

## Tutorial: Intaglio Electro-Etched Design using a Vinyl Resist



In this tutorial the positive space of the design will be etched into the metal and the negative space will be left untouched above the design.

### Materials required:

- Vinyl resist mask
- 2 – Earring blanks
- 2 – Ear wires
- Scotch Magic™ tape
- Heavy duty aluminum foil
- Clear contact paper

1. Prepare the earring blanks by smoothing the edges with fine sandpaper, scrubbing them well, and wiping them with alcohol.

2. Remove the border around the frame containing the design to be etched. Weed the parts of the design that are to be etched using a dental pick, needle, or sharp pointed tweezers.

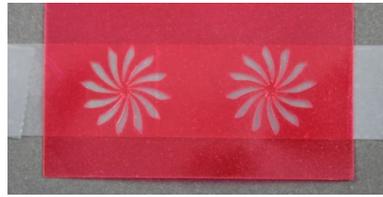


3. Cut a length of Scotch Magic™ tape long enough to cover the design, place the tape on top of the design in the mask, and burnish the tape to the vinyl.

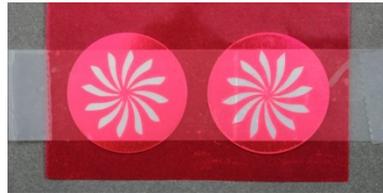


- Carefully peel the backing paper away from the vinyl exposing the sticky side of the vinyl.

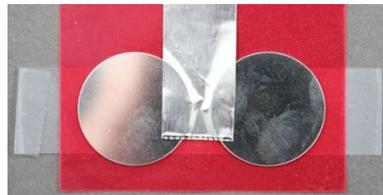
Hint: Keep the backing paper to use as a base when you apply the mask to the earring blanks in the next step.



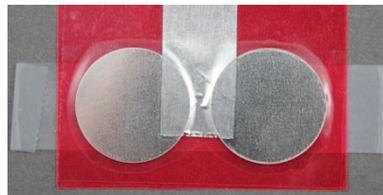
- Hold the mask so the sticky side is down and, one design at a time, center the design over an earring blank and press the vinyl down onto the metal. Burnish the vinyl to the earring blanks.



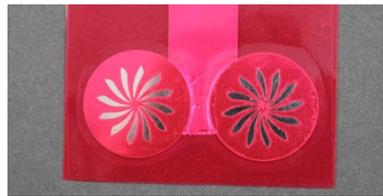
- Turn the package design side down, take a small strip of aluminum foil and lay it so that it touches both earring blanks with the rest of the strip sticking out the top of the mask. Press the aluminum strip down so that it sticks to the vinyl.



- Cut a piece of contact paper the same size as the frame. Lay it on the back of the package, covering the earring blanks and the aluminum foil strip. Burnish it onto the back of the package, and all the edges to the sticky side of the vinyl to prevent any electrolyte from leaking in.



- Turn the package design side up and carefully remove the tape. Burnish the vinyl to the earring blanks again just in case anything pulled loose when the tape was removed.



- Hang the package on the edge of the tank by the strip of aluminum foil, and clamp it in place with the red alligator clip from the power supply. Add the electrolyte to the tank until it completely covers the designs, but do not allow it to touch the aluminum strip or the alligator clip. Hang a copper cathode on the other side of the tank and attach the black alligator clip from the power supply to it.



10. Lift the package out of the electrolyte and inspect the etching every 5 or 10 minutes. If a deeper etch is desired, just hang the package back into the tank and let the etching continue.
11. When the desired etch has been reached remove the package from the tank, rinse it off, and dry it. If you plan to patina the design, you might consider applying the patina now, before removing the vinyl and contact paper resists..

12. Cut part way around the edge of the each of the earring blanks with an x-acto knife and remove the resist. Clean with soap, rinse with water, and dry.



13. Punch a 1.25mm hole in each earring blank for attaching the ear wires. Be careful you don't punch the hole too close to the edge.



14. Optional: Place each earring blank face down in a dapping block, cover it with the suitable size punch, and strike it with a hammer to give the earring a dish shape.



15. Attach the ear wires. Burnish in a tumbler with stainless steel shot and Super Sunsheen for 30 minutes.