

This document is current as of 2020 04 07 13:00. Please refer to the latest version of the documentation at happyshield.github.io.

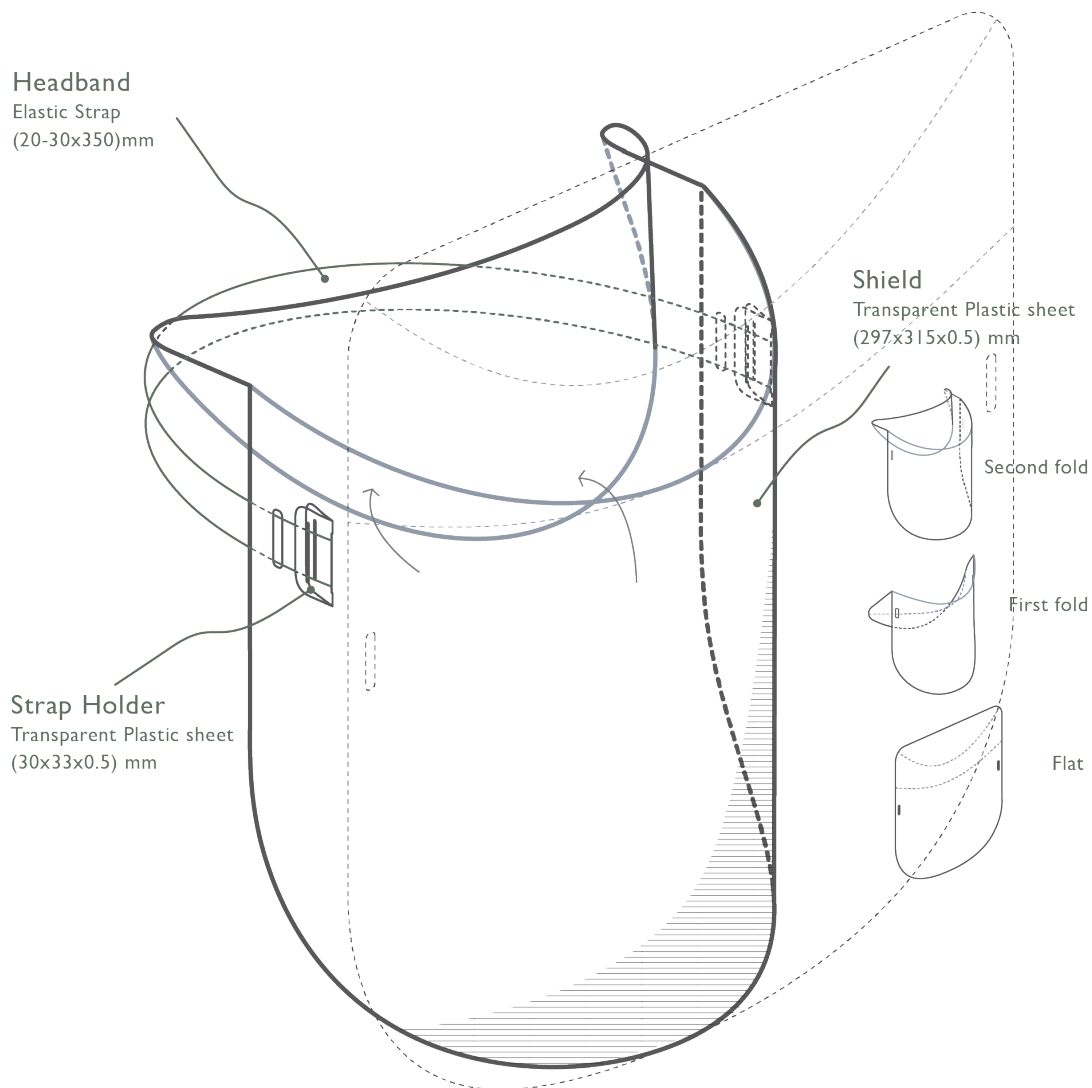
<https://happyshield.github.io>

Materials:

- 0.5 mm thick Polyethylene terephthalate (PET) or Acetate sheet at least
- 20 mm wide Knit elastic strap (70% polyester 30% rubber)
- Tape

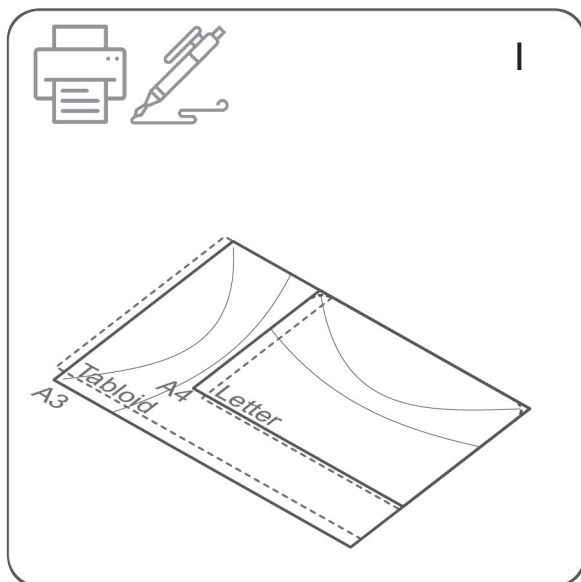
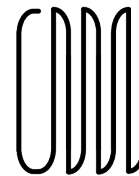
Tools:

- Pen
- Printer
- Ruler
- Scissors or cutter

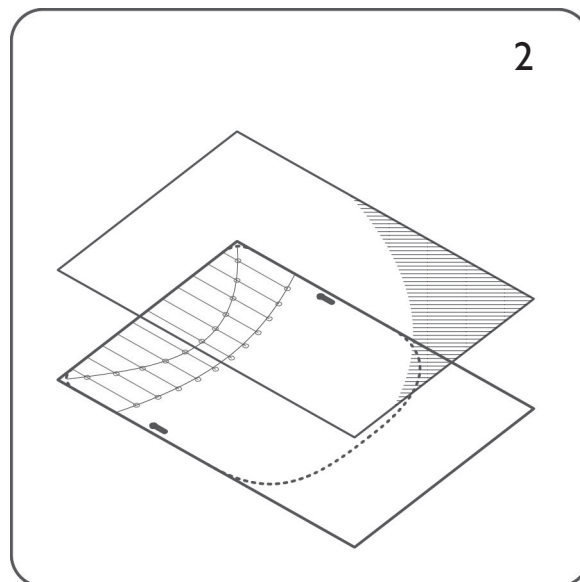


Disclaimer:

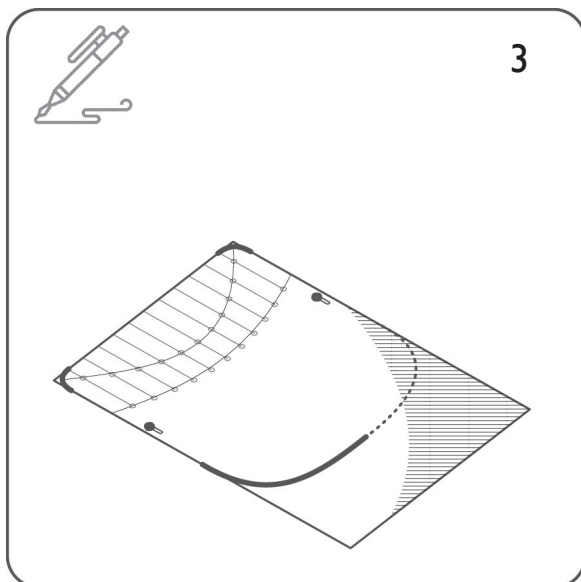
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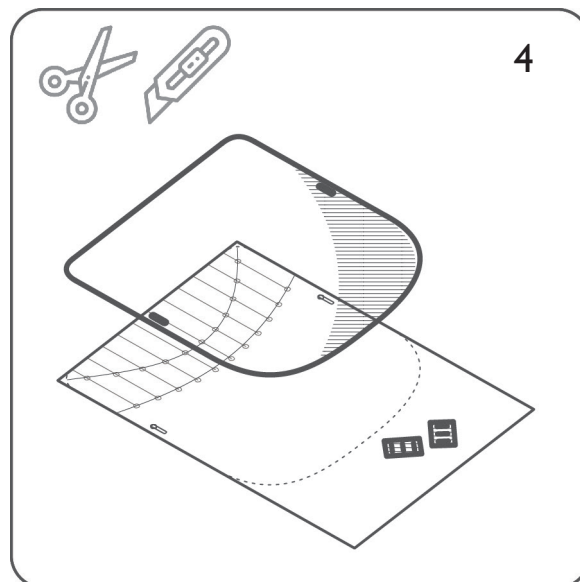
Download your tracing template. A4-sized templates are available for A3-sized shields. Letter-sized templates are available for Tabloid-sized shields. If you do not have access to a printer, you can draw your own template using the dimensions shown on the template.



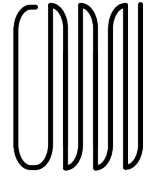
Place your transparent sheet on the template. Mark the location of the strap holes with your pen or marker. Don't worry about the ink, it can be removed with a cloth damped with alcohol.



Trace out the boundary of the shield for cutting out.

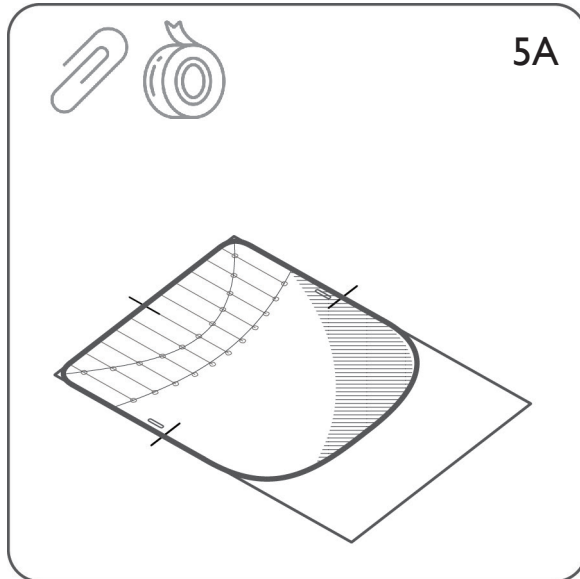


Cut the boundary shape of the shield out using scissors or a razor blade. Cut out the strap holes. You can use a hole-puncher as well to make these holes. Next, cut out the friction clips using a razor blade. Now, let's score a smile on that face!

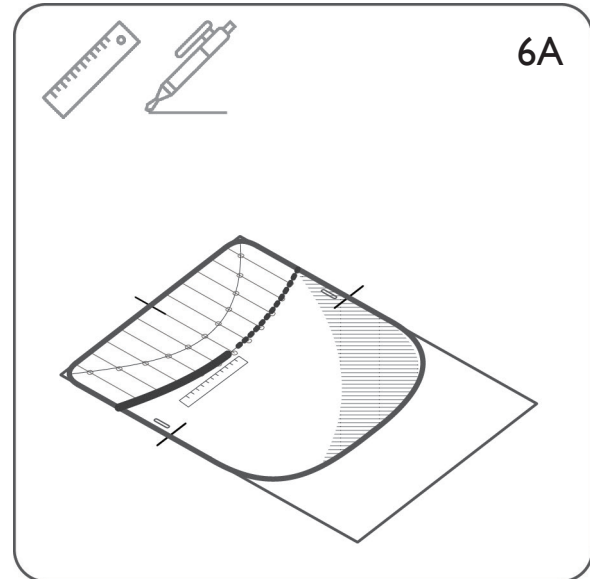


CREASING METHOD A

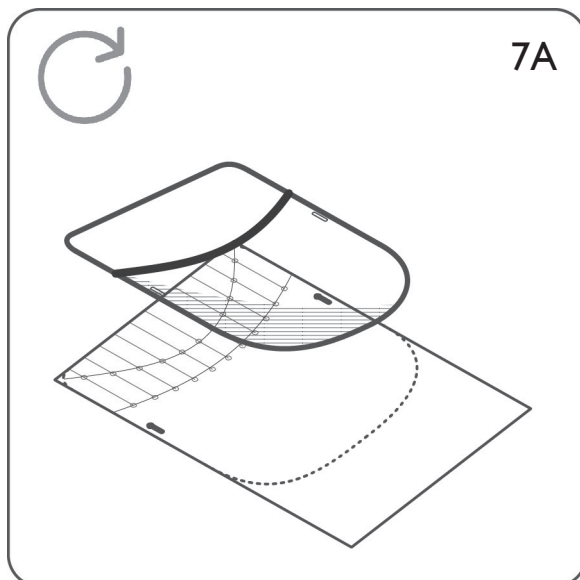
With pen and a ruler



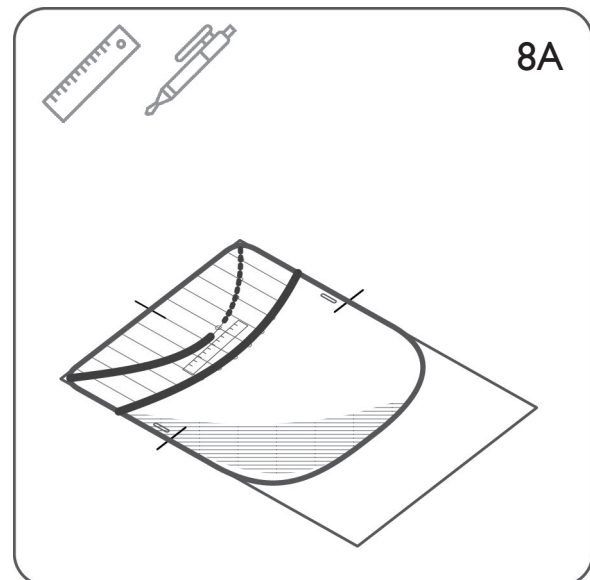
Place your transparent sheet on the template. Fix with clips or tape for precise tracing.



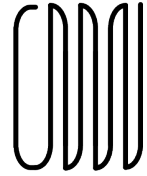
Using a ruler, and applying pressure, trace the straight segments between each consecutive point, using 2-3 strokes as needed until you see a visible indentation in the sheet.



Flip the transparent sheet. Fix the sheet and the template again.

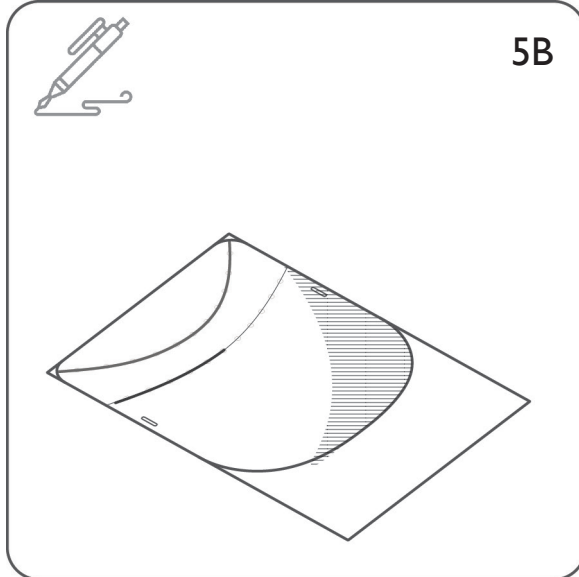


Trace the second curve in the same way as in step 6A.

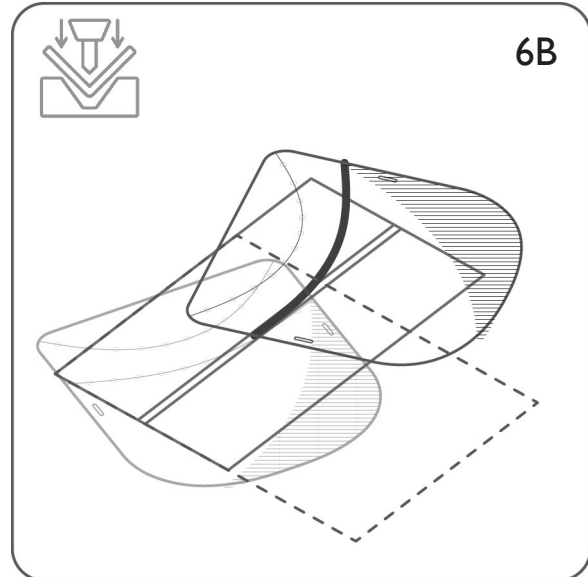


CREASING METHOD B

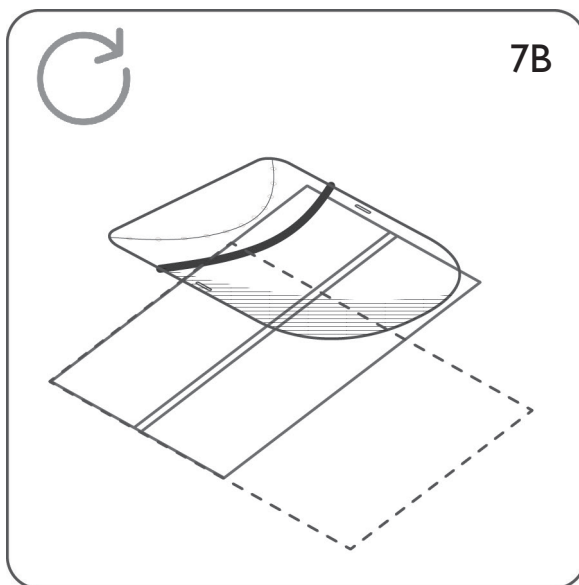
With channel



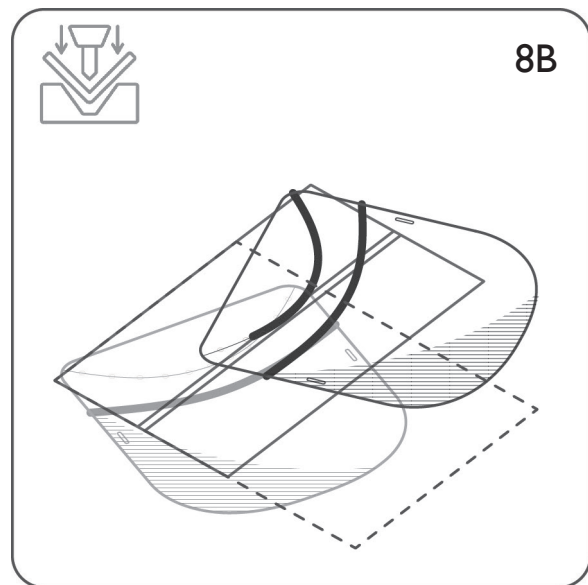
Trace the folding curves with a pen (no additional pressure is required here). If desired, fix the sheet to the template with clips or tape for more precise tracing.



Find a 2-5 mm wide 2-3 mm deep channel at least 5 cm long on an immobile work surface or workpiece. Gaps between floorboards, segments of a dining table or kitchen countertop work well for this. Alternatively, make your own channel in a piece of wood or other material. Next, find a ballpoint pen or any other tool with a relatively dull end (any dull part of a butter knife, spoon, or chopstick can work here as well). Using one hand to move the sheet as you might a piece of fabric through a sewing machine, use the other hand to repeatedly run the tool over the surface of the material over the channel, following one of the crease curves you have traced.



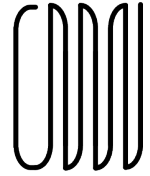
Flip the shield over.



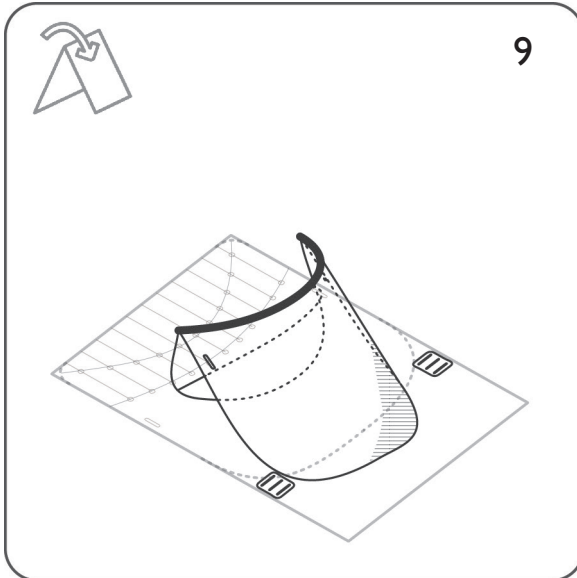
Repeat step 6B for the other crease curve.



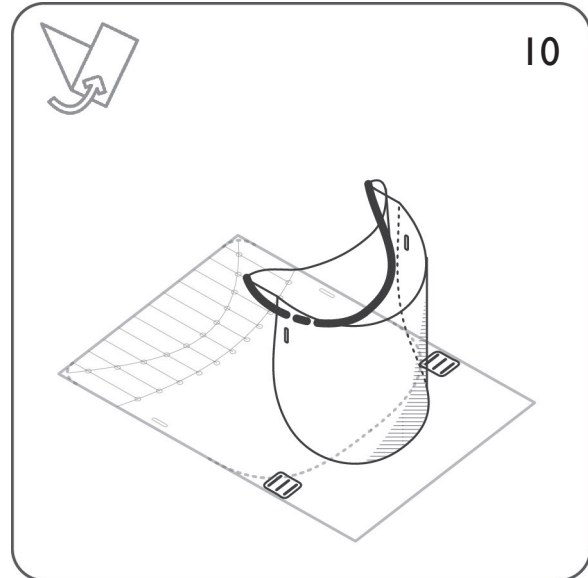
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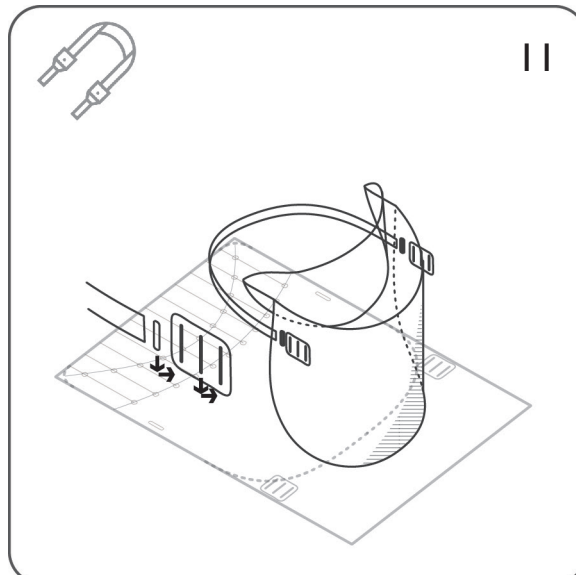
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Starting on end of the crease curve, and working your way to the other end of the curve, gently pinch the sheet to fold it along the curve. If some segments do not fold easily, repeat the creasing procedure.



Repeat step 9 for the other curve, but this time, fold the sheet in the other direction.



Thread the strap through the friction clips. Pass the friction clips through the holes in the shield from the back side of the shield to the front.