Mounting a Bead on a Pendant Strand

When people really stop to consider using the LED pendant strands, one of the first questions is usually "how do you keep it in the bead?" Here are the methods I've come up with so far.

Approach 1: Glue it in.

Conceptually, this is the simplest approach. In the necklace shown (**Fig. 1**), I glue the LED pendant strand into the half-drilled lampwork beads (made by Mary Ann DeLorenzo at Beach House Glass). I use superglue (the low-viscosity kind, not the gel) with a nozzle that fits into the bead hole. (Or if the nozzle is too big, I put a skinny piece of wire into the hole, keeping it away from the sides of the hole, and use it as a ramp to guide small individual drops of glue down into the hole.)

Test the placement of the LED before adding glue to the bead hole. The LED itself is a tiny flat panel, so the rotational orientation of the LED at the tip of the strand will affect the appearance of the lit bead. You will want to light up the LED during this test placement – this *can* be done with two hands but is much easier with an assistant who can touch the wires to the ends of the power clasp while you experiment with the LED placement. This is slightly easier if you attach the barrel magnet clasp halves to the power clasp first, then slide the wire ends into the small holes in the barrels until they hit the power clasp.

The superglue will take quite a while to dry since it's in an enclosed space. I let mine dry overnight. This means you may need to set up some arrangement to hold the bead upright (for half-drilled beads) and the strand in your preferred placement while the glue dries. It's better to have a plan for this before you add the glue!

For beads with holes all the way through, incremental gluing works better than filling the whole hole at once. Coat the glass tube covering the LED with a thin layer of glue and place it in the bead hole. When that dries, drip a drop or two of glue into one end and let dry for 10-20 minutes; that should be enough to seal the hole, so you can now fill one side with glue and dry for about an hour, then fill the other side with glue and dry overnight.

For half-drilled beads, I add glue to the hole first then place the LED in the glue, then touch the strand ends to the power clasp to check depth and rotation. Consider two things when adding the glue. First, try to avoid trapping air bubbles. In half-drilled holes, try to place the nozzle as deep as you can, go slowly, and try to run the glue down the side of the hole. If you do get bubbles, pop them with a pin. Second, remember that you're going to stuff an LED into the hole, so you don't want to fill the hole completely with glue. (Cleaning superglue off the outside of the bead is no fun!)

Approach 2: The Headpin Maneuver.

This is my go-to solution for beads with holes all the way through. Once you get the idea it's a breeze, but the explaining takes some doing.

The pendant LED strand in **Figure 2** runs down through the woven tubes, beads, silver star and silver cone, then through some additional small beads within the cone, and into the pendant bead where it ends somewhere in the middle. It is *not* glued in.

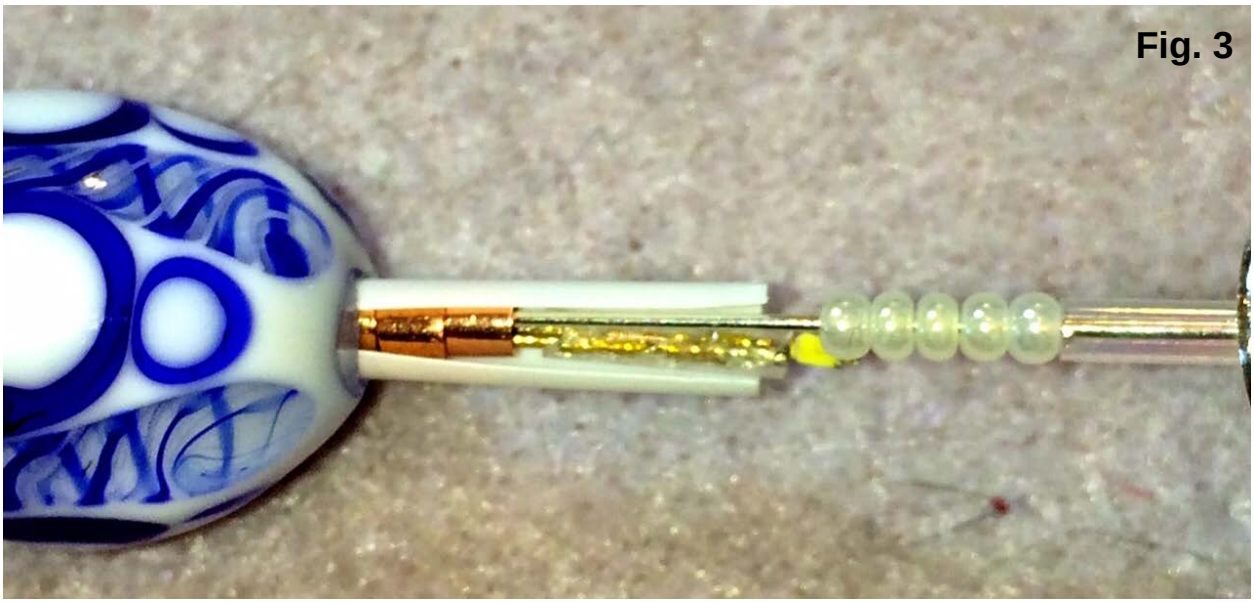
Meanwhile, from the other direction, a ball headpin runs upward through a beadcap and some hidden seed and/or bugle beads within the focal bead. The beads are chosen to fill the mandrel hole, preventing the focal bead from flopping from side to side on the headpin, and to provide a "stopper" that keeps me from pushing the LED too far down into the focal bead. The headpin then runs all the way out the top of the focal bead, passes through an additional small bead or two inside the silver cone, and then is wrapped in a horizontal loop to create a stopper so the headpin won't drop out the bottom.

When you try to do this, you'll immediately notice the sleight of hand I just pulled. There is a portion of the focal bead and cone length that contain both headpin wire *and* the two wires of

the LED strand, all running parallel to each other. Any beads you need to put on this length (e.g. under the cone to hold the headpin in place) must fit over all three wires at once. Furthermore, the hole in at least one must be small enough that the glass tube protecting the LED light can't pull upward through it. This is what keeps the LED strand from pulling upward out of the focal bead.

So you may need to do some bead-hunting and possibly reaming to find the right combination of small hidden beads to make the mechanics work. When I make these teardrop beads I use relatively large (1/8") mandrels to make sure there is enough room for all of this inside.

Figure 3 shows the bottom end of a pendant strand being assembled. From right to left: off camera is the head of the headpin on which everything here is strung, then a beadcap just peeking into the frame, then a bugle bead and some 11/0 seed beads that tell me how far to push the LED strand into the focal bead. Next you can see the LED panel itself (yellow square) and the glass tube on the LED strand, followed by a few 2mm copper crimp tubes. Crimp tubes are handy as stoppers to keep the LED down inside the focal bead, because they are small enough to fit inside the bead hole (and not slip over the LED's glass tube), but still have large enough holes to fit over the headpin and both wires of the LED. You can also see that I'm using a piece of plastic drinking straw to diffuse the light. I'm now ready to shove all this inside the focal bead and finish the other end.



At the other end (of a different focal bead), you can see (**Fig. 4**) how I end the headpin when I'm going to add a cone to the top. A few small beads go over both LED strands and the headpin wire, then I've bent the wire and looped it around a few times to hold it in place. The

cone will hide all this, so you don't need "pretty" beads here! It takes some hunting to find beads with large enough holes; Czech O-beads are a good starting place.


Fig. 4

Figure 5 shows the same technique, but I've used an eyepin to allow attachment of the dangle, and instead of having a cone to hide the looped end of the pin, I've left it right out in the open looking like a jumpring or plain spacer between the two green beads on top of the lampwork focal.

Fig. 5

Approach 3: Beadwork.


Fig. 6

I'm not going to get into the gory details on this one, but bead stitching can be used to create a "cozy" that supports the focal bead. Apply the same principles as used in the Headpin Maneuver to mount the LED strand: make sure there is some sort of stop above the focal bead that will prevent the strand from pulling up and out of the bead. Here are a few examples.

Calcite Lantern (Fig. 6). In this design, the beadwork holds the structure together and traps the focal bead. A few 8/0 seed beads are threaded onto the LED strand (both arms) and the stitched funnel shape prevents these beads, and the LED below them, from pulling upward. At the bottom of the piece, I've made a custom eyepin that goes up into the stitched base, makes a horizontal loop inside the base, and then continues upward a little ways into the focal bead to keep it aligned. I stitch the horizontal loop of wire to the inside of the beadwork in a few places to make sure it stays put.

Val d'Or (Fig. 7). This pattern by Mandi Olaniyi in the Feb 2017 Bead & Button issue only needed a few small tweaks to accommodate the pendant LED strand.


Fig. 7

I switched out one row of 11/0s for 15/0s at the start and end of the band that wraps around the focal bead (**Fig. 8**). This opens up enough space in the middle of the band where it covers the hole in the focal bead for each wire to pass through the band and into the herringbone tubes. I found it easier to fit the band and mount the LED strand before adding the 15/0 beads that line the front and back edges of the band. I also attached the herringbone tubes to the

focal and ran the wires through them while they were still straight, before attaching the bicone embellishments to each tube.

More Handy Hints

- If your bead is just a little bit too transparent, jam a piece of translucent plastic drinking straw inside. (Cut it open if necessary to roll it skinnier to fit.) If you bought a Starter Kit, the packaging for the springs is a piece of the straw I use for this - don't throw it out!

- You may notice that your pendant necklaces like to rotate so that when worn or displayed the strand doesn't make a clean "Y" but instead the strands twist around each other near the pendant. You can "unwind" a twisted Y by spinning the barrel magnet clasp halves while they are attached to the power clasp. (One direction will increase the twist; the other will decrease it.)