

Lisard Ultralight

Materials needed:

- ◆ Posterboard (or cereal box)
- ◆ Bamboo Skewer
- ◆ Paperclip
- ◆ Duct Tape
- ◆ Needle Nose Pliers (or strong fingers)
- ◆ Scissors
- ◆ Glue (such as Elmer's)
- ◆ Waxed Paper
- ◆ Awl (or Hammer and small Nail)
- ◆ Print Out of Page 2 (or a compass)

The Lisard Ultralight is a very inexpensive, almost disposable, drop spindle you can make yourself. Being very both light (the standard model is 8 grams) and with most of the weight on the rim of the over-size whorl, you will be able to spin very fine yarns more easily. Bamboo skewers are not perfectly straight, and cardboard is not perfectly rigid, but the whorl size and light weight more than make up for this. Because you can inexpensively make it yourself, you can customize the length and weight to suit, and experiment with different configurations of whorl size, weight and placement as well as shaft length.

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This design is also Free. However if you are overcome with gratitude and feel that you must compensate me somehow, I would welcome chocolate.

After you've gathered the materials, begin by generating the pattern. The easiest way is to print out Page 2. You may be able to print it out directly on posterboard with an ink-jet printer. If you only have a laser printer, print it out on regular paper and transfer the pattern. To do this tape the pattern to the heavier stock at the corners, place it on a hard smooth surface such as your kitchen counter and iron at the cotton setting using a lot of pressure. You can also print out on plain paper and glue the entire sheet to posterboard. I've supplied the graphics normal and reversed to suit whichever printing option you choose.

If you feel that you can cavalierly dispense with my labors over the graphics, you can lay out the pattern directly on your stock with a compass. To do this first draw four circles with a diameter of 3/4 inch. Then draw one set of concentric circles with diameters of 3/4, 3 and 4 inches. Then draw two sets of concentric circles with diameters of 3 and 4 inches.

Now it's time to cut out the pattern. Using scissors cut out the 4 small circles. Cut out Disk 1 if you've iron transferred a laser print. Cut out Disk 2 if you've printed directly. Last cut out the two 4 inch shaded rings that are left. If you are fussy about getting glue on your fingers cut out an approximately 3/4 by 3 inch strip to use as a glue spreader.

Put down a sheet of waxed paper so you don't get glue everywhere. Put a dot of glue on a 3/4 inch circle, and spread it to a thin even coat. Place the disk (glue side down) on the middle of the big disk. Repeat until you've stacked up all four 3/4 inch circles. Do the same with the rings. Fold a fresh piece of waxed paper around the assembly and weight with a book until dry. Have a cup of coffee to let the glue dry a while. If you're using cereal box cardboard, let it cure overnight, as the glossy coating inhibits good glue bonds.

Using needle nose pliers bend the last 1/4 inch of a paperclip into a sharp U. Cut the paperclip about an inch below the bend. If you can't find needle nose pliers and are astoundingly cheap, (\$5?) you can pin the end of the paperclip between two table knives and bend it with your fingers. Then bend the paperclip back and forth an inch be-

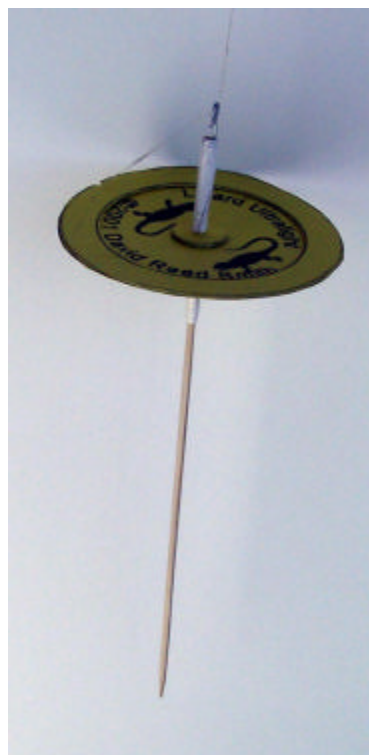


low the bend until it breaks. Don't blame me if you hurt your fingers.



Cut one inch of tape off the end of a roll of duct tape. Place the paperclip on a 10 inch bamboo skewer so that the end of the bent part is just past the blunt end of the skewer. Wrap the tape once around the two parts. Align the paperclip so that the U points in towards the middle of the skewer. Now wrap the rest of the tape strip **tightly** around the skewer.

Take the glued up disk out from under the book and place it on a scrap of wood so that the small disks face up. Use a book you don't like much if you don't have wood scraps. Take an awl or nail and hammer and start a hole

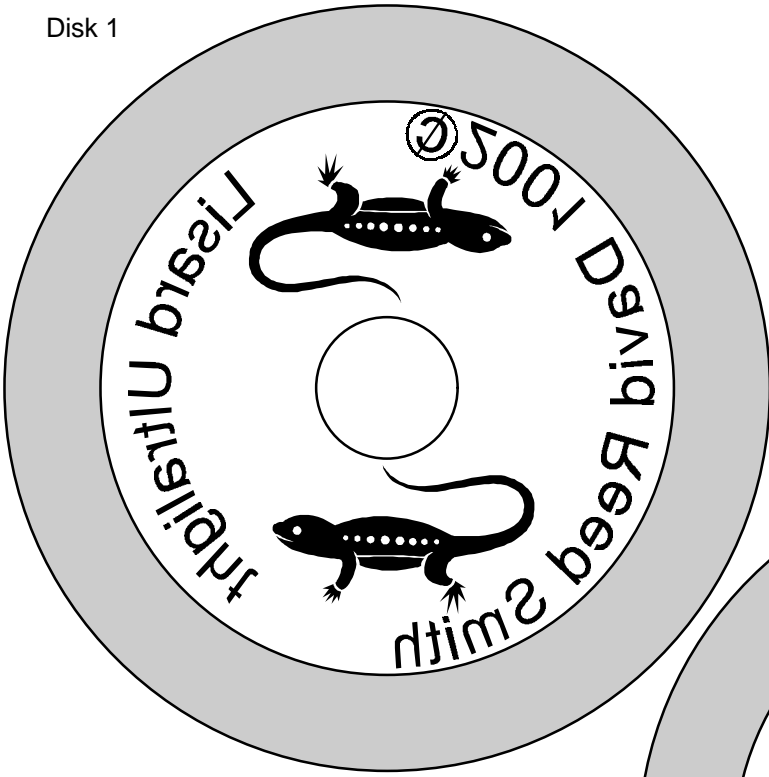


in the exact middle of the disk. Don't get carried away, the hole should be a little smaller than the skewer.

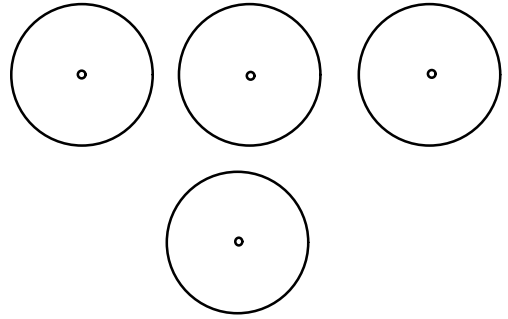
Now plunge the pointed end of the skewer through the hole. This is easier if the disk is supported close to the hole. I use the holes in my workbench, but an empty Coke bottle should work as well. Slide it down until the tape is against the disk. Cut another 1 inch strip of tape and wrap around the skewer below the disk.

Cut a notch in the rim if you like one, and then enjoy spinning.

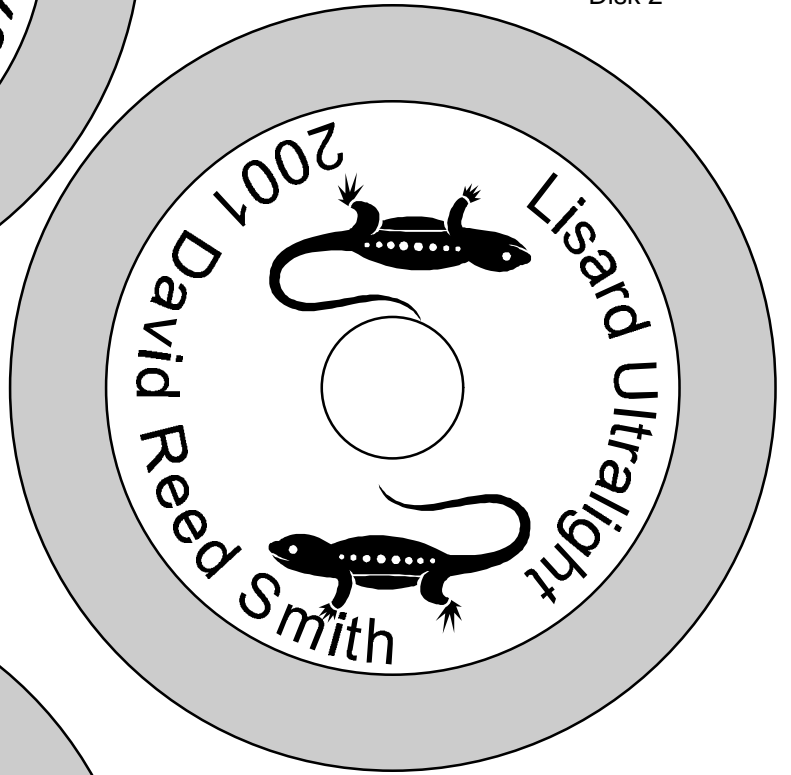
Disk 1



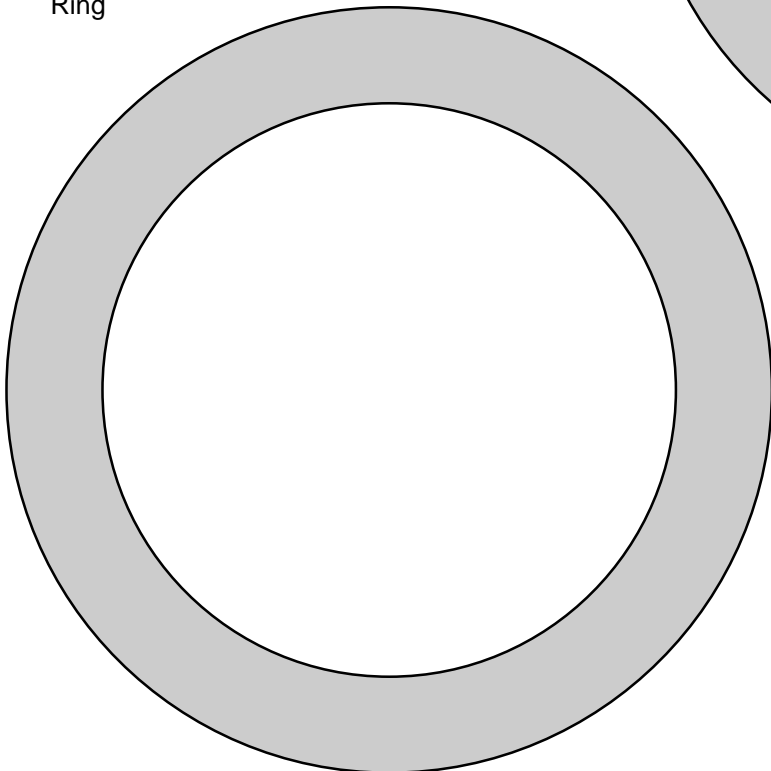
Center Circles



Disk 2



Ring



Send comments, complaints and suggestions to me by email at David@DavidReedSmith.com

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Lisard is pronounced like Lizard only with an S instead of the Z sound.