

# 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



# 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.

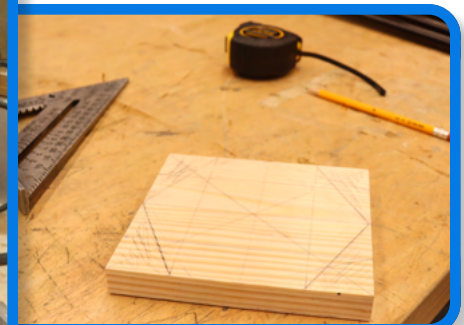
**c. Make angled cuts with miter saw**

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.)**



# PROJECTS

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### ✧ 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





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### ✧ 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!

