KLAUS HÜNIG

The Face Mask Kit

Material for 5 face masks (community masks*) with instructions
Simple construction using scissors, pencil, and ruler

Filter fleece dermatologically and allergologically tested

*Covers mouth and nose
Traps droplets from your breath*

Wire inserts over the nose and at the sides ensure a good fit

Folded fleece adapts to the individual shape of your face

Freely choose size to fit children or adults. Standard width: 18cm

Reusable after 10 minutes at 90ºC in the oven (inactivation of viruses)

Elastic cord for any head size and a comfortable fit

Self-adhesive holders made from food safe foil

A community mask is a homemade protection for mouth and nose. It is not a medical product or personal protective equipment (PPE) in the legal sense of the word. It is only meant for non-professional use.

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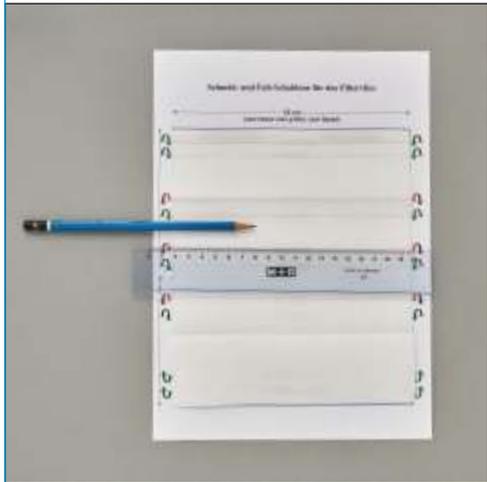
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Instructions for the construction of a face mask

The construction is explained thoroughly in the following steps. You will see that it is not complicated and mostly self-explanatory. Making the first mask takes about 20 to 30 minutes. With the practice gained, making the other ones will take less time (10 minutes). Please read each step fully before commencing. Don't forget to disinfect or wash your hands before you start.

This kit contains:

5x filter fleece, 5x printed adhesive film, 5x twist ties, 250cm elastic cord (you need about 2x 22cm for each mask).

You also need:

A pair of scissors, a ruler, a pencil, a nail to punch the holes, and a tea spoon to press down the folds of the filter fleece. This can also be done with a flat iron on low heat.

A. Cutting the material

Step 1: Cut one of the five adhesive films into 9 pieces as indicated by the printed scissor symbols. You now have two large dark blue side holders, two white strips to secure the upper reinforcing wire, four small quadratic corner attachments, and a dark blue fixation strip for the bottom fold (Fig 1).

Step 2: Take one filter fleece and cut it into a rectangle of 18 x 21cm. If necessary, you can adapt the width for different head sizes (Fig 2).

Step 3: Take one of the 14cm long twist ties and cut off the two wires from the paper strip. Bend the ends of one wire 2-3mm back on themselves to so they will not stick through the fleece. This wire will be needed in Step 5. Cut the other wire in half so you have two 7cm long pieces that will be needed in Step 7 where they will be glued into the large side holders (Fig 3).

B. Preparing the filter fleece

Step 4: Lay the cut-to-size filter fleece on top of the folding pattern and copy the green and red folding lines onto the fleece, using a ruler and pencil. You can make use of one of the original folds, as you don't have to be too accurate (Fig 4).

Green means: fold forwards (towards you) along this line, red means: fold backwards (away from you).

Step 5: Use the two white adhesive strips to secure the 14cm long wire centrally to the top of the fleece as indicated on the folding pattern (Fig 5).

C. Folding the fleece

The filter fleece is folded in 10 places, following the order given on the folding pattern. The folds make the mask more pliable so that it can follow the contours of your face more easily. Because of the folds, most parts of the finished mask will be two layers thick. Press down each fold with the back of a spoon so that it stays flat.

Step 6: Fold the top part of the fleece with the glued-on wire forwards along the first pencil mark (Fold ①) and press down the fold with the spoon. Fold forwards again along the second mark (Fold ②) and secure the double fold on the far left and right with an adhesive corner attachment (Fig 6).

Step 7: Fold along the next marks first backwards (Fold ③), then forwards (Fold ④). Repeat this twice (Fold ⑤ and Fold ⑥, Fold ⑦ and Fold ⑧). Finally fold the bottom part forwards twice (Fold ⑨ and Fold ⑩) and secure the double fold with two corner attachments in the same way you secured the folds at the top.

Now use the blue fixation strip to secure the middle of the bottom fold as well (Fig 6).

This fixation strip doesn't only secure the bottom fold, it also helps to show the right way up at a glance on the inside of the mask.

D. Fitting the side holders

The side holders have a star on one half and printed text on the other. The halves are divided by a dashed line along which the holders are folded around sides of the fleece. The half with the text is stuck to the inside of the mask, the half with the star to the outside. The 7cm long wire pieces are fitted in the inside of the fold.

Step 8: Lay the folded fleece in front of you with the inside facing up. Weigh the right hand side down with a book to keep the folds flat. Take one of the side holders and stick the half with the text onto the left side of the folded fleece, so that its edge is right under the dashed line. The holder is slightly longer than the fleece so it protrudes a bit at the top and the bottom (Fig 7).

Step 9: Turn the fleece over and place one of the 7cm long wires along the edge of the fleece (Fig 8). Now fold the holder along the dashed line and stick it onto

the fleece are inside the fold. At the top and the bottom the holder is glued to itself along a narrow strip (Fig 9).

Repeat the last two steps with the other side of the fleece and the other side holder.

E. Fitting the elastic cords

Step 10: Place the mask with the front facing upwards onto a suitable support (e.g. a folded newspaper or blanket) and punch small holes through the marks to the left and right of the star (Fig 10).

You can widen the holes a bit with a toothpick or the tip of a pencil until they are about 2mm wide.

Step 11: Cut off two 22cm long pieces of the elastic cord (adjust the length if needed), thread the ends through the holes, and secure them with loose knots on the other side (Fig 11). If the knots are too tight, they might slip through the holes.

Step 12: (optional) Cut off the corners of the side holders parallel to the white frame line (Fig 12).

Your homemade face mask is now finished and ready to be used. Please read the following questions and answers about its correct use.

Questions and Answers (FAQ) about your homemade face mask:

1. What is the difference to a medical face mask?

A proper medical mask has to be made according to certain rules and regulations. It has to be tested and certified. Obviously this is not possible with homemade masks of any kind. Therefore your mask is not a medical product in the sense of the law. Masks like yours are usually called "community masks", "dust masks", or "anti-pollution masks". They should only be used in cases where certified medical masks are not necessary or not available.

2. How does my homemade mask work?

The mask diverts the air when you breathe so that much of it goes through the filter fleece. This reduces its speed, and at the same time many of the small droplets in your breath are caught by the mesh of the fleece. This way your mask can reduce the risk of transmitting germs and viruses to other people in your vicinity.

3. Are there more reasons to wear a face mask?

Yes! Wearing a mask in addition to keeping a distance of 2 metres to others reduces the risk of transmission considerably. It is a sign of respect and signals your awareness of the need for social distancing to others. The mask also reminds you not to touch your face with your hands as long as you haven't washed them thoroughly.

4. What is the correct way to wear my mask?

The mask needs to cover your face properly. It is important that its edges lie as flat as possible against your skin. To achieve this you can bend the wires so that the mask follows the contours of your face. The elastic cord should not be too loose, but at the same time not so tight that it hurts your ears. Before and after using the mask you should always wash your hands properly with water and soap for at least 20 seconds.

5. How can I fold the mask without bending the wires?

It is very easy: First fold the sides of the mask upwards so that the side wires lie on top of the nose wire. Then fold the fleece upwards.
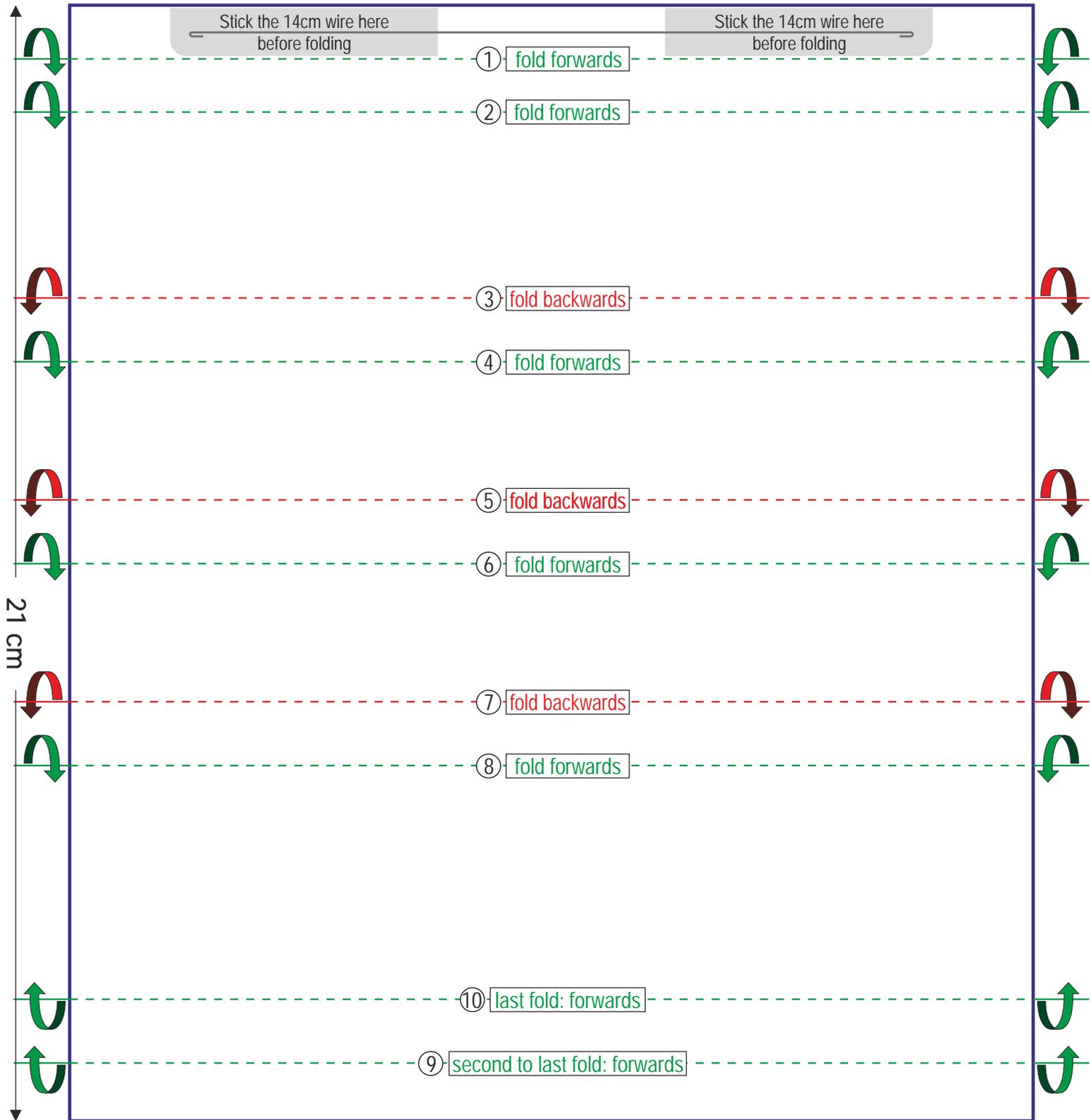

6. For how long can I wear my mask?

You need to change your mask as soon as it starts getting moist and you need to sterilise it before you can use it again. This can be achieved by heating it in the oven at 80°C to 90°C for about 10 minutes or by using a flat iron on low heat (80°C - 100°C). This neutralises all potentially present viruses. <u>Damaged masks should not be used anymore and should be discarded</u>.

Cutting and folding pattern for the filter fleece

18cm
(or smaller / larger, if needed)

21 cm

Stick the 14cm wire here
before folding

Stick the 14cm wire here
before folding

① fold forwards

② fold forwards

③ fold backwards

④ fold forwards

⑤ fold backwards

⑥ fold forwards

⑦ fold backwards

⑧ fold forwards

⑩ last fold: forwards

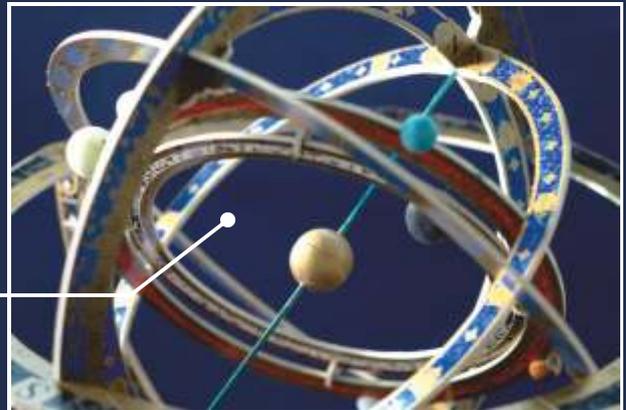⑨ second to last fold: forwards

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