

Etsy

I downloaded this project from Etsy.com's handmade blog, The Storque. The project is from Fashion Geek, courtesy of North Light Books.



NIGHTLIFE NECKLACE

I wanted to design a necklace that uses LEDs to look like a shiny gemstone, but using a regular LED would look like a flashlight around the neck. For this project I was challenged to come up with a way to make the LEDs glow faintly, to make people wonder if the glow comes from a special type of shiny stone. Like a mobile phone screen, the LEDs are difficult to see in bright sunlight, but they appear super bright in the dark. The solution is to add a photoresistor to control how brightly the LEDs will glow. When the surrounding light is brighter, the LEDs will glow brighter. When the ambient light is dimmer, the LEDs will glow dimmer.

TECHNIQUES

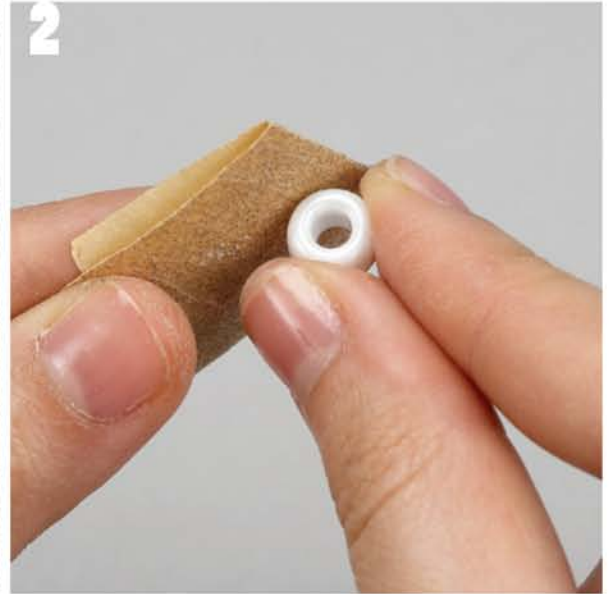
- Knotting thread, page 14
- Sewing a running stitch, page 14
- Knotting off, page 15
- Soldering wire, page 24
- Testing connections, page 29
- Sewing battery holders, page 28

MATERIALS

- 1–6 small LEDs (size 3mm or T1)
- photoresistor
- 6 pony beads to fit LEDs
- 1 large bead to fit photoresistor
- 1 set of alligator clip jumper wires
- fine-grit sandpaper
- chain, approximately 14" (36cm) long
- 4 jump rings
- 2 ribbon crimp ends
- lobster claw clasp
- conductive thread
- battery (CR2032)
- battery holder (BS7)
- needle-nose pliers
- wire cutter
- electrical solder
- soldering iron
- craft and fabric glue (such as Sobo)
- $\frac{1}{2}$ yard (46cm) of ribbon, 1" (3cm) wide
- rotary tool (optional)
- domed abrasive point or drill bit (optional)
- sewing needle
- scissors

Etsy

I downloaded this project from Etsy.com's handmade blog, The Storque. The project is from Fashion Geek, courtesy of North Light Books.



BRIGHT LIGHT

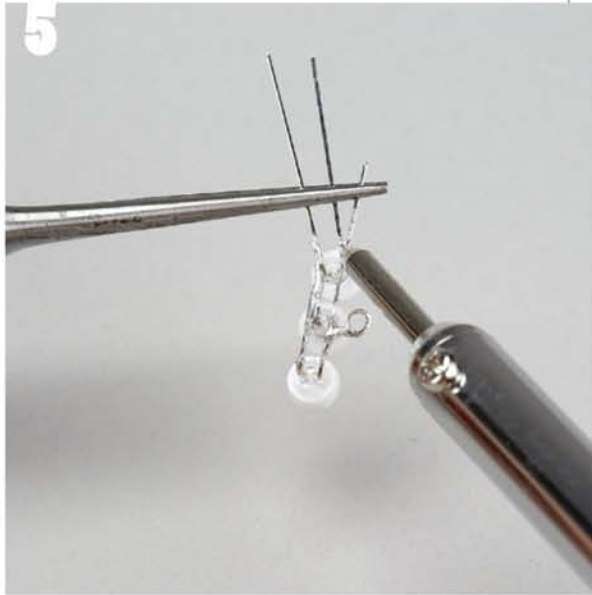
Use six or fewer LEDs in your design. The battery is strong enough to power six LEDs, but more than six lights will result in lights that won't be very bright.

1 TEST FIT

Test to make sure each LED will fit snugly in a pony bead. I used white LEDs and white beads, but feel free to add color and mix it up.

2 SAND BEADS

Use fine-grit sandpaper to sand the outside edges of the pony beads and the large bead to create a matte finish.



5 SOLDER LED LEADS AND PHOTORESISTOR

Bend all of the LED leads so that each short lead is touching another short lead and each long lead is touching at least one other long lead (make sure no short lead is touching a long lead). Trim the leads with wire cutters if needed. Use a soldering iron to solder the leads where they touch. Test each connection after you solder it. Add the photoresistor bead and solder the long photoresistor lead to the long lead of the closest LED.

6 ATTACH CHAIN AND ADD CONDUCTIVE THREAD

Cut 2 lengths of chain to the desired length (I cut mine to 7" [18cm] each) using wire cutters. Cut 2 lengths of conductive thread, each of which is double the length from the LEDs to the chain's clasp (in this case about 14" [36cm] each). Tie a knot with 1 length of conductive thread onto the LED lead loop you created in step 4. Secure the knot with a dab of fabric glue, and cut the excess short thread. Test the connection. Attach 1 jump ring to the chain and then to the loop. Thread a sewing needle with the long strand of tied conductive thread, and use the needle to feed the conductive thread through each of the chain's links. Repeat with the second length of conductive thread (threading it through the second chain) and the photoresistor loop you created in step 3.

ON AND OFF

Put the battery in the holder to turn the necklace on; take the battery out to turn the necklace off.



7 FOLD RIBBON

Use scissors to cut a length of ribbon that when attached to the ends of the necklace will be long enough for you to slide the necklace over your head (I cut mine to 18" [46cm]). Trim the ends at a 45-degree angle to prevent the ribbon from fraying. At 3" (8cm) from 1 end, fold in the sides of the ribbon toward the middle. Fold the ribbon on itself and attach a ribbon crimp end. Make sure a bit of the fold sticks out at the edges of the crimp; you will use this later. Repeat at the other end of the ribbon.



8 ATTACH RIBBON

Use needle-nose pliers to open 2 jump rings and insert 1 in the loop of each ribbon crimp end. Attach 1 end of each chain onto each jump ring. Insert the needle with the thread from the photoresistor through the fold of ribbon that sticks out of the edge of the ribbon crimp end on that side of the necklace.



9 ATTACH BATTERY HOLDER

Continuing with the thread from the photoresistor, sew the conductive thread around the positive contact of the battery holder (BS7), being careful to not sew on the extra portion of ribbon that folds over (this portion will cover the battery holder). Repeat the sewing instructions in step 8 with the conductive thread from the LED loop. Sew the conductive thread from the LED loop across the edge of the ribbon to the battery holder. Use this thread to sew around the negative contact of the battery holder. Knot the thread and cut the excess. Attach a lobster claw clasp to the jump ring on one of the crimps.

To wear the necklace, place the ribbon over your head, as shown on page 44, or for a more elegant look, clasp the chains together and let the ribbon loop in the back.