# Paper Towel Patterns

## Using Printing Patterns on Moderately Curved Surfaces

### Introduction

This is, I think, a rather cute solution for a narrow niche.  Or, if you prefer, a solution in search of a problem.  The ornaments I made for 2019 had a 2" round wood overlay glued to a 3" plastic ornament.  I cut the overlay into various shapes (sun, clouds, moon, and stars) and wanted to find a way to use printed patterns rather than having to draw on the overlay each time.  Regular printer paper wrinkles if you try to attach it to a curved surface.  But paper towels are formed with little dimples which allows them to stretch a little.  And unlike crepe paper, which is wrinkled, and only stretches in one direction, paper towels will stretch in two directions.

With the help of a carrier sheet, an ordinary ink jet printer with a single sheet feed will print on paper towel.  The resulting pattern can be attached to a moderately curved surface using masking tape and wood glue.  It worked very well for my overlay blanks which were cut on a scroll saw.  On a larger scale, I think it would work nicely for carving pumpkins.  I'm not sure how well a turbo piercing burr would handle the masking tape and glue.

### Printing

If you try and feed a sheet of paper towel by itself through a printer all that'll happen is you'll make a mess.  But it'll work just fine with a carrier sheet.  Take a piece of printer paper and put two pieces of double stick tape on the paper in a "T" shape—one across the top and one down the middle of the sheet as shown in Figure #1.  I used the 2" wide double stick tape made for sticking down drop cloths.



Figure #1:  Apply double stick tape in a "T" pattern to printer paper.

Line up a plain white paper towel with two edges of the carrier sheet and press it down as in Figure #2.  Then use scissors to trim the other two edges as in Figure #3.

Figure #2: Attach a paper towel to the carrier sheet.



Figure #3: Trim the paper towel to size.

Insert the paper towel/carrier sandwich into the single sheet feed of your ink jet printer. You may have to assist it a bit when you print. Pay attention to which side is supposed to be up. Then print your pattern. A sample result is shown in Figure #4. This pattern was generated by importing a scanned hand drawn pattern into my CAD program. It was "traced" using the Bezier tool, then the scan was deleted, leaving nice thin crisp easy to follow lines.



Figure #4: The pattern printed on paper towel.

## Attaching the Pattern

My overlay blanks were 2" discs, concave on one side matching the curve of the plastic ornament, and convex on the other side. One is shown in Figure #5. Cover the front with the old-fashioned blond masking tape as in Figure #6. The tape makes it easier to remove the pattern. Use blond masking tape to make it easier to see the black lines. Also cover the back side of the blank with tape to help cut down fuzz from the scroll saw cuts. Indicate the grain direction with an arrow.
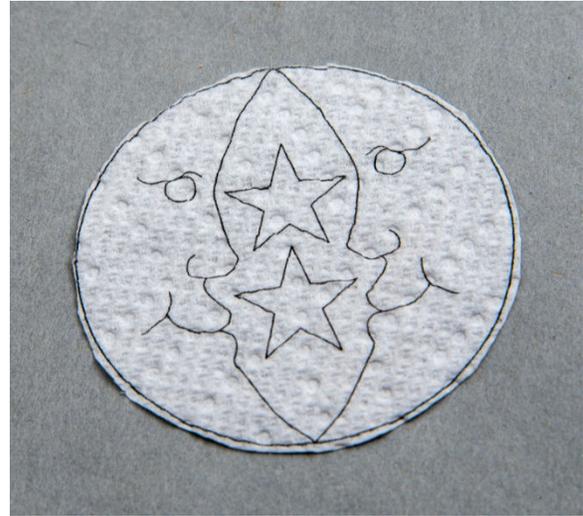
Figure #5:  The overlay blank.

Figure #7:  Cut out the pattern.

Figure #8:  Gently stretch the middle of the pattern into a dome shape.

Figure #6:  The overlay blank covered with masking tape.

Cut out the pattern close to the edge as in Figure #7.  Gently stretch the middle of the pattern with your fingers to pre-shape the pattern into a dome as shown in Figure #8.

Apply some wood glue to the taped face of the blank as in Figure #9.  Spread the glue into a thin coat with something handy like your fingers.  Wood glue allows for some repositioning if necessary.  Center the pattern over the blank and gently smooth it out.  Allow the glue to set before cutting.  A sample attached pattern is shown in Figure #10.

Figure #9: Spread wood glue on the taped blank.

Figure #10: The attached pattern.