

MACHINE SHOP

PROJECTS

PAPER TOWEL HOLDER

PAPER TOWEL HOLDER

Machines to Learn

- Miter saw
- Sander
- Hand Drill
- Staining Techniques

Components

- Industrial Pipe & Base x1
- Wood ~3/4" x 5 1/4" x1
- Screws ~1/4" long x3
- Wood Stain



MACHINE SHOP

PROJECTS

PAPER TOWEL HOLDER

❖ Steps ❖

1. Create Wood Base

a. Use Miter Saw to cut square wood base, ~6" in length

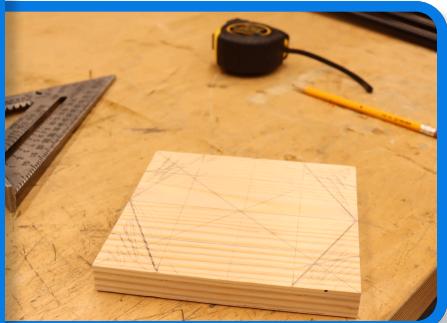
b. Measure & Draw out design

- i. Could do square base, hexagon, curvy blob etc.
- ii. This guide will go over a hexagon base. If doing a curved/blob cut can use a jigsaw to cut out design and then sand to refine it.

c. Make angled cuts with miter saw

- i. Adjust miter saw to desired angle, aligning with drawn lines (~30 deg for a hexagon)
- ii. Use hold-down stick to hold wooden base safely when cutting
- iii. Make angled cut, in between cuts rotate piece to cut each side

d. Sand the base as desired (ie. round over the edges, etc.)



MACHINE SHOP

PROJECTS

PAPER TOWEL HOLDER

❖ Steps ❖

2. Assemble Pipe & Wooden Base

- a. Pick out three screws ~1/4" long
- b. Center pipe base on the wooden base using measurement tools
 - i. Use square to draw lines between opposite corners of base, intersection will be center point
 - ii. Can use caliper to measure pipe base inner diameter and etch out a circle about the center point for better centering
- c. Clamp pipe base about the center of your wooden base
- d. Drill pilot holes
 - i. Pick out drill bit approximately the size of the minor diameter of the screw
 - ii. Can mark appropriate depth (~1/4") with painters tape on drill bit such that hole does not go all the way through the base
 - iii. Drill pilot hole for each screw hole in base
- e. Tighten screws into holes using a screw driver
- f. Now that the pipe base is attached to the wooden base, take the pipe and screw it into the pipe base



MACHINE SHOP PROJECTS

PAPER TOWEL HOLDER

❖ Steps ❖

3. Stain

- a. Choose color stain desired
- b. Apply desired number of coats evenly across wooden base
 - i. Put on disposable gloves
 - ii. Take a shop towel or foam brush and dip in stain
 - iii. Wipe towel/brush on interior edge of stain can to reduce dripping of stain and ensure an even coat
 - iv. Wipe towel/brush around wooden base. Make sure stain is even: avoid it pooling up or towel\brush being too dry
 - v. To get a deeper color apply more coats as desired every few minutes
- c. Once done applying coats, let the paper towel holder dry for a day before use

Awesome job! You now have a custom paper towel holder!

