

# How to Mask Canopies

This article describes IPMS member Justen Hanna's process for masking plastic aircraft model canopies.

## Tools and Materials

You will need:

A brand-new, un-used #11 X-acto blade

Regular frosted Scotch tape

Model masking tape (Tamiya for example)

A blob of Silly Putty (the real stuff, not a knock-off brand)

Tweezers

A small piece of picture frame or similar glass with the edges taped for safety.

Metal straight-edged ruler

Model Master Clear Parts Cement and Window Maker

Sanding sticks

Small scissors

## Masking a Canopy With Straight Edges

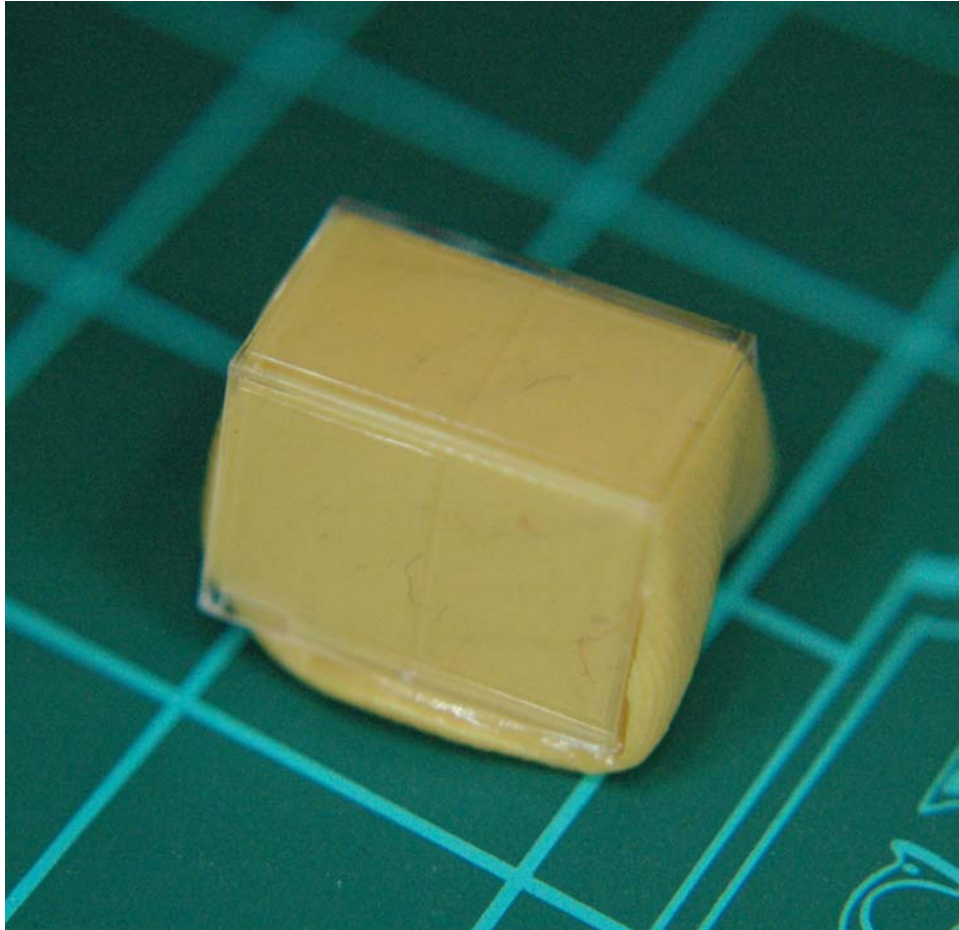
For this demonstration, we are masking a 1/48 scale Me-109 canopy.

It is essential that you start with a fresh X-acto blade, even if the blade has been used for a previous canopy, it is considered worn out for this purpose.

The first step is to pack the inside of the canopy with Silly Putty. This gives the part support, provides good handling,

and provides a solid colored background to make the framework easy to see. It is important to use real Silly Putty as it leaves no oily residue.

(Photo 1)

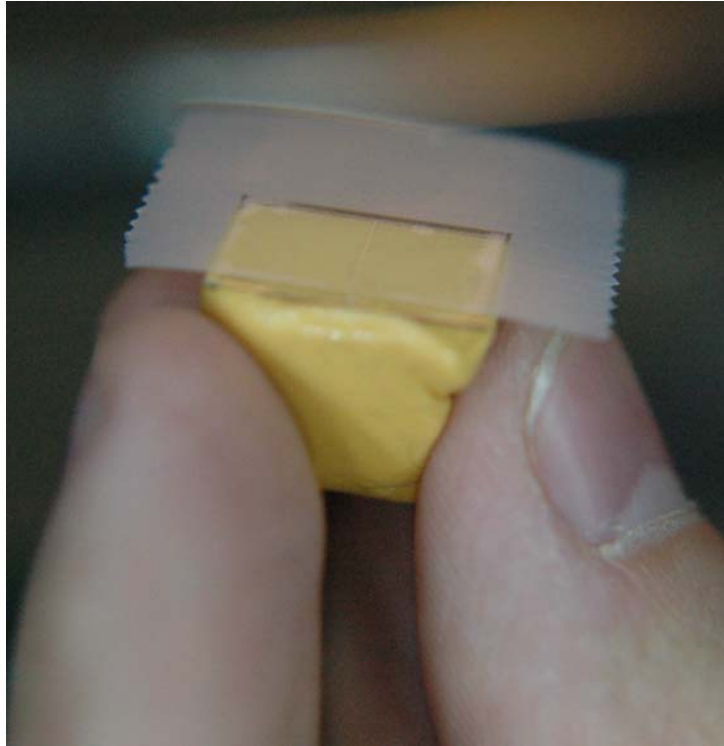


(Photo 1)

The Me-109 has large, single pane windows on the sides of the center section of the canopy.

Starting with a piece of Scotch tape, line the edge of the tape along the longest frame of the canopy, in this case, the bottom edge. You now have one frame masked without cutting anything!

(Photo 2)



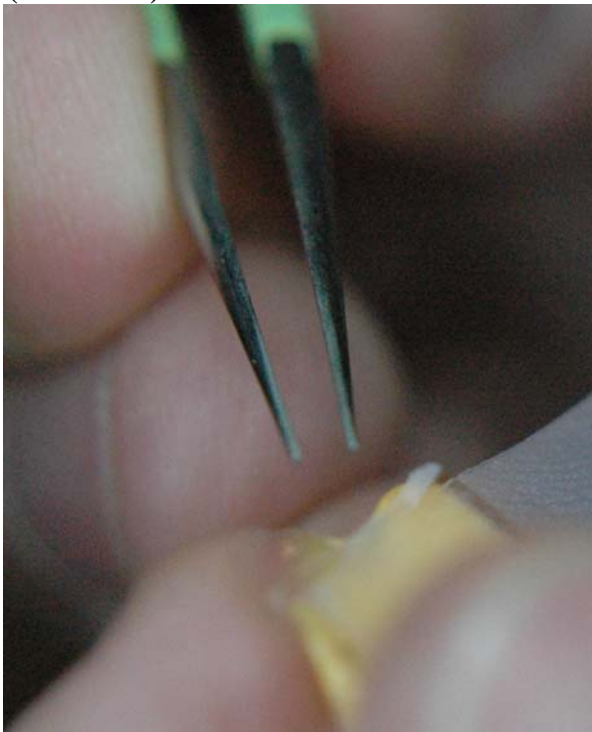
(Photo 2)

With the longest frame masked, carefully place the X-acto blade against the edge of a perpendicular frame.



With the edge of the blade lined up with the canopy frame, apply pressure straight down until you hear or feel a little ‘snap’ as the blade cuts through the tape. You may need to work the blade back and forth by rocking it until it cuts through.  
(Photo 3)

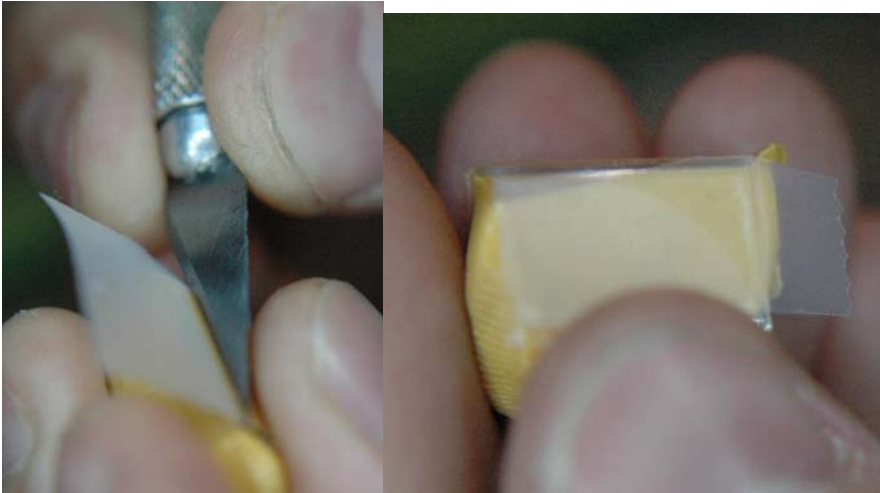
(Photo 3)



Use a good pair of tweezers to Remove the excess tape. These tweezers come highly recommended and can be purchased at the Barrel Store.  
(Photo 4)

(Photo 4)

At this point, it is important to check that the Silly Putty has not gotten pushed too far into the canopy part as this can result in cracking the plastic. Re-seat the Silly Putty if necessary. Now two edges of the frame are done.



Using the same procedure cut the remaining canopy frames.  
(Photo 5)

(Photo 5)

Remember, you should be cutting through the tape with pressure, not by drawing the blade across the tape. This insures a clean, straight cut.

When the frames have been all cut, use a fine grit sanding stick to rough up the exposed frames. This gives some added tooth for the paint to adhere to and removes any residue left by the tape.

(Photo 6)



(Photo 6)

## Masking Complex Curves

While the method outlined above is great for nice, straight panels, not all aircraft panels are straight. This next section describes how to mask curved panel lines.

Step one is to make scale masking tape strips. To do this, lay a strip of model masking tape on a very firm flat surface like the picture frame glass mentioned in the materials list.

(Photo 7)



(Photo 7)



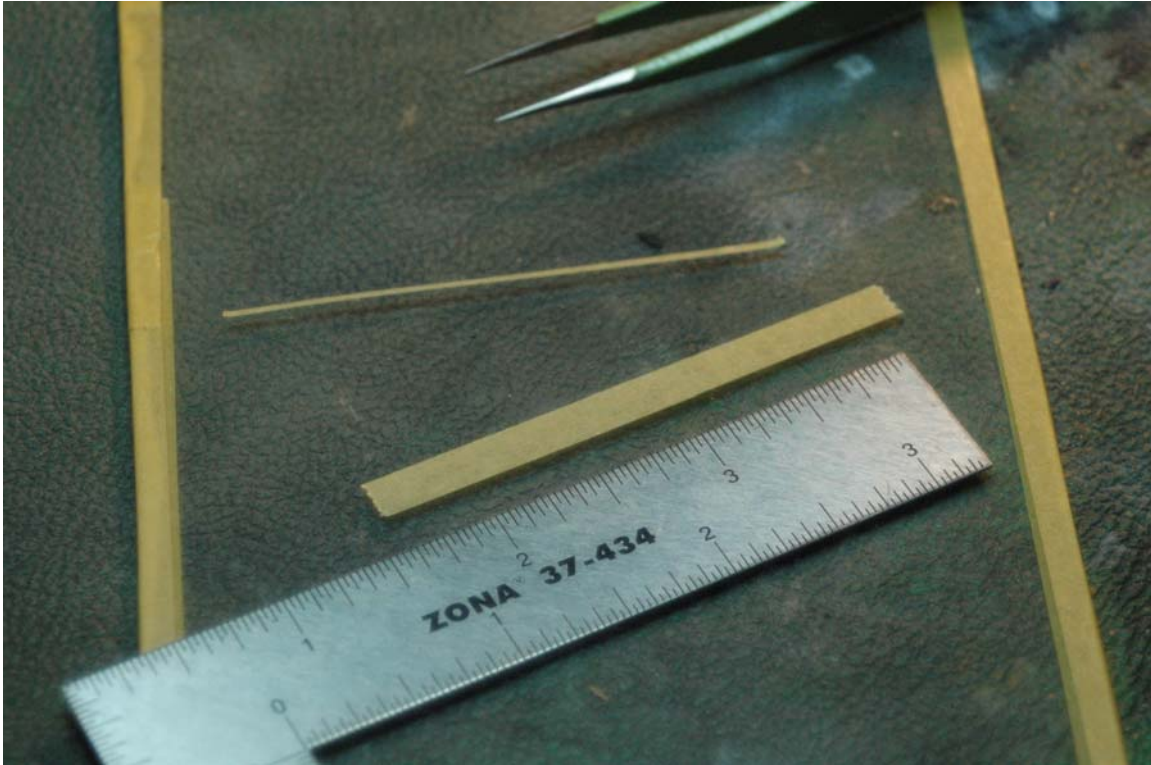
(Photo 8)

Using a metal straight-edged ruler, cut a narrow (aprox. 1/32") strip of masking tape.

(Photo 8)

Carefully lift a corner and separate the strip.

(Photo 9)

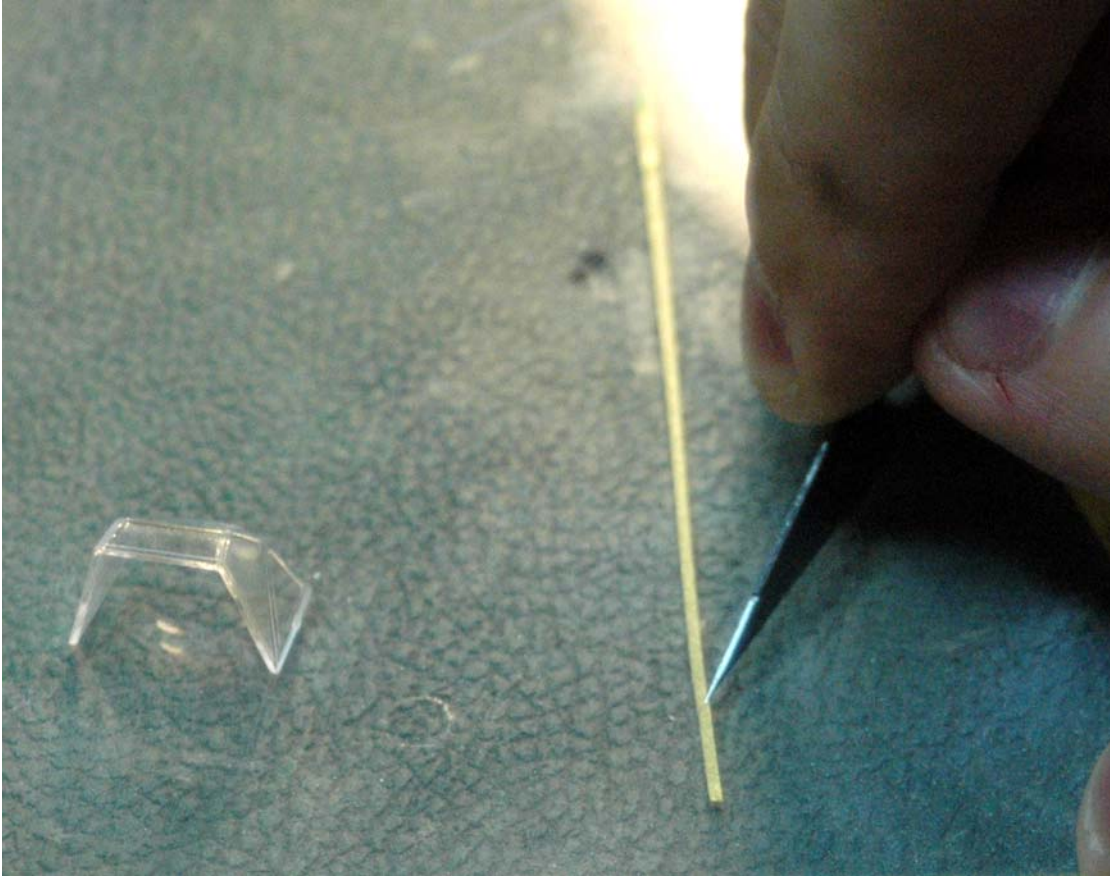


(Photo 9)

The trick here is that we won't be cutting any curves, but making a series of very shallow angles.

Always start with the most complex curve of the pane first. Cut the tape longer than you need, getting the tape out past edges so that the straight cuts are at the end. The straight lengths of tape can then go out over the edges to be trimmed on the canopy using the straight-line method described earlier.

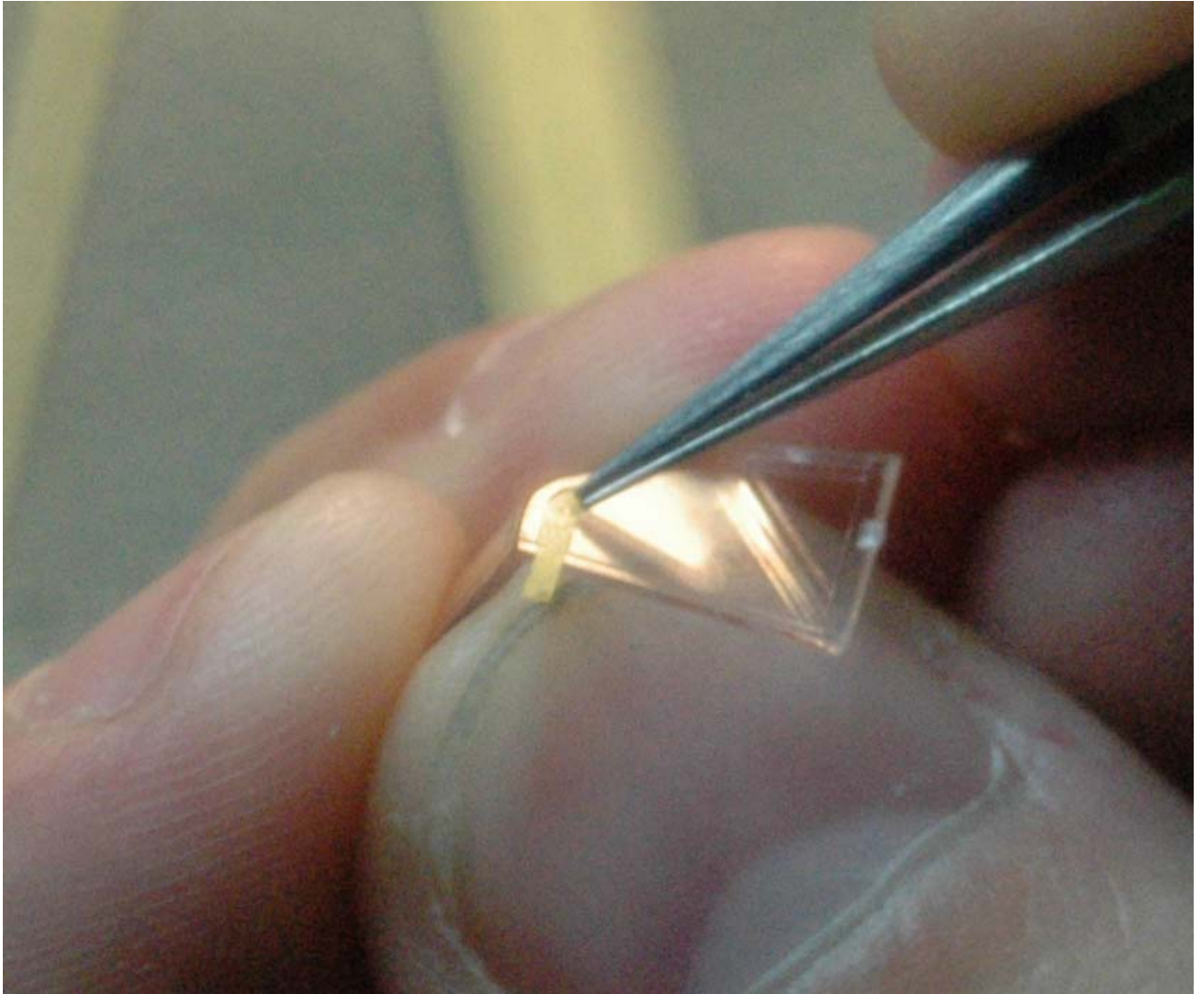
Cut the first piece of tape at a slightly curved angle as shown below.



(Photo 10)

Apply the tape to the canopy. (Photo 11.) The position of the tape can be adjusted by gently sliding it where it needs to go.

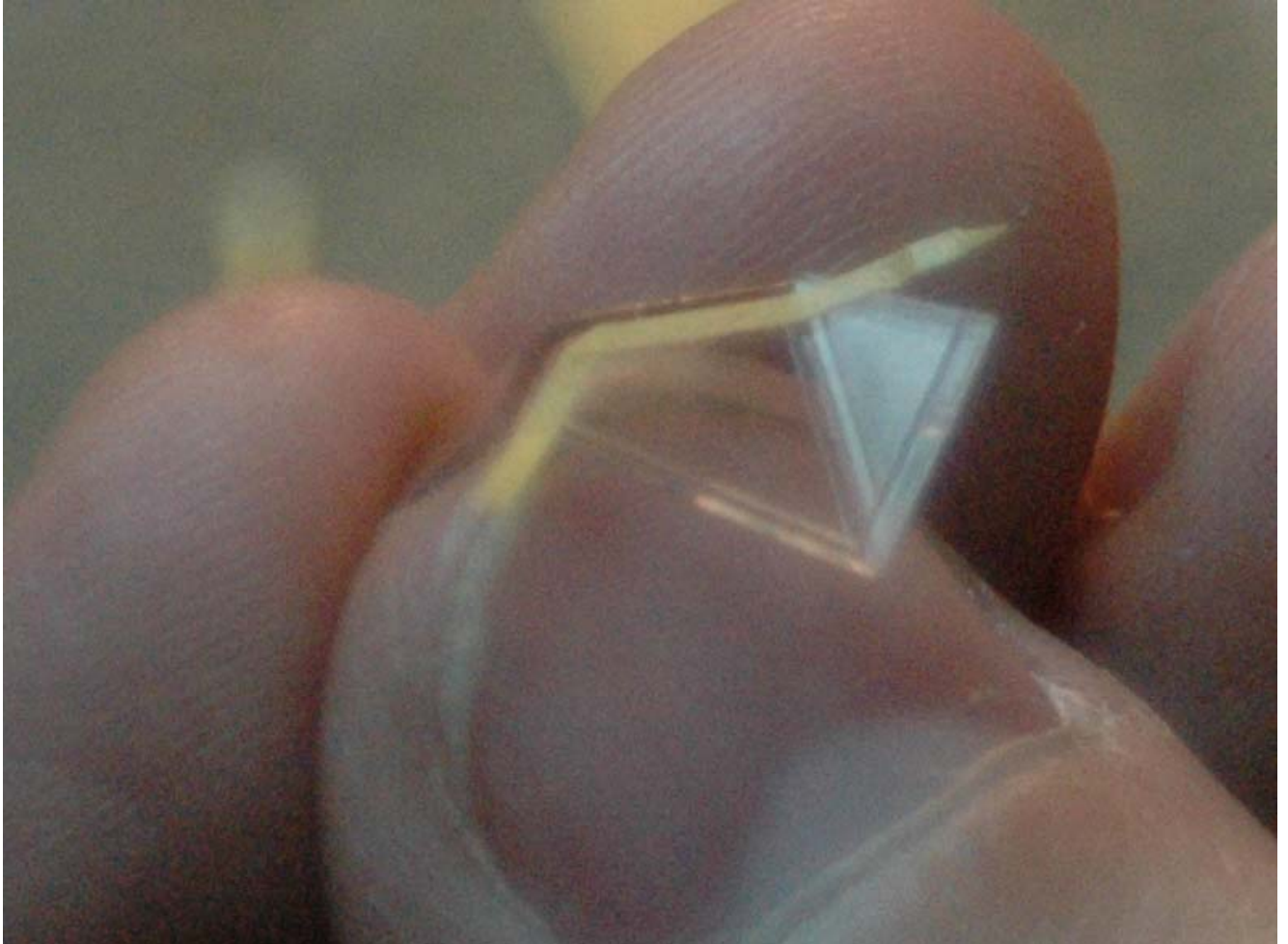




(Photo 11)

Once the tape is in the proper position, gently press down on the tape to secure it.

Now cut another piece of tape, but this time at an angle opposite the cut on the first piece. Apply this piece of tape, making sure to overlap the first piece slightly. (Photo 12)

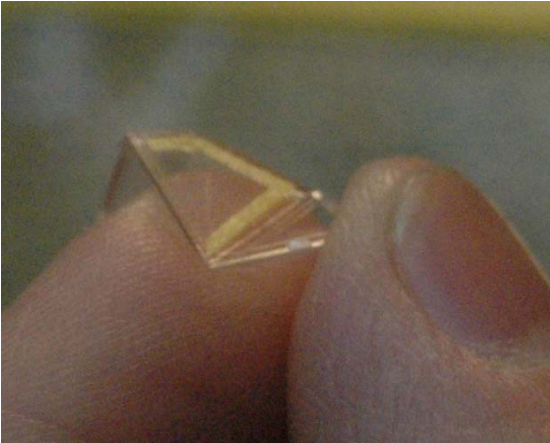


(Photo 12)

Trim the ends of the tape by lining the edge of the X-acto blade and pressing until you hear or feel a snap. It is worth noting that although the sharp X-acto blade may cut a very slight, tiny groove into the plastic, this can be used to your advantage when painting the model. A carefully applied wash in this tiny cut can simulate the dirt and grit that would accumulate along the weather stripping on a real aircraft.

As the section of canopy we are working on is triangular, cut the masking tape at a slightly more acute than the angle on the canopy. The two intersecting pieces will overlap, giving you the correct angle

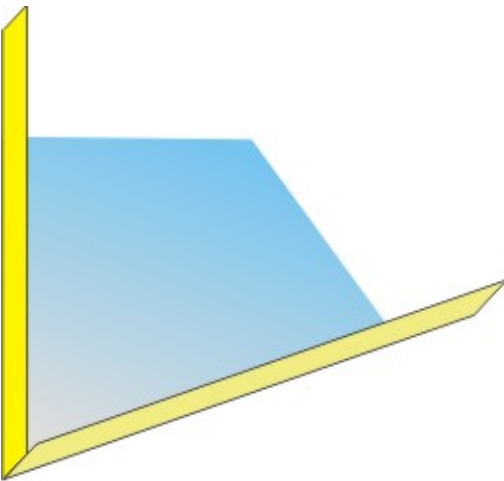
(Photo 13)



(Photo 13)

Be sure when lifting the tape, to lift from the blunt end, not the end with the angle cut into it.

Finish the panel edges by masking the remaining straight frames and trimming them, as illustrated below and in (Photo 14) and (Photo 15)





(Photo 14)



(Photo 15)

Once the edges have been taped and trimmed, it's time to mask the inside of the frame. Although it's possible to do this with liquid mask, using masking tape cut to just a little smaller than the outer edges is far easier and yields better results. (Photo 16)



(Photo 16)

When masking with scale masking tape, roughing it up with a sanding stick should be done after the canopy is completely done.

## Masking a more complex curve

Remember that when doing very complex curves, the thinner the strip of masking tape, the better it will go around curved without puckering. (Photo 17)



(Photo 17)

After the tape is applied to the curve, trim it with a pair of small scissors. Curved surgical scissors are idea for this. If a single strip of tape will not make the curve without distorting, cut the tape halfway through the curve and complete the curve with another piece of overlapping tape cut at an angle to match the corner of the frame.

(Photo 18) (Photo 19)

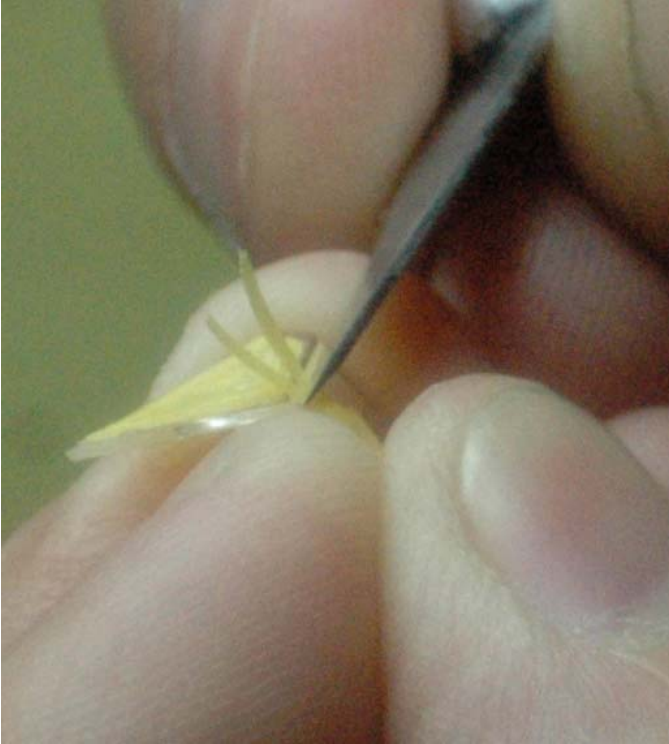


(Photo 18)



(Photo 19)

In this case, the two strips of tape did not produce a smooth curve, so a third strip was added to the center, then the excess length was trimmed with an edge of blade cut. (Photo 20)



(Page 20)

The overlapping strips of tape will curve.

And that's how a canopy with straight and curved edges is done!

It is recommended that this process be spread out over a few modeling sessions, as it is work-intensive and fatigue can set in rapidly.



## Attaching the Canopy to the Model

To attach the canopy to the model, the best adhesive to use is Model Master Clear Parts Cement and Window Maker. It is thin enough to run along a seam and will not fog the clear plastic. Alternately, it can be used to tack the canopy in place before carefully using liquid cement to attach the canopy. Under no circumstances should any sort of cyano-acrylic cement be used on clear plastic as the fumes can fog the inside of the canopy. That would be bad.

## Painting Tips

Once the canopy has been attached to the model, the first application of paint should be the same color as the cockpit interior, followed by a layer of black to make sure the frames are opaque. Then apply the aircraft's exterior color.