

## Knotty Plans

### Paper Towel Holder

Plan#03-400



*F*inding useful projects that use scrap wood around the workshop can be a challenge. We like to use scrap wood on something worth while. This is why we decided to add this useful yet simple-to-build paper towel holder to our list of free plans. This project costs virtually nothing and requires little time to complete.

Finish used for this project: water-based Flecto Varathane Diamond Wood Finish, in a satin sheen.

Overall dimensions: 6" long x 6" high x 13" wide

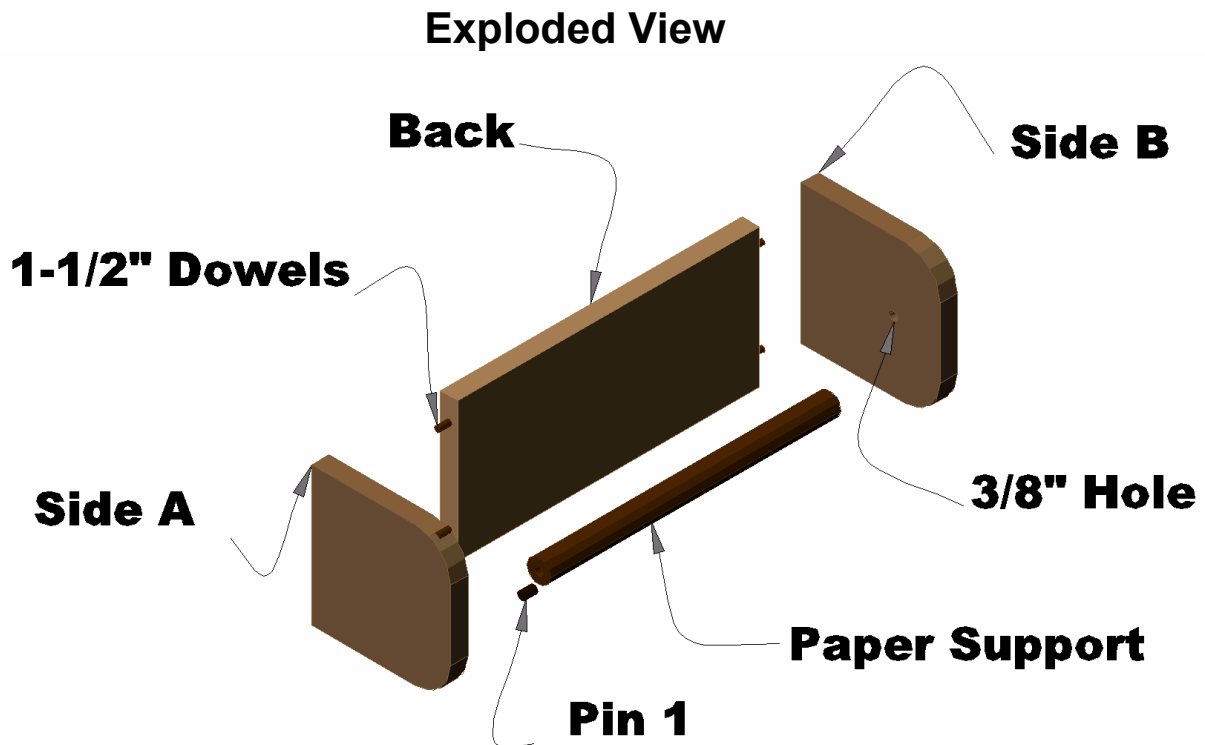
**Note:** Please make sure to read all instructions before starting the project.

## BEFORE YOU START

Make sure to read all the instructions, observe all the illustrations and go over the material list. It is a good habit to verify that all measurements indicated on each illustration corresponds to the text instructions and material list. Once you are comfortable with the project plan instructions, select the tools and equipment that you desire to make your cuts with. Go over the material/hardware you need and make sure to add extra material for the project. If you are having difficulty in finding the hardware for the project, go to our web site at [knottyplans.com](http://knottyplans.com) and look up the **Hardware** section.

## THE PAPER TOWEL HOLDER

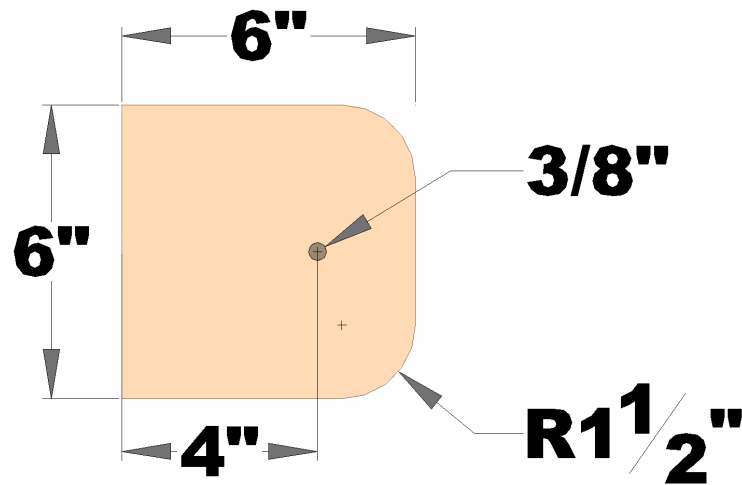
This particular paper towel holder was build from pine but other types of wood can be used to match existing cupboards and kitchen accessories. The sides can be fastened to the back piece with dowels or with screws and then covered with wooden plugs. The paper roll is supported by a 1" dowel. It has one fixed pin at one end and a pin and spring at the other end. This way the paper roll can be changed easily. Refer to the **Exploded View** illustration for the project presentation.



### THE SIDE

The paper towels holder sides are identical. From a 3/4" stock, cut two pieces measuring 6" by 6". On each piece, make two 1 1/2" corner round cuts (as shown) and drill a 3/8" by 1/4" hole positioned 4" from the center back. The round corner can be made with a jig saw or scroll saw. If you don't have a jig saw or scroll saw you can always use a compass saw or leave it square. After the corners have been rounded, smoothed them with 180 grit sandpaper. Refer to the **Side View** illustration for more details.

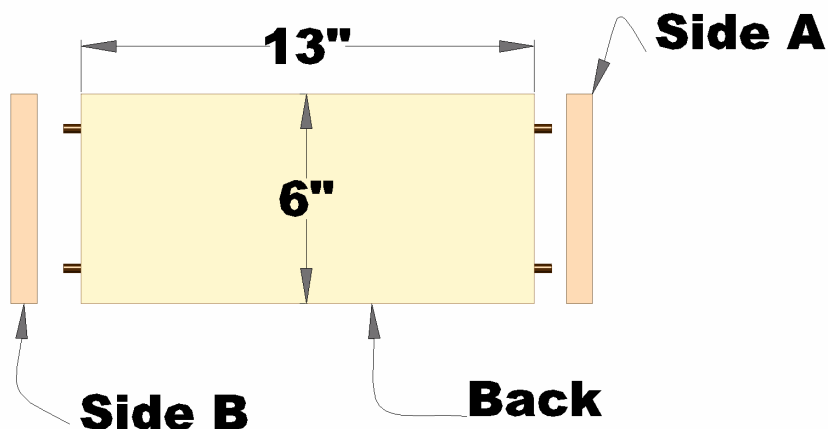
#### Side View



### THE BACK

The back piece holds the sides and the paper roll support. From a 3/4" stock, cut one piece measuring 6" by 13". Attach sides A and B to the back piece with dowels and glue. Refer to **Back View** illustration for more details.

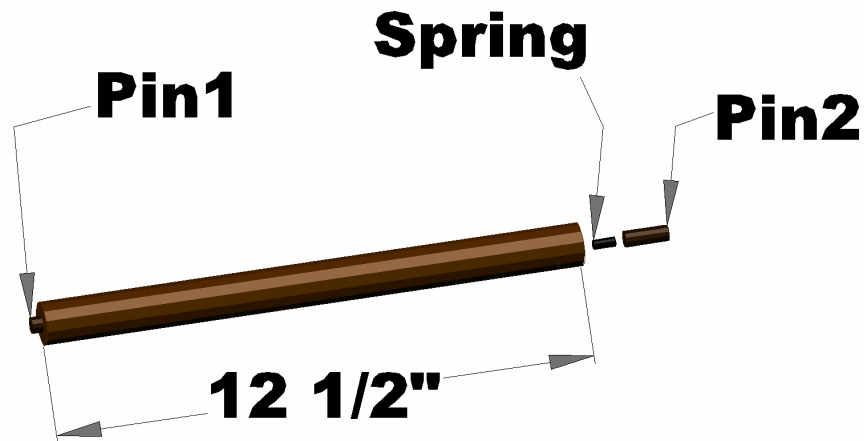
#### Back View



## THE PAPER ROLL SUPPORT

The paper roll support is made with a 1" by 12 1/2" dowel. At one end of the dowel, drill a 3/8" diameter hole by 1/2" deep and at the other end of the dowel drill a 3/8" diameter hole by 1 1/4" deep. Pin1 is made with a 3/8" diameter by 1" dowel and it is fixed with glue inside the paper roll support at the end where you drilled the 3/8" dia. X 1/2" hole. At the other end (3/8" dia. X 1 1/4" hole), you will fix pin2, which is also a 3/8" diameter by 1" dowel piece, but is attached with a small 1/4" diameter spring. You should use epoxy to glue the spring to pin 2 and to the paper roll support. The total length of the paper roll support with the pins should be greater than 13" and pin2 length should vary when pressed against the sides because of the spring. You can adjust the spring tension to achieve a proper fit. This permits easy removal of the paper roll support when replacing an empty paper towel roll. Refer to *Paper Roll Support Parts* illustration for more details.

### Paper Roll Support Parts



## FINISHING YOUR PROJECT

Make sure that there is no trace of glue on the wood. For best results, use 150 grit sandpaper for soft wood and 100 grit sandpaper for hardwood.

To finish your project, you may use clear varnish, stain or even paint. If using paint, make sure to seal the knots with Shellac before painting. Enjoy your new paper towel holder.

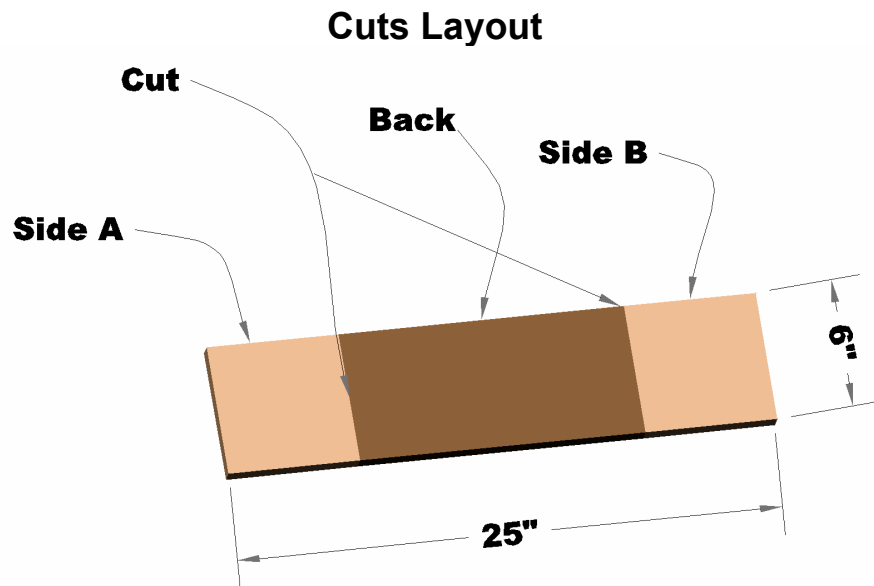
## MATERIAL LIST

### List of cuts overall size

Description	Part ID	Material	Size	Qty
<b>Stock</b>				
Back	A	Solid Pine	3/4" by 6" by 13"	1
Side	B	Solid Pine	3/4" by 6" by 6"	2
<b>Hardware</b>				
Dowel (Roll Support)*		Solid Birch	1" by 12 1/2"	1
Dowels	*	Solid Birch	3/8" by 1 1/2"	6
Spring	*	Coil	1/4" by 3/4"	1
Epoxy Tube (14ml)	*			1

You can make this entire project with one piece of solid pine measuring 7" by 25".

**\*Note:** Most of the hardware required to complete this project should be available at your local hardware store. If you have difficulty finding any of the hardware in your local community, check the [www.KnottyPlans.com](http://www.KnottyPlans.com) web site under the **Hardware** section.



Above shows the cut layout and the amount of stock required to complete the sides and the back piece. The overall piece measures 25" by 6".

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