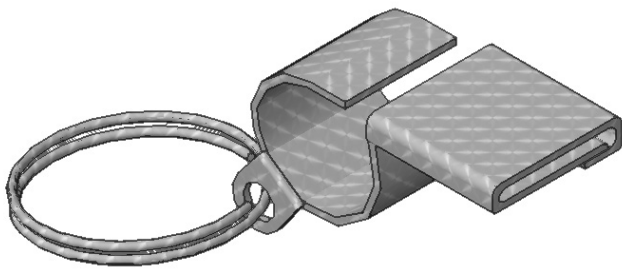
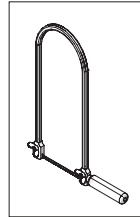


116.323

Alarm Whistle with Key Ring



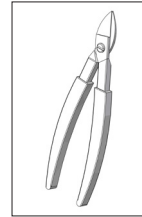
Tools Required:



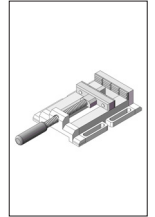
fretsaw or
scroll saw



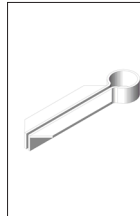
hammer



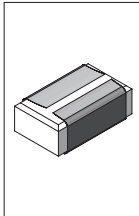
tinsnips



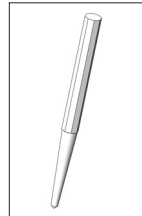
machine vice



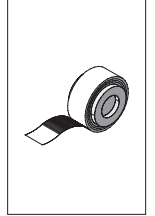
bending aid



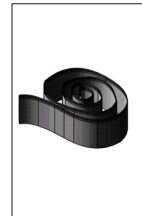
sandpaper



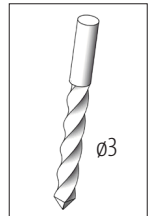
centre punch



adhesive tape



steel wool



drill

Please note:

The OPITEC range of projects is not intended as toys for young children. They are teaching aids for young people learning the skills of Craft, Design and Technology. These projects should only be undertaken and operated with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation!

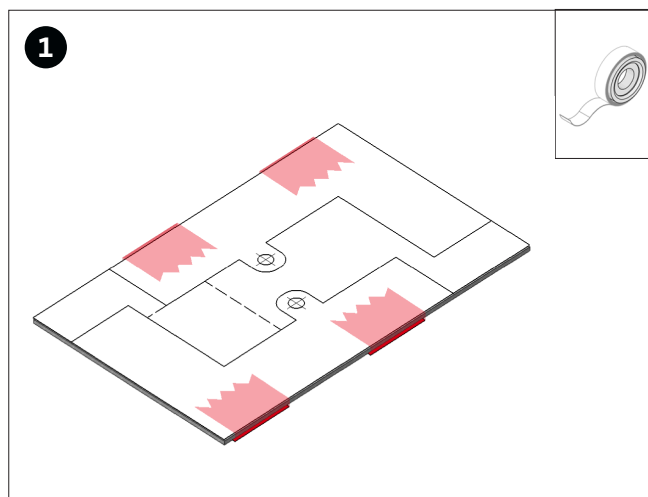
Parts List	Quantity	Size (mm)	Designation	Part No.
aluminium sheet	1	80x50x1	aluminium sheet	1
key ring	1	ø20	key ring	2
rod	1	100x15	bending aid	3

Instructions 116.323

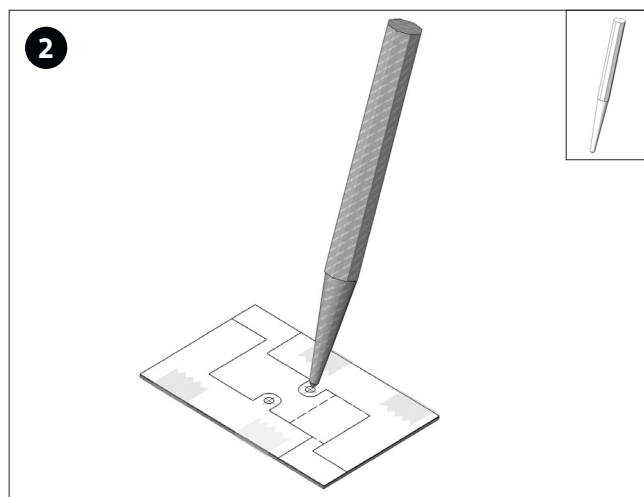
Alarm Whistle with Key Ring

General:

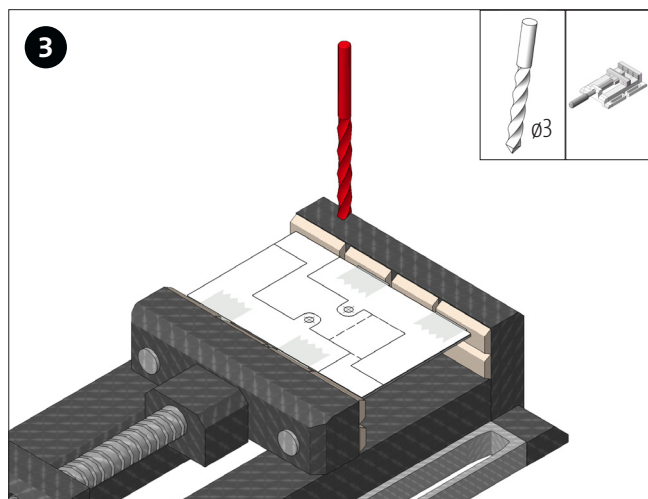
The aluminium sheet is sufficient for the crafting of two whistles. This fact is already considered in the template. For a more convenient construction process, the eyelet does not have to be used necessarily.



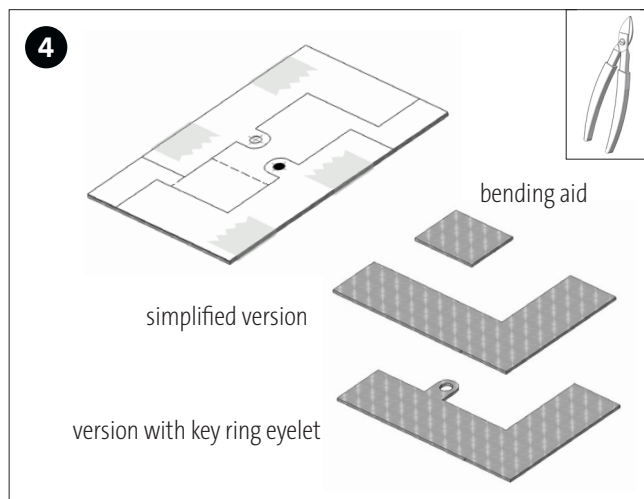
Cut the template on page 5 and fasten it to the aluminium sheet (1) by using adhesive tape.



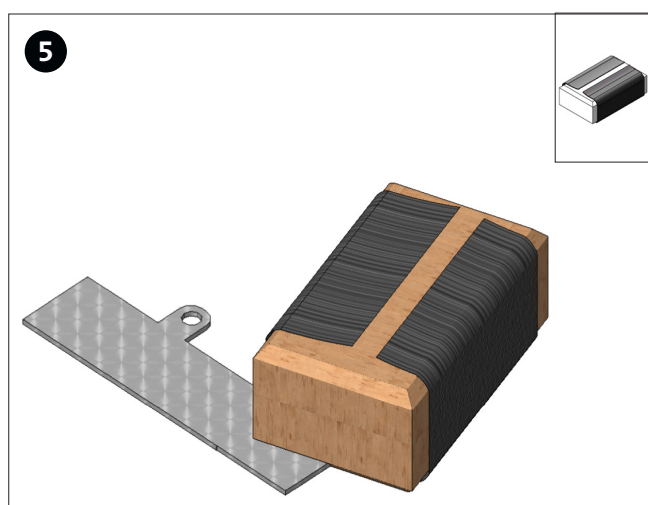
Punch the $\varnothing 3$ mm holes.



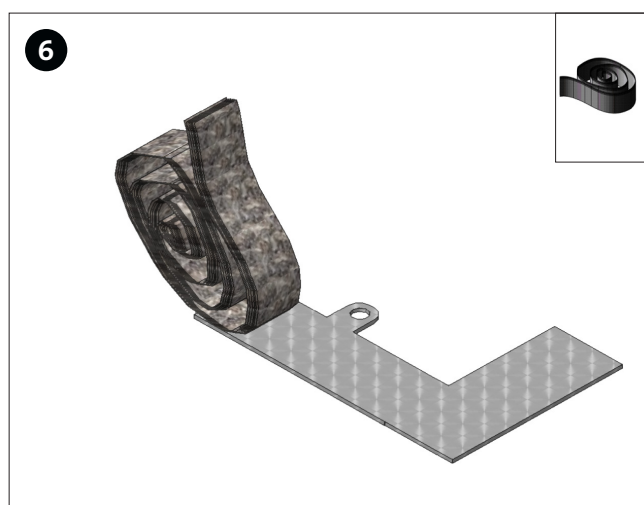
Drill the $\varnothing 3$ mm holes.



Cut out the components by using tinsnips, a fretsaw or a scroll saw.

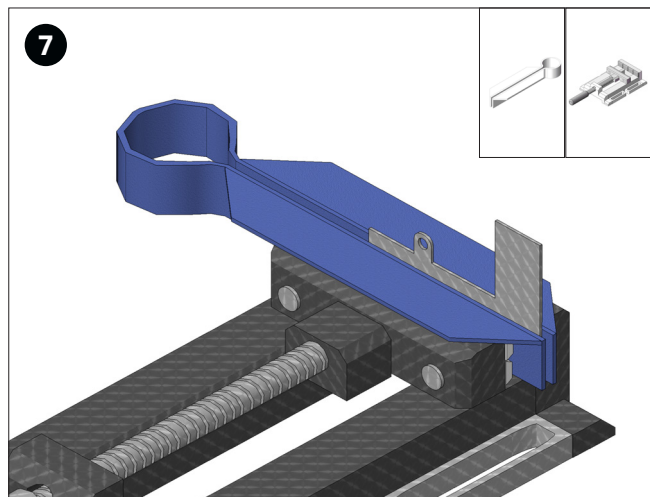


Slur the production marks with sandpaper. Grind into one direction only!

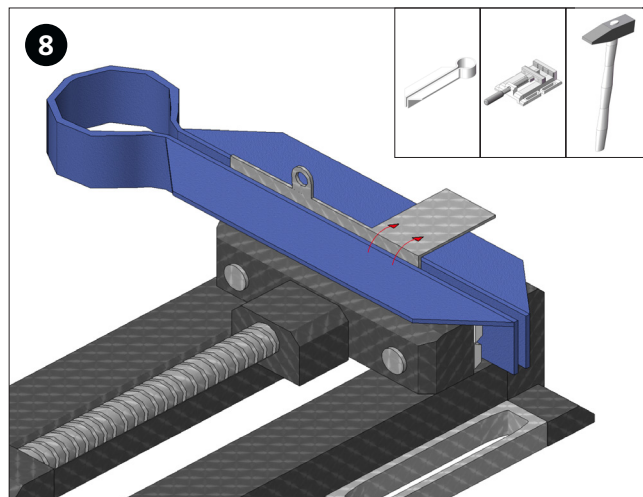


Polish the cut out pieces with steel wool.

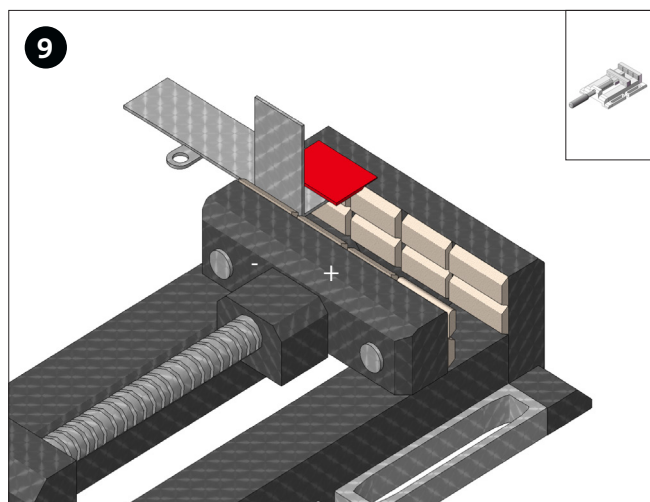
Instructions 116.323
Alarm Whistle with Key Ring



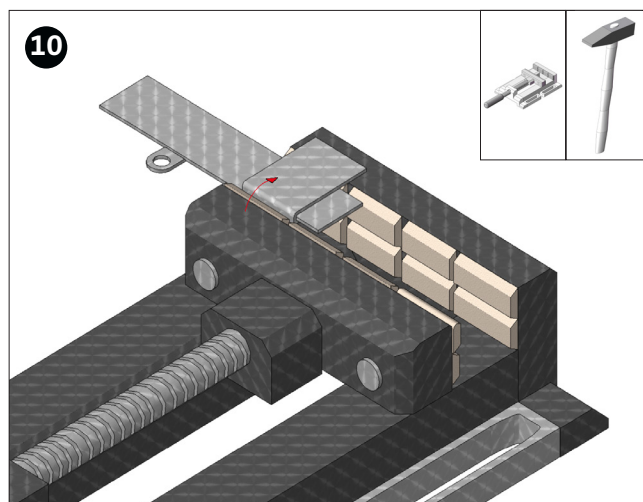
Clamp the work piece on a bending aid or protective jaws as depicted. Bend it in 4 working steps.



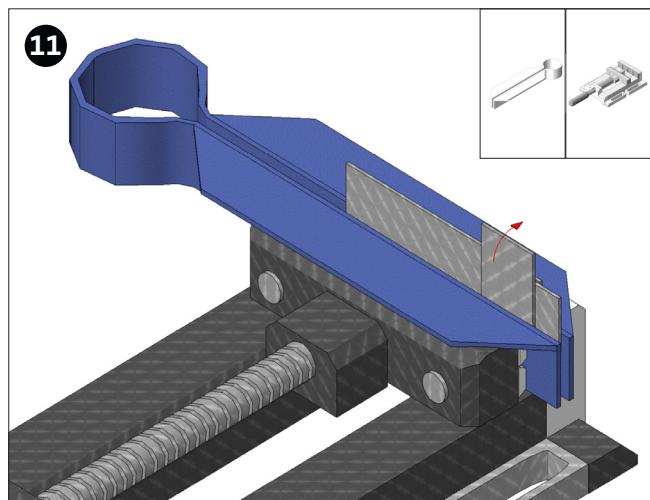
Bend the mouthpiece as shown (step 1).



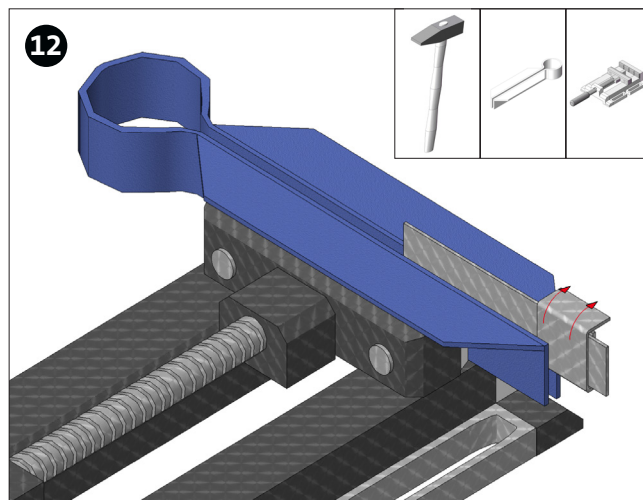
Place the bending aid (20x15x1) on the workpiece (step 2). **Hint :** Bending aid must not be wider than the whistle cut out.



Bend the mouthpiece as shown (step 2).

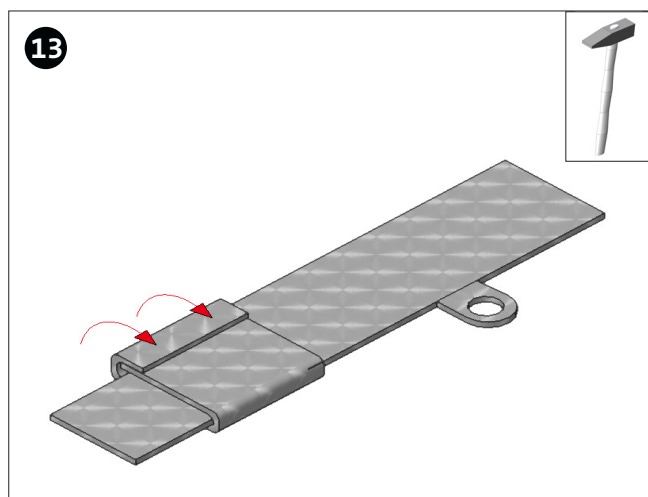


Clamp the workpiece on the bending aid as depicted (step 3).

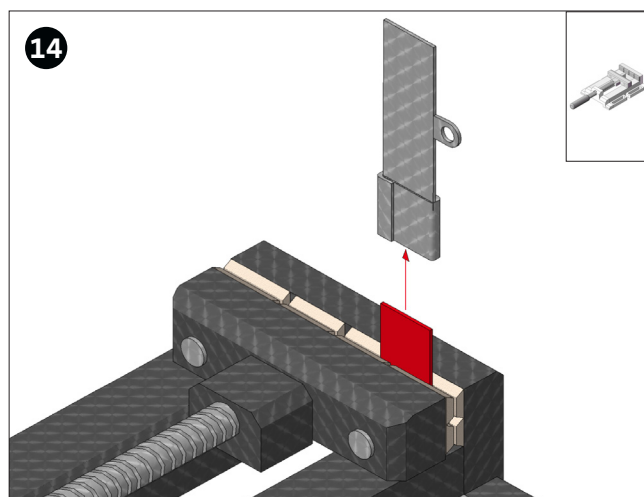


Bend the protruding edges (step 3).

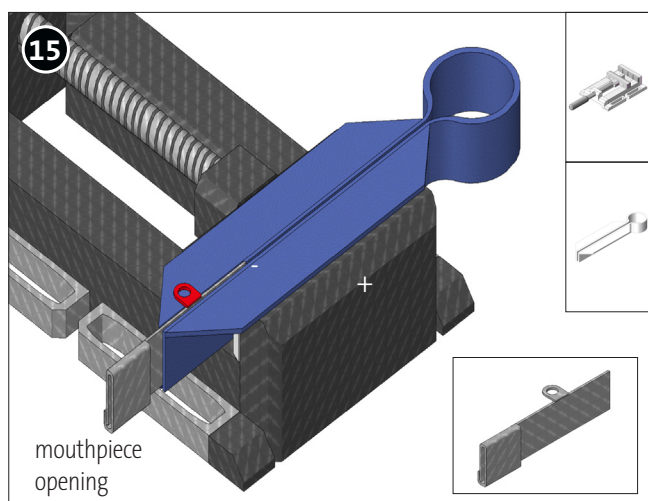
Instructions 116.323
Alarm Whistle with Key Ring



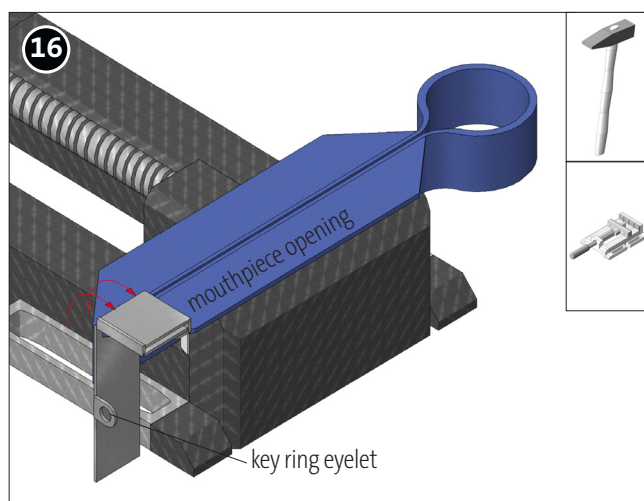
Unclamp the workpiece and bend the edges as shown.
(step 4)



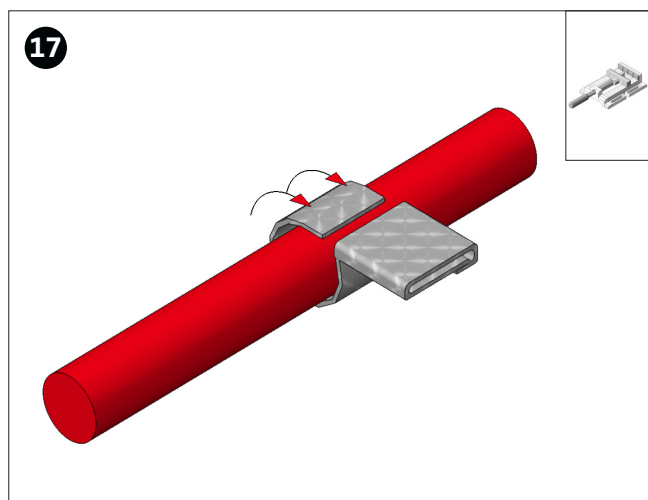
Clamp the bending aid (20 x 15mm) as shown and remove the whistle.



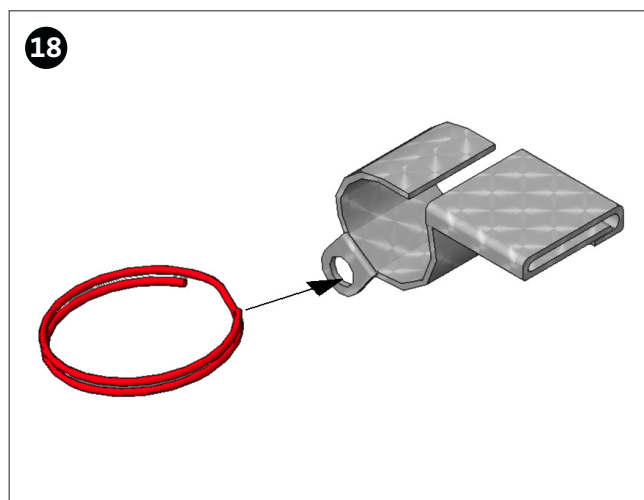
Clamp the whistle on the bending aid and bend the key ring eyelet.



Clamp the workpiece vertically and bend it as depicted.

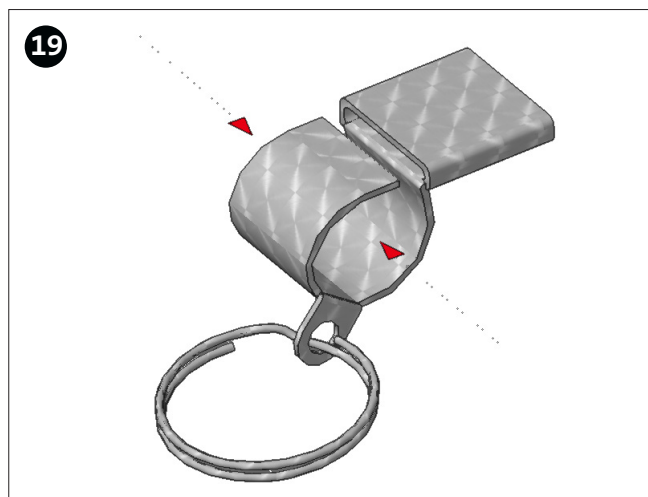


Bend the long aluminum piece to a circular arc by using the round rod as shown. In the end there should be a 3 mm gap between the end of the circular arc and the mouthpiece.



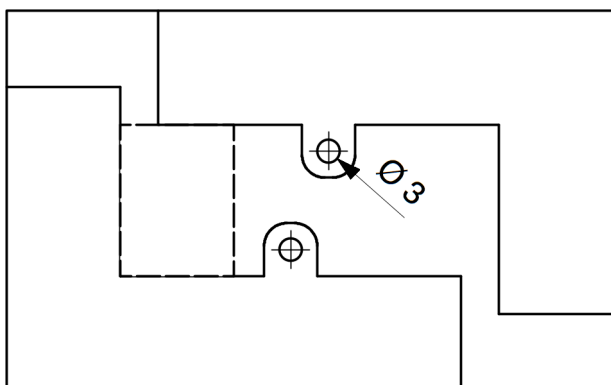
Attach the key ring to the designated eyelet as shown in the picture.

Instructions 116.323
Alarm Whistle with Key Ring



To blow the emergency whistle, cover the two lateral openings and blow the mouthpiece.

Template
Aluminium Sheet (1)
S 1:1



General:

The aluminium sheet is sufficient for the crafting of two whistles. This fact is already considered in the template. For a more convenient construction process, the eyelet does not have to be used necessarily.

Bending Template
Whistle
S 1:1

