

# SOFTAG

Tagless

## Make Your Own Mask

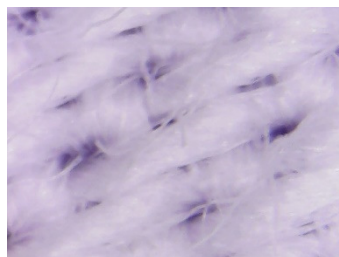
This is a step by step manual for making the reusable face masks – HK Mask. This manual does not have patent. Please forward to those who have difficulties to purchase face masks or even who can put to mass production.

### 1.0 Needed Material for Production



To ensure the user can produce a 100% functioning HK mask, the following items are recommended:

- ◆ **Paper Pattern of the suitable masks** (Please download from [www.softag.co](http://www.softag.co))
- ◆ **100% cotton fabric**



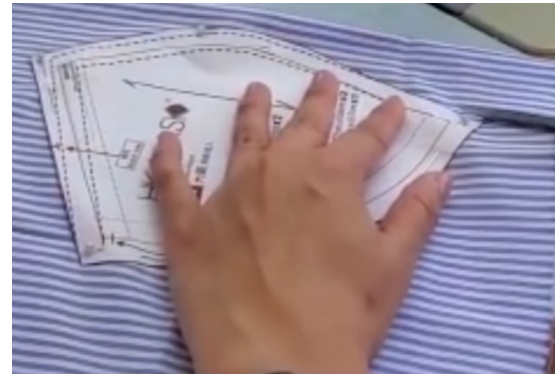
Patten of the fabric under 100x magnification

- ◆ Aluminum wire
- ◆ Elastic yarn
- ◆ Cotton Tapes

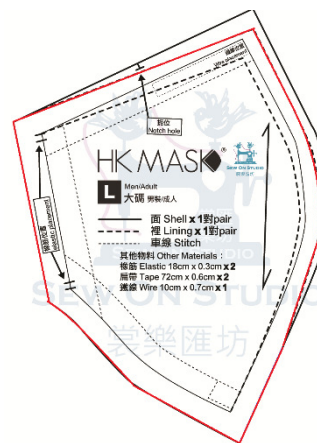
## 2.0 Star Making the HK Masks

1. Fold the fabric in half, place the paper pattern on the fabric, pin the paper pattern and cut along the edge, then remove the pin.

\*\*\* Important: Outer fabric is cut along the solid line. Inner fabric is cut along the broken line



Outer Sheet

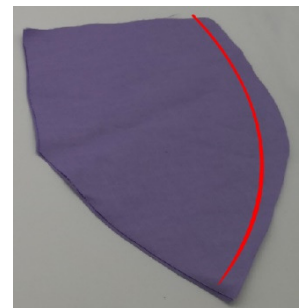


Inner Sheet

2. Stack the outer sheets face to face (right side to right side). Sew the 2 sheets about 1 cm away from the edge. Do the same to the inner sheets.



2 sheets

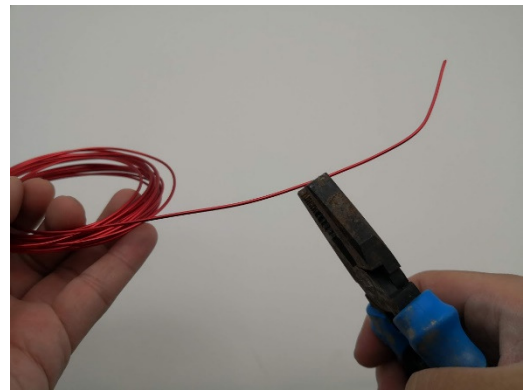


2 sheets

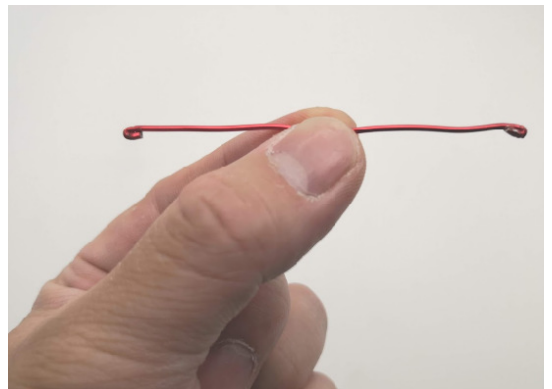


Work in Progress

3. Cut an aluminum wire a 8cm – 10cm length



4. Buckle the both ends of the aluminum wire to make sure it will not hurt the user.



5. Fold the top side of the outer sheet inward about 1 cm away from the top. Sew to fix the folding position. Put the aluminum wire at the center of the outer sheet. Fold the bottom side of the outer sheet inward 1cm away from the bottom.

6. Sew the top left and right side of the outer sheet about 4.5cm away from the center of the outer sheet to fix the position of the aluminum wire.



7. Repeat step 5 to the inner sheet. (no need to insert aluminum wire)



Work in progress

8. On the top and bottom part of the outer sheet, sew an elastic yarn on both right and left side of the right side 1cm away from the edge.



Work in Progress

9. Sew the inner and outer sheet face to face about 1cm away from the edge.



10. Turn the HK Mask inside out.



11. Sew a 2cm x 0.5cm rectangle on the bottom of the HK Masks. By pulling out the 2 corners of the filter, make sure the filter 100% cover the HK masks.



12. Place the tapes on the right and left side of the HK Masks. Sew a tunnel so that the cotton tapes can move back and forth along the tunnel. A HK mask is made.





\*\*\* Important: Use only after washed and Ironed

### 3.0 How to Clean the HK Mask

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1. Wash with water and soap the HK Mask.



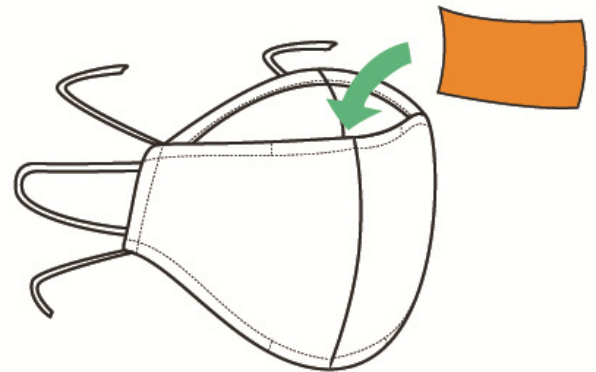
2. Iron to sanitize the HK Masks



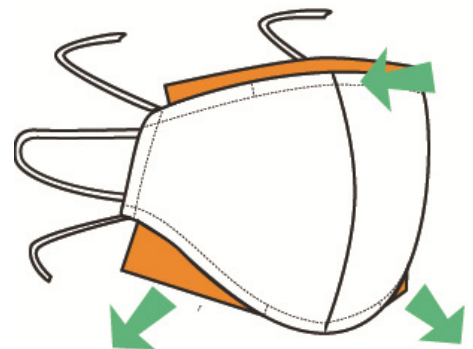
\*\*\* only the body of the HK mask is washable and reused. Remember to replace filter every 4 hours.

## 4.0 How to wear the HK Mask

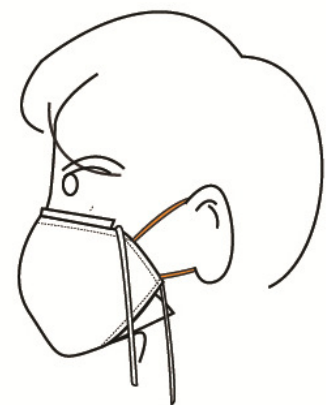
1. Open the HK mask, put a filter inside the HK mask from the top.



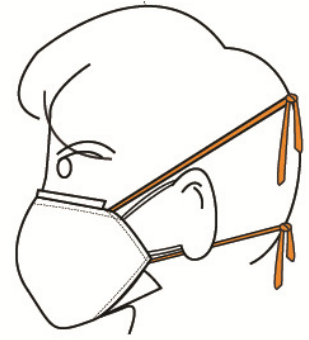
2. Close the HK mask, pull the corner of the filter to the bottom and the top of the face mask to ensure the filter can cover the whole mask.



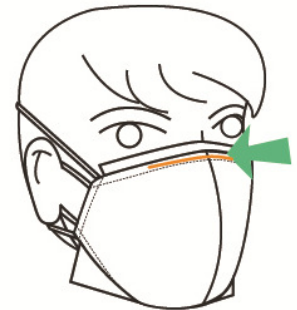
3. Hook the ears on both sides with the elastic yarn



4. Tighten the lower tapes around your necks. Then tighten the upper tapes behind your head.



5. Press and ensure the aluminum wire stay tight along with your nose.



## 5.0 Choose the Filter

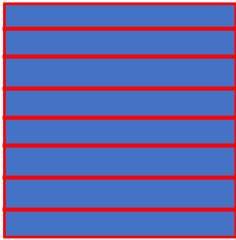
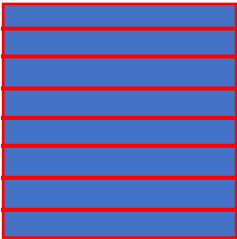
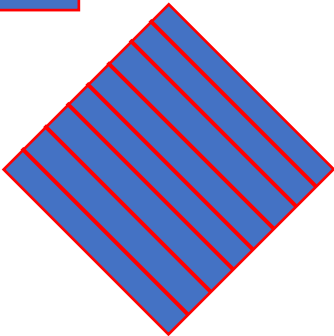
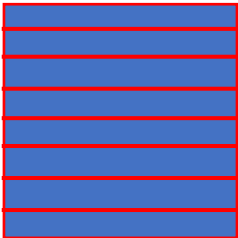
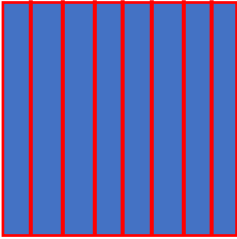
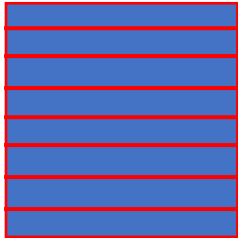
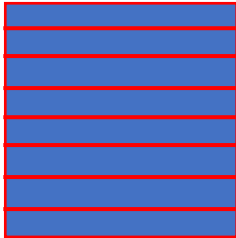
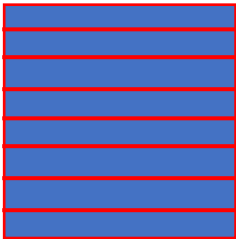
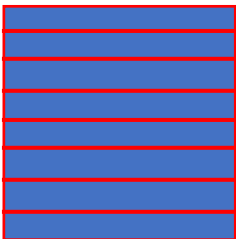
Sample	Filtration Efficiency (%) @0.3µm Particle Size	PD (mmH <sub>2</sub> O) flow rate: 32L/min
Mask Only	8.70%	2.3
1 Tissue Paper	45.75%	9.1
2 Tissue Paper (0° + 45°)	69.20%	16.8
2 Tissue Paper (0° + 90°)	70.10%	16.9
2 Tissue Paper (0° + 0°)	69.60%	17.1
3 Tissue Paper (0° + 0° + 0°)	83.00%	24.8
1 Kitchen Towel	73.70%	37.1
2 kitchen Towel (0° + 45°)	89.20%	60.7
2 kitchen Towel (0° + 90°)	91.30%	66.4
Range of Surgical Masks available in the market	7.51%-88.2%	0.42-5.82
N95	>95%	-



Facial Tissue



Kitchen Towel

Sample	Outlook				
1 Tissue Paper					
2 Tissue Paper (0° + 45°)		+			
2 Tissue Paper (0° + 90°)		+			
2 Tissue Paper (0° + 0°)		+			
2 Tissue Paper (0° + 0°)		+		+	