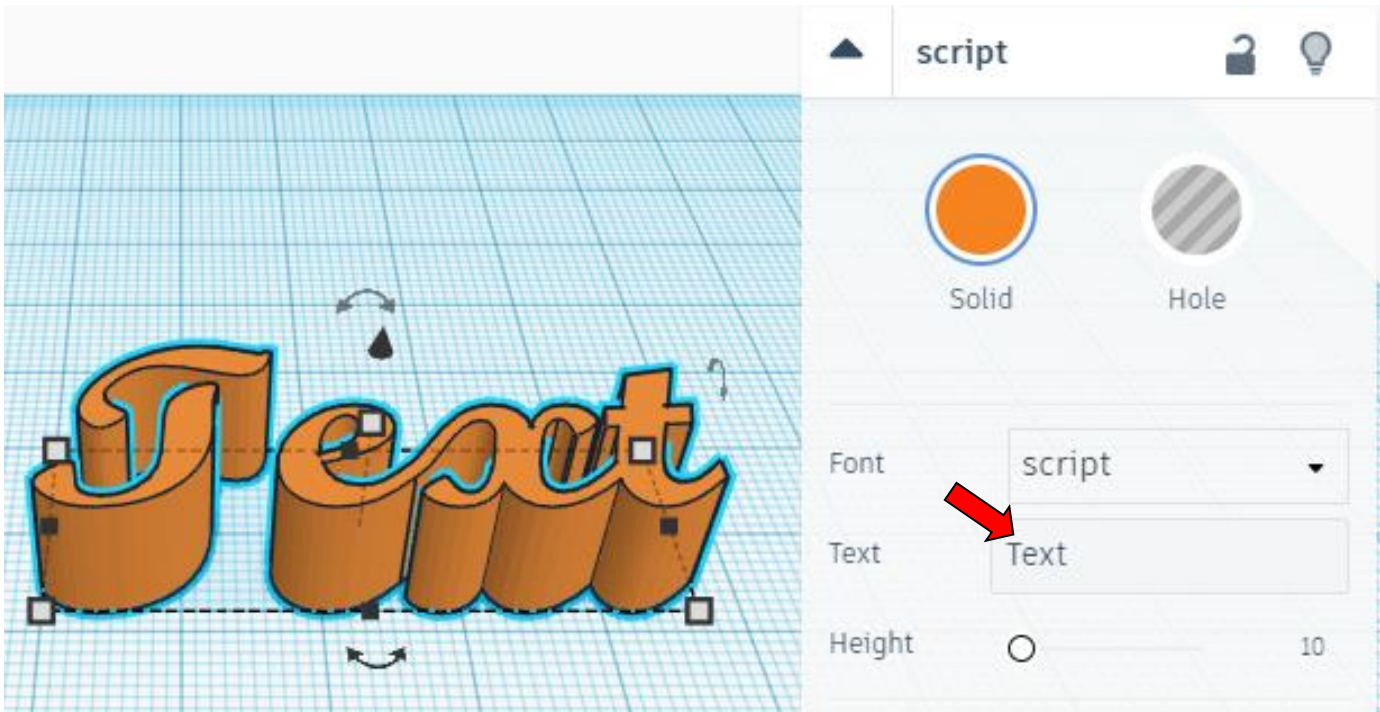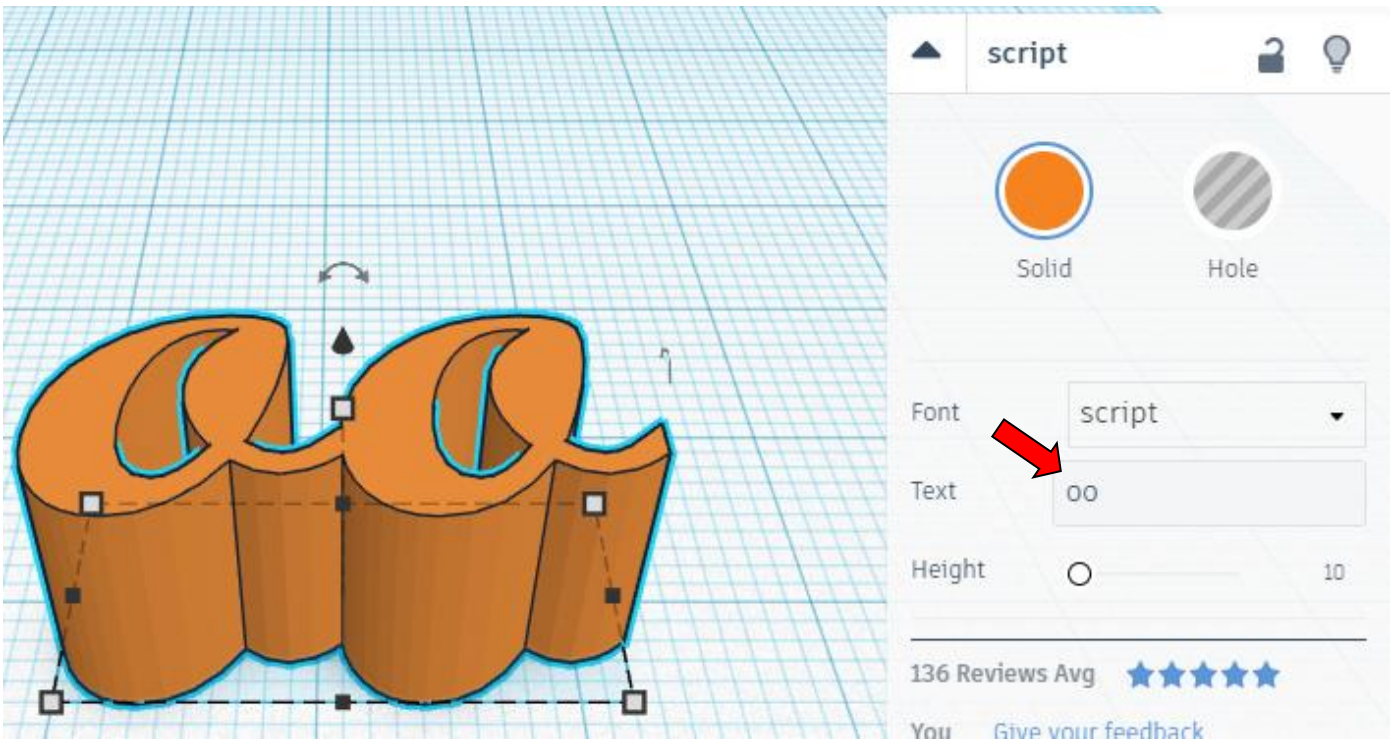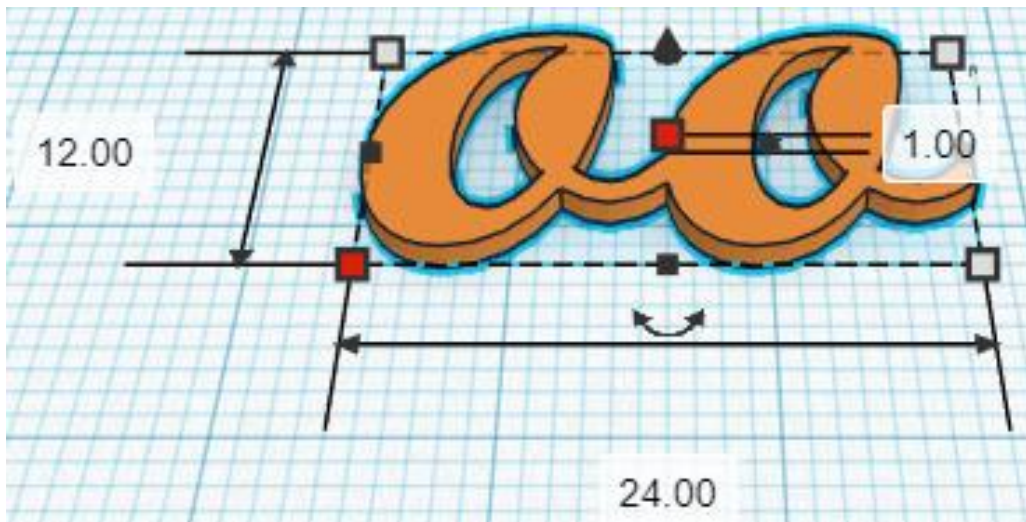20mm Y direction, and
1mm Z direction.

Bring in a Script, located in All, (things in All move each time that TinkerCad adds items to All), this was last seen on page 2, on the right 2nd from top.
From now on this will be called the **oo**

In the Text area change the **text** to **oo**

Change the dimensions to
24mm X direction,
12mm Y direction, and
1mm Z direction.

Align kmark and oo

left in X direction,
back of Y direction, and
bottom of Z direction.

Move oo   (Must be in home view for this to work!)
move left in negative X direction 23mm
and
move forward in negative Y direction 3mm

Hint: Select oo and push left arrow key 23 times.
          Or
          Select oo and hold down shift and push left arrow key 2 times.
          Then release the shift button and push left arrow key 3 times.
          And
          Then Select oo and push down arrow key 3 times.
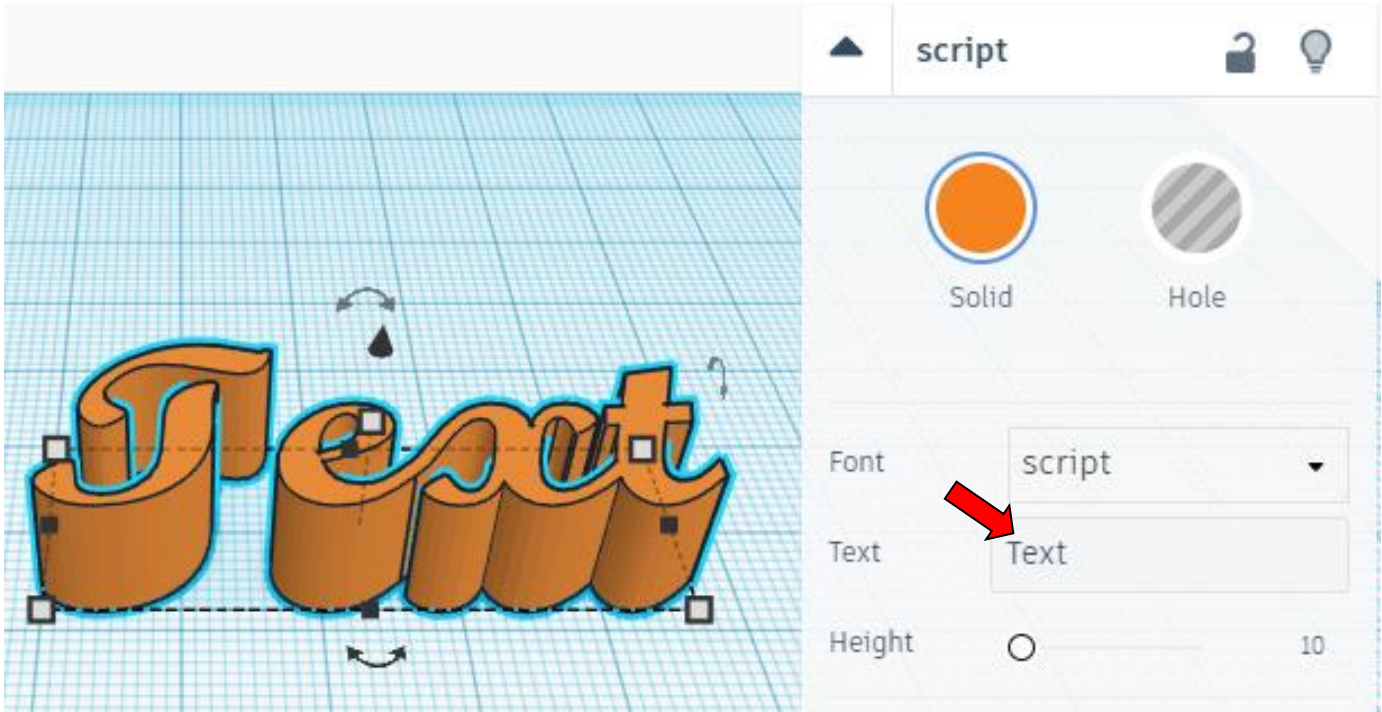
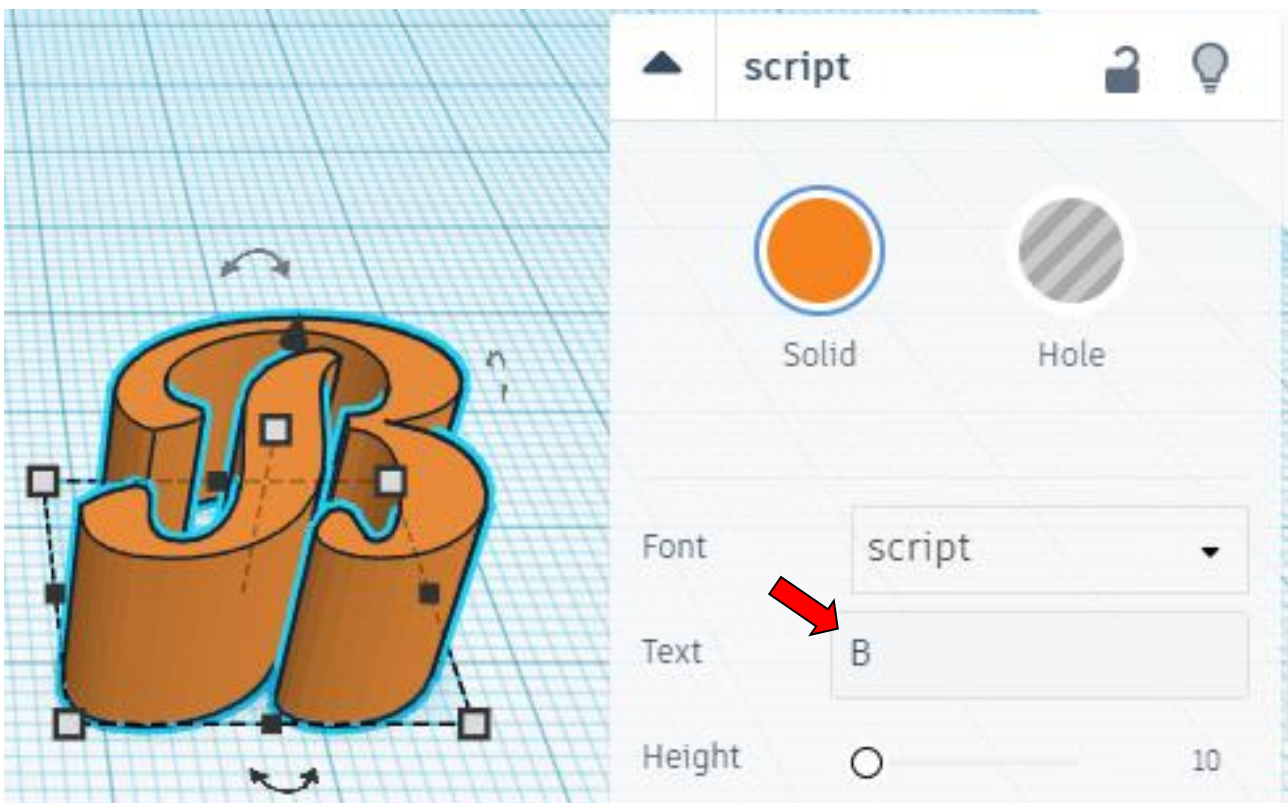   Before   After

| 23mm |
| left |

| 3mm |
| down |
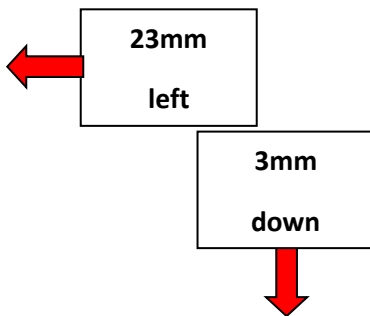
Group kmark and oo
From now on this will be called the **ookmark**

Bring in a Script, located in All, (things in All move each time that TinkerCad adds items to All), this was last seen on page 2, on the right 2nd from top.
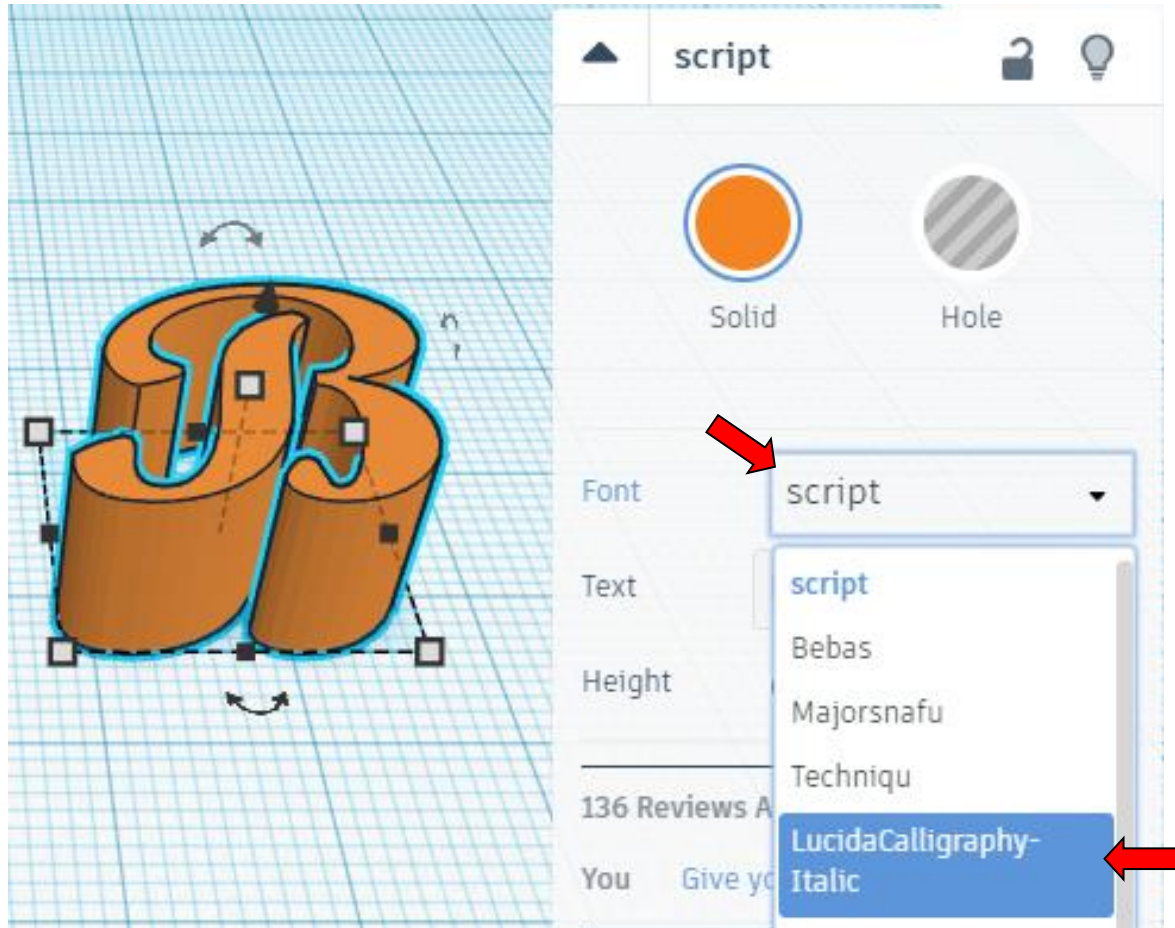From now on this will be called the **B**

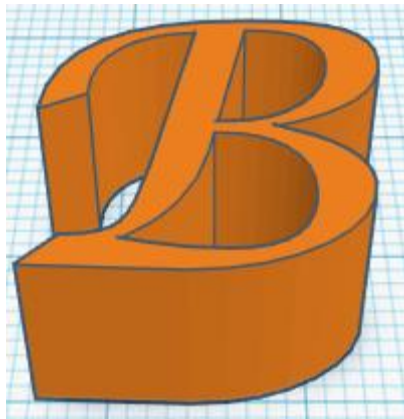
In the Text area change the **text** to **B**

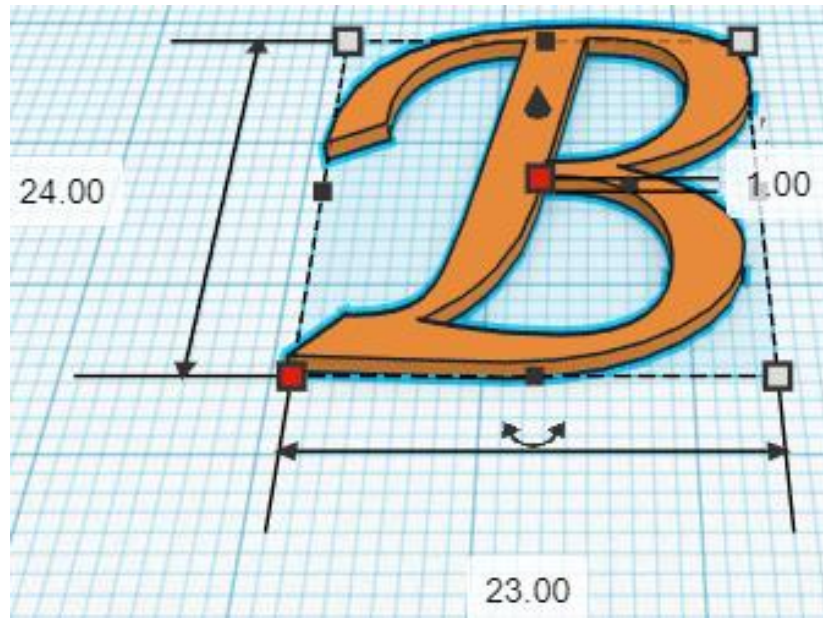I didn't like this Font, so let's change it.

In the Font area change the **script** to

That looks better!

Change the dimensions to
23mm X direction,
24mm Y direction, and
1mm Z direction.

Align ookmark and B

left in X direction,
centered of Y direction, and
bottom of Z direction.

Move <u>B</u>   (Must be in home view for this to work!)
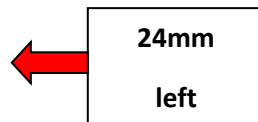move left in negative X direction 24mm

Hint: Select <u>B</u> and push left arrow key 24 times.
      Or
      Select <u>B</u> and hold down shift and push left arrow key 2 times.
      Then release the shift button and push left arrow key 4 times.
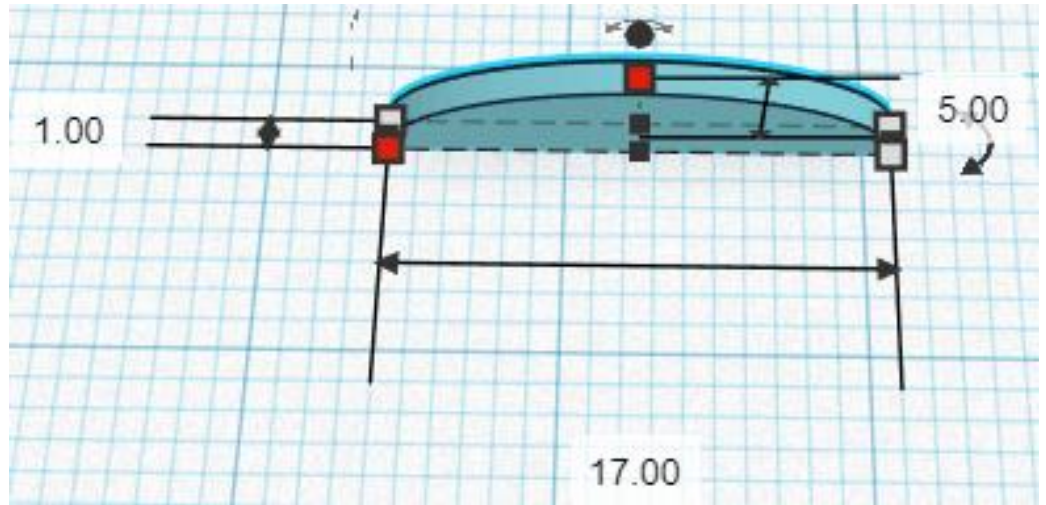
      Before

24mm

left
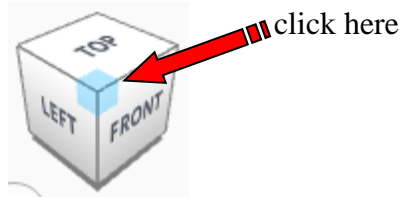
After

Group <u>oo</u>kmark and <u>B</u>
From now on this will be called the B**ookmark**

Bring in a Round Roof, located in Basic Shapes on the left 5 shapes down.
From now on this will be called the **Smile**.

Change the dimensions to
17mm X direction,
1mm Y direction, and
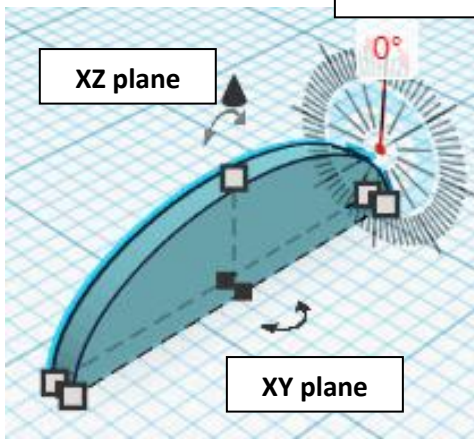5mm Z direction.

1.00
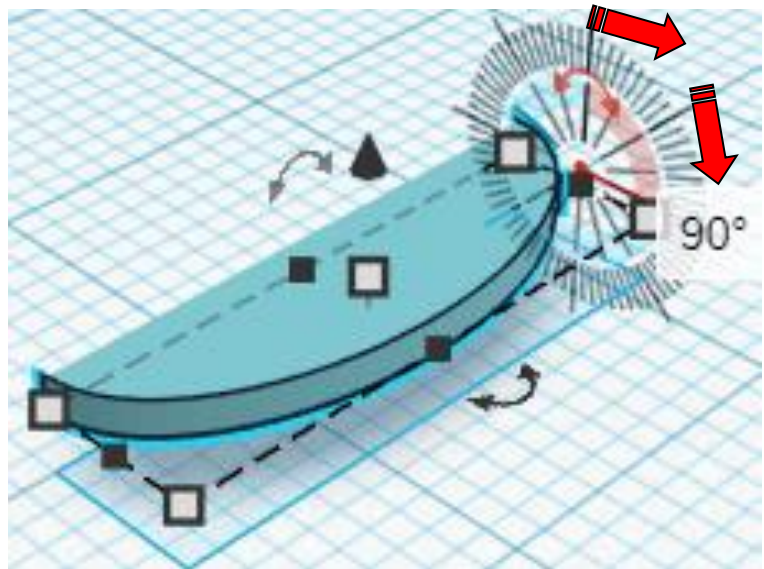
5.00

17.00

Go to TOP LEFT FRONT view for rotations

TOP

LEFT   FRONT

click here

Rotate the Smile clockwise 90 degrees in YZ plane.

Before

YZ plane
Use this one

After

0°

XZ plane

XY plane

90°

Set on Workplane:

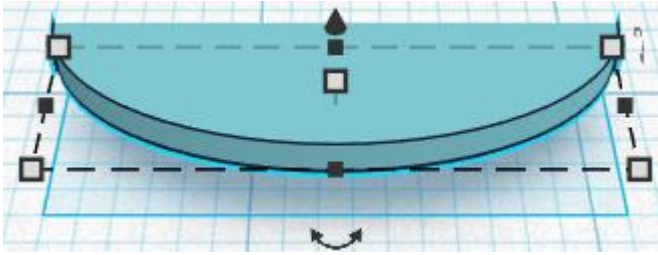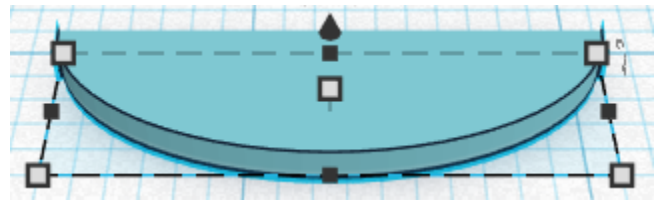Select the <u>Smile</u> and type "d" to set the body on the work plane.

Before   After
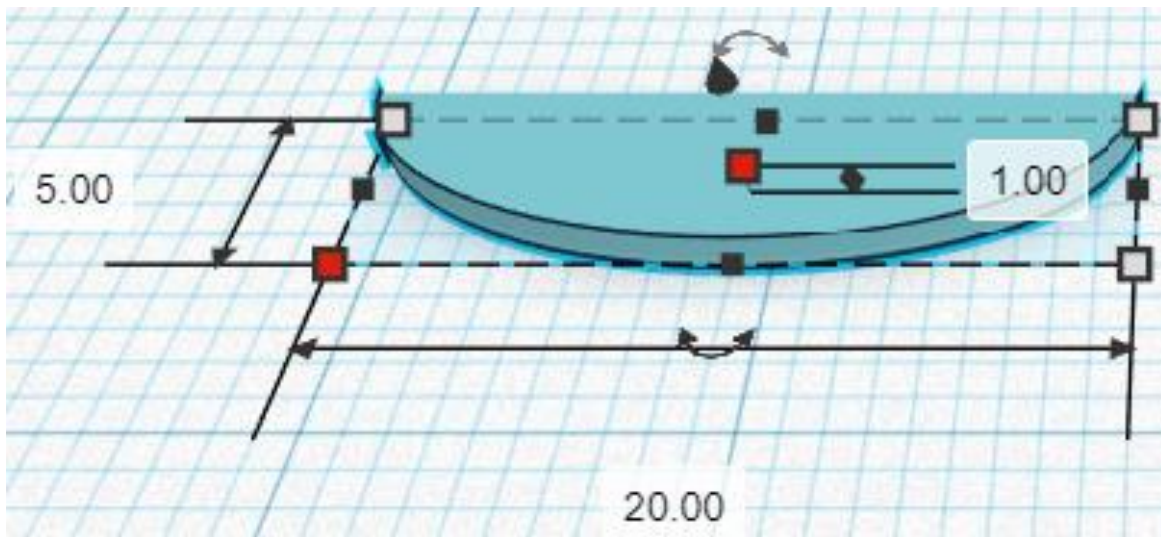

Duplicate <u>Smile</u> 1 time
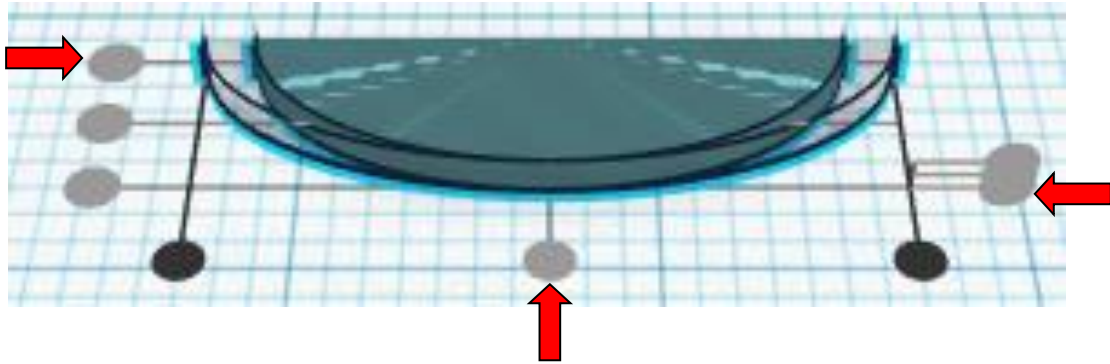From now on this will be called the **Smile cutout**

Move <u>Smile Cutout</u> to the side and

Change the dimensions to
20mm X direction,
5mm Y direction, and
1mm Z direction.

Change Smile Cutout to **Hole** by selecting Smile Cutout and typing "h".

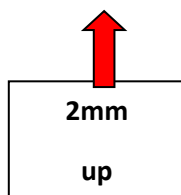**Align** Smile and Smile Cutout

centered in X direction,
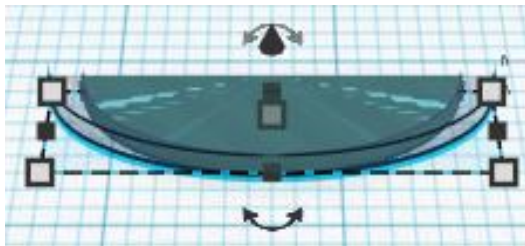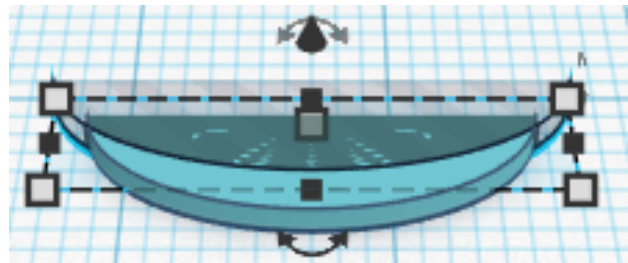back of Y direction, and
bottom of Z direction.

Move Smile Cutout   (Must be in home view for this to work!)
move back in positive Y direction 2mm

Hint: Select Smile Cutout and push up arrow key 2 times.

Before   After

Group Smile and Smile Cutout
From now on this will be called the **Smile**

Duplicate <u>Smile</u> 1 time
From now on this will be called the **Left Eyebrow**

Move <u>Left Eyebrow</u> to the side and

Change the dimensions to
9mm X direction,
2mm Y direction, and
1mm Z direction.
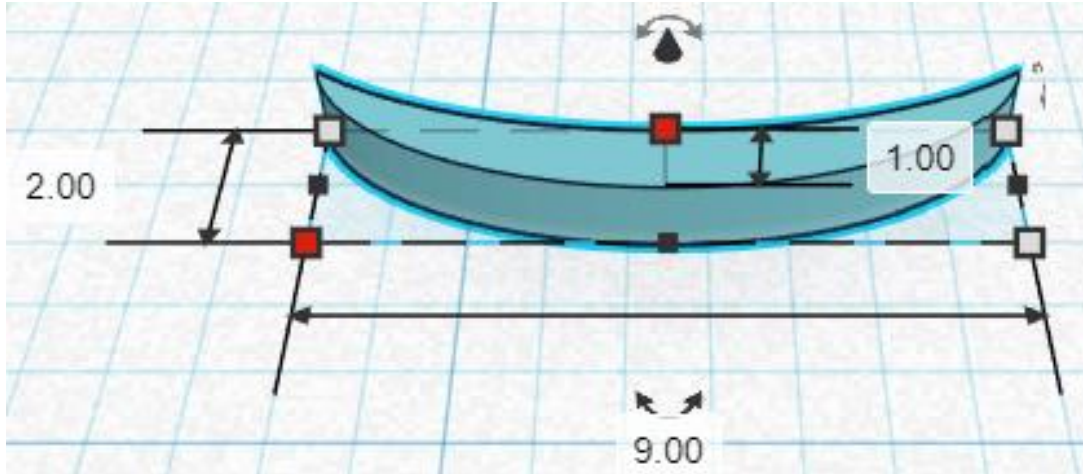
Go to TOP LEFT FRONT view for rotations click here

Rotate the <u>Left Eyebrow</u> clockwise 180 degrees in XY plane.

Before   After

Duplicate Left Eyebrow 1 time
From now on this will be called the **Right Eyebrow**

Move Right Eyebrow (Must be in home view for this to work!)
move right in positive X direction 13mm

Hint: Select Right Eyebrow and push right arrow key 13 times.
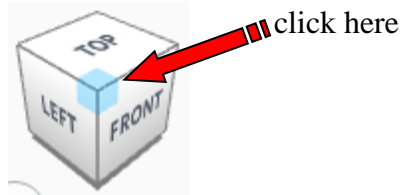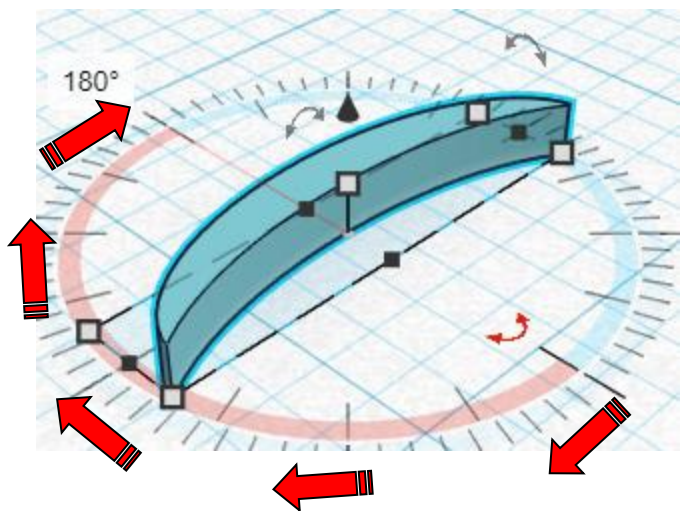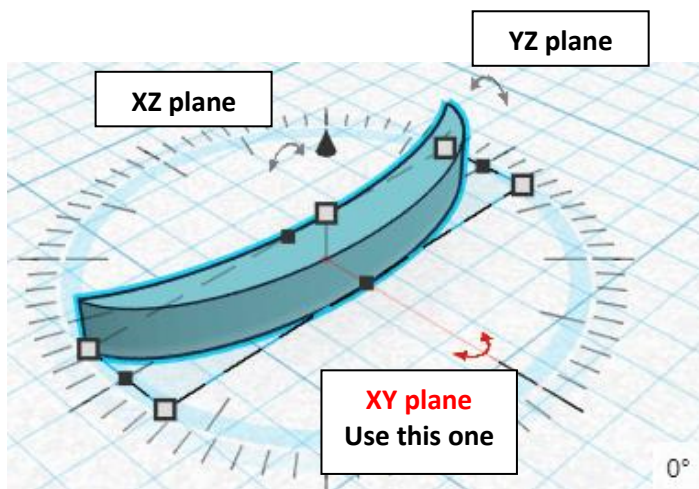   Or
          Select Right Eyebrow and hold down shift and push right arrow key 1 time.
          Then release the shift button and push right arrow key 3 times.

Before   After

13mm

right

Group Right Eyebrow and Left Eyebrow
From now on this will be called the **Eyebrows**

Align Smile and Eyebrows

left in X direction,
front of Y direction, and
bottom of Z direction.

Move Smile   (Must be in home view for this to work!)
move forward in negative Y direction 22mm

Hint: Select Smile and push down arrow key 22 times.
 Or
 Select Smile and hold down shift and push down arrow key 2 times.
 Then release the shift button and push down arrow key 2 times.

Before   After

22mm

down

Group Smile and Eyebrows
From now on this will be called the **Face**

Align Face and Bookmark

left in X direction,
centered of Y direction, and
bottom of Z direction.

Move Face   (Must be in home view for this to work!)
move right in positive X direction 27mm

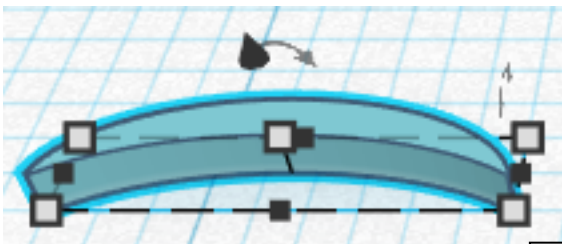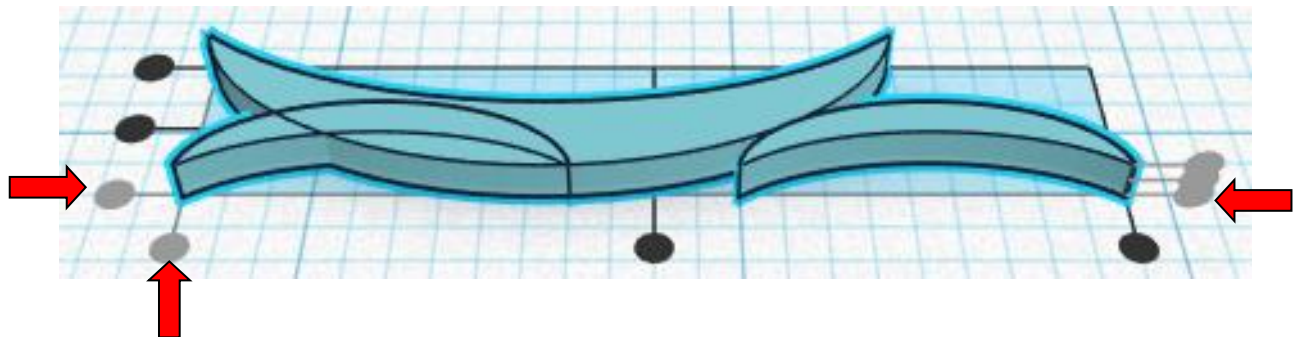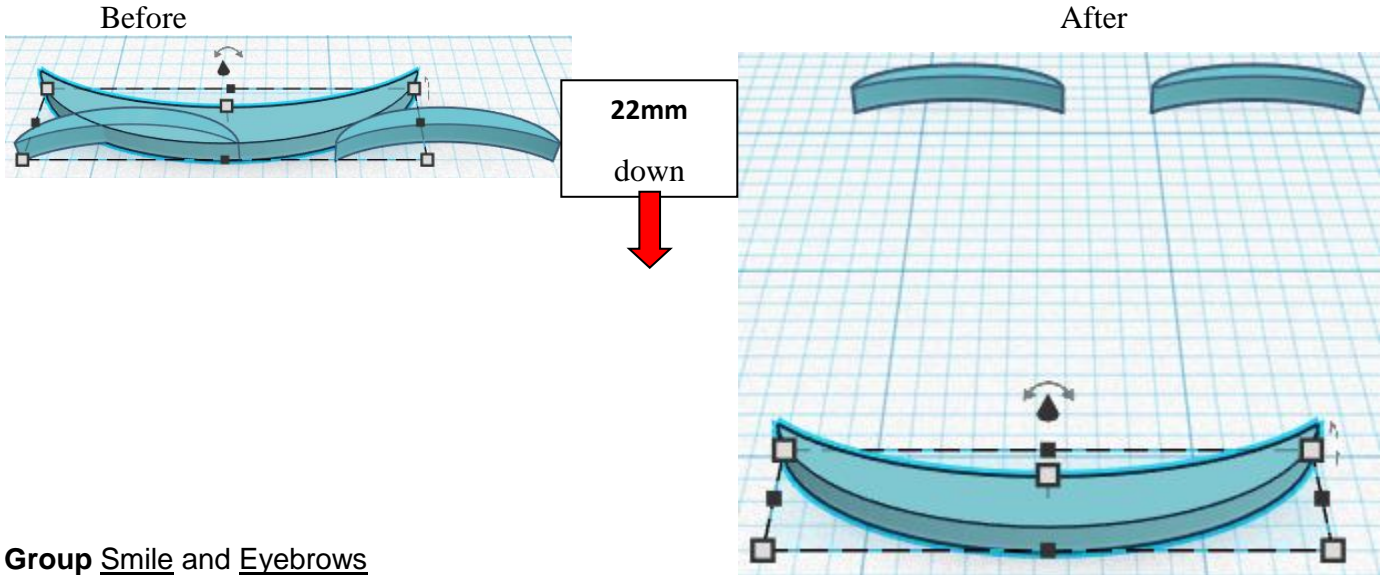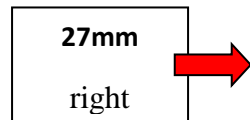**Hint:**   Select Smile and push right arrow key 27 times.
Or
Select Smile and hold down shift and push right arrow key 2 times.
Then release the shift button and push right arrow key 7 times.

Before

27mm

right →

After

Group Bookmark and Face
From now on this will be called the **Bookmark**

Duplicate Bookmark 1 time
From now on this will be called the **Bookmark cutout**

Change Bookmark Cutout to **Hole** by selecting Bookmark Cutout and typing "h".

Align Base and Bookmark Cutout

centered in X direction,
centered of Y direction, and
top of Z direction.
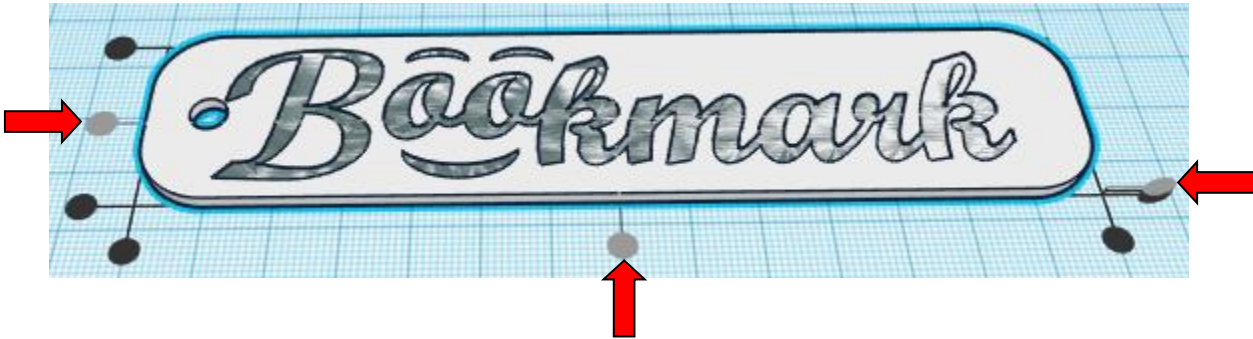
Move Base   (Must be in home view for this to work!)
move left in negative Y direction 3mm

Hint: Select Base and push left arrow key 3 times.

Before

3mm

left

After

Group Base and Bookmark Cutout
From now on this will be called the **Base**

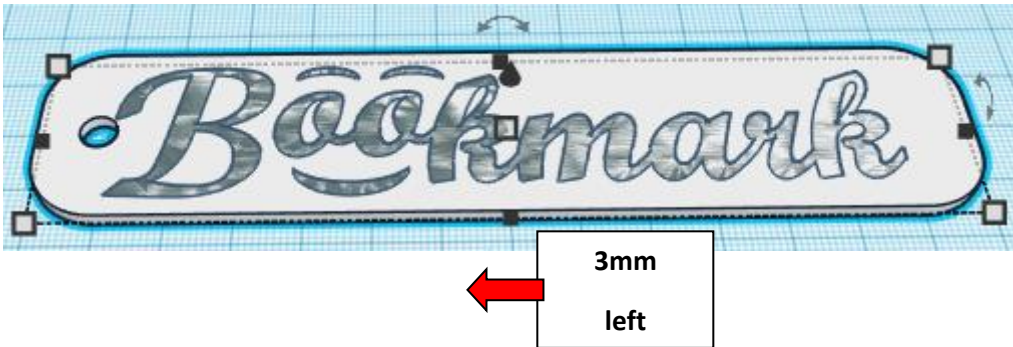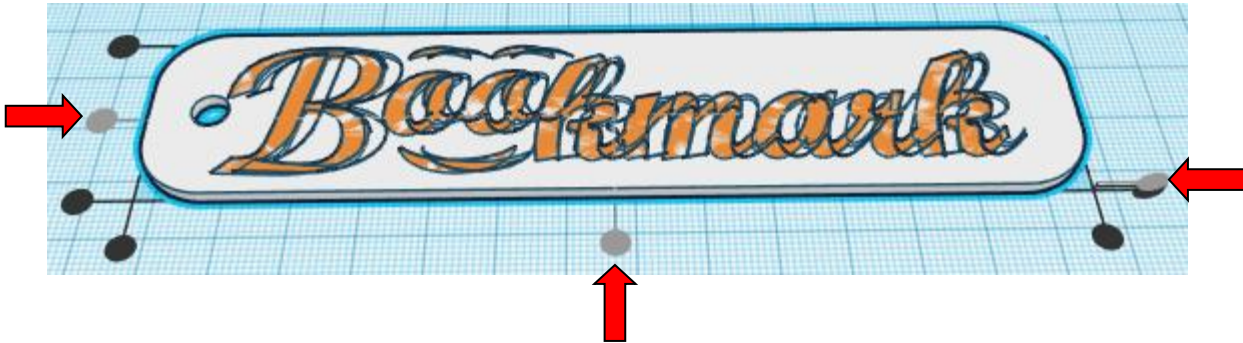**Align** <u>Base</u> and <u>Bookmark</u>
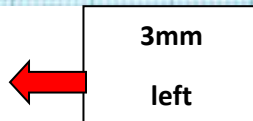
centered in X direction,
centered of Y direction, and
top of Z direction.

Move <u>Base</u>   (Must be in home view for this to work!)
move left in negative Y direction 3mm

Hint: Select <u>Base</u> and push left arrow key 3 times.

Before

3mm

left

After

<u>DO NOT GROUP!</u>

The two solids must be separate for printing.

Change the colors of each solid to see how it will look after printing.

Here are some possible styles!

Add some thin ribbon and tie to the Hole Cutout to add some décor.

Have fun and enjoy!