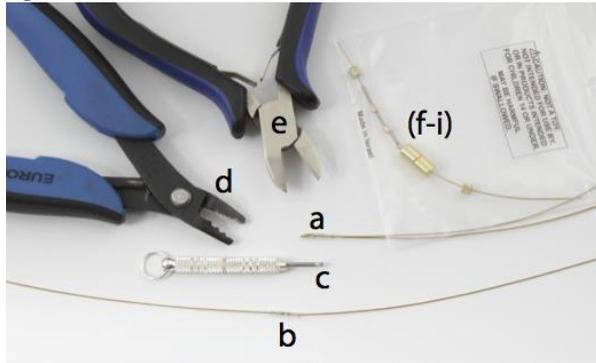


Incorporating AnglerFish Components into Jewelry Designs

These instructions describe how to add an AnglerFish LED light to your own necklace design. Refer to the "Care and Feeding" and other guides at anglerfishjewelry.com/support for more information on the power-clasp and illuminated jewelry.

To make an illuminated necklace you will need the following components and tools (Fig. 1).

Fig. 1



- a. Pendant-style LED (included)
- b. Through-style LED (2 included)
- c. Jeweler's screwdriver for screw-tite crimp (included)
- d. Crimping tool (*not included in kit*)
- e. Flush cutters (*not included in kit*)
- f-i. End-components (x3)

Assembly Basics – Making a Test Light

If this is your first experience assembling AnglerFish components we recommend assembling the pendant-style LED into a testing tool. Below we show how to assemble the magnet-ends onto the pendant style LED.

First open a bag of end-components, and loosen up the screw-tite crimps to inspect the parts you'll be working with (Fig. 2).

Fig. 2

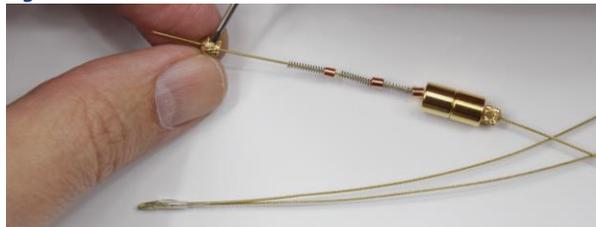
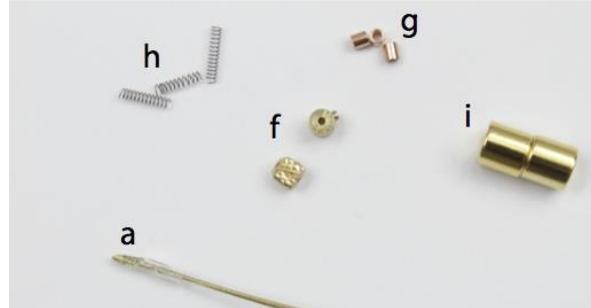


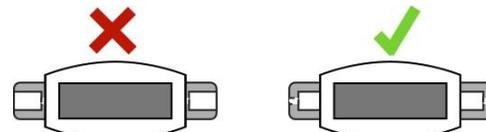
Figure 3 shows a photo of the end-components: pendant-style LED (a), screw-tite crimps (f), tube-crims (g), springs (h), and magnetic tube clasps (i).

Fig. 3



To emit light, the current from the battery clasp must travel through the LED strand in the correct direction. To ensure the correct tube crimp gets mounted on the correct wire end, start by attaching each magnetic tube clasp (i) to the matching magnetic end of the power clasp as shown below, **keeping the smaller holes pointing away from the clasp** (Fig. 4).

Fig. 4



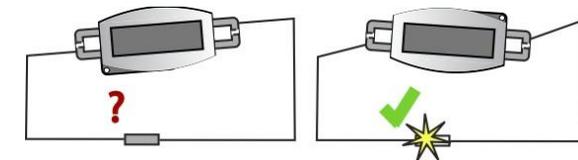
To verify which wire end gets connected to which tube clasp, touch the ends of the pendant wires to the surface of the magnetic tube clasps (Fig. 5). If electrical contact is made and the power-clasp is oriented properly the LED will light-up or momentarily flash.

Fig. 5



If you cannot get the LED to momentarily flash try flipping the power clasp around (Fig. 6).

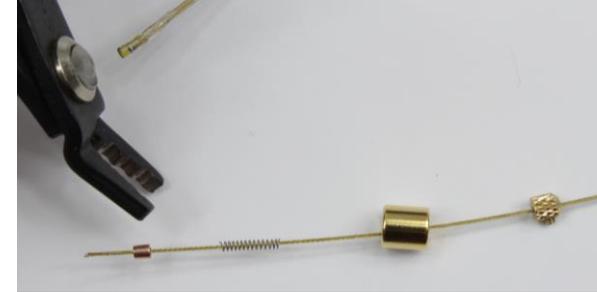
Fig. 6



Once you've found the orientation that illuminates the LED, make sure to keep the correct magnet paired with each wire while completing the next steps!

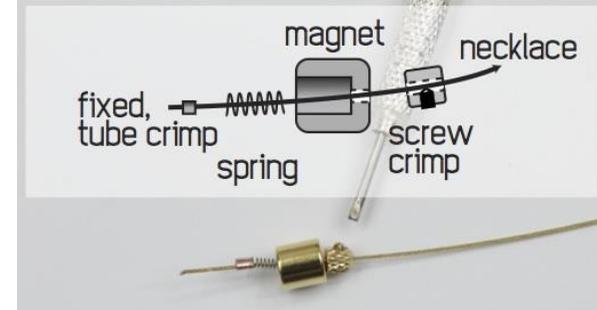
To attach the first magnet clasp, line up the components on the correct wire in the following order (Fig. 7): screw crimp, tube clasp, spring, tube crimp. The flat side of the screw-tite should face the end of the tube clasp with the smaller hole, while the spring should slide inside the larger hole of the clasp magnet.

Fig. 7



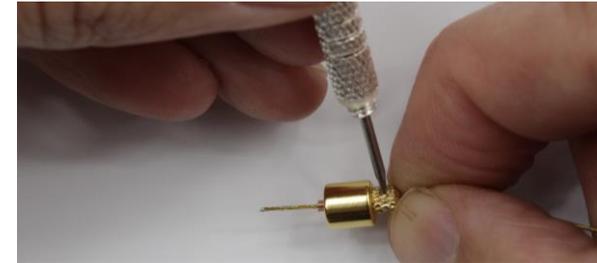
Secure the tube crimp at the end of the wire using a standard 2mm crimping tool. (Sliding the magnetic tube clasp further up the wire will help prevent the magnet from flying into your crimping tool!)

Fig. 8



Slide the components together at the end of the wire (Fig. 8), then pull the components together against the pressure of the spring until the copper tube crimp extends ~2mm past the end of the barrel of the magnetic tube clasp (Fig. 9). Secure this configuration by tightening the screw-crimp (Fig. 9).

Fig. 9

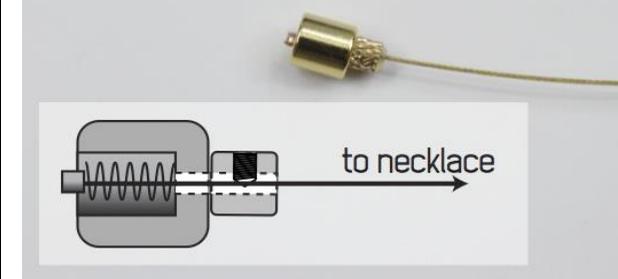


Using the flush cutters, trim the remaining wire right up against the copper tube-crimp (do not cut the crimp itself, just the wire). This takes some practice and patience since the magnet is drawn to the cutters (Fig. 10).

Fig. 10



Fig. 11 an example of a finished magnetic connector



Test your connector by attaching it to the power-clasp then holding the unfinished wire end against the magnetic plate on the other side of the power-clasp (Fig. 12). If your LED refuses to light, clip the tube crimp off the end of the finished wire and repeat from Fig. 4, making sure to match the right wire with the right tube clasp.

Fig. 12



Fig. 13



Assemble the second connector in the same manner as the first (Fig. 13).

Verify that the pendant-style LED lights up when hooked up to the power clasp (Fig 14).

The pendant LED assembly can now be used to test potential focal beads for illumination!

Fig. 14



Tips for Selecting a Focal Bead and Assembling a Necklace

Figure 15 shows an example of crackle agate illuminated by the tester. This example allows plenty of light through and has an interesting surface texture. A second example of crackle agate (Fig. 16) is also interesting, but really too dim. Here the stone is too opaque.

Fig. 15



Fig. 16



Below is a great example of a hollow lampwork bead. But the glass is very clear, leading to a lighting effect which does very little to enhance the focal piece.

Fig. 17



In general, the most interesting focal pieces interact with the light, but do not entirely obscure it. Read our "Guide to finding a great focal bead" at anglerfishjewelry.com/support and explore different stones and lampwork beads to find your favorites!

Tip: The pendant testing assembly you just made can be disassembled and used for a necklace by loosening up the screw crimps and cutting off the tube crimps (be careful not to lose the springs!).

Tip: Many stones have holes that are smaller than the 1.75mm diameter glass that encases the LED. It is often possible to ream these bead holes to an appropriate size with a bead reamer or other lapidary tools.

Tip: You may find it helpful to center your LED in your focal piece and glue it in place rather than using the screw crimps. (We recommend superglue with plenty of drying time or E6000.) Glueing does limit the possibility of repair.

Tip: Make sure the power clasp has been charged! If you have a voltmeter you can measure the state of the clasp. 3.0 to 3.3V is fully charged, 2.7 is nominally charged, and 2.5V is very little charge.

Tip: When designing and assembling your necklaces, avoid making any crimped connections to the LED wire that will result in a short circuit. A short will be created if you crimp one side of the LED wire to the other without passing through the LED. Attaching a shorted circuit to your power clasp will not light the LED and can permanently damage your power clasp!



Making a Simple Necklace Using the Through-Style LED

In Figure 18 we've selected a lampwork bead and some matching beads, and verified that the LED fits into the focal bead. (Note: the other beads can be strung from each side of the focal, and thus do not need to be able to pass over the LED.)

Once you have strung beads on your LED wire, you'll want to make sure the LED is aligned in your focal bead and your tube clasp assemblies are tight against the bead strand as you finish the ends. The following instructions walk you through these steps, assuming you have completed a Test Light first as practice.

Fig. 18



String your design onto the LED wire and verify which magnet tube clasp belongs on each wire as described in figures 4 and 5.

Fig. 19



Slide the wire until the LED is positioned the way you like within the focal piece (Fig. 19). Place the screw crimps on each wire, pushing them snug against the beads, then tighten them slightly. This will help keep the beads from sliding around on the wire as you finish the magnet tube clasp ends.

Add the magnet tube clasp, spring and tube crimp as in Fig. 7, pushing the assembly snug against the screw crimp (Fig 20). Crimp the tube as close to the tube clasp as possible (here the magnet helps!).

Repeat this procedure for the other end of your necklace.

Fig. 20

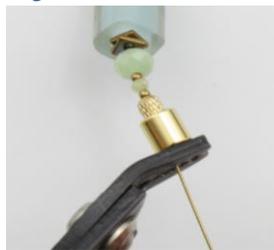
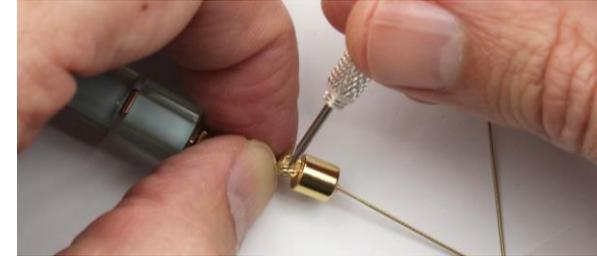


Fig. 21



Loosen up each screw-tite crimp and push it up against the magnetic tube clasp, compressing the spring until ~2mm of the tube crimp is sticking out past the end of the barrel (Fig. 21). Retighten the screw crimp (Fig. 22).

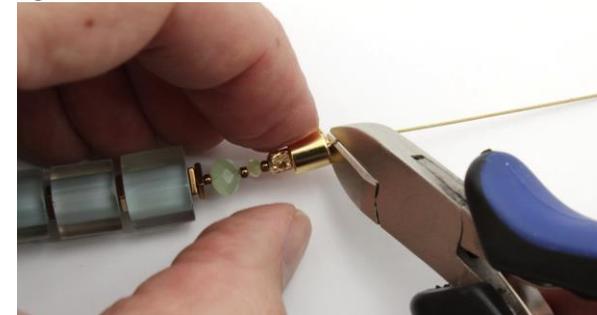
Fig. 22



Using a pair of flush-cutters, trim the wire as close to the tube crimp as possible (Fig. 23).

Tip: The magnets are very strong and will pull tools towards them. When trying to flush-cut wires near magnets you can often let the flush cut side come in contact with the magnet, then 'bend' the magnetic barrel clasp away so that the cutting surface just misses the tube crimp.

Fig. 23



Your final end assembly should resemble the assembly in Figure 11.

Repeat the process to assemble the remaining end.

Tip: Pushing the screw crimp towards the clasp before tightening leaves a small gap between the end of the bead strand and the wire end assembly. You may wish to fill this gap with crimp cover beads to improve the appearance and reduce flex in the wire. Be careful not to damage the wire as you press the crimp beads into place.

Fig. 24



Fig. 25 Final Assembled and Tested Necklace



Warnings

Warning! Do not store the jewelry or clasp in proximity to credit cards or electronics which may be damaged by strong magnetic fields. For example: bracelets with magnetic clasps can interfere with laptop operation when typing.



Warning! Individuals fitted with a pacemaker should not use this product because of the potential for strong magnetic fields to affect its operation.



Warning! Choking Hazard - Small parts not for children under 3 years or any individuals who have a tendency to place inedible objects in their mouths.



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