Hollow, Screw-top Pendant Tutorial

by Phyllis Cahill, ©2016 Phyllis Cahill

Polymer Clay Skill Level: Intermediate

42 step-by-step photos!

Use your own favorite veneers!

Fill this pendant with whatever you can imagine.
Carry a prayer, affirmation, blessing or memento to close to your heart.

Introduction

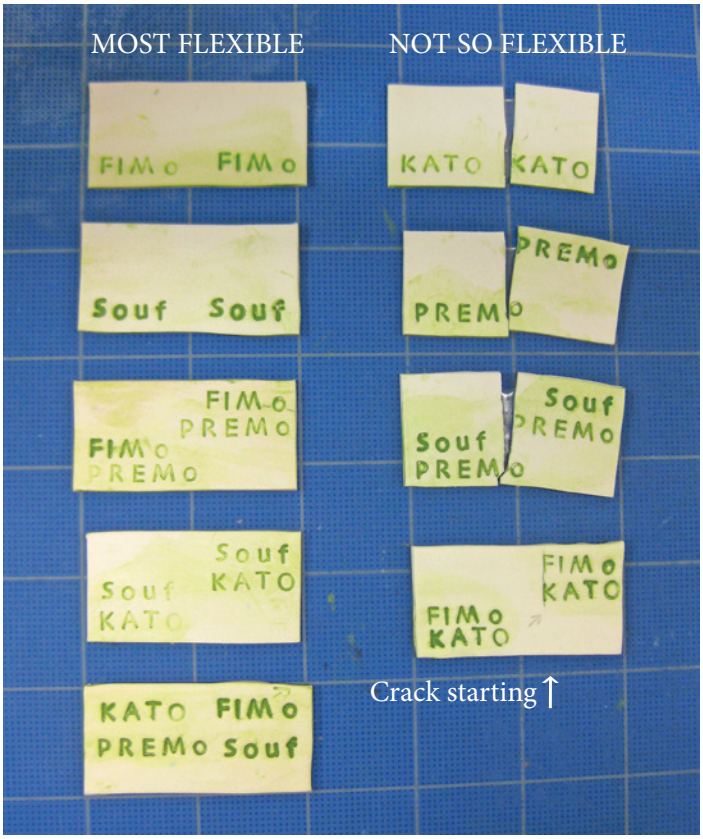
I believe what makes this tutorial unique is the screw top. This allows a hollow pendant to be hung from its top while the bottom stays securely attached.

I've made many of these little, hollow pendants and overcome many problems in the process. The two most common problems were the screw being too loose and the clay cracking.

Preventing the screw from being too loose is explained in the tutorial.

To prevent the clay from cracking, this project requires well-conditioned clay that's not too dry or too wet. It should be both strong and flexible enough to make tight curves without cracking.

Each brand of clay has its purpose and I've learned that not all brands of clay work as well for this project. Please see my clay flexibility text results below.



CLAY FLEXIBILITY TEST RESULTS:
Test strips were baked, cooled and then bent to try to get the short ends to touch. Flexible clays are on the left with Fimo the clear winner. Soufflé and the mixtures of clays on the left are also very flexible.

VARIATIONS:

To vary this pendant, it could be made smaller or larger by using a different sized bolt and nut or cutting the clay shorter or longer. You could also eliminate the wire loop in the top and make it a tiny box.

Another variation is to make the pendant out of the clay you want as a final finish instead of using a veneer. Cane slices, or clay where the design runs all the way through it, will work because they'll retain their design when sanded.

VENEER SUGGESTIONS:

Canes, mokumé gane, faux stone, faux metal, faux ceramic, Skinner blends, image transfers, silk-screened clay, clay rubbed with pastels, painted with acrylics, rubbed with mica powders . . . It's up to you. You can texture the clay, carve it or add inclusions, though it will be more susceptible to cracking.

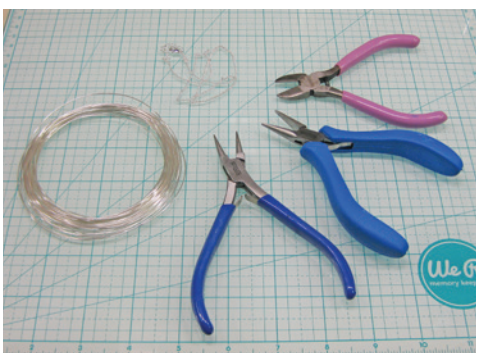
CLAY SUPPLIES:
Fimo or Soufflé clay in the color of your choice
Clay veneer of your choice
Pasta machine
Tissue blade
Kato Poly Paste
Kato Clear Liquid Polyclay
7/16" round clay cutter (standard Kemper cutter size)
Extruder with 3/32" round disc (standard extruder size)
3/16" flat rubber smoothing tool for clay

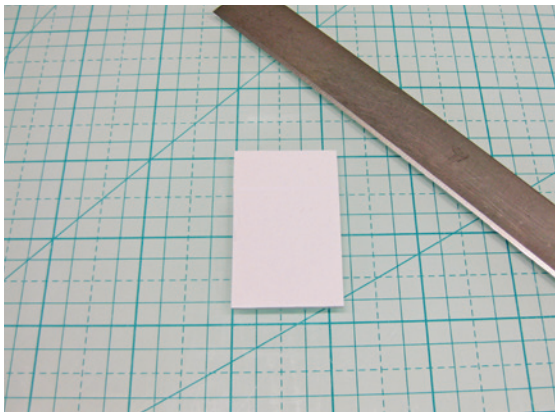
OTHER SUPPLIES:
Xacto knife with #11 blade or craft knife
Wooden toothpick
Armor All spray
Q-tip
5/16" wide X 3-1/2" long steel bolt with nut (clean them well)
#2 metal knitting needle
Right angle tool (anything that makes a true right angle)
Small piece of heavyweight paper
Vertical baking rack (it's easy to make your own)
Aluminum foil
Ceramic tiles for baking
Sealant of your choice, if necessary for your veneer
SuperGlue gel (the gel isn't runny)

SANDING & BUFFING SUPPLIES:
Spray bottle of water
320 grit wet/dry sandpaper
Micro-Mesh pads in 1500 and 3600 grit
(Their 1/2" wide sticks are nice, but just the pads are fine)
Shallow pan to hold sandpaper for wet sanding
Soft cloth or buffer

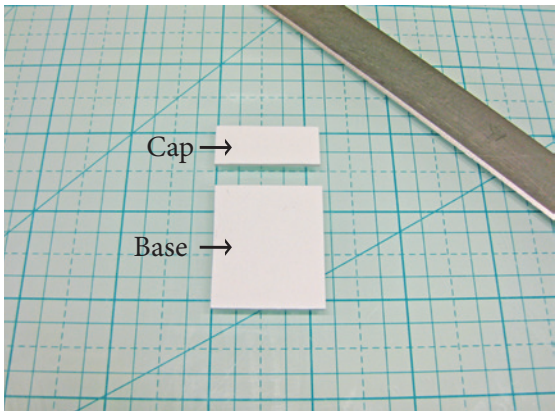
CLEANING SUPPLIES:
Scotch tape
Old toothbrush
Paper towels
91% rubbing alcohol

JEWELRY-MAKING SUPPLIES:
Round nose pliers
Chain nose pliers
Wire cutters
Jewelry wire of your choice (22 or 24 gauge suggested)
Chain of your choice with clasp (18-24" long X 1.5mm wide suggested)



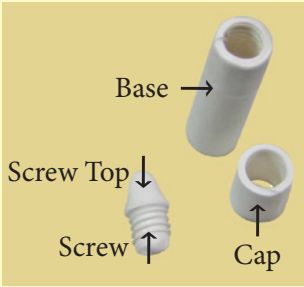


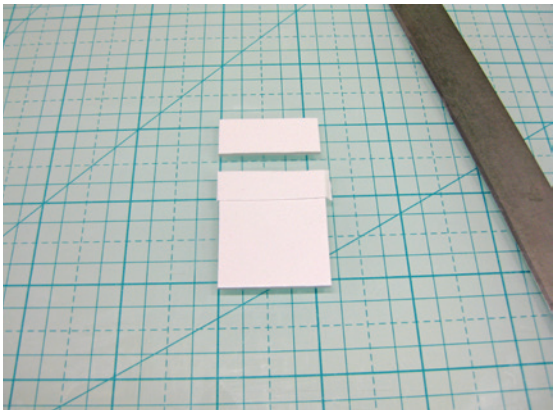
STEP 1: Condition a small amount of clay in any color and roll it 4 playing cards thick on your pasta machine. Trim it to 1-1/2" X 1-7/8'".



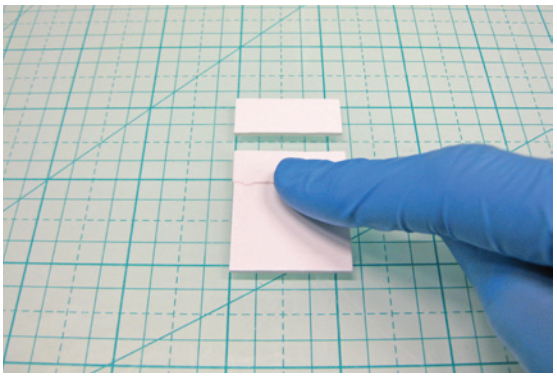
STEP 2: Cut off 1/2" for the cap.

TERMS USED:

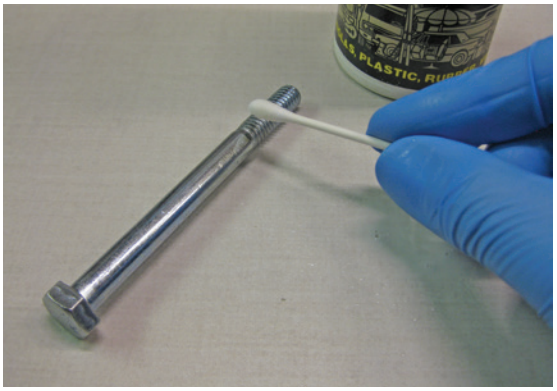




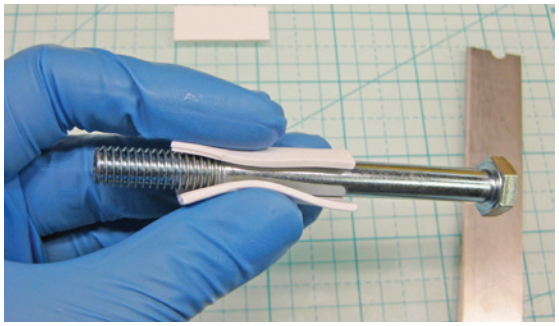
STEP 3: To compensate for thickness lost when the base is compressed into the threads, roll another small sheet of clay on the thinnest setting of your pasta machine. Trim it to about 1-1/4" X 3/16".



STEP 4: Align the thin sheet along the top of the base. Smooth out any air bubbles. Trim the edges to match the base. With your finger, feather the bottom of the thin piece to blend it in. Be careful to not make the base thinner.

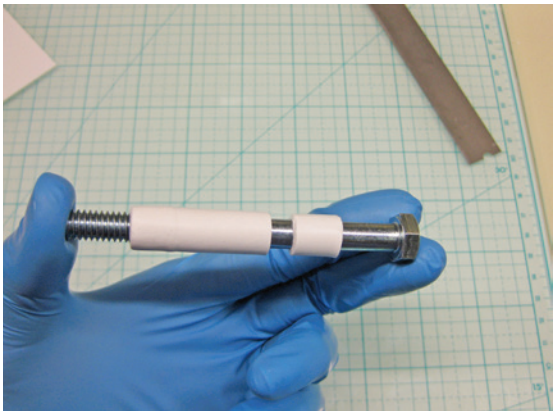


STEP 5: Spray a small puddle of Armor All and dip a Q-tip in it to coat the threads of the bolt.

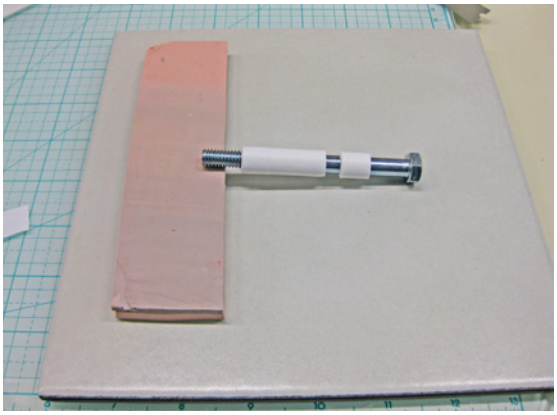


STEP 6: Wrap the base clay around the bolt with the thicker end over the threads. Form a secure seam. Surround the thicker end with your fingers and thumbs and press the clay firmly into the threads.

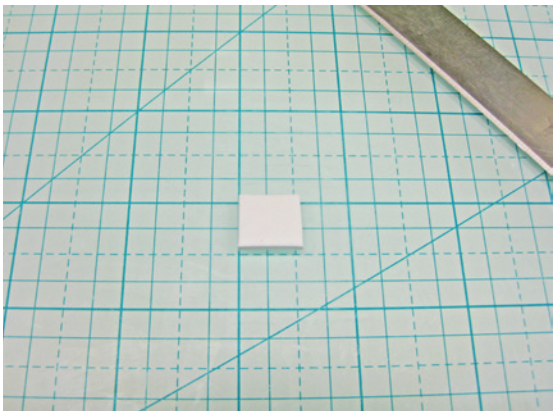
NOTE:
To prevent the screw from being too loose, it's important to firmly press the clay into the bolt threads.



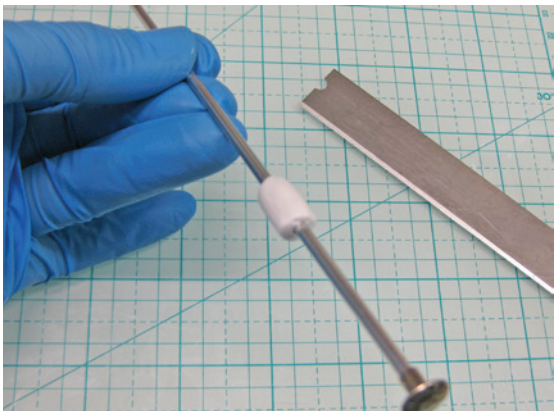
STEP 7: Wrap the cap clay around the bottom of the bolt and form a secure seam.



STEP 8: Place the bolt on a baking tile. Elevate the bolt's end with a baked piece of scrap clay so the raw clay doesn't rest on the tile and get a flat spot.

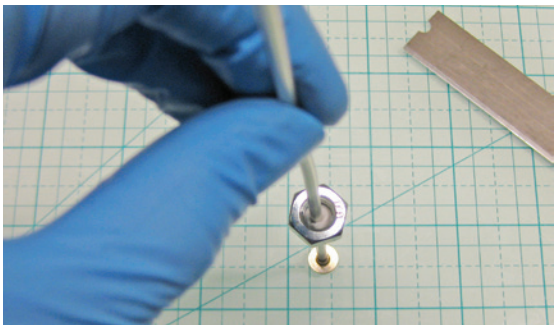


STEP 9: Roll a small sheet of clay 10 playing cards thick on your pasta machine and trim it to 1/2" X 1/2"+.

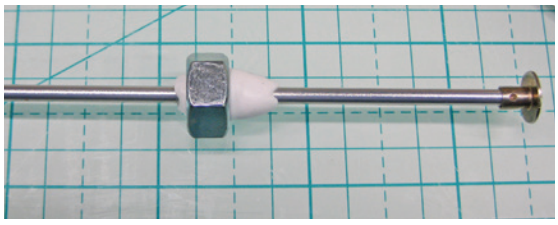


STEP 10: Wrap the longer side of this clay around a #2 metal knitting needle and form a secure seam. Use Scotch tape or your blade to remove all lint or dust specks on the clay. Any specs will show because you can't sand the threads.

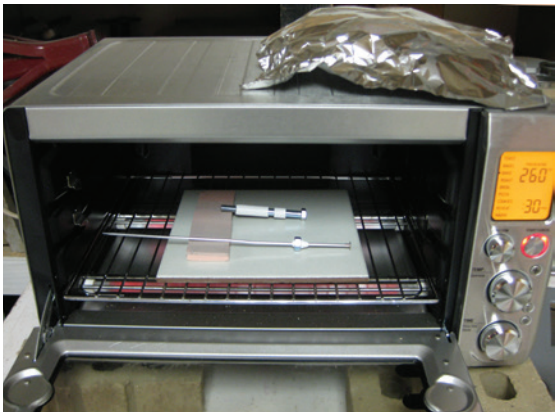
NOTE:
A plus or minus sign after a dimension means to cut it a bit longer or shorter for a perfect fit. It's easier to understand 1-1/2"+ than 1-17/32". If the clay doesn't fit exactly, just stretch or trim it a little as needed.



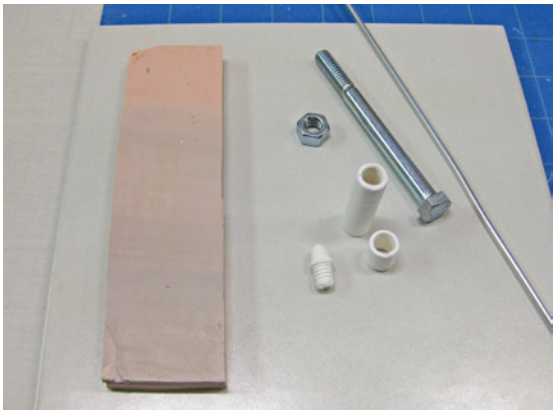
STEP 11: Use a Q-tip to coat the inside of the nut with Armor All. Slide the nut onto the knitting needle and center it over the clay.



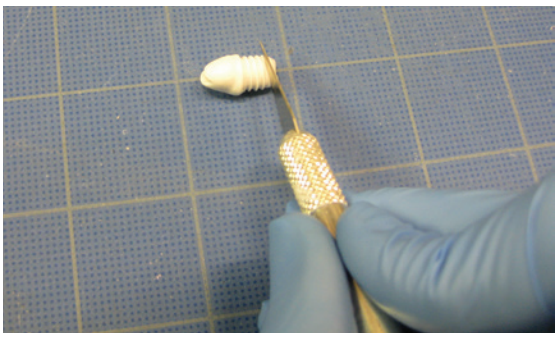
STEP 12: Hold the clay with one hand and screw the nut onto the clay with the other hand. Align the nut with the knitting needle. Mold the screw top so it's about the same diameter as the hole in the nut.



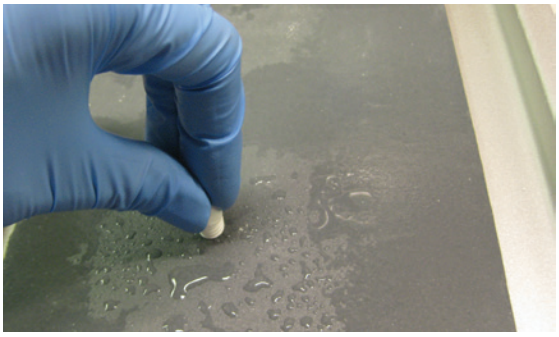
STEP 13: Bake both pieces for 30 minutes at 265˚ or according to the clay manufacturer's instructions. (My oven runs hot, so I set it lower.) If you're using light-colored clay, tent it with aluminum foil to prevent yellowing.



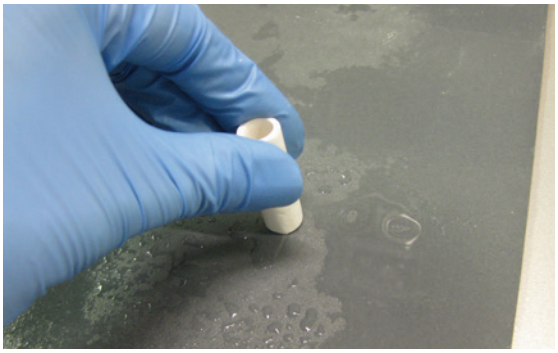
STEP 14: Unscrew the base clay from the bolt. If it doesn't come off easily, warm it for 10 minutes in the oven and try again. Slip the cap clay off the bolt. Unscrew the nut and slip the screw clay off the knitting needle.



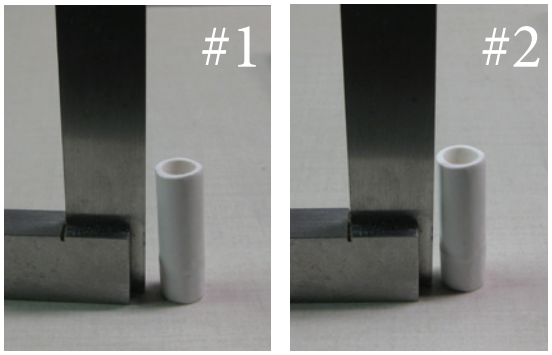
STEP 15: Trim about 1/8" off the screw bottom by sawing back and forth with your Xacto knife. This makes a cleaner end.



STEP 16: Place the 320 grit sandpaper in a shallow pan and spray it with water. Wet sand the screw bottom to smooth it.

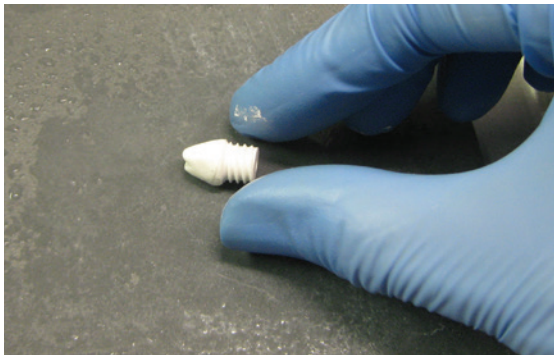


STEP 17: Wet sand the top and bottom of the base and cap until they're flat and perpendicular to the sides. This assures the cap and base join well and the cap won't be crooked on the base.

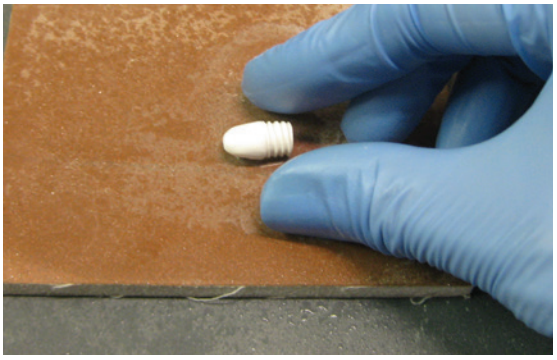


STEP 18: Rotate the cap and base next to your right angle tool to check that all sides are perpendicular. Example #1 is leaning, so the angle of the bottom needs to be re-sanded to correct it. Example #2 is good.

NOTE:
Use a paper towel to wipe the sanding dust from your pieces before checking if they stand straight.

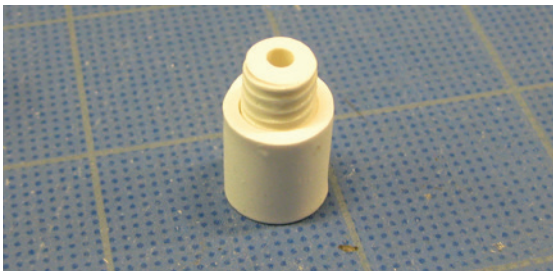


STEP 19: Wet sand the sides of the screw top until it fits inside the cap. Sand on the hard surface first to remove clay quickly. Take care to not sand the screw threads.



STEP 20: Wet sand the sides of the screw top on the Micro-Mesh to round off any hard edges created by the sandpaper on the hard surface.

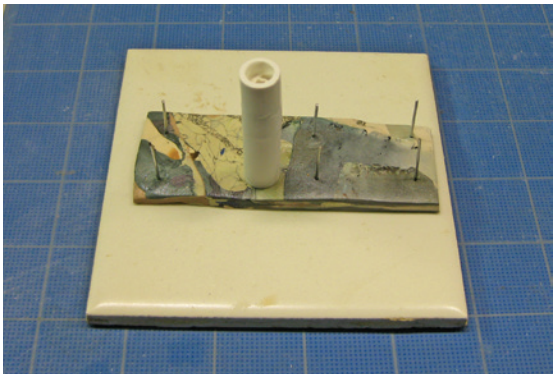
NOTE:
When your sandpaper gets dry, spray it again. Occasionally wipe off the sanding residue with a paper towel.



STEP 21: Test often whether the screw top fits into the cap. Don't force it. Once it fits, wash off all sanding dust so the Poly Paste has a clean surface to adhere to. Clean the threads with water and an old toothbrush.

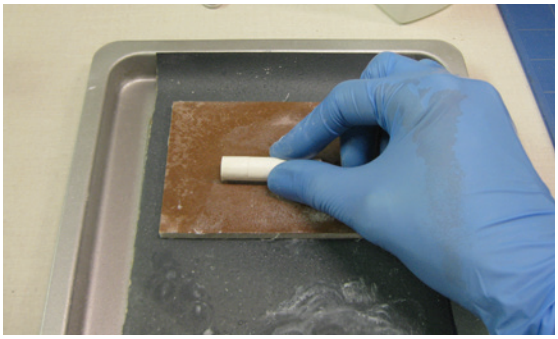
STEP 22: Remove the screw from the cap and twist it into the base.

STEP 23: With a toothpick, coat the inside of the cap with Poly Paste. Wipe off any on the rim so you don't accidentally bake the cap to the base. (If so, use your Xacto knife to cut it apart.) Place the cap back on the screw top. Poke a generous amount of Poly Paste around the edges of the screw top but avoid getting it in its center hole.

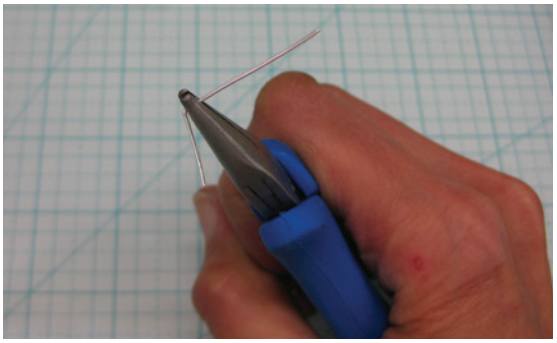


STEP 24: Place the assembled base, screw and cap vertically on your homemade baking rack. Keeping them together and vertical ensures the screw stays straight. (Baking horizontally on a bead rack may cause them to sag and become crooked.) Bake 30 minutes at 265˚.

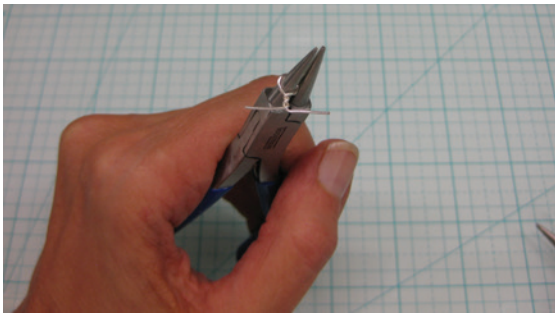
NOTE:
To make a vertical baking rack, roll a slab of scrap clay and poke small nails with heads through it. You can also bend up one leg on some paper clips and poke them through the clay as I've done here.



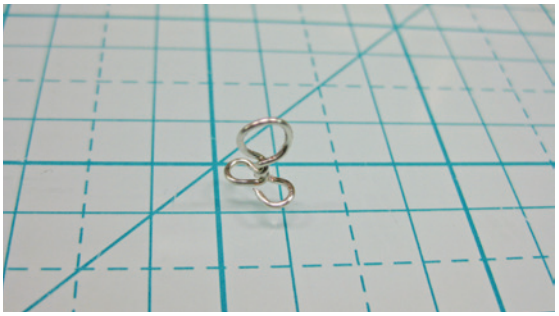
STEP 25: After the clay is cool, wet sand the sides of the assembled unit until they're even, round and smooth. Use both the 320 grit and the Micro-Mesh pad.



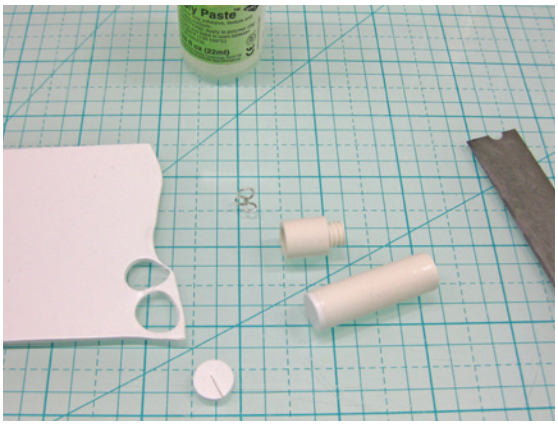
STEP 26: Cut a piece jewelry wire about 1-3/4" long. Hold it about a third of the way with your chain nose pliers and bend a right angle.



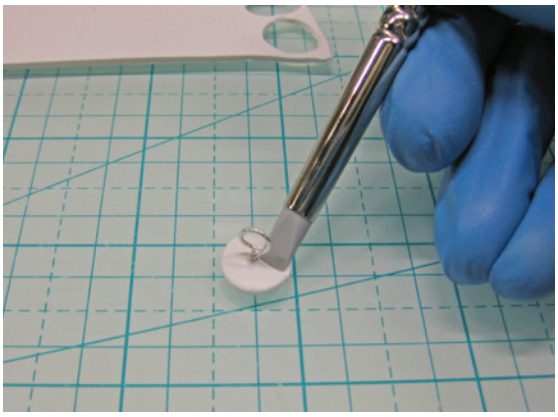
STEP 27: Transfer the wire to your round nose pliers and bend a loop about 3/16" in diameter. Wrap the remaining wire twice around the straight wire. Bend out the ends so they're opposite one another.



STEP 28: Trim each end 1/4" long. Curl in the ends with your round nose pliers so they'll fit inside the cap–no more than 5/16" wide total. Align the curls so this wire unit stands up straight on its own.

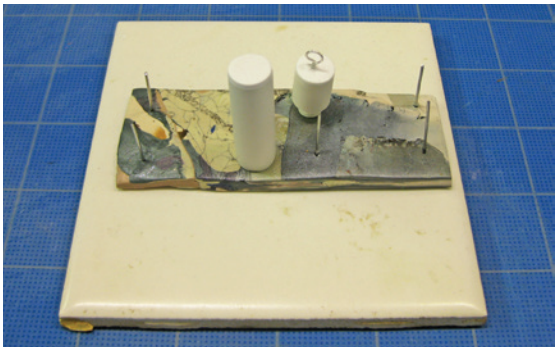


STEP 29: Cut two 7/16" circles from clay rolled on your pasta machine 4 playing cards thick. Adhere one circle to the bottom of the base with Poly Paste. Make a straight cut about 5/8ths across the other circle for the wire unit.

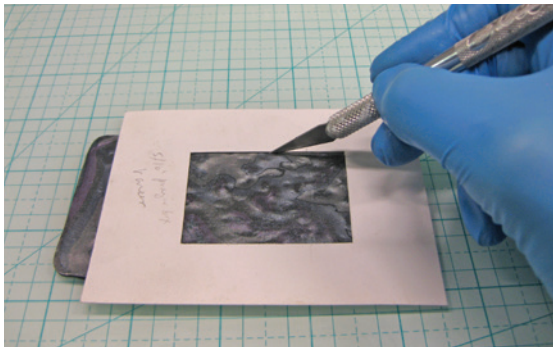


STEP 30: Slip the wire unit into the slot in the circle. Gently flatten the clay onto the wire curls. Seal the seam. If the top gets distorted, cut it again with the circle cutter. Adhere this unit to the top of the cap with Poly Paste.

NOTE:
Be sure you don't put the circle on the end of the base that has the threads. I've almost done this!

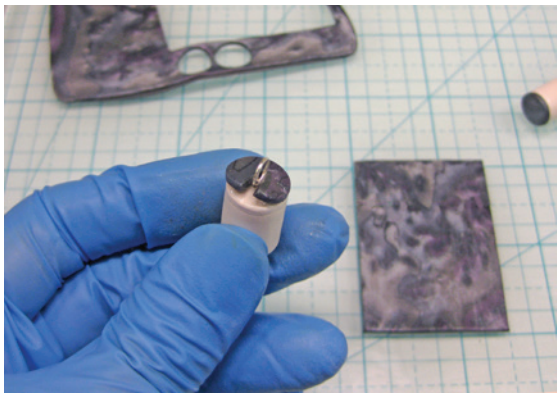


STEP 31: Bake the cap and base separately for 30 minutes at 265˚ on your vertical baking rack. Don't screw them together or the air trapped inside will expand in the oven and can seriously crack your pendant.

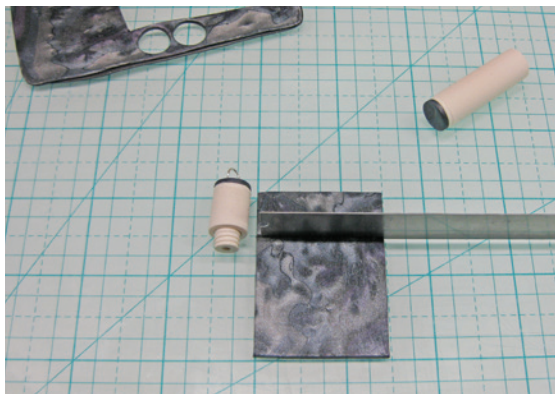


STEP 32: Make your veneer about 4 playing cards thick. Cut a hole in heavy paper 2-1/16" X 1-1/2-". Use this template to find the nicest part of the veneer and trim it out with an Xacto knife.

NOTE:
You may have to re-cut the edges after you remove the template to assure they're cut cleanly and all the way through.

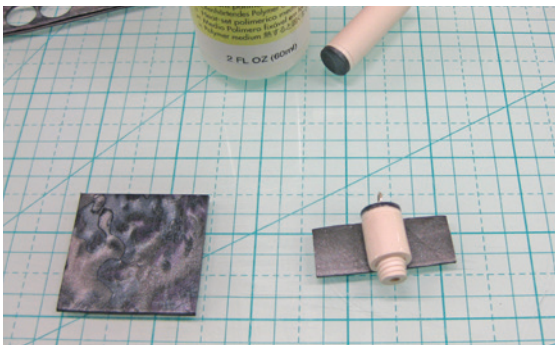


STEP 33: Cut two 7/16" circles from the veneer. Slice one to allow for the wire. Adhere them to the cap and base with Poly Paste. If your veneer can't be sanded, be sure to make a nice seam.

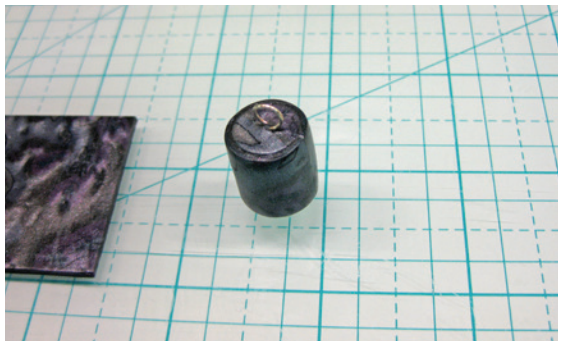


STEP 34: Align the cap with top of the veneer. Trim the veneer to match the height of the cap, including the veneer you just applied to the top of the cap.

NOTE:
The veneer on the sides goes from the very top to the very bottom of the pendant. This is different than previous steps and gives a nicer look.

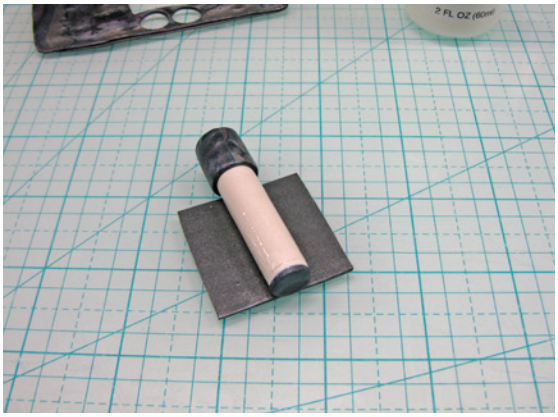


STEP 35: Smear the sides of the cap with a thin layer of liquid clay and place it in the center of the veneer so the wire loop is vertical. This keeps the seam toward you when the pendant is worn.

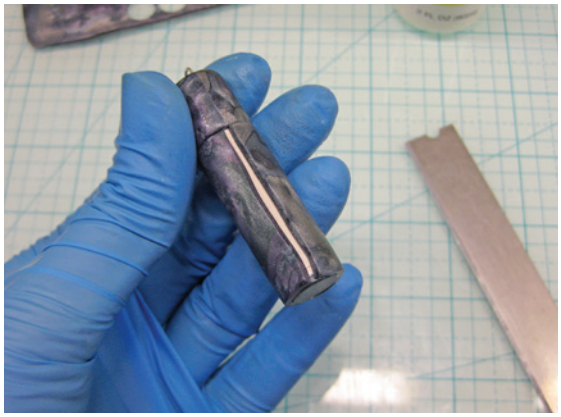


STEP 36: Wrap the veneer around the cap. Be careful to not trap air beneath the veneer or it will expand into a bump or crack the clay. Make clean, straight seams.

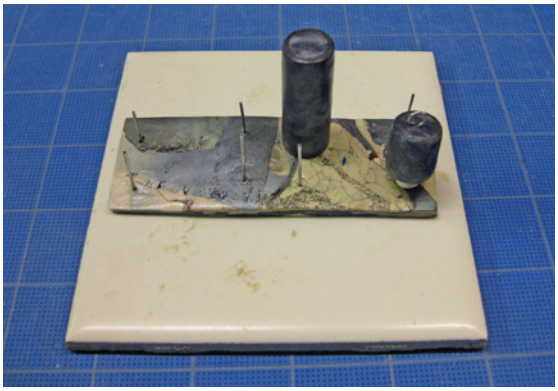
NOTE:
Liquid clay helps the veneer stick to the baked clay. It also makes it easier to slide and position the veneer.



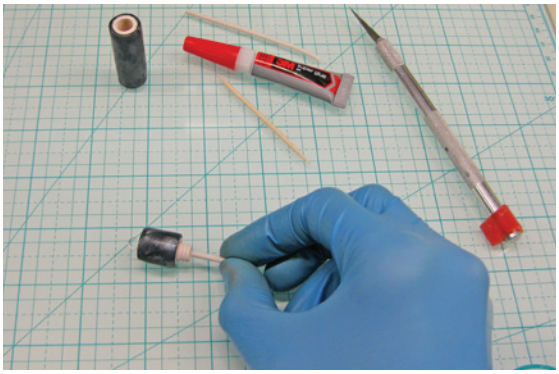
STEP 37: Screw the cap onto the base. Apply a thin coat of liquid clay to the sides of the base. Place the base on the veneer with the seam in the cap facing up so the seams on the cap and base will match.



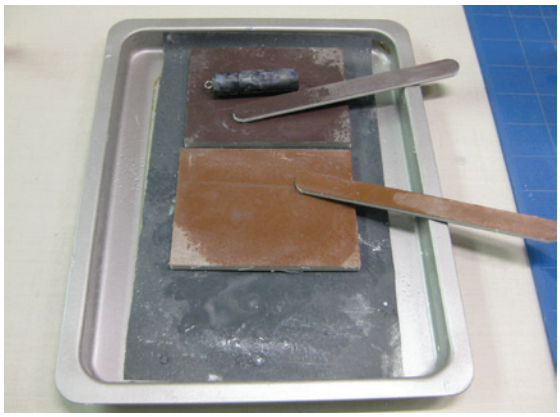
STEP 38: Assure the veneers on the cap and base meet nicely so there are no gaps or overlapping. Remove the cap and neatly close the seam on the base.



STEP 39: Bake the two parts separately on the vertical baking rack for 30 minutes at 265˚. Tent, if needed.



STEP 40: Extrude a clay snake 3/32" wide. Bake it and trim it to 5/8" long. SuperGlue it into the hole in the middle of the screw to strengthen it. Wet sand the end to even it off and remove any extra glue.



STEP 41: Wet sand all sides until smooth. Finish with Micro-Mesh 3600 grit. Buff, or use your favorite sealant, if needed.

STEP 42: String a chain through the wire loop and it's ready to wear!

NOTE:
If you need to sand off any bumps from the bottom of the cap next to the threads, or the top of the base, do it sparingly so your seams will still match.

I started my career as an artist in 1976 as a graphic designer. In 1995, I became a children's book illustrator. My degree is in illustration from Rocky Mountain College of Art & Design in Denver, CO.

I became fascinated with polymer clay in 2015. I'm very new to this medium compared to masters who've been using it for 30 years. I've immersed myself in it to learn as much as possible from this very generous community and my own trial and error.

What grabbed me about polymer clay is its infinite potential for color, texture and shape. I can make something three-dimensional at home, with my hands and a few tools and supplies, that's both beautiful and useful. This is a creative change from the two-dimensional print medium I've worked in all my life.

I hope you'll find this tutorial helpful. Please email me at ppcahill@aol.com with any comments or questions.