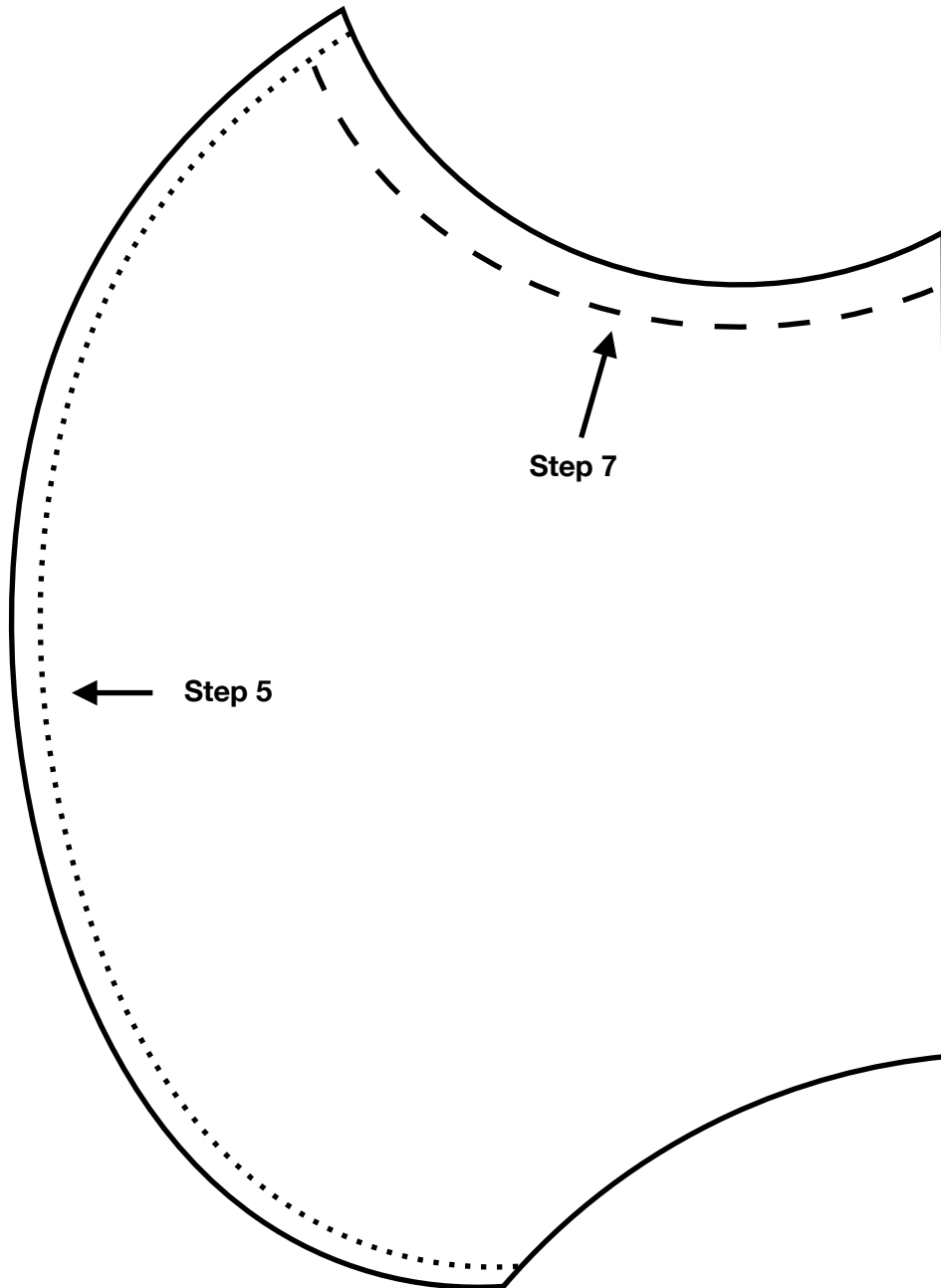


# RagMask v1a

[ragmask.com](http://ragmask.com)

## Step 1: Print Page 1 and 2

(you don't need the other pages, save your paper)

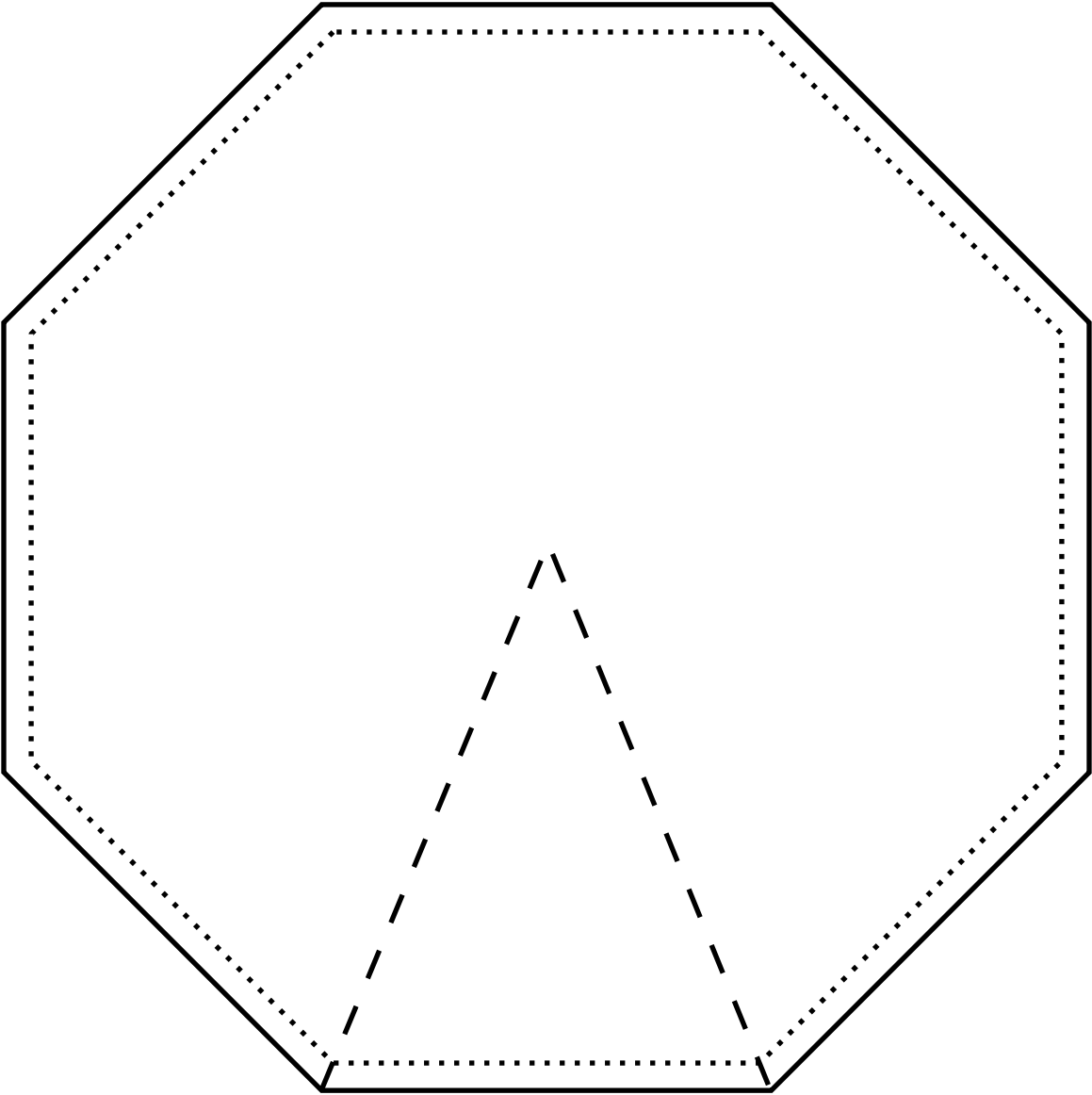


## Step 2: Check the scale

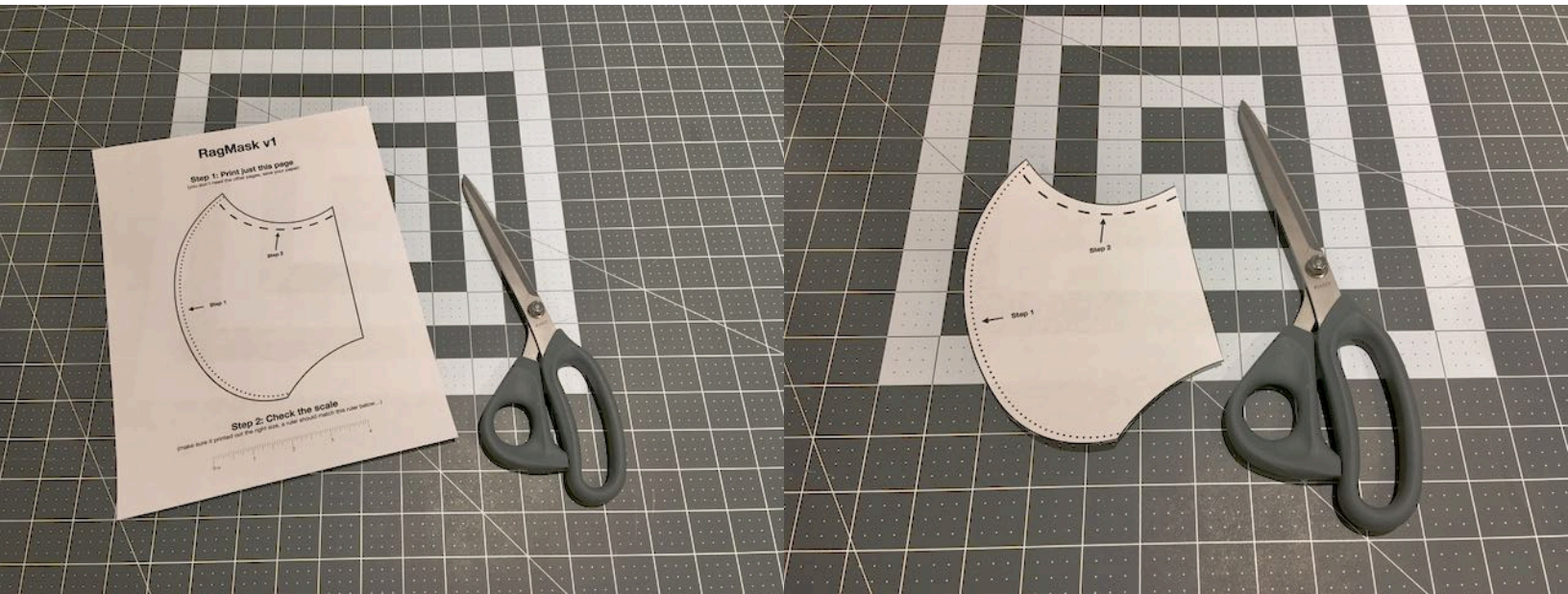
(make sure it printed out the right size, a ruler should match this ruler below...)



**Filter Insert Template**  
(see step 10 and step 11)

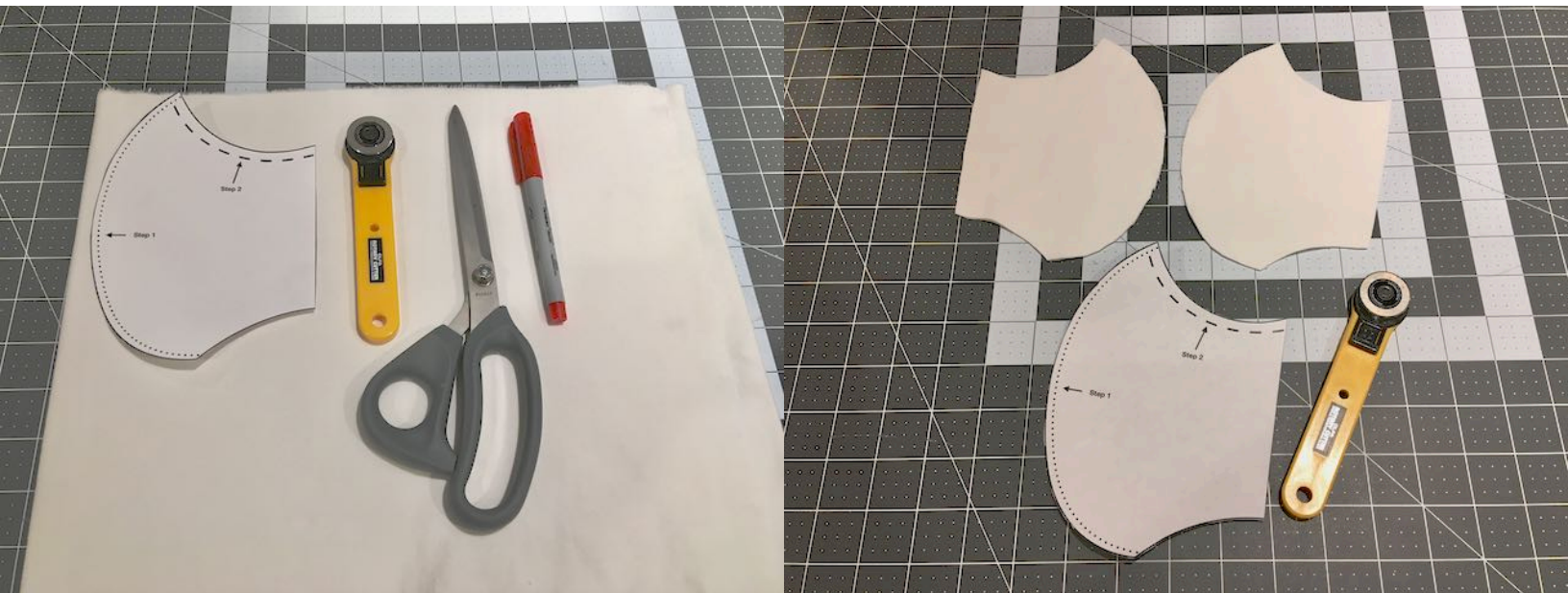


### Step 3: Cut out mask template



### Step 4: Cut fabric

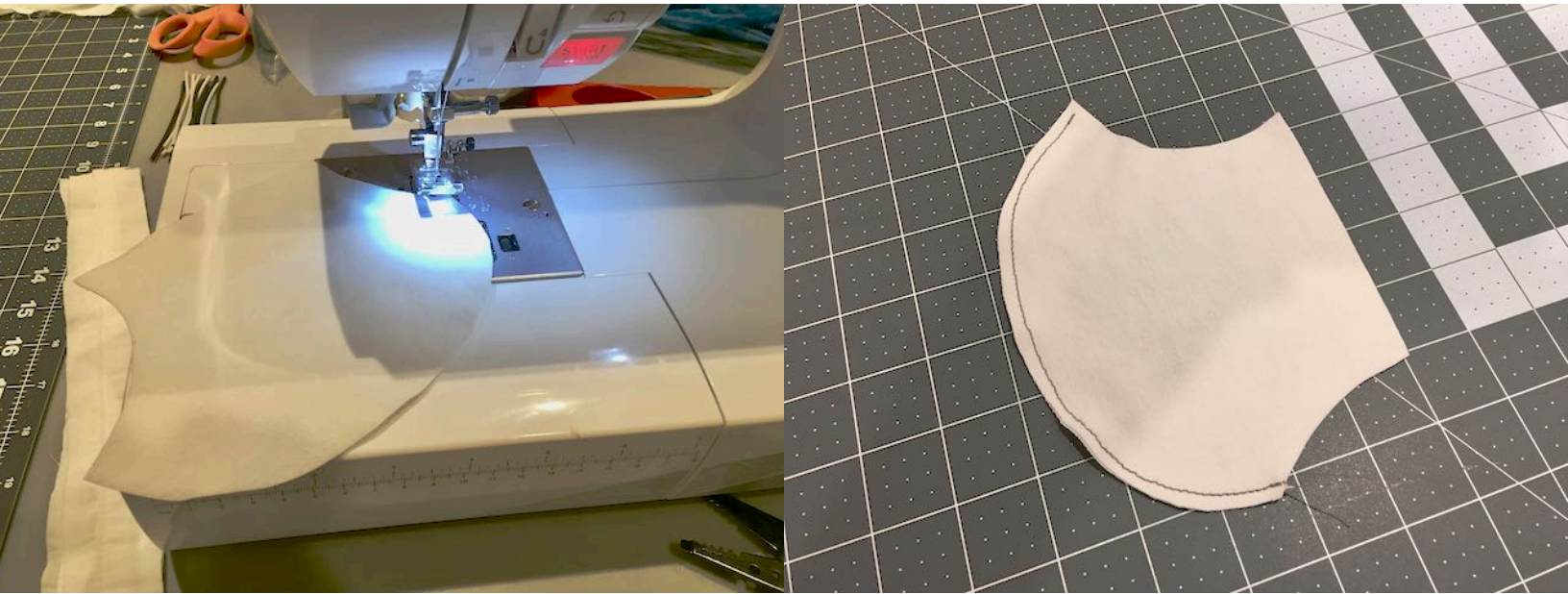
Gang cut as many layers as you can do accurately. Use clean, breathable polyester/cotton or blend. Don't wash with perfumed detergents. You need two pieces per mask.





## Step 5: Sew front seam

Place the two cut pieces of fabric together and sew a seam (3/16" seam allowance)



## Step 6: Flip inside out

(or rather, right-side-in)





## Step 7: Rough hem top edge

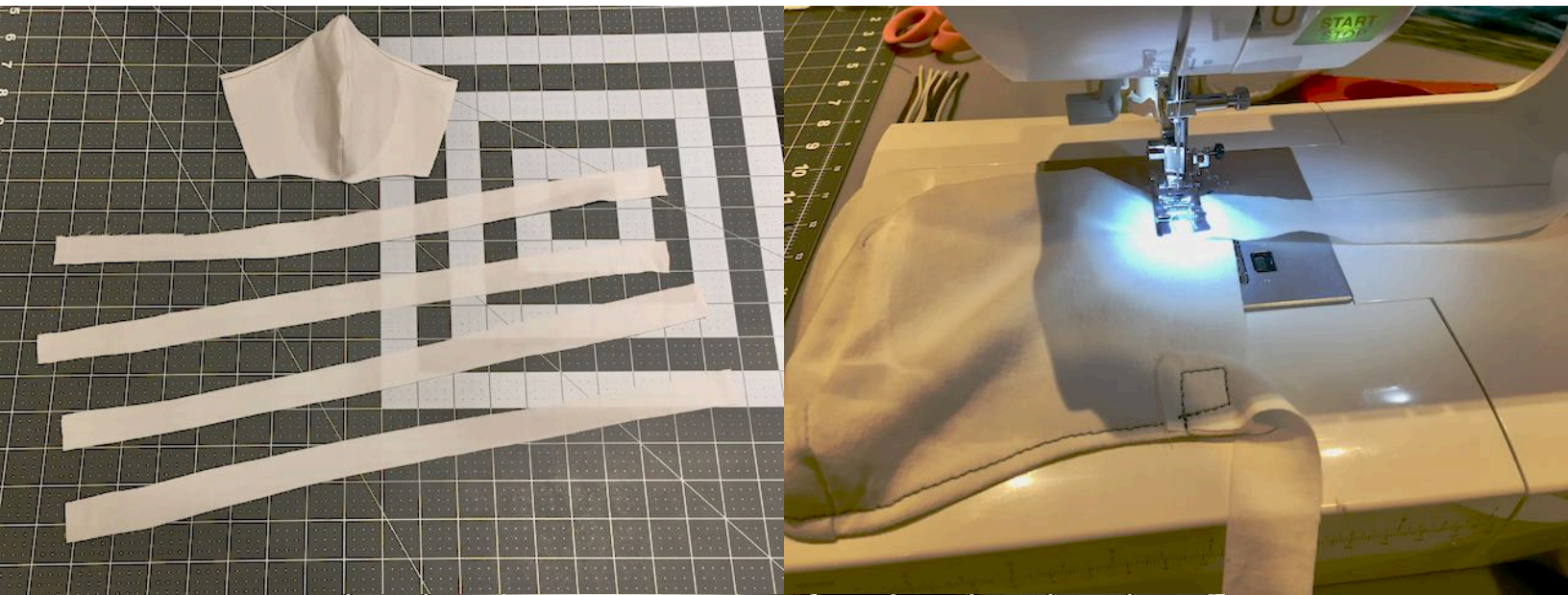
(we need to make a channel for the nose wire to slip into, fold over about 3/8")





## Step 8: Make ties with scraps — (4) @ 1"x18"

And sew them onto the outside corners of the outside of the mask (you want it to seal the edges of the mask tight against your face)





## Step 9: Cut 4" bendable wire for nose

We used 14ga copper wire since it's all we had, but clothes hangers or anything else bendable that holds its shape could work. Insert into slot and bend into approximate nose shape.



## Step 10: IMPORTANT NOTE PLEASE READ

Without the filter part on the following pages this mask is INEFFECTIVE. The idea here is that this part is designed to hold a FILTER tight against your nose and mouth. It is washable, and the filter part is disposable.

THIS PART IS NOT A FILTER, VIRUSES GO RIGHT THROUGH IT

So put this part to the side and never use it without a real filter.





## Step 11: Make Filter (SUBJECT TO CHANGE)

Use 2 layers of MERV-14 or better air conditioner filters, (or something else effective\*) plus a layer of very breathable cotton (that goes against your nose and mouth). Cut into a 6"x6" square with clipped corners and sew together.

Note that air conditioner filters have an AIR FLOW DIRECTION. When disassembling air conditioner filters, note direction, and make sure the **arrow is pointing towards your face**.





## Step 12: Hem Filter

Hem one side of the filter to form a cone shape.





## Wear

Insert filter into mask (fabric side against face).  
Adjust nose wire to fit snug. Tie tight against face  
and check for any gaps.

The outer mask theoretically is washable /  
disinfect-able. I have no idea if it's possible to  
disinfect a filter, and assume it is not. Please  
assume they are disposable.

