



Many variations of design are possible. Not only in the overall shapes and openings but the choice of lace patterns and colors and the use of a finial. A translucent acrylic plastic finial will glow from the light emanating from the interior LED.

This simple project involves turning a spherelike object, hollowed out from the bottom with openings cut into the wall after the turning is complete. By placing a battery-powered, flickering LED tea-candle light inside, an attractive nightlight is created.

Many variations are possible, based on the initial concept; global or vase forms could be used for the shell, as could tall or squat forms. Perhaps you could try turning the shell so thin that light would shine through the wood itself. The object would be light enough to be used for a Christmas tree ornament or topper. I challenge the reader to come up with his or her own unique designs.

Tea-candle lights are available through local hobby stores and on online auction sites. I purchased those designed to flicker as real flames do. A CR2032 battery is needed, and the battery will last up to 120 hours. Purchase the tea-candle light before you start so you know the dimensions needed for the bottom opening.

I used lace to cover the holes in the shell. It helps to stiffen the lace for easier handling and strength. The lace fabric I had was white, and I wanted it rose colored, so I added some translucent dye to the two-part resin. I brushed the mixture onto the lace and let it cure for about eight hours. The ►

Paul Stafford

Nightlights



1 After sketching a design and determining the size of wood needed, turn a cylinder to the correct size. Mark off about $\frac{5}{8}$ " (16 mm) at the end where the base will be turned and parted off.



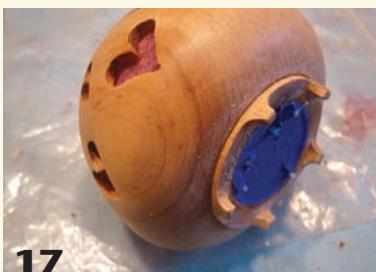
2 Mount the cylinder into a chuck and turn the base area to a final diameter. Mark a circle on the base to match the diameter for the opening where the tea candle will be located. The base will have a shoulder, which will be used for creating legs.



3 Hollow out the area where the tea-candle light will fit. The light I am using has a tapered side, so I will cut the hole to match the diameter and taper of the light to achieve a snug fit.



16 Cut the lace into individual pieces to cover the openings and place them over the openings on the inside of the shell. Several drops of CA adhesive along the edge of the lace will adhere it to the shell.



17 Fit the base/tea-candle light into the bottom hole of the shell. Line up the grain to match the shell with the base. Permanently affix the two using CA glue or epoxy. Mask the bottom of the light with tape, in preparation for a final spray finish. Spray with finish, and then remove the masking tape.

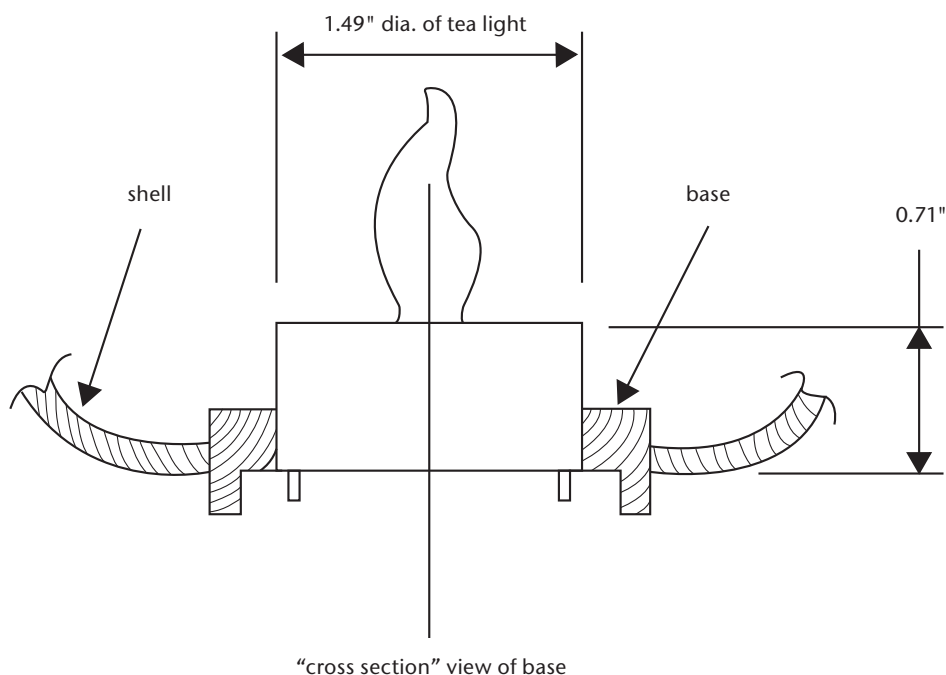


Figure 1

result was fabric with the stiffness and color I wanted. The lace can be used without the resin treatment if desired.

I turn my nightlight vessels with a consistent wall thickness, although achieving a wall that is thick or thin is not important. I like the consistent wall thickness so that drilling the openings is predictable and gives the look I want. On the other hand, a variation of wall thickness could be part of a design that renders the light brighter at the top than at the base.

Perhaps a wall thickness that is wavy, with openings at the thin sections, might be attractive.

Use whatever cutting tools are convenient and familiar to you to achieve

the desired objective. The same applies for chucking methods.

The dimensions (*Figure 1*) are those of the tea candle I used. The dimensions of the tea-candle light you use may be different, however, so proceed accordingly to determine the size of the base and the opening in the bottom.

Installing the tea-candle light into a separate base rather than directly into the bottom of the shell allows for a larger hole in the bottom of the turning, which is useful for finger access when attaching the lace on the inside.

Paul Stafford began woodturning in 1983 when he became aware of the wonderful grains and patterns existing in wood. He received the 2004 Niche award as well as many other awards, and his work is offered in fine galleries throughout the United States. For more of Paul's work, visit his website, woodturner-gallery.com.

The lace prevents a clear view to the inside but its pattern shows nicely. When illuminated it casts a pleasant glow to its surroundings.





4 Cut the recess for the legs.



5 Repeatedly check the opening for a snug fit of the candle. If the opening becomes too large and the candle fit is too loose, you will need to use adhesive as filler to achieve a tight fit.



6 When you are satisfied with the size and shape of the base and have achieved a tight fit for the light, sand the base smooth and part it off using a thin parting tool.



7 The light and base together. (The shoulder for the legs is on the inside of the base ring.)



8 After the outer shape is finalized, hollow out the globe or shell.



9 Cut the opening to fit the base.



10 Check the fit of the base to avoid oversizing the opening. A slight taper in the opening will help achieve a tight fit. The joint is simply wood-to-wood, no shoulder. Sand the bottom area of the shell and base.



11 Reverse the shell in the chuck, expanding a set of chuck jaws inside the hole made for the base. (There was a small crack in the wood, so I used a hose clamp to prevent the shell from splitting.)



12 Shape the top and sand the entire outside of the shell.



13 Mark lines on the base for legs and carve them. Glue in the candle with CA or epoxy. When the candle is illuminated, the light will glow through its base, and the legs will allow the light to shine underneath.



14 Lay out the pattern of the openings you wish to pierce through the shell.



15 Use a cutting burr in a rotary tool to create your openings. Sand away all the pencil lines and sand any parts of the shell that need smoothing. Apply sanding sealer if desired.