

Building documentation on the prototype of a basic CPAP hood

The following build uses a slice of KG-tube, zipties, adhesive tape, a 200µm thick HDPE dustbag, an unisize swimming cap (available in latex or silicone) and a lenght of cord. This is not yet a complete build, details on screw feedtroughs are to follow. Validation of the design still needs to be done.

Do not use or test a build without medical supervaillance. A second person should be present for safety reasons under any circumstances. Keep out of the reach of children. When welding plastics, fumes and the danger of fire may occur, use a ventilated workshop and keep means ready to extinguish a fire.

Begin making a U-profile ring.
Cut a minimum 2cm thick slice from a DN250 tube.
Smooth away the edges.
Add rims made from tape and zipties as follows:



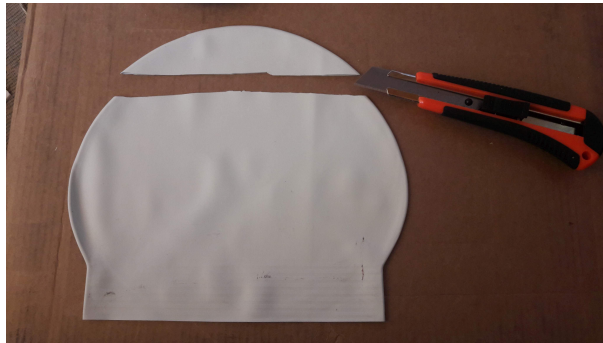
Attach zipties to a length of tape, clip of their ends. Smothen the edges on sanding paper.
Roll them in for one full turning.



Attach doulbe faced tape to the sticky side over the full width.



Then attach the ribbon to the slice of DN250 Tube.



Cut a second hole into a swimming cap, opposite and about the same size as the first whole. Haul the swimming cap over the ring. Work some tension into the rubber skin so the opening for the neck becomes wide enough and does not effect any more tension than required.



U ring

Haul over the dustbag. If it is to wide, either use loads of double faced tape to fix it to itself along the ring wherever possible.

As an alternative trim the dustbag to a smaller size, using baking paper and a hot iron. This works only with thick foils, use a soft material as an underground. Slide a sheet of baking paper between the layers of foil to get a clean seam. Use more baking paper as an underground and another sheet between the foils and the hot iron. To ensure for a good sealing, fold and weld the resulting flap to the bag where it will later be bound to the ring.





Wrap a multiple windings of string around to fix it.
Fold the plastic foil back and attach it to itself with another layer of double-faced tape.

