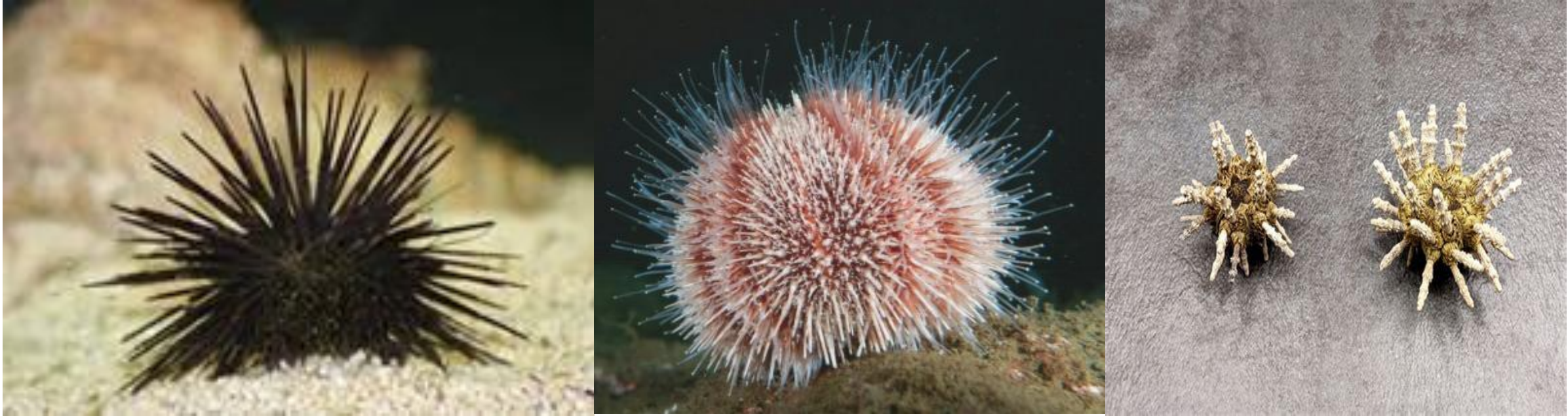




Sea Urchins come in a variety of sizes and colors



Top of Sea Urchins



Bottom of Sea Urchin



Sputnik Sea Urchins



Click to see full view



LIHAO 30PCS LED Balloon Lights Mini Battery Powered LED Party Lights Bulbs for Paper Lantern Balloon Pumpkin Wedding Halloween Christmas Party Decoration Centerpieces (Colorful)

[Visit the LIHAO Store](#)

4.3 ★★★★★ (5,774)

100+ bought in past month

\$9.99

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Color: Multi-colored

\$11.50 (\$0.38 / count) FREE Delivery Tomorrow	\$9.50 (\$0.40 / count) FREE Delivery Tomorrow	\$4.99 FREE Delivery Tomorrow	\$4.99 (\$0.33 / count) \$5.50 FREE Delivery Tomorrow	\$9.99 FREE Delivery Tomorrow

Lighted Sea Urchin Mushroom - page 1 of 2

Operation

Materials

Sea Urchin Shell - Source: Amazon, Etsy, Seashell Company

Cone shaped sanding jig - blank 2.25" x 2.25" x 2.5"

Blank for base of mushroom and top plug - 2.25" X 2.25" X 5"

LED light bulb - Source: Amazon...I used a company named "LIHAO"..they sell "LED Balloon Lights" in white or shifting colors

Turn a Cone Shaped Sanding Jig

Turn a tenon on a sanding jig blank and then mount in four jaw chuck.

Use a roughing gouge to make a cone shape on front of blank, then sand to 240 grit.

Cut a piece of 180 grit sandpaper, use spray adhesive to stick to the cone, secure with rubber bands, wait until glue sets before using.

Sea Urchin Preparation

Pick a sea urchin that is tall enough to accommodate the height of the LED bulb to be used.

Mount sanding jig on lathe and set speed to about 250 rpm.

Slowly and lightly advance top of sea urchin onto jig until hole is round. Repeat process and sand bottom hole round.

Measure the diameters of the top and bottom holes and record to use later.

Turn Plug for Top of Sea Urchin

Mount blank for base of mushroom and top plug between centers and use roughing gouge to turn round.

Use parting tool to cut tenon for four jaw chuck.

Reverse mount blank.

Use parting tool to cut tenon to size of diameter of top hole, leaving enough wood to turn a dome shape on end of blank.

- Dome diameter should be about 3/8" wider than the diameter of top hole.

- Tenon should be about 1/4" long to allow parting off later and should be short enough so plug does not hit top of LED bulb.

Undercut the bottom of the plug to match curved top of sea urchin.

Sand and finish the plug.

Cut off plug using thin parting tool and/or thin saw.

Test fit plug to ensure it fits in top of sea urchin. If necessary, reinstall sanding jig and enlarge hole to fit plug.

Lighted Sea Urchin Mushroom - page 2 of 2

Operation

Make Tenon for Bottom of Sea Urchin and Drill hole in Top of Blank for LED Bulb

Face off the top of remaining blank.

Measure diameter of LED bulb (should be about .44") and select drill bit slightly larger than this diameter - about 27/64".

Measure the length of the threaded base of the LED bulb (should be about 1/4"). Mark drill bit and drill to this depth.

If LED bulb has a mounting point on bottom, measure mounting point diameter and length. Usually about 1/8" x 1/8".

Select proper sized drill bit, mount in Jacobs Chuck and drill a hole to length of mounting point.

Test fit bulb to ensure base fits into the top of the mushroom base.

Cut a 3/8" long tenon on top of the blank that is slightly less than the diameter of the bottom hole in the sea urchin.

Test fit of tenon to ensure the tenon fits into the bottom of the sea urchin. Adjust as necessary.

Insert an LED bulb into the base and with top plug inserted in sea urchin shell. Make sure the bulb does not touch the top plug.

If LED bulb touches top plug, adjust length of tenon and hole for bulb, until LED bulb fits in sea urchin properly.

Use roughing gouge and/or spingie gouge to turn the base into the shape of a mushroom.

Sand and finish the mushroom base.

Final Assembly

Use epoxy to glue plug into top of sea urchin.

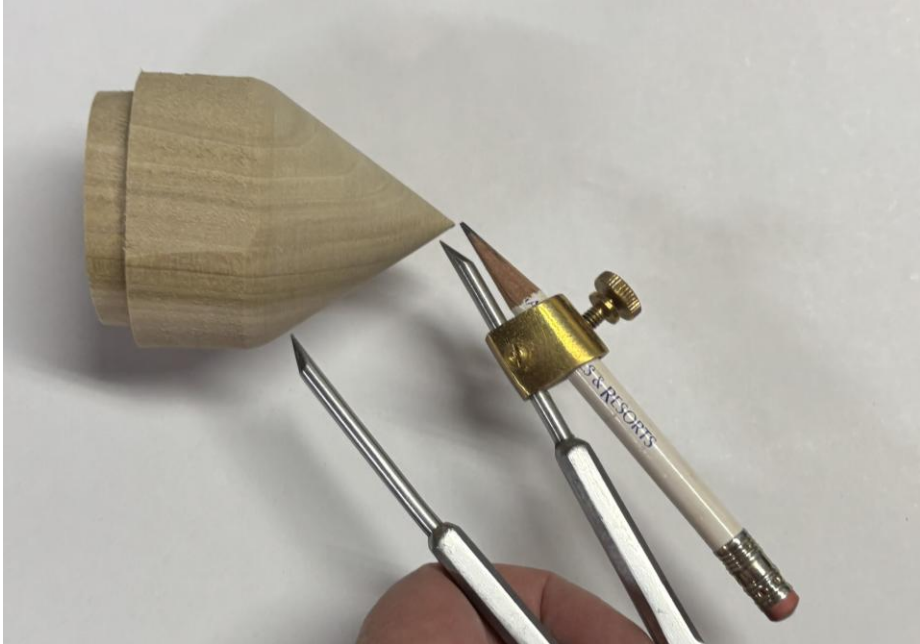
Optional: LED bulb base can be epoxy glued into top of mushroom base or left loose.



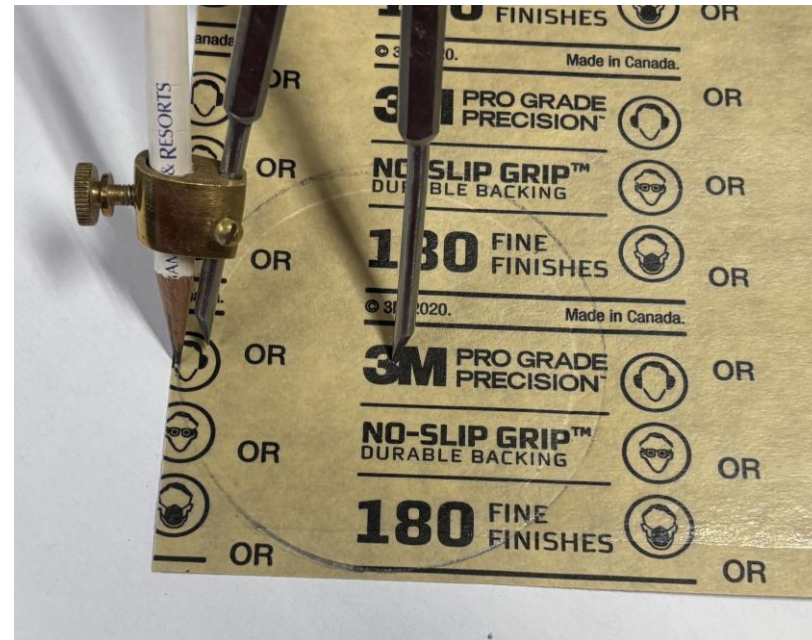
Mount Sanding Jig Blank and turn tenon on one end



Mount in 4 jaw chuck and turn cone shape



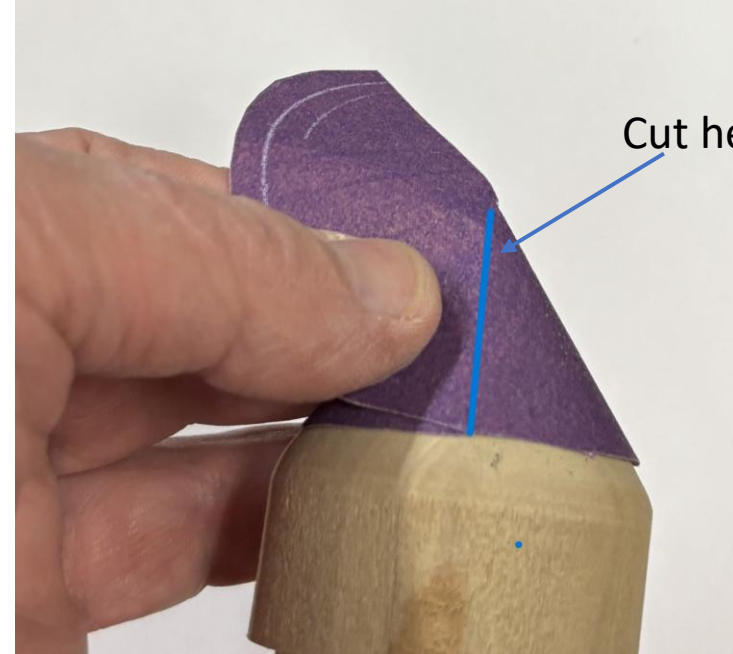
Measure cone for sandpaper diameter



Transfer diameter to sandpaper and cut out circle



Cut to center of circle



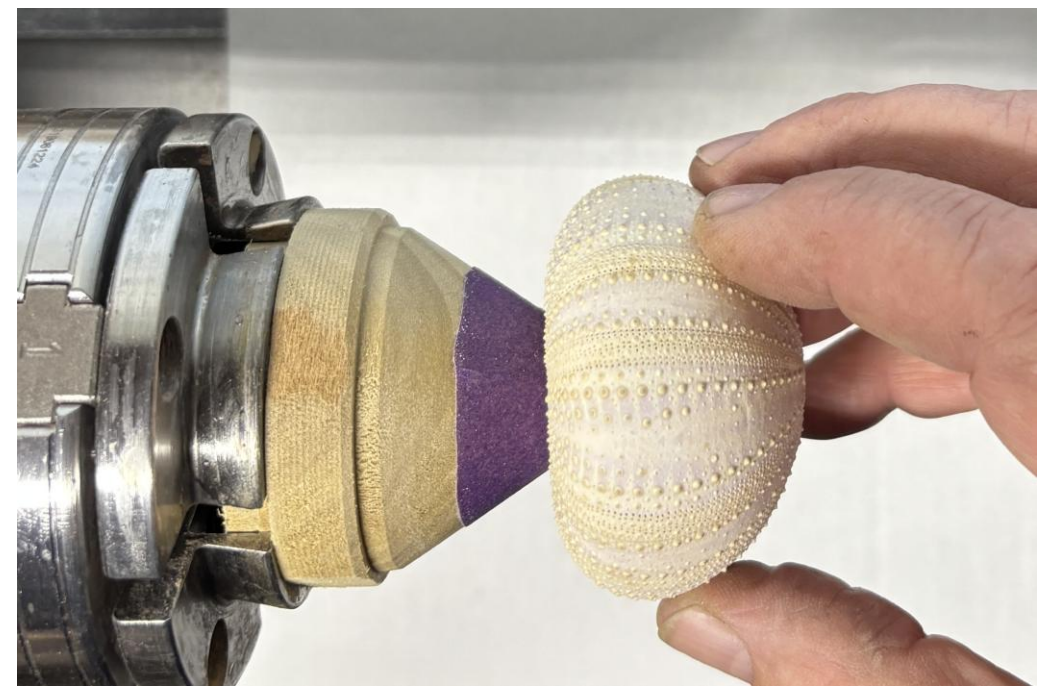
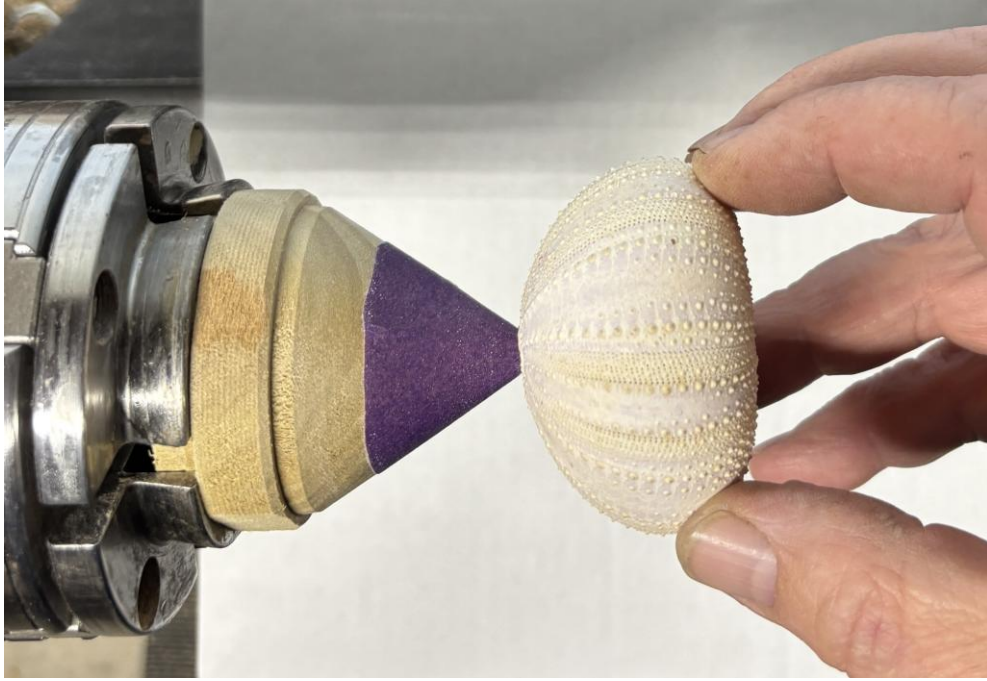
Wrap around cone shape and cut where end meets



Spray glue on sandpaper and wrap around cone



Secure sandpaper to jig until glue dries



Gently sand top and bottom holes in sea urchin shell to round shape



Mount mushroom/plug blank and turn tenon



Reverse mount blanks and turn tenon and plug



Turn plug dome shape and part off



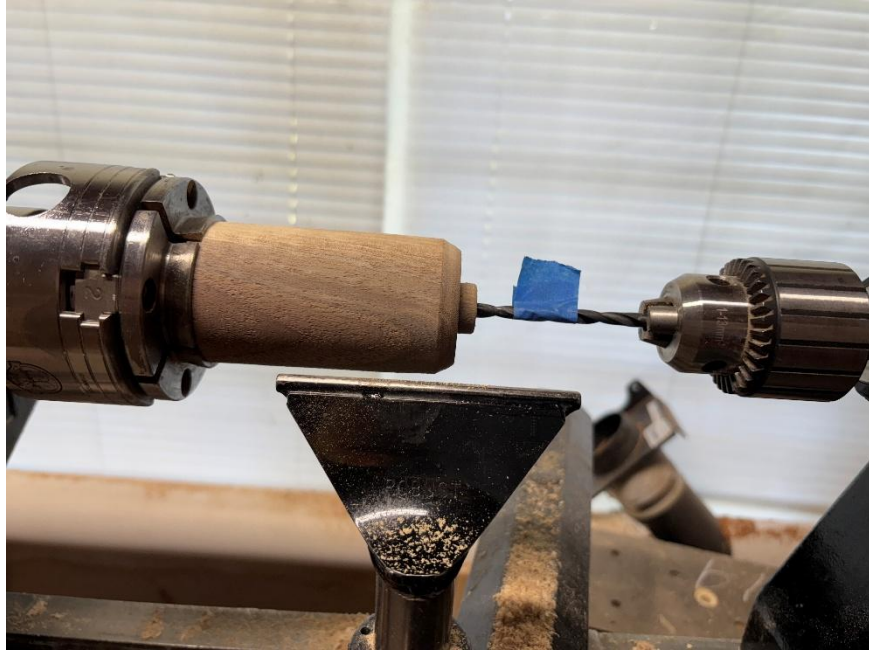
Test fit plug in top hole of sea urchin



Turn tenon for bottom hole and test fit



Drill hole for LED light base



Drill hole for mounting point, if necessary



Turn base to look like a mushroom



Sand, finish, and part off



Glue plug into sea urchin and LED light base into mushroom base