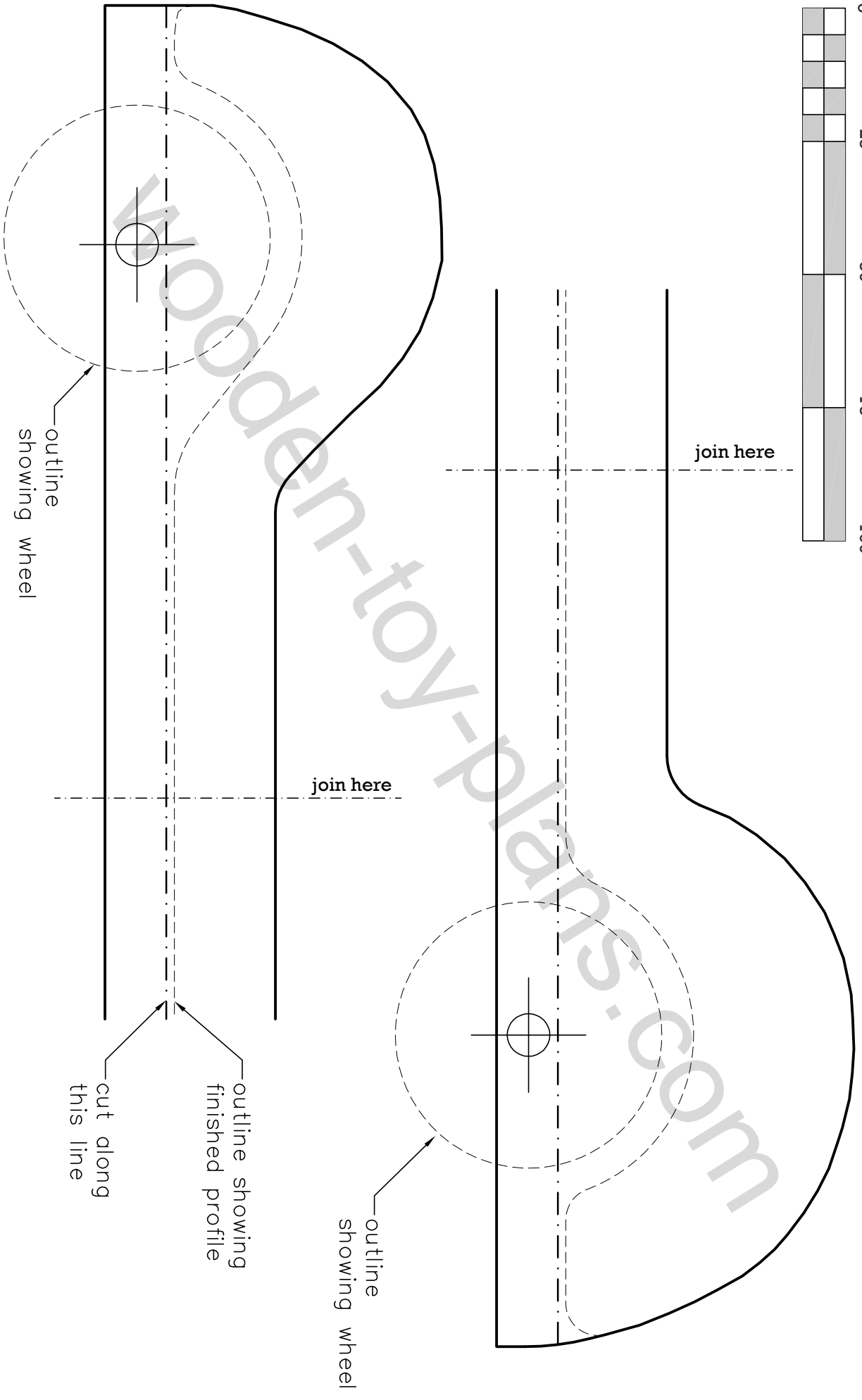
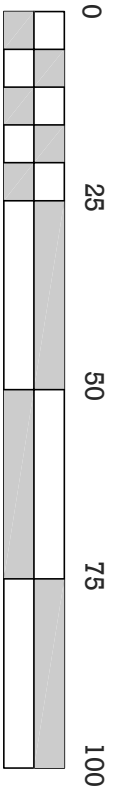


Toy Car Roadster Templates



Toy Car Roadster Template

300 [11 13/16] Not To Scale

9 [3/8]

Part F

Make 2

To Suit

35 [1 3/8]

250 [9 13/16] Not To Scale

57 [2 1/4]
To Suit

Part E

Make 1

Toy Car Roadster Parts

Sheet 3



Toy Car Roadster



This toy is inspired by the roadster models of the 1930's.

The completed toy approximate measurements:

315mm (12.4") long

160mm (6.3") wide

115mm (4.5") high

The toy is deceptively simple, it represents an interesting challenge to experienced woodworkers and toy makers, yet simple enough for beginners.

The basic method of construction is made up of three sub-assemblies:

1. The body assembly, steps 1 to 5.
2. The chassis, step 6.
3. The mudguards, steps 7 to 9.

Step 10 shows how the body sub-assembly is fixed to the chassis, and step 11 shows how the mudguards and wheels are fixed in place.

There are several types of radiator to make.

The final step is to fit all the parts together and apply the finish of your choice.

Tools

This is a short list of power tools used in this project.

Power drill [corded](#) or [battery powered](#).

Drill press with a [circle cutter](#) for making wooden wheels.

[Bandsaw](#).

[Router](#) mounted in a [router table](#).

Tenon saw, also known as a back saw.

Combination square

Woodworking clamps.

Hacksaw to cut the dowel axles to length.

Wood file to round over all the edges.

Sanding block with 120 and 80 grit sandpaper.

A selection of drill bits.

Step by Step Instructions.

Each step is listed on a separate page.

Step 1

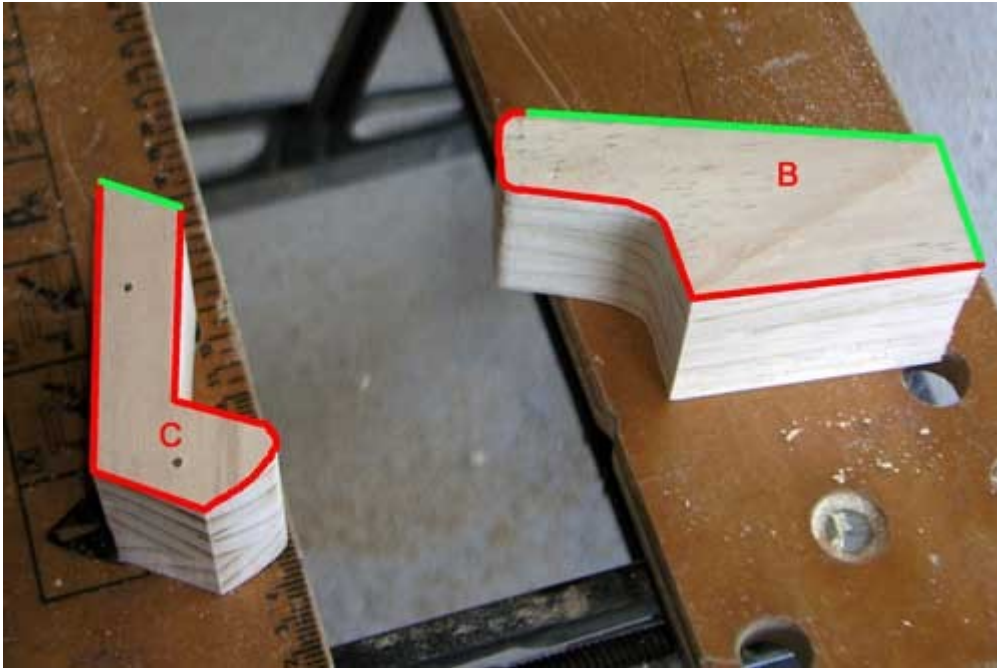


Cut out the parts A through D, making sure to cut outside of the line.

Parts B, C and D are made up of three pieces laminated together. While the glue is setting, make a template of the mudguard from thin card, plywood or MDF.

The photo shows the parts rough cut and placed in position on one side of part A.

Step 2



Parts B, C and D are trimmed to size and sanded smooth.

The photo shows the red lines as the surfaces to trim, leaving the green edges untrimmed at this stage.

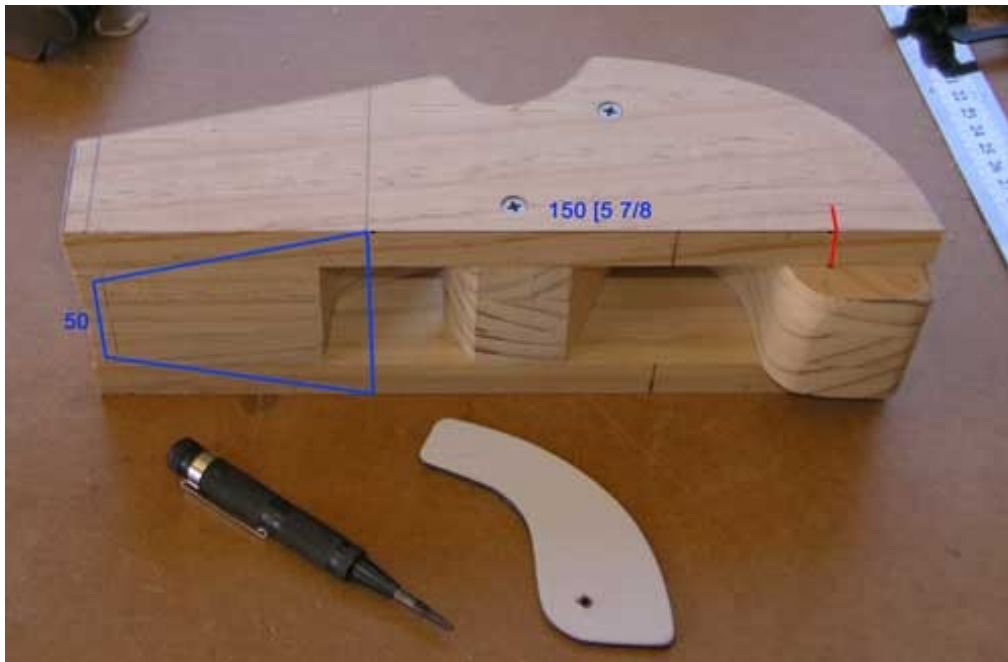
The idea is to trim these areas once the parts are glued together in the next step.

Step 3



The photo above shows parts A, B and C glued together. The area shown red is left untrimmed. This will be done in Step 7 once part D (the rumbler seat) is in place.

Step 4

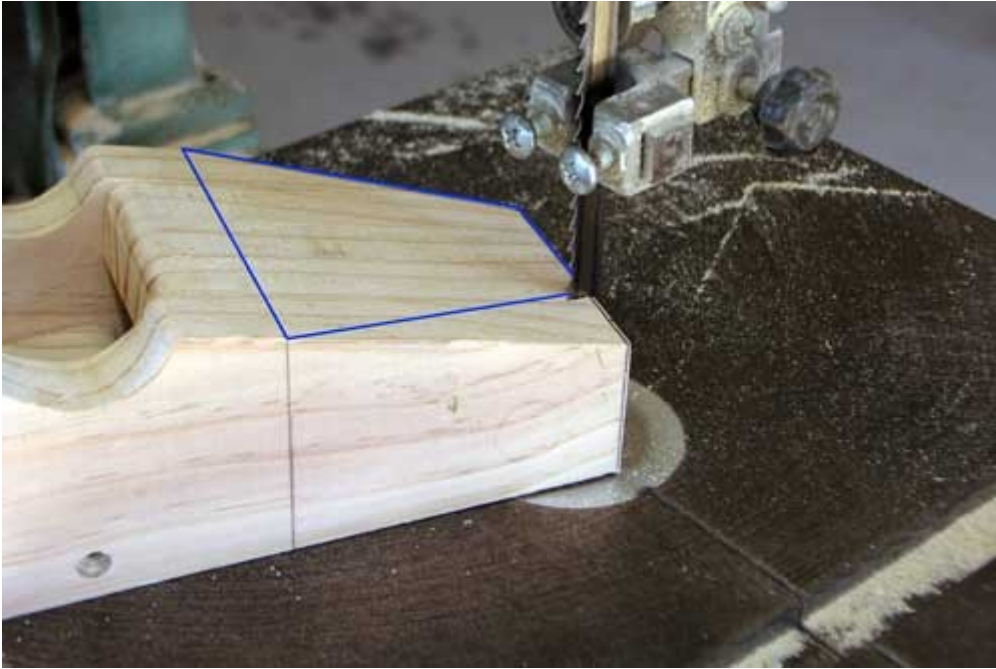


Mark the position of the hole for the hinge pin in part D.

The photo above shows part D in place. Note the red line on part A marking the position of the hinge dowel.

Measure 150mm or 5 7/8" from the red line to the blue wedge shape as shown. This is cut out in the next step to form the bonnet.

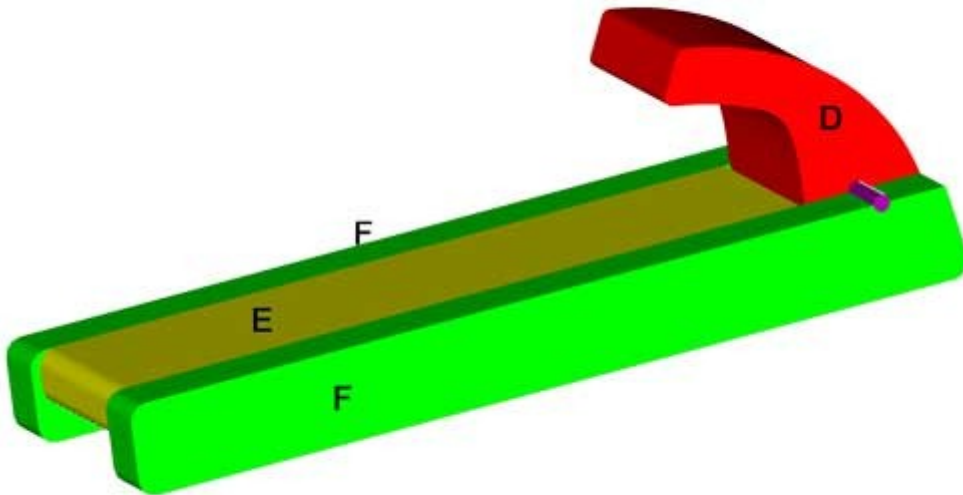
Step 5



Cutting out the bonnet shape with a band saw.

Sand the complete assembly to a smooth finish and round over all the edges with a 6mm round over bit mounted in a router table.

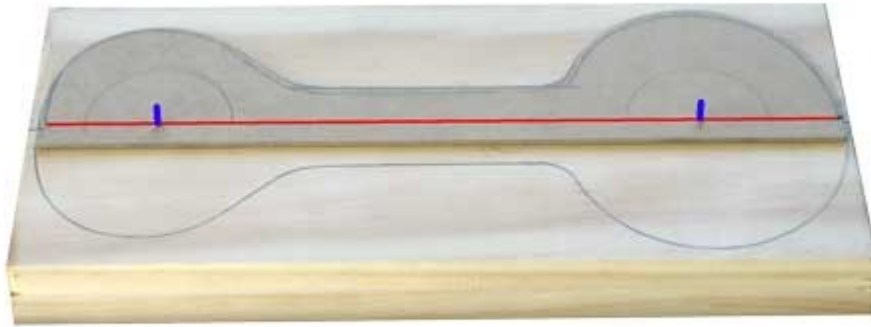
Step 6



Cut out the parts E and F that make up the chassis. Note the width of part E should match the thickness of parts B (and C) so that the overall width of the chassis matches the width of the bodywork.

The diagram above shows the parts E and F that make up the chassis and part D in place, with the hinge dowel shown purple. Note that the holes for the wheels are not drilled at this stage.

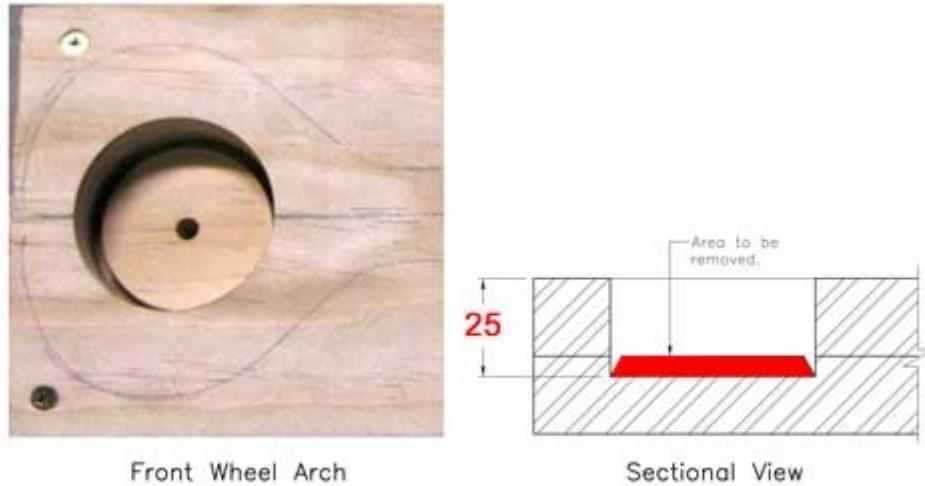
Step 7



Using the template made earlier to mark out the shape of the mudguards. Cut the heads off two nails. Drill two small holes to suit, and mount the template on the workpiece as shown. Trace the outline, then flip the template over the axis as shown by the red line and trace the corresponding mirror outline.

The red line also represents the line to cut along.

Step 8



Attached a second piece with wood screws in each corner as shown. Don't apply any glue at this stage.

Using a circle cutter mounted in a drill press, cut out a 50mm [2"] wheel as shown. This has the effect of cutting through one layer, leaving a groove in the second layer.

Using a plunge router, rout the hole to a depth of 25mm [1"] as show in the diagram.

Dissemble, apply glue and reassemble.

Step 9



Showing the pair completed mudguard assemblies.

Once the glue has set, cut the assembly in half along the red line as shown in step 8.

The corners are rounded over with a 6mm [1/4"] roundover bit in a router mounted in a router table.

Note the red dots highlight the small indentations left over from making the wheel arches. These indentations are used in part to determine the position of the holes for the axles in the next step.

Step 10



Showing the chassis being fixed to the bodywork.

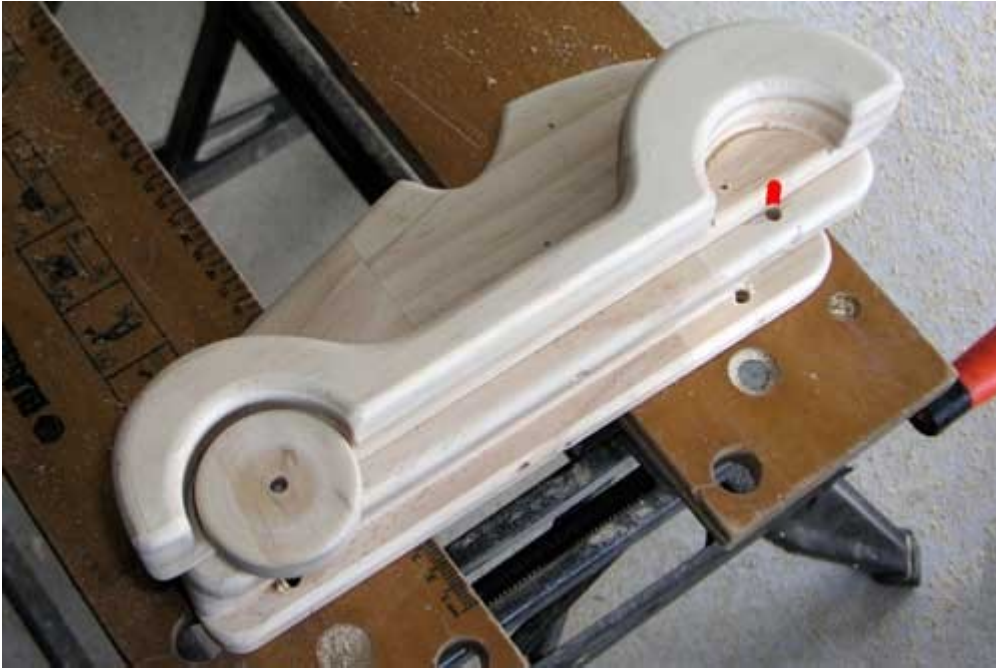
Note Part D in place. The red dot shows the position of the hinge dowel as determined in Step 4.

Part D (the rumbler seat) is to be made a little thinner to enable it to rotate.

Three blue dots show how the two assemblies are clamped together using 55-60mm wood screws. The position of the fourth wood screw is obscured by the drill.

With the rumbler seat in position, the area shaded red in Step 3 may now be sanded smooth and rounded over.

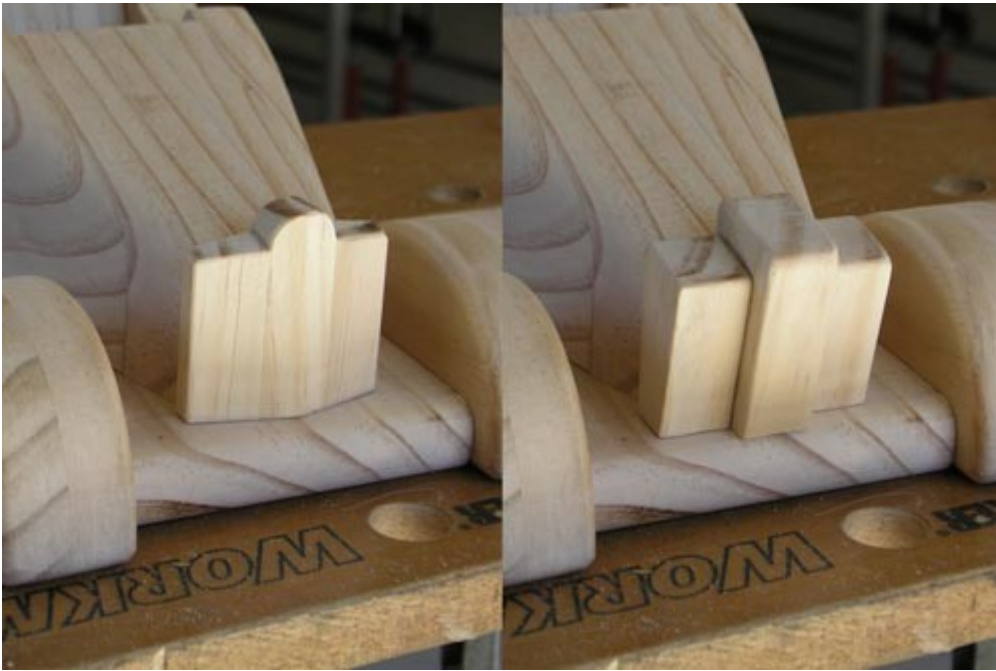
Step 11



Showing the mudguards in place, with the wheels used to mark the holes for the axles. Note the importance of accuracy here will affect the appearance of the wheels in the wheel arch.

The mudguards are glued in place.

Step 12



The final step is to make and attach the radiator. The photo shows optional radiator shapes.

Final



Big Heart Bear and his Mum off to the Teddy Bears Picnic in their brand new roadster.

Spare wheel is an optional extra.

The toy may be left untreated, treated with Danish Oil, or food colouring is quite effective.

Finishing

There are many ways to apply a finish to a wooden toy. I have used food colouring on pine to good effect.

Link to [child safe paints](#) for finding a non toxic paint that is child safe and zero volatile organic compounds in an over-toxicated world an article on non toxic paint by Deliah Jones.

Conclusion

I certainly hope you have enjoyed making this project. Use this [contact me](#) form if you would like to submit your project to the [photo gallery](#).

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