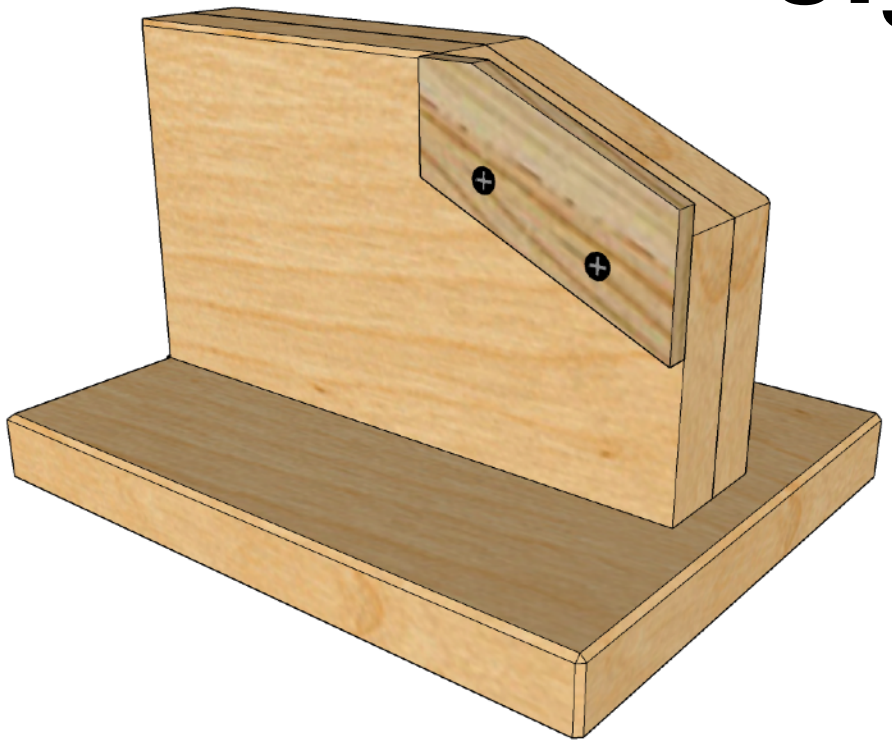
# Drill Press Sharpening Jig





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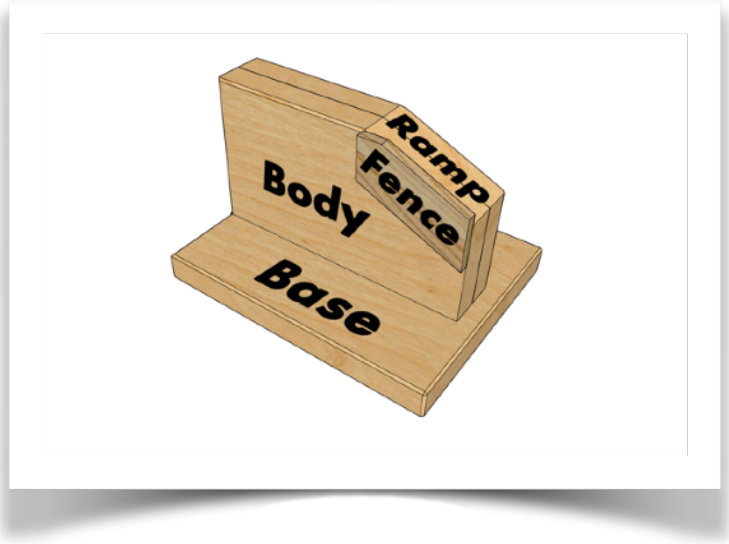
# Introduction

Make sure to read through this build guide **BEFORE** cutting any wood. Familiarize yourself with the tools, techniques, and your approach to building this project.

The sharpening jig is used to hold chisels and other edge tools at the correct bevel angle and at a 90- degree angle to the edge of the tool. This ramp has a wide base, vertical body with a ramp cut at your desired grinding angle and a small fence to prevent the tool from moving out of position. This grinding jig is fabricated by the end user per the instructions in this guide.

Familiarize yourself with the names of the major parts of this jig:



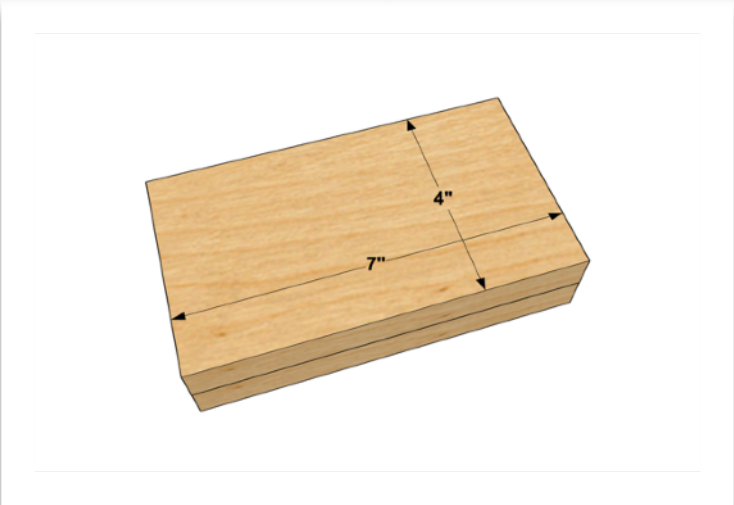

The Ramp can be at whatever angle you need it to be. These instructions will show how to make both 25° and 30° angled jigs.

# Cut list

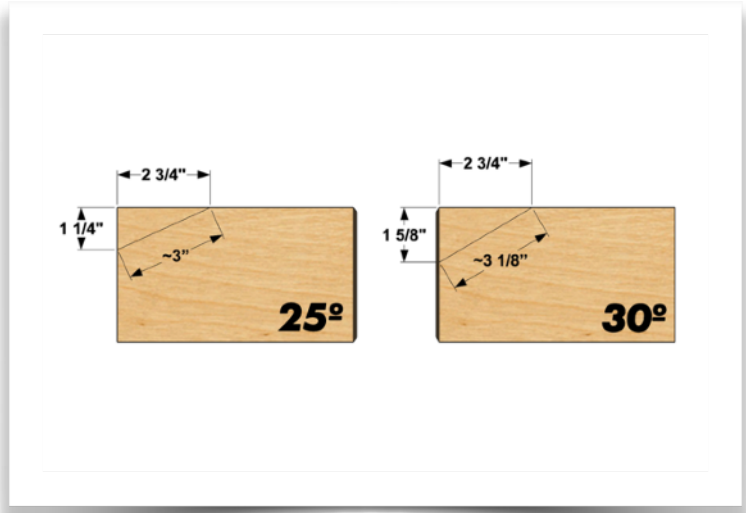
| Item | Quantity | Sizes needed | Material |
|---|---|---|---|
| Body | 2 per jig | 5” x 8” | 3/4” Hardwood |
| Fence | 1 per jig | 1 1/4” x 4 1/2” | 1/4” Hardwood |
| Base | 1 per jig | 6” x 7 1/2” | 3/4” Hardwood |

# Body


- Cut two pieces of hardwood at approximately 5” x 8”.
- Glue these two pieces together, and let the glue dry completely.
- When the glue has dried, cut this assembly to 4” x 7”.

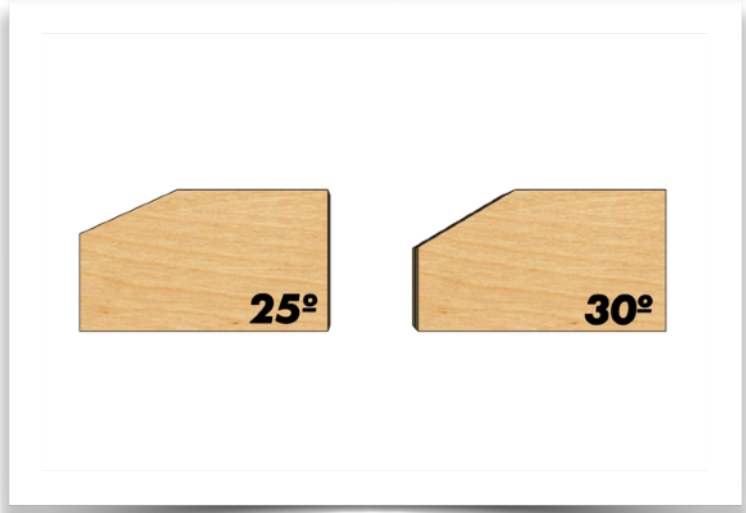


# Body (continued)




- Mark the Body block with these measurements according to the desired angle for your jig.

  If you have a precise protractor, use it to mark the 25º and/or 30º angles with the Ramp length being at least 3”.




- Remove the corners that you marked with a miter saw (with a sacrificial fence), or a sled on your table saw.

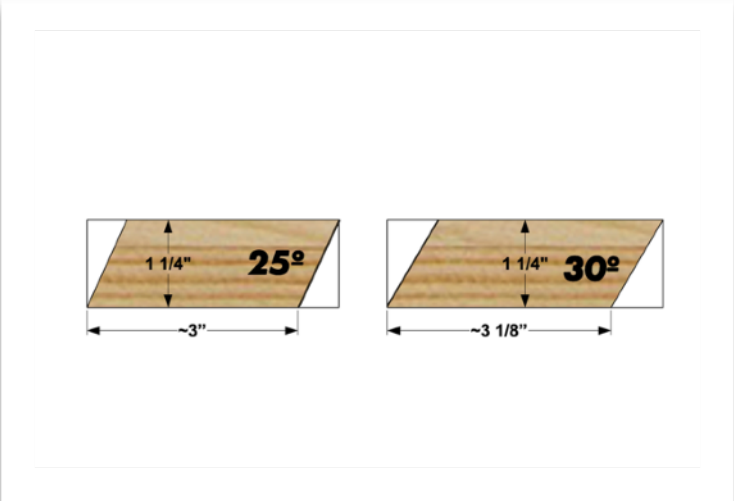
# Body (continued)

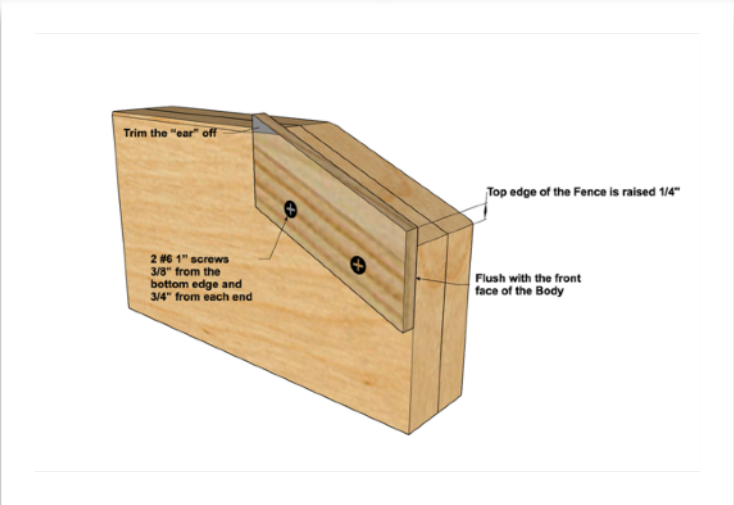


- Using a 1/4" round-over or chamfer bit in your router, or by sanding, ease the edges shown here of the Body.

*Note: Do not ease the edges of the Ramp as to leave as wide as possible.*

# Fence

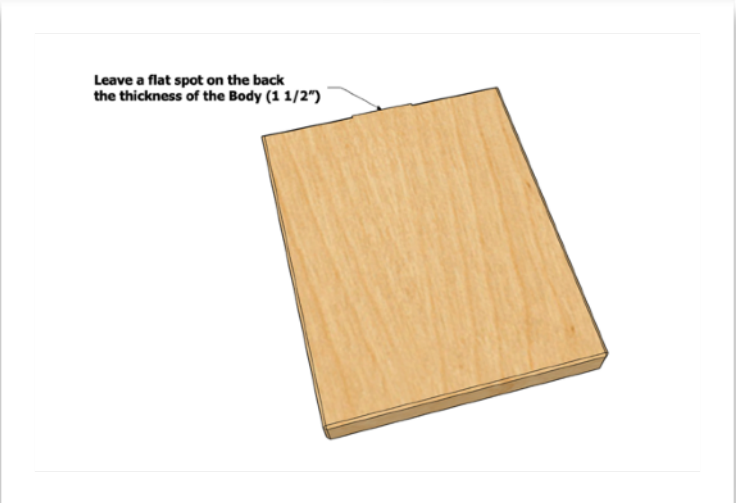



- Cut a piece of hardwood, 1 1/4" wide x about 4 1/2" long for the Fence(s).
- Mill the Fence material to about 1/4" thick.
- Cut both ends to the same angle as your ramp (25º or 30º) and the same length as the ramp
- With two #6 x 1" long countersink wood screws (no glue, so it can removed if you need to), attach the Fence on the left side of the Body with it raised 1/4" above the Ramp. Put screws 3/8" from the bottom and 3/4" in from each end. Make sure the front edge of the Fence is flush with the front edge of the Body.
- Trim off the corner of the Fence ("ear") level with the top of the Body.

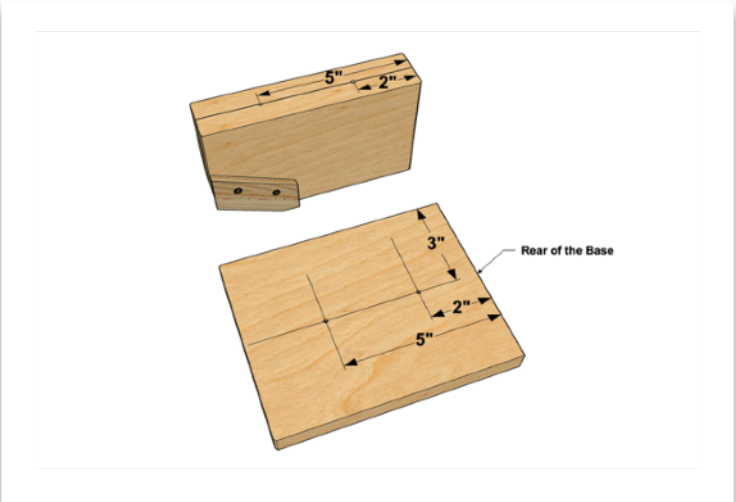
# Base


- Cut a piece of hardwood at 6” x 7 1/2”.

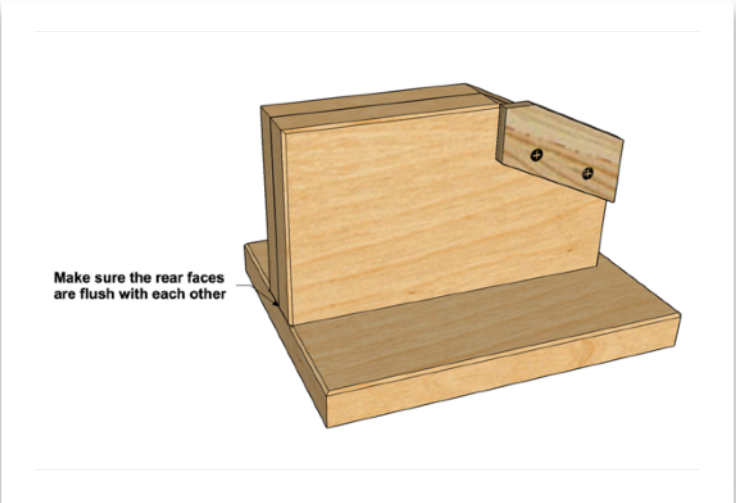



- Using a 1/4” round-over or chamfer bit in your router, or by sanding, ease all the edges of the Base, except leave a flat spot on the back edge of the Base the thickness of the Body (1 1/2”).

# Attach Body to the Base



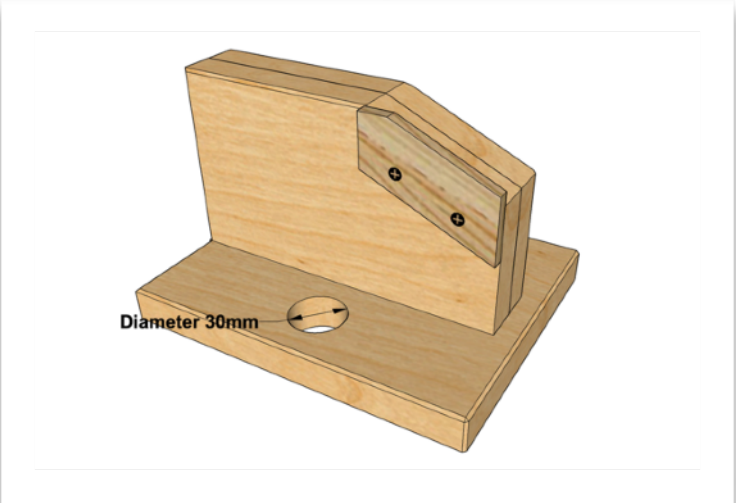

- Drill countersink holes in the bottom of the Base at 2” and 5” on center.
- Drill small pilot holes in the bottom of the Body also at 2” and 5” on center.




- With screws, attach the Body to the Base, making sure to line up the rear faces together against a fence of some sort.

  This alignment is important as the back of the jig will be pressed against your drill press fence preventing movement while using.

# Optional Magswitch Magnetic Clamps

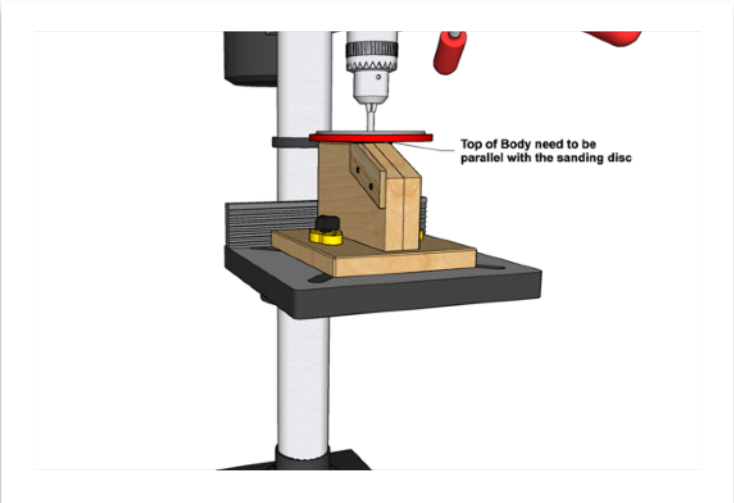


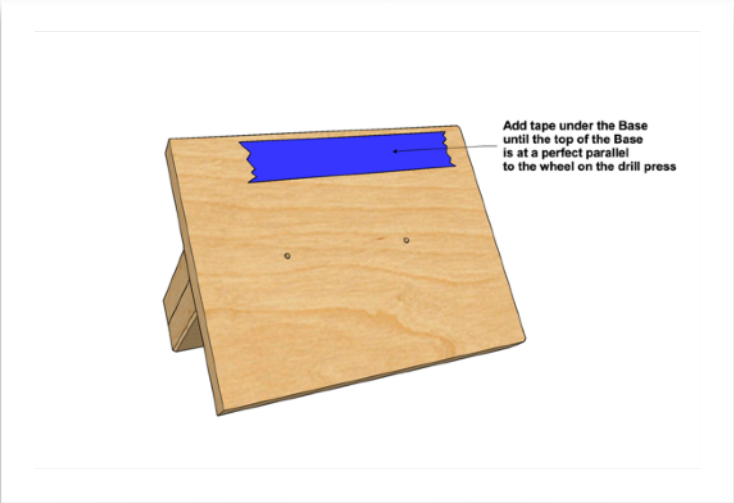

If your drill press does not have a fence, you can use the Magswitch MagJig 95 Magnetic Clamps to hold the jig to a metal drill press table.

- Drill 30 mm holes to accept the Magswitch MagJig 95 Magnetic Clamps.

- Secure the Magswitch MagJig 95 Magnetic Clamps to the Base with the screws as per the instructions.

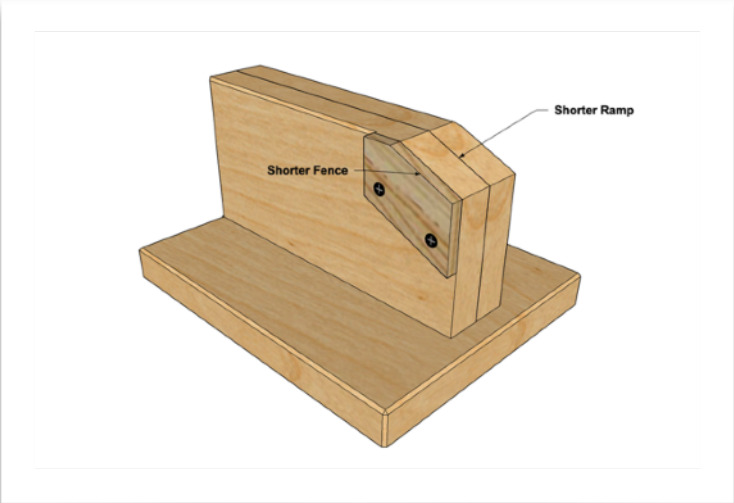
# Calibration



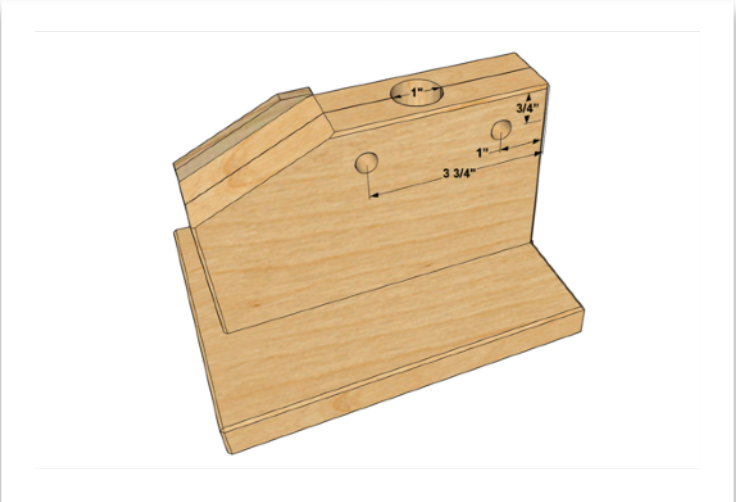

The jig will need to be calibrated to your drill press. Check to see that the edge of your chisels are ground to 90 degree. If not, calibrate jig to grind a perfect 90 degree edge on chisels by selectively applying blue tape to the bottom of one edge of the base.

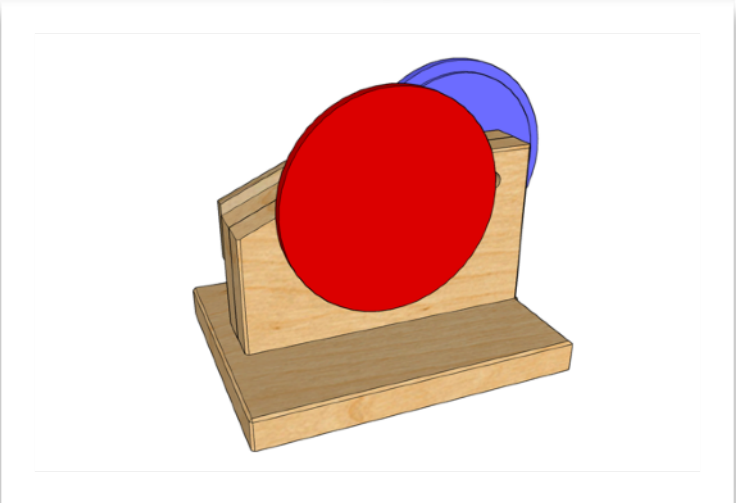
# Shorter Chisels




For chisels with shorter blades, make a jig with a shorter body. The example above has a body that is just 3” tall with a ramp that is at 25 degrees and just 1-3/4” long to accommodate a butt chisel with a 2-1/2” long blade.

# Disc Storage



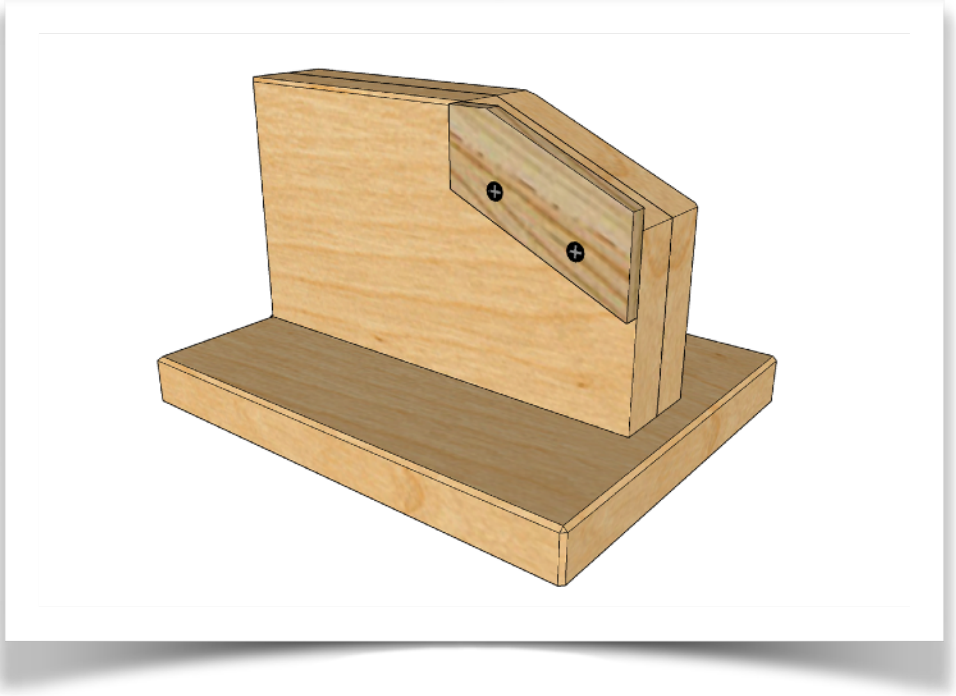



If you'd like a convenient way to store the sanding discs, you can drill $^{9}/_{16}$" holes in the side of the Body opposite the Fence, and store the discs with the jig.

You could also drill a 1" diameter x 2 $^{5}/_{8}$" deep hole in the top to store your stick of honing paste.

# Finished!

And with that, you are finished!



If you have any questions, please reach out via email at support@taytools.com

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