

## Quick Start Guide to Electro-Etching

1. Read my class handout from my web site at [www.bijoux-de-terre.com](http://www.bijoux-de-terre.com), click on “For Our Students” on the left, and then on “Electro-Etching” near the top.
2. Join the “Electro-Etchers Anonymous” group on FaceBook.
3. Apply a resist mask of the design to the metal blank to be etched.
  - a. Review the tutorials available on my web site for examples of how to apply resists.
  - b. A resist for electro-etching must be an electrical insulator. Resists like Sharpies, etc., commonly used for chemical etching do not work with electro-etching.
  - c. Any metal not covered by the resist, that comes in contact with the electrolyte, will be etched. This includes back of the metal blank, the contact strip attached to the metal blank, the alligator clip, etc.
4. Hang the metal to be etched, called the anode, on one side of the etching tank.
5. Hang a scrap piece of metal, called the cathode, on the other side of the tank, parallel to the anode.
  - a. The size of the cathode should be equal in size, or smaller, than the anode.
  - b. If the cathode is significantly larger than the anode it may result on a deeper etching around the outside edges of the anode.
6. Add the electrolyte into the tank, deep enough to cover the total area to be etched on the anode, but not so deep that it touches any exposed metal on either the contact strip or the alligator clip.
7. Connect the red lead to the anode and the black lead to the cathode.
8. Turn on the power supply.
  - a. If sodium chloride is being used as the electrolyte, bubbles will appear coming off the cathode. This is hydrogen, not to worry. If you do not see bubbles, there is a bad connection somewhere and it is not etching.
  - b. If copper sulphate or cupric nitrate is being used as the electrolyte, you will see nothing happening.
9. You may turn off the power supply and lift out the anode to inspect it at any time. If the etching is not deep enough simply return it into the tank, turn on the power, and let the etching continue.
10. Bob’s your uncle.