

Wooden Airplane

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Intro: Wooden Airplane

This is the first in a small series on making wooden toys from leftover pieces of wood or MDF. In this instructable I will show how you can build a simple toy airplane, with spinning propellor!



Step 1: Materials & tools

NOTE: I'm not giving any specific measurements, because everybody has his own taste in design, so everyone will probably make it a little bigger or smaller anyway...

For my airplane I used the following materials:

(ofcourse you can improvise according to what you have lying around)

- 1 piece of wood for the body (can be 1 solid piece or built up with layers of MDF)
- some smaller, thinner pieces of wood or MDF or triplex for the wings and tail
- 2 ice cream sticks for the propellers
- 1 round wooden stick for the nose
- a small piece of iron wire or paperclip for the axle of the propellers

And the tools I used to make it:

- saw (either a machine or handsaw)
- sanding paper (or machine if you have access to one)
- drill (using a nail and pulling it out also works)
- wire cutter
- woodglue

Step 2: Designing your airplane

First you have to decide on the type and size of the airplane you want to build. Make a sketch and write down the measurements. I usually eyeball the measurements and then round them off so they are easy to remember...

If you make any adjustments to this design, make sure you have everything you need!

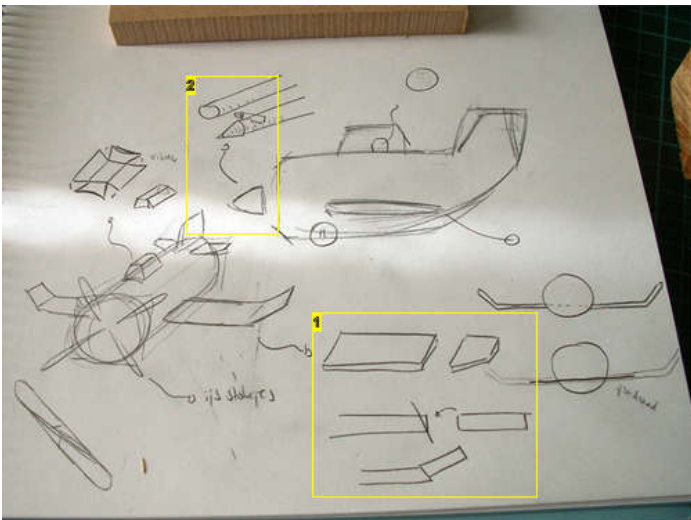


Image Notes

1. wings are bent at an angle
2. the nose cone

Step 3: Making the body

Take the bigger piece of wood for the body, and draw your design on one side. Saw out the basic shape.

On the sawn piece, mark the shape of the body and either saw or sand it off.

When your basic shape is done, sand all the edges to make them smooth (especially for young children).

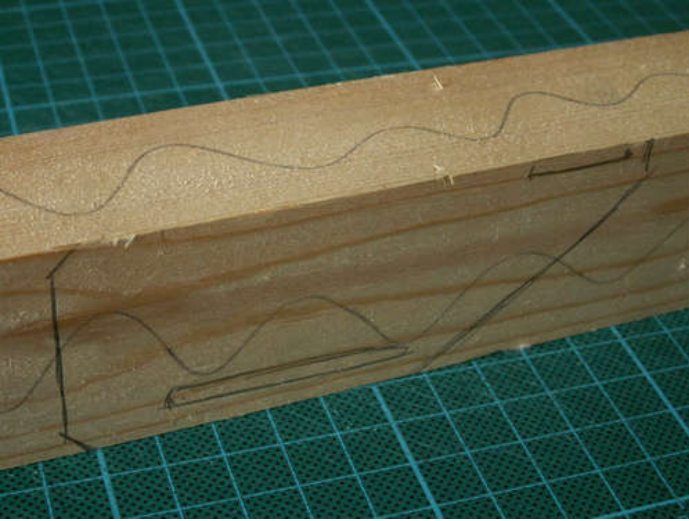


Image Notes

1. basic body shape

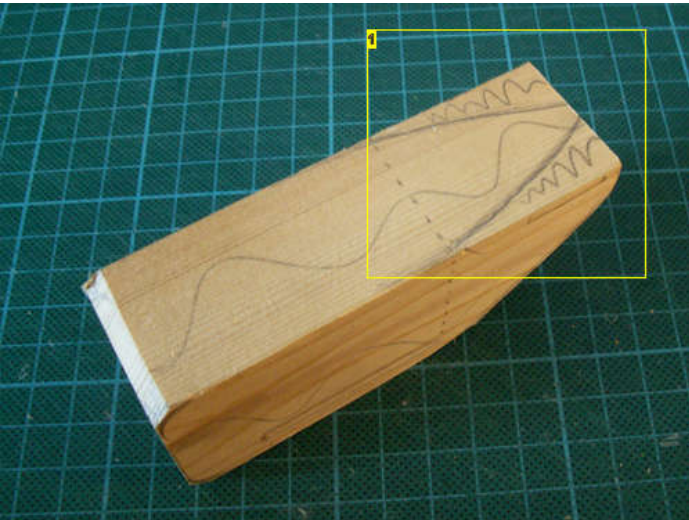


Image Notes

1. mark the pieces you want to sand off





Step 4: Making the wings and tail

For the wings and tail you need some small pieces of wood, triplex or MDF. Draw your wing and tail measurements on the wood and saw these off.

Get some masking tape and build your model without glue to see if it is what you had in mind. Make adjustments where needed.

Glue the pieces of wings and the tail together. DO NOT glue the wings or tail onto the body just yet!

Sand the wings and tail to prevent sharp edges and hide the seams where you glued them together.

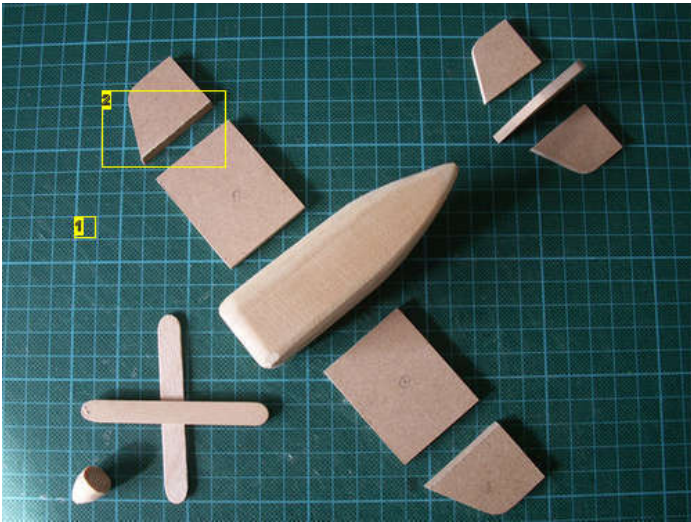


Image Notes

1. for an idea about the size, these squares are 1cm
2. these pieces have to be cut/sanded at an angle

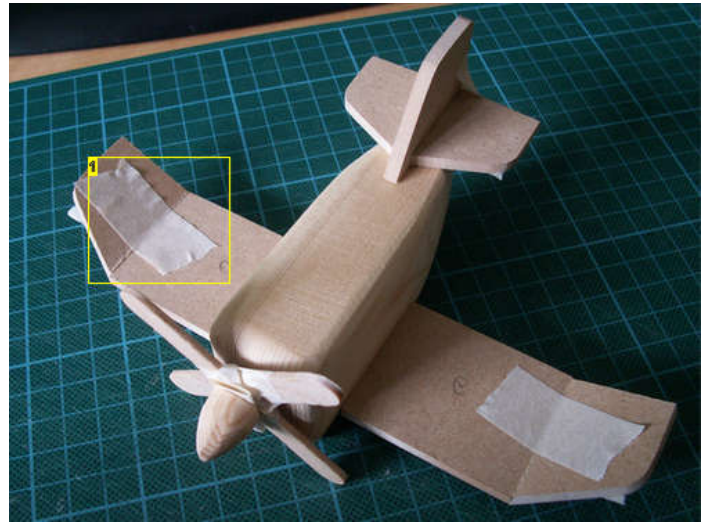


Image Notes

1. no glue, just tape

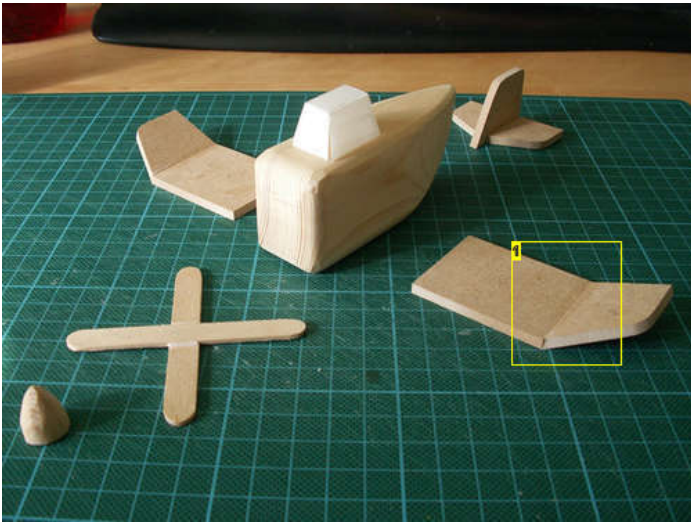


Image Notes
1. glued pieces

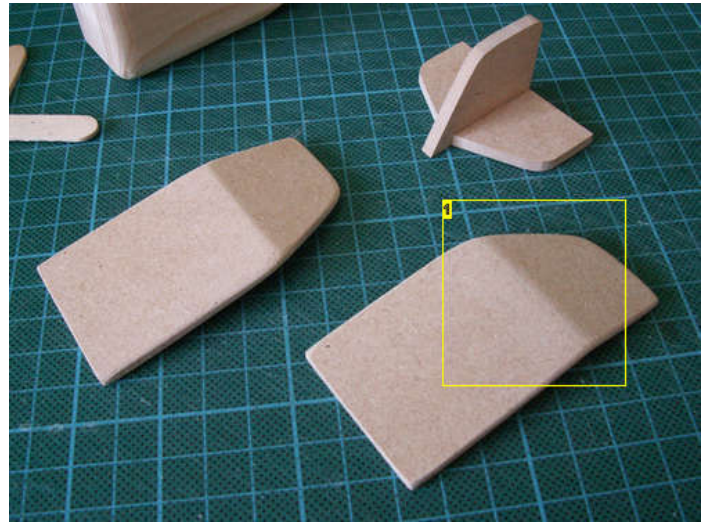


Image Notes
1. sanded wings to hide the seams

Step 5: Making the propellers & put it together

(You can either glue the wings and tail onto the body before or after you put on the propellers.)

For the propellers we use 2 ice cream sticks. If the ones you have are too big for your airplane, just saw off a piece and sand the edge until it's rounded. I also cut out half of the sticks in the middle where they meet, so they fall into each other. This isn't necessary but makes it look a little cleaner. Glue the 2 sticks onto each other in the middle.

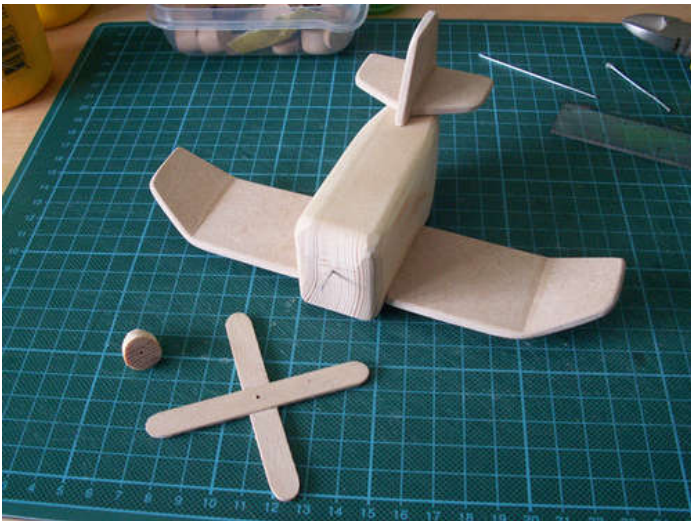
To make the nose cone, sand the larger round stick until you get the desired cone shape. Then saw this off the stick. (if you reverse these steps it might be difficult to sand the piece)

Drill a hole into the body and the nose cone, the same size as your axle will be.

Drill a slightly larger hole in the middle of the propellers, so that it spins smoothly around the axle.

Cut your axle to size, so that it fits into the body and the nose cone, and leave enough space so that the propellers can spin freely.

Glue your axle into the body of your airplane, and wait for the glue to dry. Then put on the propellers and glue on the nose cone.



Step 6: Enjoy your new toy!

You can paint the airplane if you want, or put on a pilot and landing gear.

Then there is nothing more to do than to enjoy your new toy airplane!

