

Quick Fabrication Face Shield

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Features

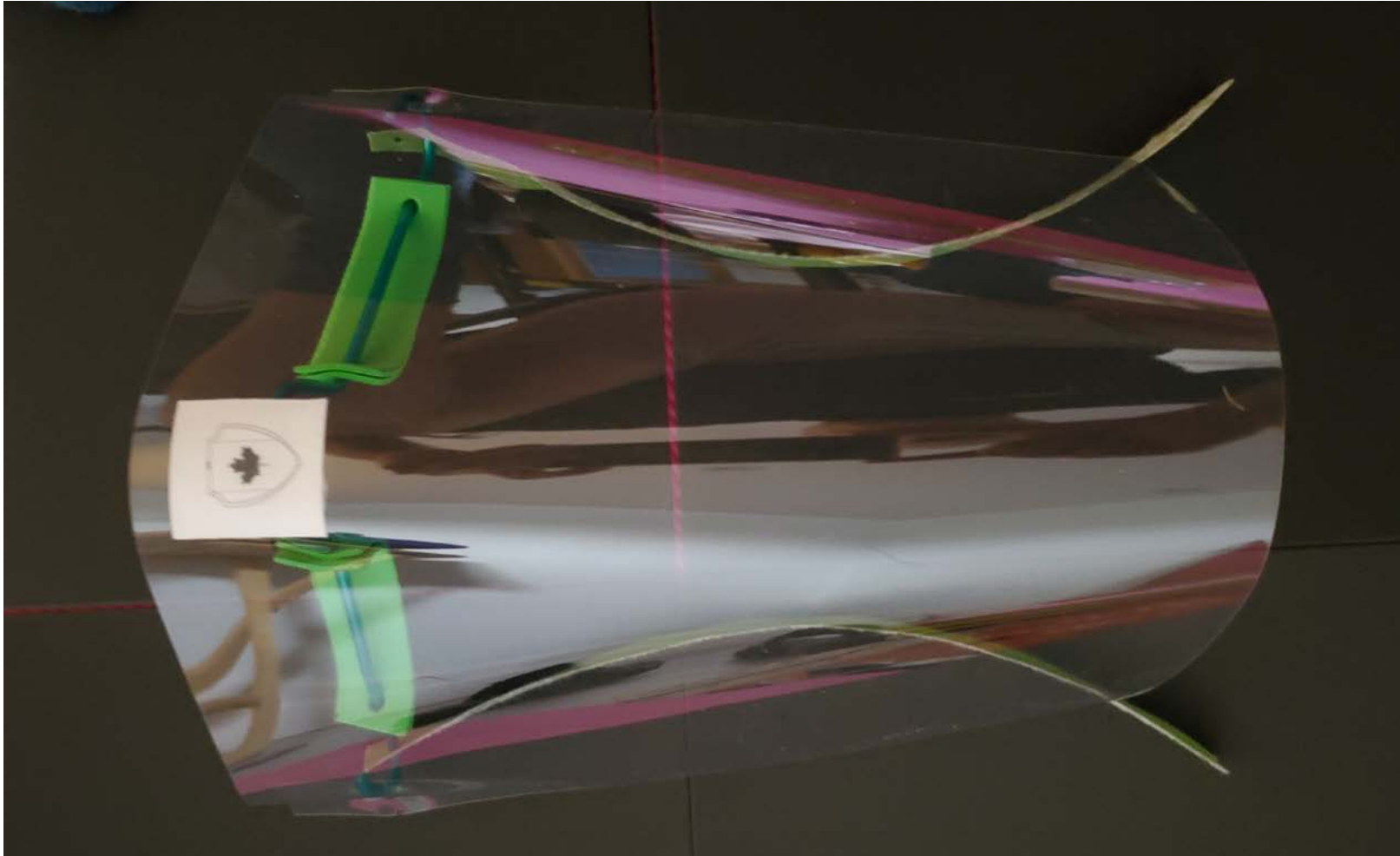
- Fast fabrication
 - Under 10 min per unit (with use of a jig, estimated fab. time is under 5 min)
- No particular tools needed aside from a hole punch!
- Simple Materials
 - Clear transparency sheet
 - Gauge 16 wire
 - Art pad
 - Velcro tape or an elastic
 - a tiny bit of duct tape
- Adjustable
 - For head size
 - Also stand off with face (currently ~ 4 cm or 1.5 in as seen on other face masks)
 - No interference with eyeglasses
 - Securely affixed to the face with minimal pressure to the forehead due to application of foam pad
- Inexpensive
 - Materials under \$2 when purchased from retail (as a whole sale the cost can be at \$0.50)

Full Face Protection

- From scalp to below the chin
- From one side of the head passed eyes to the other side

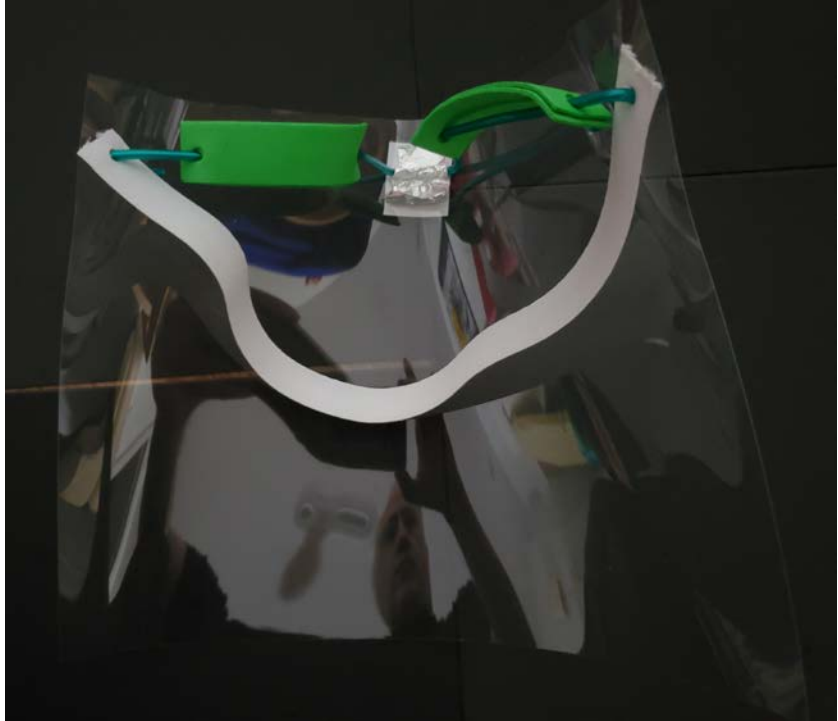


Simple Materials – Fast Fabrication No special tools needed

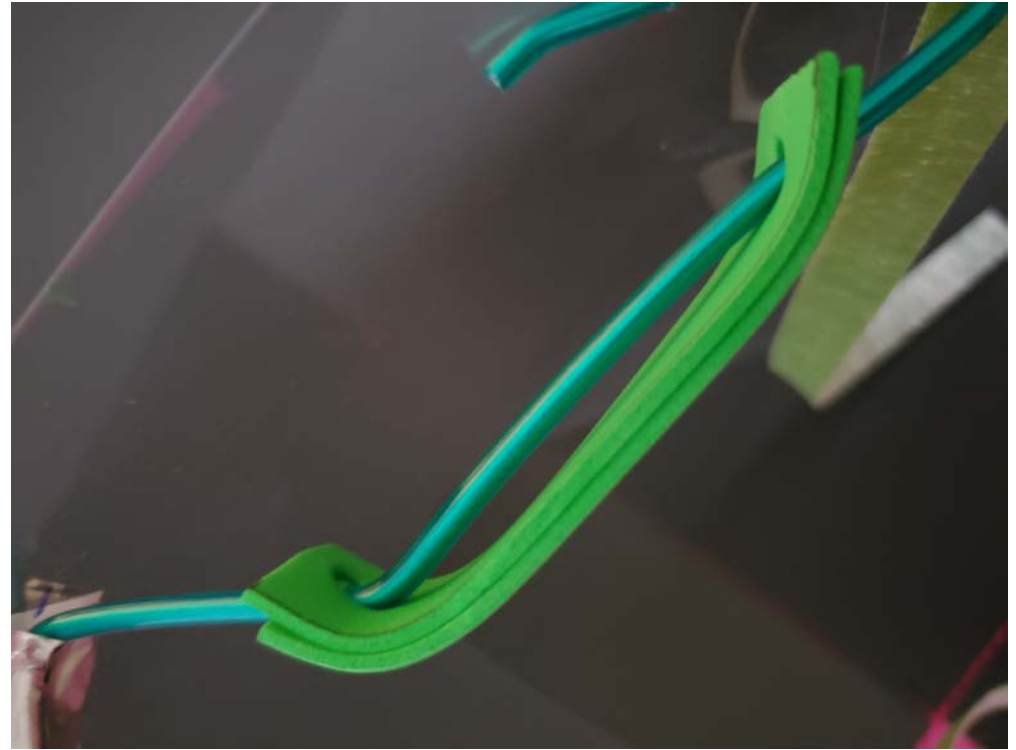


Note 3D printing is slow takes 2-3 hrs ..and needs a 3D printer!

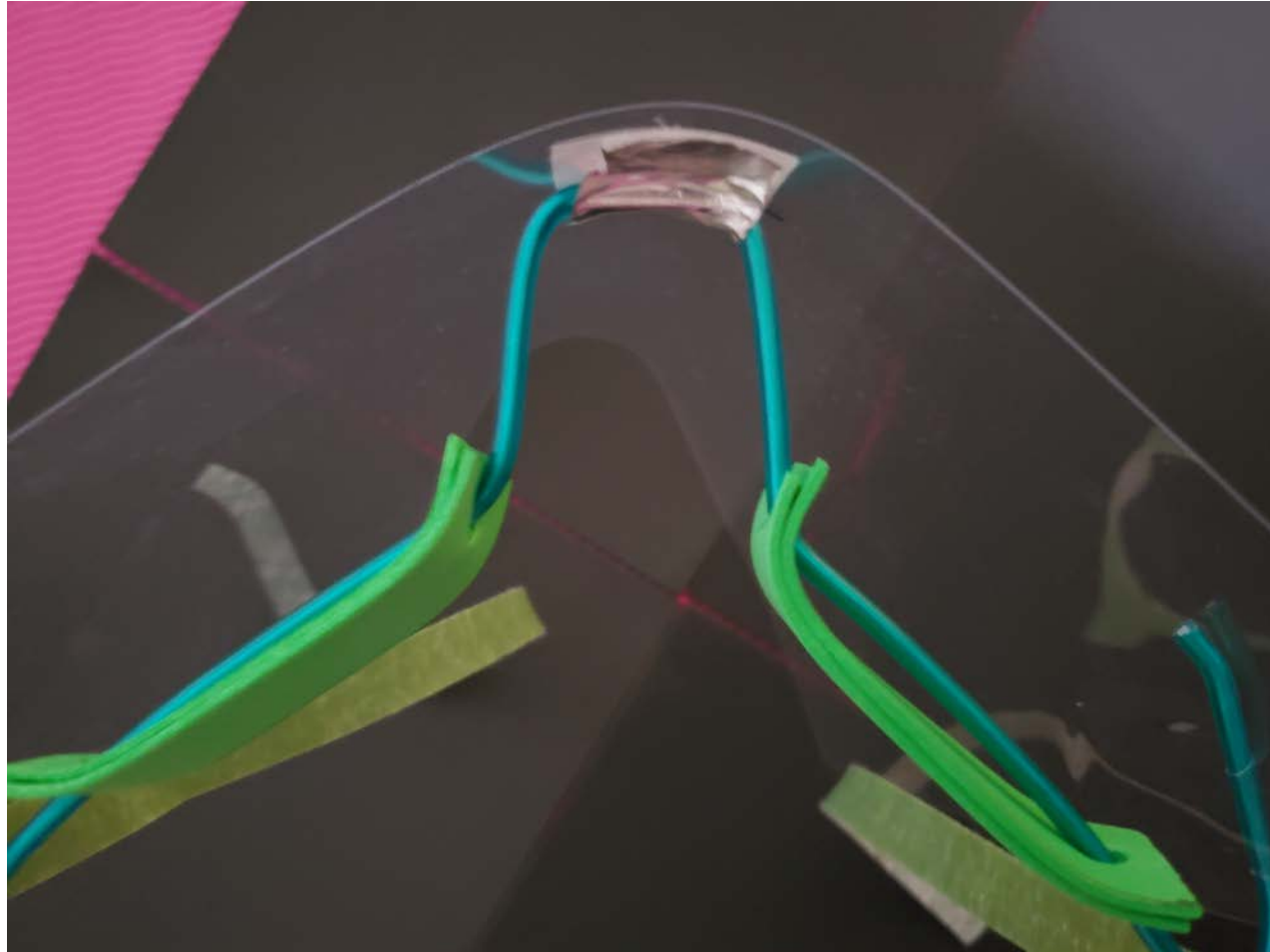
Adjustable head strap or elastic band



Comfort pads – two different desings



Standoff with face with no interference with
eyeglasses or nose....
Stand off adjustable, if needed

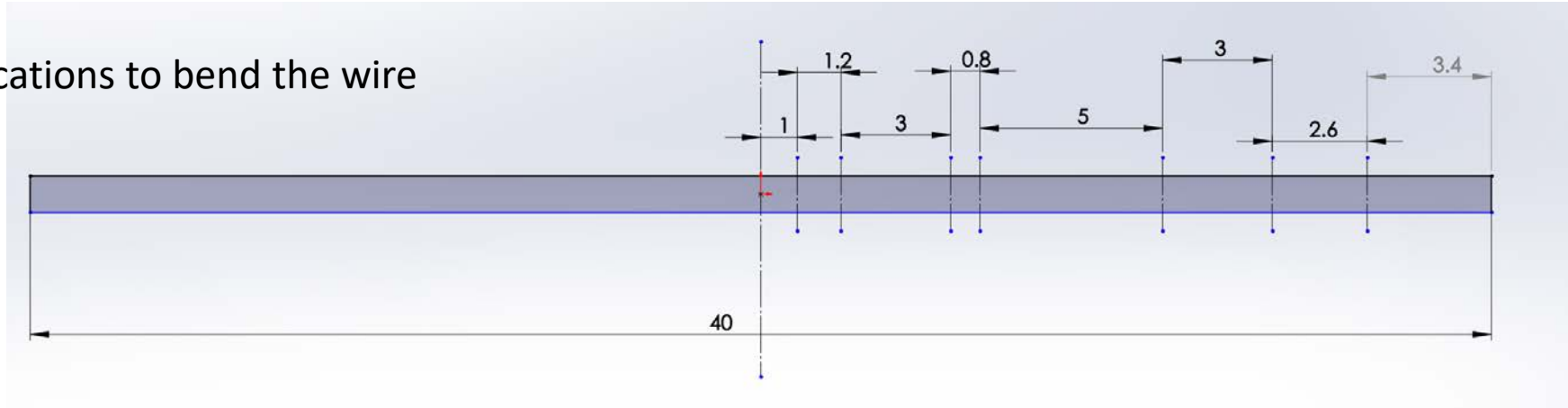


Can be used as disposable or reuse by changing visor sheet in one min.



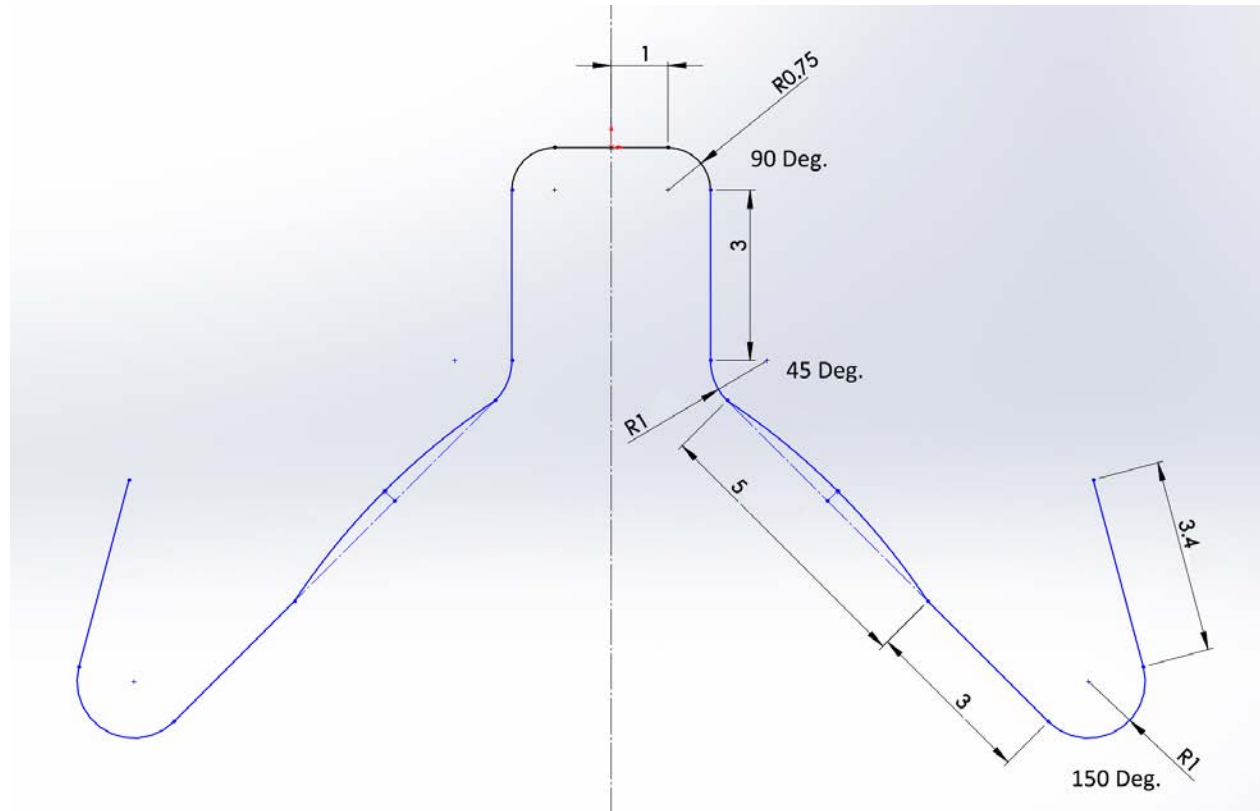
Dimension in cm

Unbent wire with locations to bend the wire

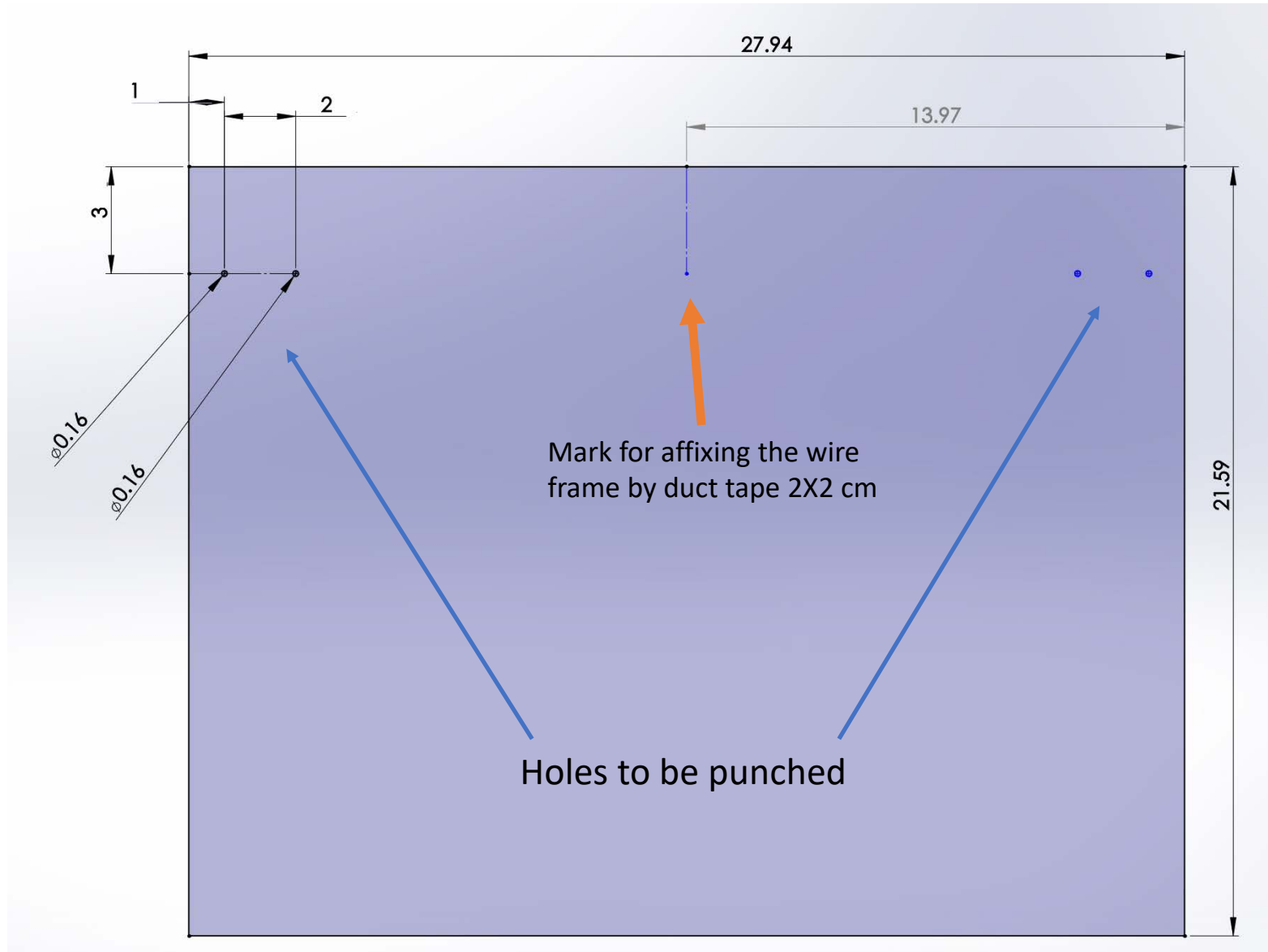


Bent wire frame

This drawing can also be used to make a jig for bending the wire rapidly (manually)

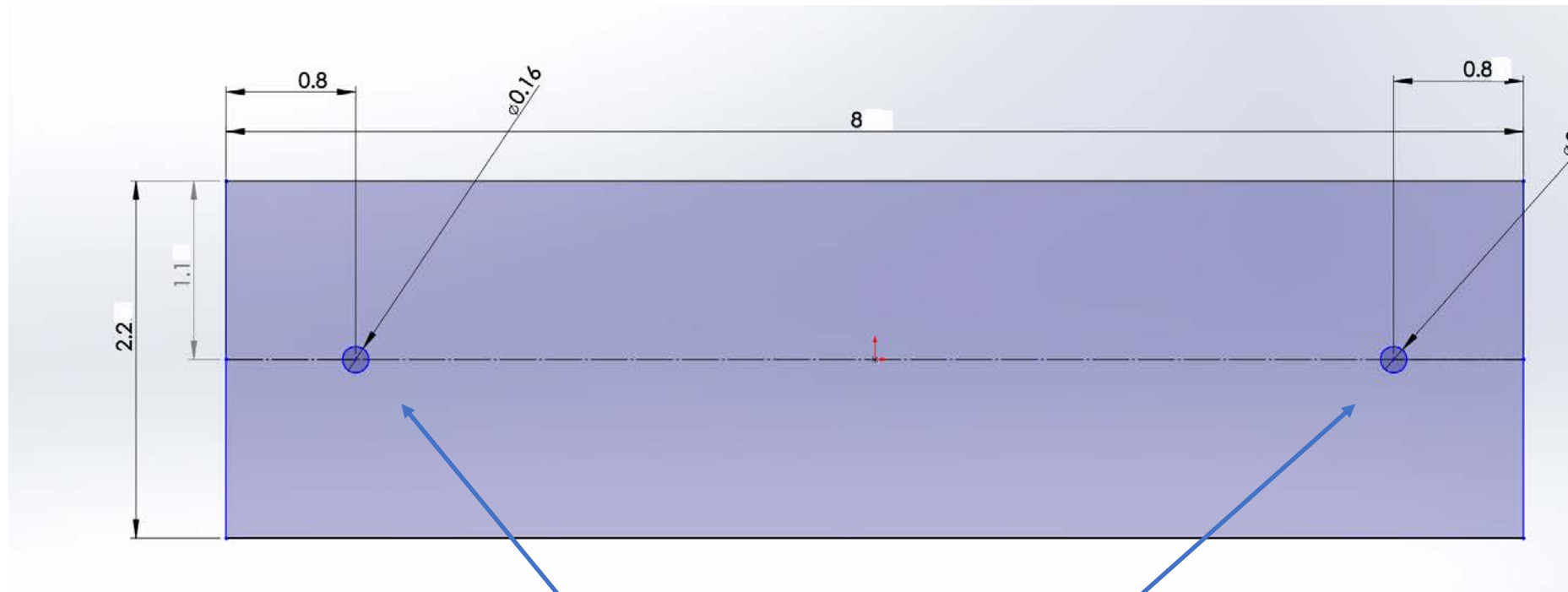


Visor processing diagram for location of holes (clear transparency sheet in letter size)



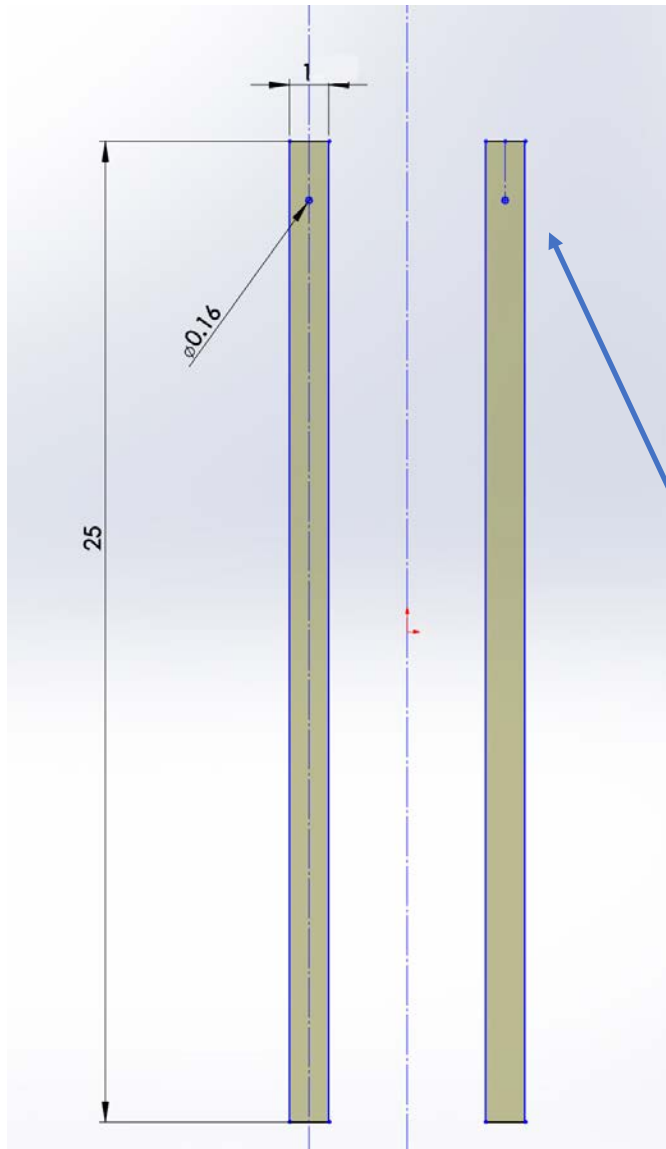
Comfort pad – dimension in cm

(Any foam pad with a min thickness of 2 mm or larger)

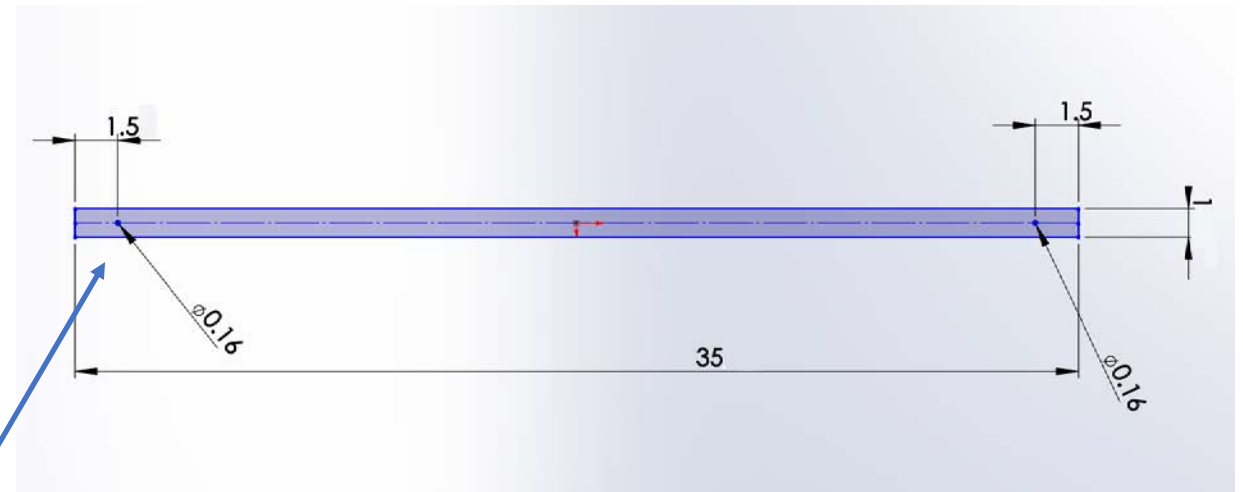


Holes to be punched

Velcro straps



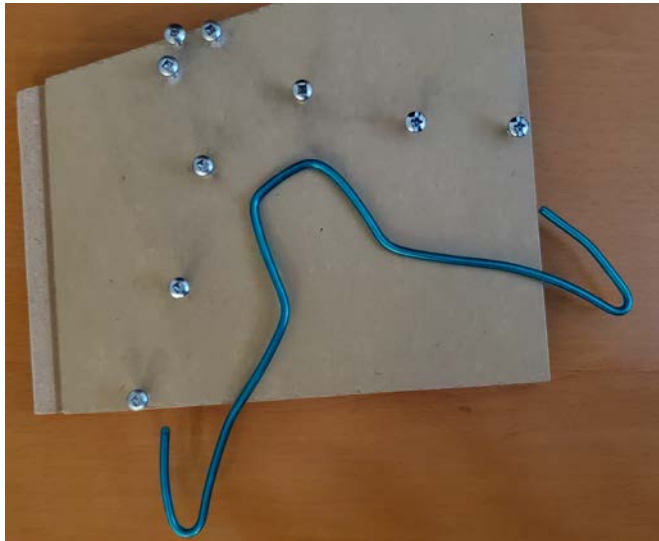
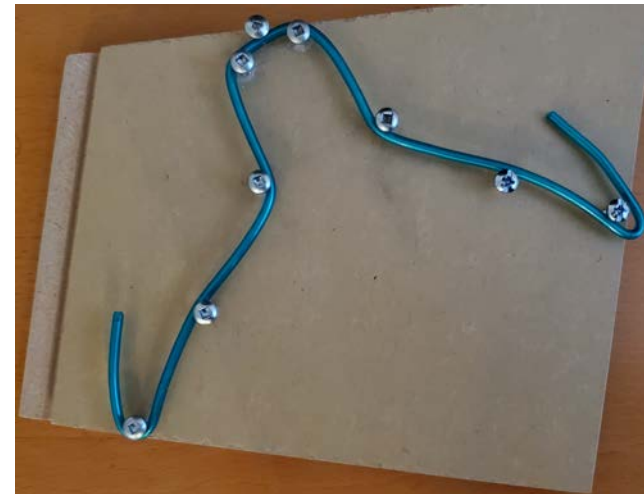
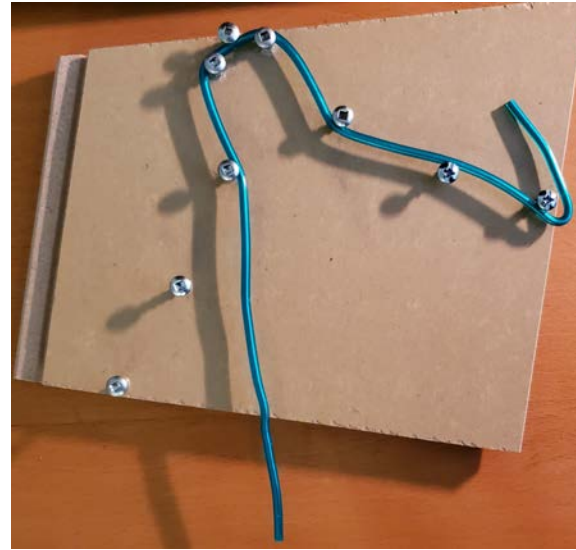
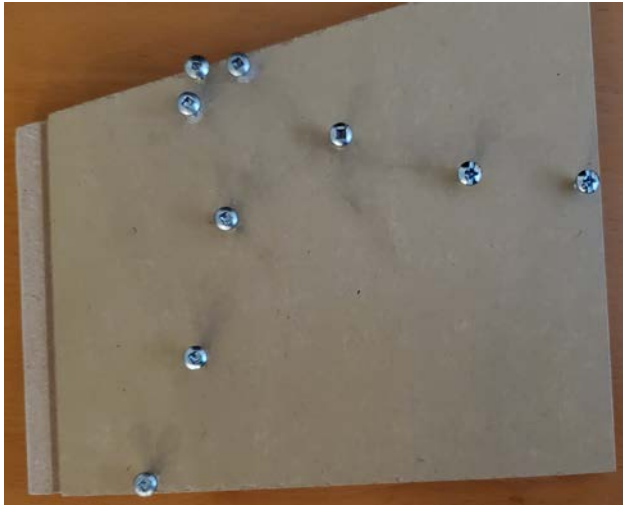
single piece elastic



Holes to be punched

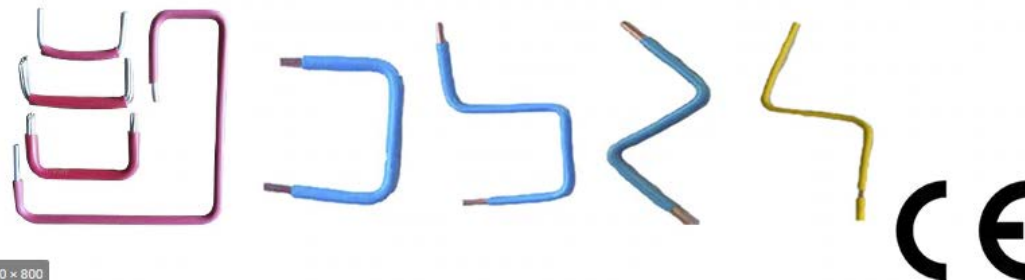
Dimension in cm

Jig to manufacture rapidly the bent wire part under 1 min



Automated wire bending

- With an automated wire bending machine 1000s, per day can be produced.



Soaking the wire in bleach for 30 min.



- No effect is seen on the wire coating or wire itself (exposed ends)

Before



After

