

Making a Homemade Puzzle, or "Why I Love My Jigsaw"

Inspired by the puzzles made by Staves, I decided to try my hand at making my own with my jigsaw.

This is my third, and because I haven't seen an instructables about how to do it, I decided i would post about it.

For this you will need:

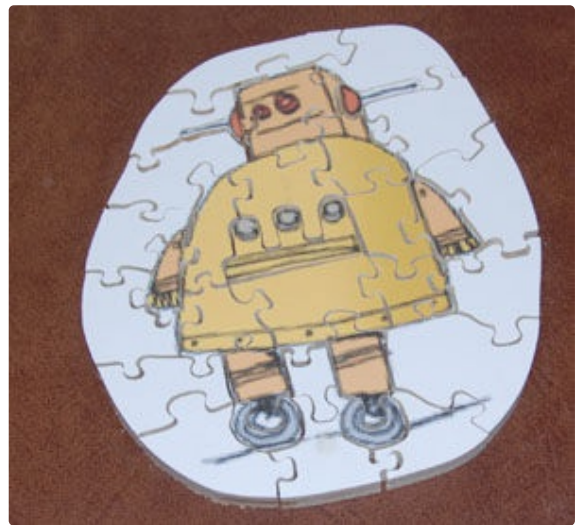
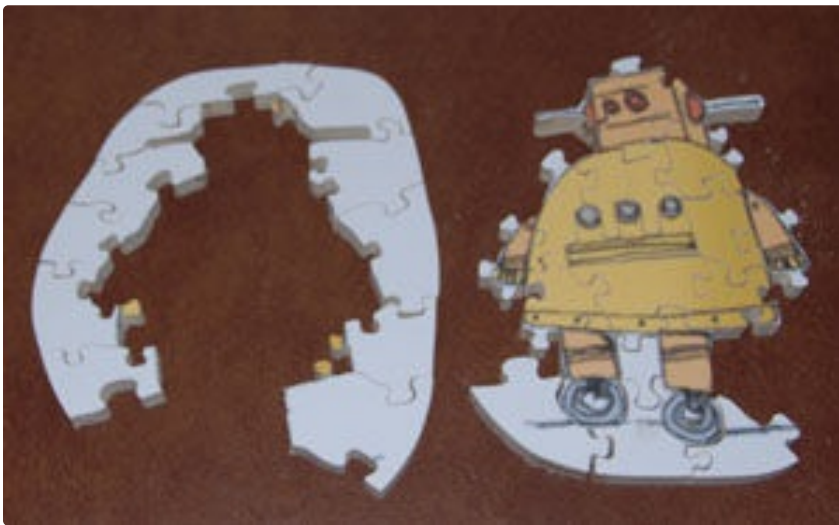
A small sheet of plywood or scrap. (I used 3/8th" which was definitely overkill and cost me a jigsaw blade)

An image that you want to make into a puzzle,
A jigsaw,

A few extra blades,
Spray adhesive,
Creativity,
A little bit of patience

I got my jigsaw (also known as a scroll saw) to do simple work with aluminium, using it as a cheap alternative to a bandsaw. besides needing to frequently replace the blades, it has slowly won me over by being able to cut tight curves and by the smaller kerf size(more on kerf later).





Step 1: Gluing Down the Image

For this one I picked the charming little robot that appears on the side column of this website. Of course if you have read this far you may already have an image of your own in mind.

Spray adhesive isn't necessary, any glue that will hold the paper to the wood is alright. I prefer spray adhesive because it lets me finish this first step in two minutes, rather than requiring me to put down the project for an hour.

Print your image at the size you want, and line it up



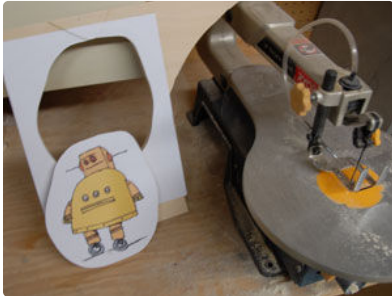
on the scrap so that your entire image, and however much background you want is over the scrap of wood. You will trim the paper and the scrap in the next step so don't worry about it yet.

Next glue your image to the plywood backing. I had a lot of room on this scrap for this image so I just sprayed a bit of the adhesive on the wood and then pressed the backing down onto it with enough room on all sides for the background.

Step 2: Cutting the Border

Once the glue has set, (5 seconds for me) you are ready to start cutting the border of the puzzle on the jigsaw.

So far I haven't done a traditional border yet and you can be creative about these too. Your border can be any shape that you can cut on the jigsaw, so have fun



with this.

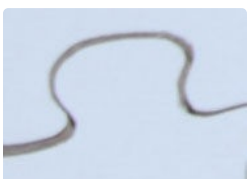
I just gave a lot of white space to the robot because I wanted to show you some fancy things about cutting the pieces on the inside. I could just as well have cut only the robot out leaving no background, or cut a pattern in the background to make things interesting.

Step 3: Piece Cutting Practice

Cutting out your border should have made some scrap wood for you, and you should put down your actual work piece to try to cut some pieces out of your scrap. Start with a portion of your scrap about 1 inch wide, and try to cut a traditionally shaped side of a piece with a lock as shown so that the pieces hold together when on a flat surface.

Cut the interlocking pieces as big as you have to to get them to work. The blades turn very tightly, and produce a relatively small kerf (the thickness of the notch cut by the blade) especially if you maintain a slight forward pressure on the workpiece to keep it engaged with the teeth of the blade as you turn it.

the interlocking piece in the photo is about 1/2 and is



one of the larger ones in the puzzle"

Once you get one to work cut a few more like it and practice different variations as you go. Though you are only working with scraps try to cut one piece free at a time so that you can use the relatively large scrap to control the relatively small pieces you are making. Remember, you don't need all adjacent pieces to have a successfully interlocking part. In fact, many of the internal linkages in this puzzle are unsuccessful, but I took extra care around the border so that the puzzle wouldn't fall apart while pushed around the table.

Step 4: Cutting the Puzzle

There are a few things to pay attention to when cutting the puzzle. Pick the side with the most detail and start working there working slowly across the puzzle making cuts that try to remove single pieces or don't remove any at all. I try to make sure that I don't remove two connected pieces from the blank because things get rather hairy when you try and cut an interlock between just two pieces on the jigsaw.

Remember what you learned from practicing earlier and go ahead and cut the puzzle out.

It's best if you don't mark them and just cut freehand.

Functional considerations:

Make sure none of the pieces are supported by impossibly slender pieces of wood.

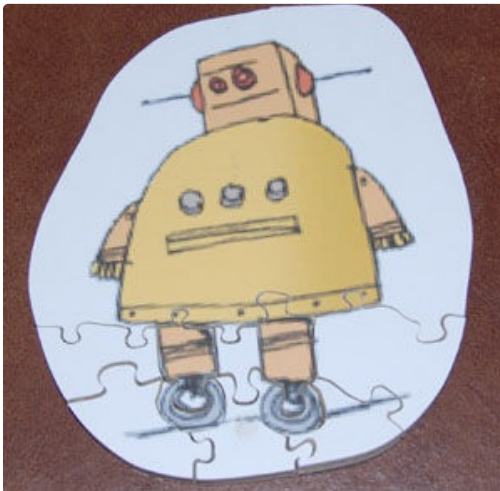
Make sure that the puzzle has at least a few functional interlocks so that it won't fall apart if pushed around

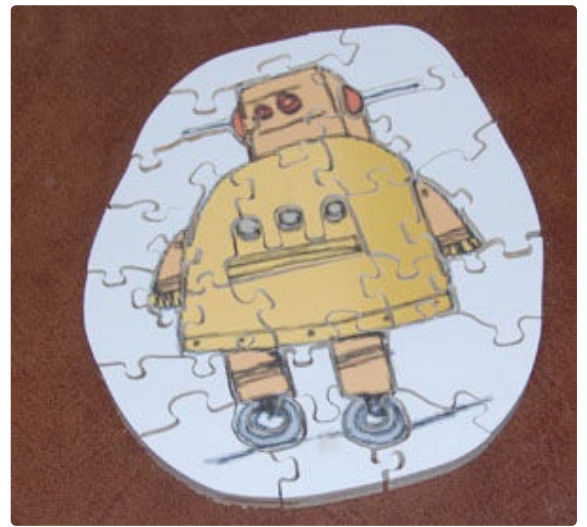
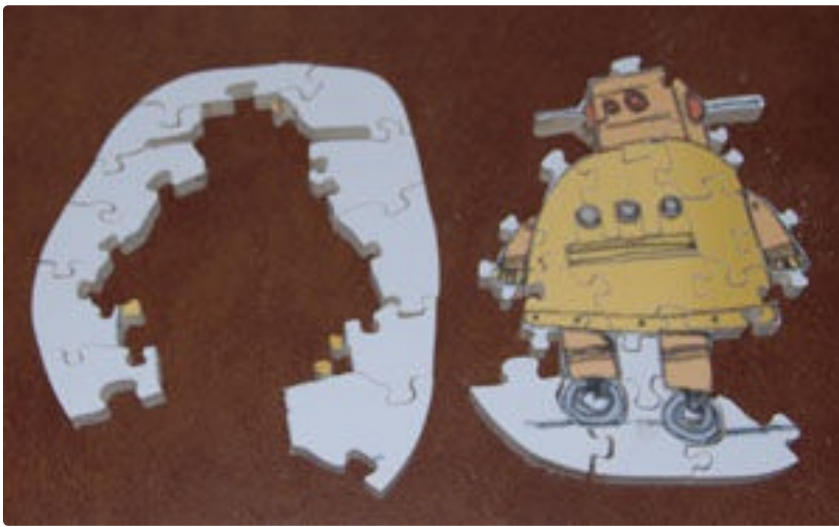
Aesthetic considerations:

Try to keep the grain (the size of pieces and

frequency of interlocks) even throughout the puzzle. Although there are a few exceptions to this rule, try to make sure it isn't clear which side you started cutting on, just by looking at how the piece size and the number of interlocks begins to dwindle as you get tired. This should be fun, if you are getting tired go take a break and come back when you want to. Unlike most of the cardboard puzzles, methodically stamped by an unseeing machine, your puzzle will be cut while you can see the patterns and the edges in the picture you are making into a puzzle. Go wild, cut along the edges of interesting features, while doing this you could but don't have to add an occasional interlock. If your puzzle will have some relatively large solid color areas, don't cut normal boring pieces in there, make shapes like circles, squares, stars or hearts.

Once you are done cutting you are done, sit back and enjoy putting it together, or letting someone else put it together.





You are using a scrollsaw, a jig saw is a hand held saw that can scroll, however not as well as a scrollsaw