

# Joe Silvera demonstrates Free Form Prong Settings



**Techniques:** Soldering, creative stone setting

## Tools

- 6x6" ceramic solder board
- Handy flux
- Non-locking tweezers
- Charcoal or Honeycomb block
- Titanium Solder pick
- Small micro butane torch
- Butane fuel
- Small flux brush
- Pickle pot
- Biodegradable citric pickle
- Flush cutting pliers
- Flat/half-round pliers
- Chain Nose Pliers
- Round Nose Pliers
- prong pusher, pencil with eraser and/or chopstick
- Needle files
- Ring clamp
- Leather scraps
- 400-grit Sandpaper

## Materials:

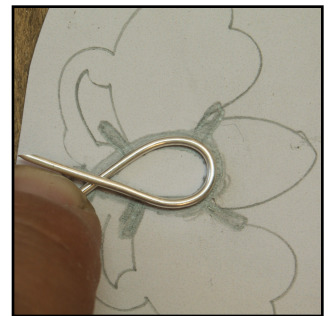
- 1' 18 gauge ss round wire
- 1' 16 gauge ss round wire
- 6mm OD 18 ga ss jump rings
- 1' of easy, medium or hard sterling solder wire
- A few found objects to set

## **Safety:**

- Use common sense and wear eye protection
- Assume everything is hot
- Store and refuel your torch away from hot surfaces and open flames.
- Tie back any loose, hair, clothing, etc.
- Wear natural fabrics like cotton and protect yourself with an apron or towel in your lap.
- Wash your hands before eating, etc. when using chemicals like flux, etc.
- Have water and a fire extinguisher handy whenever working with fire.
- Leave your torch upright to cool. Never lay it down on any flammable surface.

## Instructions:

- Sketch the outline of the object to be set and draw your design for the setting. Indicate where the prongs should be located to best hold your object securely. Generally, they should be paired in opposites, so that each set of 2 prongs grabs the object from opposite sides for the best grip.
- Bend a base for the prongs with 16 gauge wire. Flat/half round pliers are useful for bending it into shape. Be sure to add a jump ring or other way to connect the setting for wearing. Test the fit of the wire against the drawing and the object your setting.
- Solder the base closed and solder on your jump ring. Use either hard, medium or easy sterling solder. Quench, pickle for 5 - 10 minutes and rinse.
- Measure the length of the prongs with scrap wire or twist ties, etc. The prong should reach from the edge of the base, over the side of the object and over any tapered edge without covering too much of the beauty of the piece to set. Cut the prongs. Mark the locations to solder prongs onto the base with a permanent marker. Solder the prongs with the same flow point of sterling solder as above. Quench, pickle for 5 - 10 minutes and rinse.
- File off any extra solder with needle files. Polish the setting with 400-grit sandpaper (or power tools and polishing bits) to remove any firescale and leave a matte finish. Burnish with a brass brush, lubricated with liquid dish soap and water, to bring it up to a fast shine, or continue polishing with power tools and abrasives, like radial wheels.
- Place the object on the setting, adjust the prongs and curl them upwards 90° with your fingers or round nose pliers. Push the prongs down onto the object with a dowel, chop sticks or prong pusher. Adjust the fit if necessary with chain nose pliers.



## Contact Joe

Joe Silvera is the author of *Soldering Made Simple: Easy Techniques for Kitchen Table Jewelers*. Learn more about solder with his book and dvd, and find out more about the Silvera Jewelry School at [www.SilveraJewelry.com](http://www.SilveraJewelry.com). Private lessons are also available. Classes include use of tools & materials. Walk in and learn with no heavy tools to bring!

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