

Woolwich Ammunition Van

This model is based on the covered 4 wheel vans used to carry gunpowder on the Woolwich Arsenal railway. Little is known of these vans' history apart from they appear to be based on the 2.5 tonne shipping trucks used in the neighbouring Deptford depot. A single example survives in the Conwyn museum in North Wales.



Woolwich ammunition van at Conwyn museum

General Assembly Instructions

Do take time to read through the instructions and understand how the parts fit together before reaching for the glue pot. Where ever possible parts have been designed to be symmetrical but occasionally parts have to be left or right handed so take care to follow the instructions carefully at these points.

Plywood Parts

Some of these parts are supplied in “frets” and will need separating by cutting through their connecting tabs with a thin sharp blade (e.g. a scalpel) on a cutting mat. The laser cutting process will leave a degree of edge discolouration. If you plan to leave you model unpainted now is the time to lightly sand the edges to remove this discolouration. Plywood parts may be glued with aliphatic wood glues (recommended) PVA wood glue, epoxy resin or Cyanoacrylate adhesive.

SLS Nylon Parts

Most of the detail components in this kit are 3D printed in an engineering grade nylon. Most of these are “sprued” together to reduce costs and need separating with a pair of miniature side cutters or a sharp scalpel. When “de-spruing” black components you will find white spots are left. These are best “coloured in” with a black permanent marker pen. The printing process may leave a nylon dust residue in crevices which can be removed with a medium bristle tooth brush.

Nylon components can be glued together with “EMA Plastic weld” but for gluing to wood use a good quality Cyanoacrylate adhesive (one which doesn’t leave smoke marks). These components take paint well but they are slightly porous so probably will need more than one coat.

Painting

This is very much a matter of personal choice. As poplar plywood is used for the body, leaving the model mostly unpainted can be very attractive however if you plan to run your trains in all weathers, **some form of protection will be needed**; a couple of coats of acrylic matt varnish from a “rattle can” is easy way of achieving this.

Tools

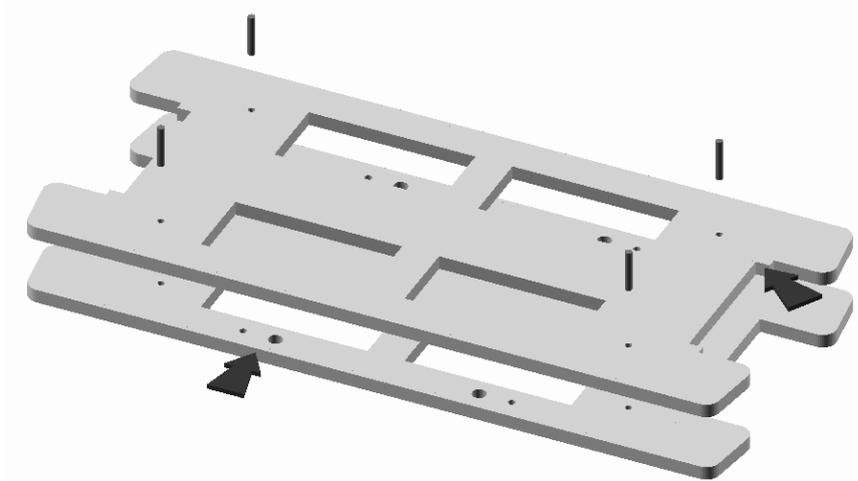
The following tools will be required:

- A sharp modelling knife or scalpel
- 3 mm drill bit
- A small file, sand paper or an emery board “nail file”
- A small “Philips” screw driver, size 0

The following tools are recommended

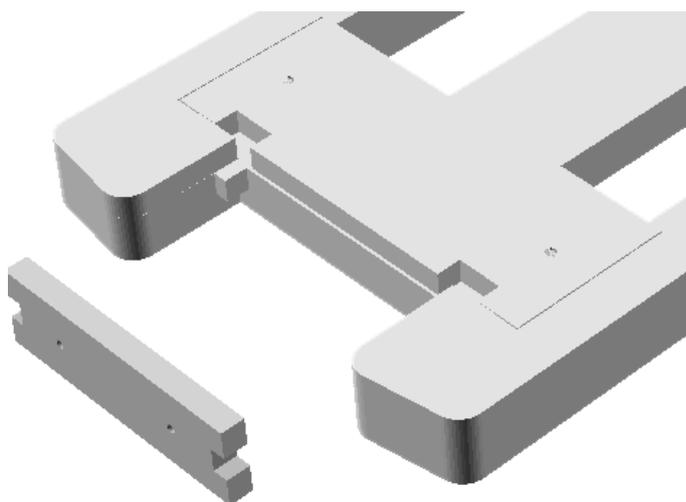
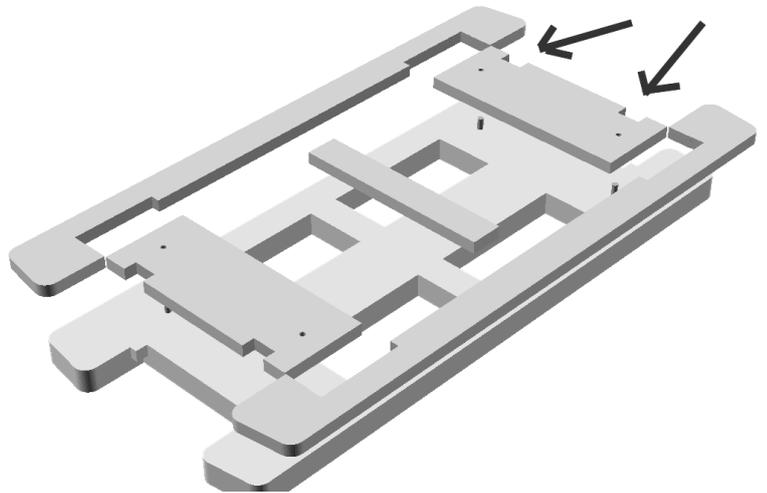
- A cutting matt
- A small steel ruler
- Some small clamps, bulldog clips or rubber bands
- A black permanent marker pen

Step 1 - Chassis



PVA wood glue is recommended for these steps or if you want to use a super-glue DON'T use an "instant grab type". Glue the 2 "chassis plates" together using four 9mm lengths cut from the supplied 1.5 mm diameter brass rod in the locating holes at each end.

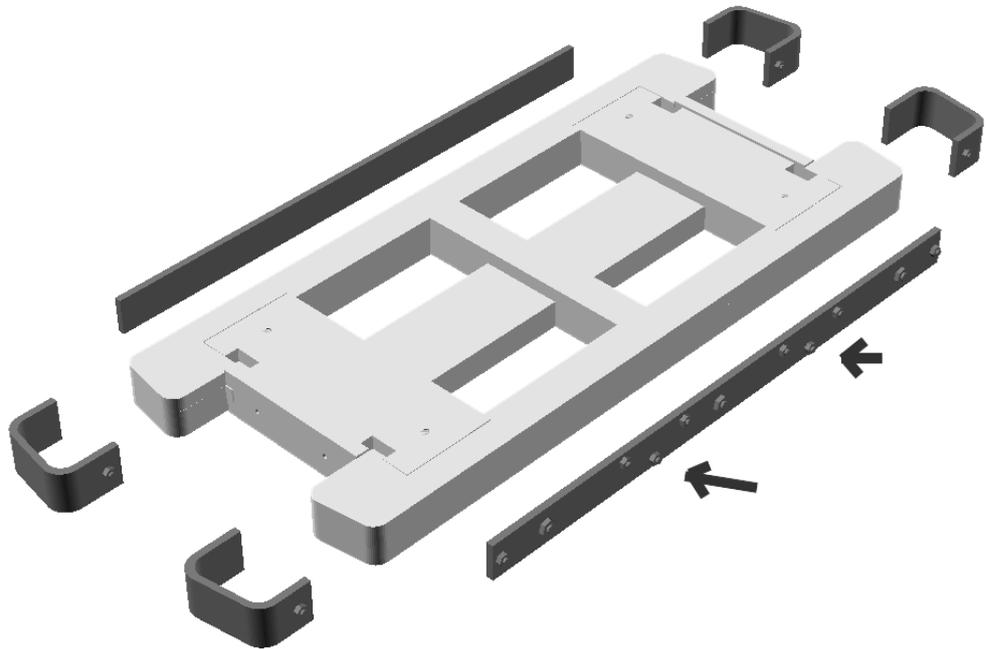
Next glue the five chassis top pieces in place. Wipe off any glue that oozes out of the joints and either clamp the assembly to a flat board or place under a large flat weight while the glue sets. Note the square notches in the two end plates go to the outside.



Now glue the two buffer mounting plates onto the ends between the two dumb buffers. Once the glue has set, lightly sand the edges of the "plates" that now form the sole bars and dumb buffers to remove any excess glue and to provide a good surface to paint or varnish.

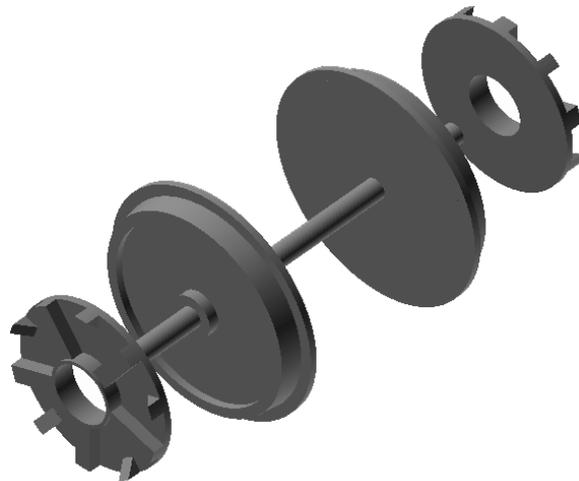
Now paint or varnish the complete chassis assembly to seal it against moisture.

Carefully separate the four curved buffer plates from their sprues and glue them over the dumb buffers. Carefully separate the chassis side plates and glue them to the chassis side. Note that they come as “left and right handed”. The two bolt heads directly over the wheel centres should be at the bottom



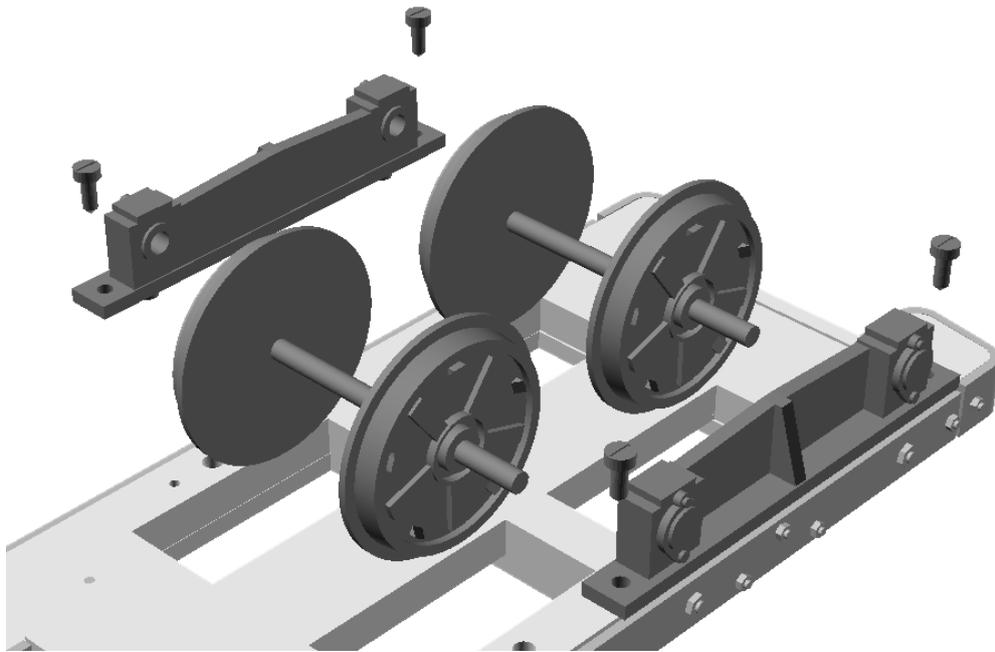
Step 2 – Wheel Preparation

Separate the four inserts from their connecting sprues. Glue the inserts into recesses between the wheel rim and axle boss.



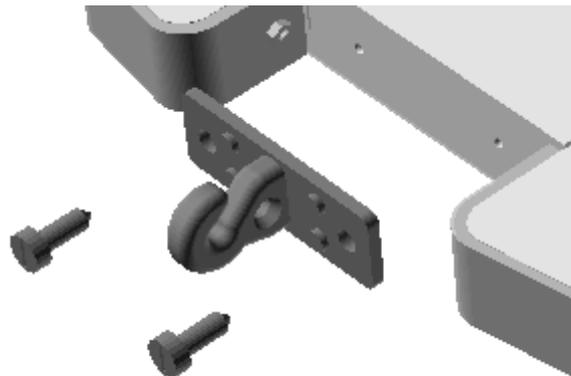
Step 3 – Wheel fitting

Separate the two 3D printed axle box casting with a sharp knife. **N.B. don't trim off the round locating pegs!** Clean out any printing dust from the journals by “twizzling” a 3mm drill bit in them. Check the axles are a nice running fit before screwing the axle boxes and wheels to the assembled chassis with four of the supplied self-tapping screws. We suggest applying a drop of thin lubricating oil into each journal first.



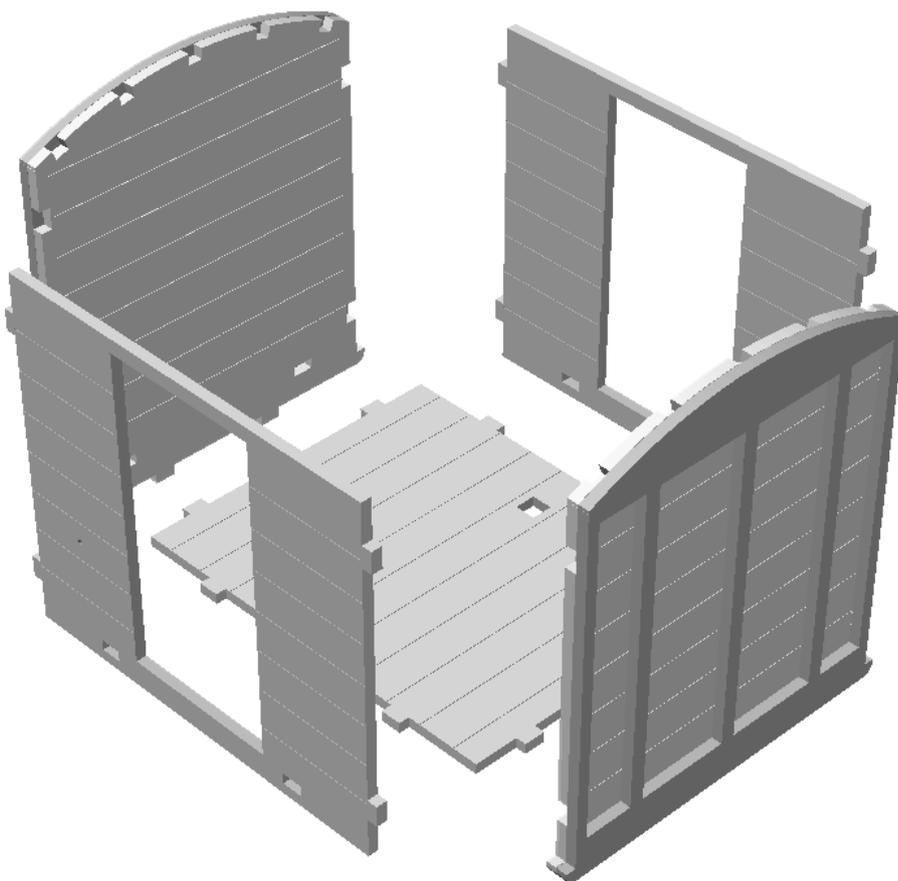
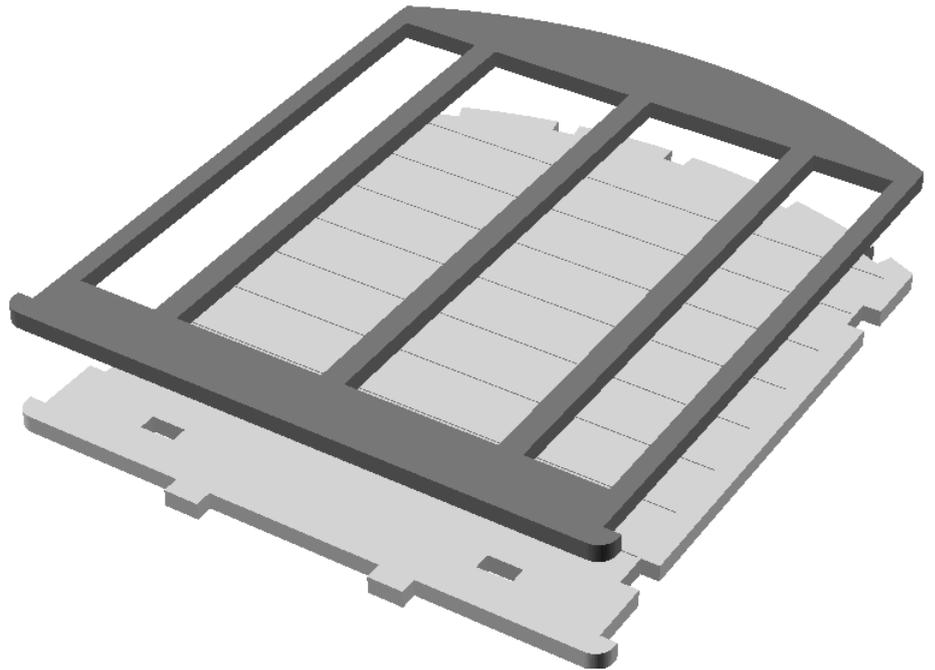
Separate the two coupling hooks with a sharp knife. The four white spots left where you trimmed off the sprues are best “coloured in” with a fine tipped black permanent marker pen. Screw to the chassis with four self tapping screws.

Note the mounting hole spacing is the same as used by our “extra large” bell mouth couplers if you prefer to use these.



Step 4 - Wagon Body

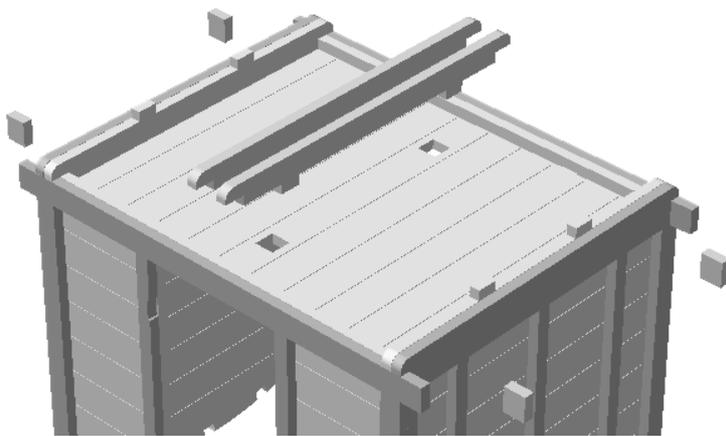
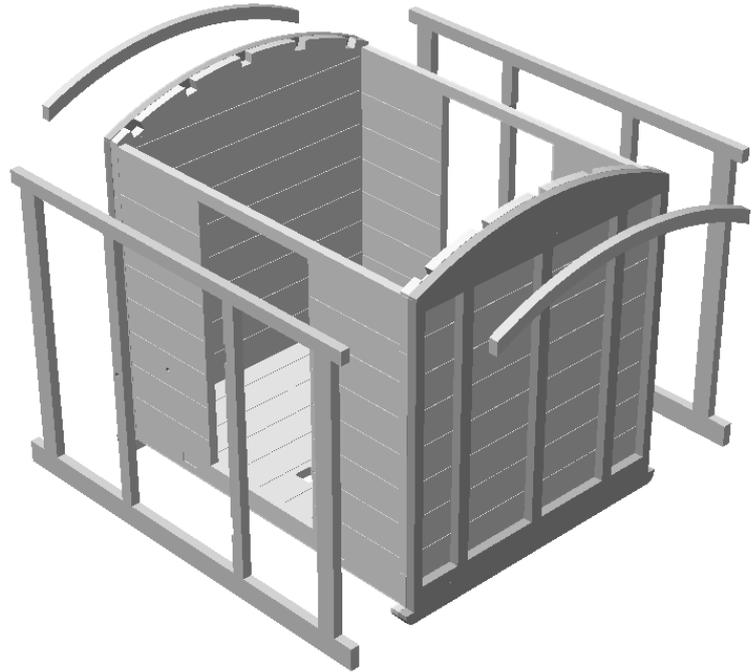
Glue the end wall overlays to the end walls. Ensure edges are aligned correctly and the two floor sockets are not clogged with glue. Set aside to dry.



Glue the four walls to the floor and let the glue set. Note that the little pilot holes for the document clips go to the left of the door.

Glue the side overlays to the wagon body. Note that bottom rails are thicker than the tops and that the hinge plate cut outs are to the right of the door.

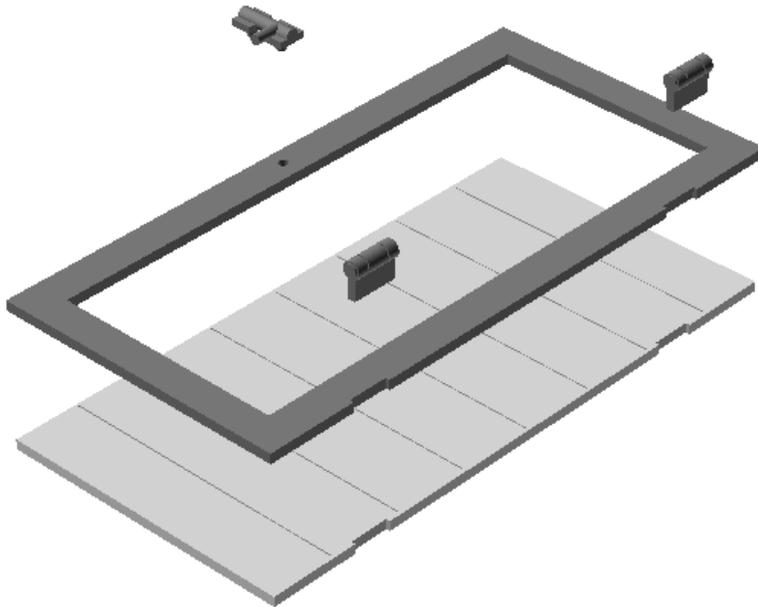
Glue the two curved roof trims to the tops of the wagon ends ensuring their top faces are flush with body end tops.



Glue the four bottom rail end thickening pieces to the inside faces of the bottom rail protrusions.

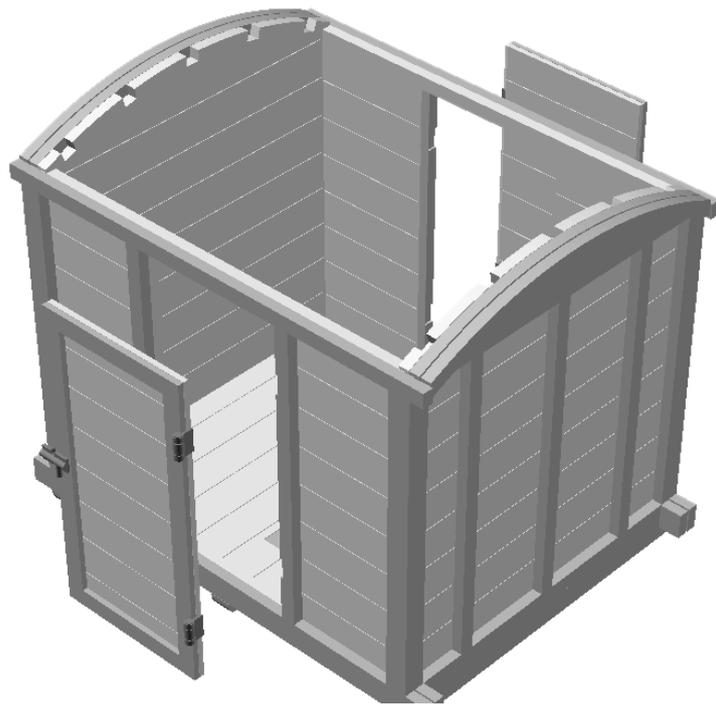
Glue the two central floor cross member together and then into their floor sockets.

Step 5 - Doors



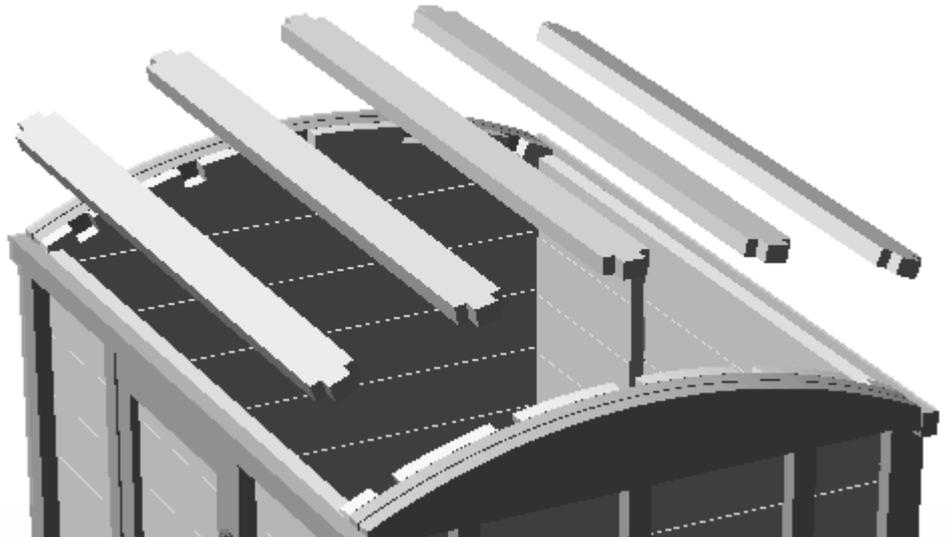
Glue the door overlays (1.5 mm plywood) to the doors (1.5mm plywood). Note that the door catch pilot hole is on the left and the hinge cut outs on the right. Separate the door hinge plates and the door catches from their printing sprues and glue onto the doors

Glue the two doors into the door ways.



Step 6 – Roof

Glue the five roof struts in place and allow to set.

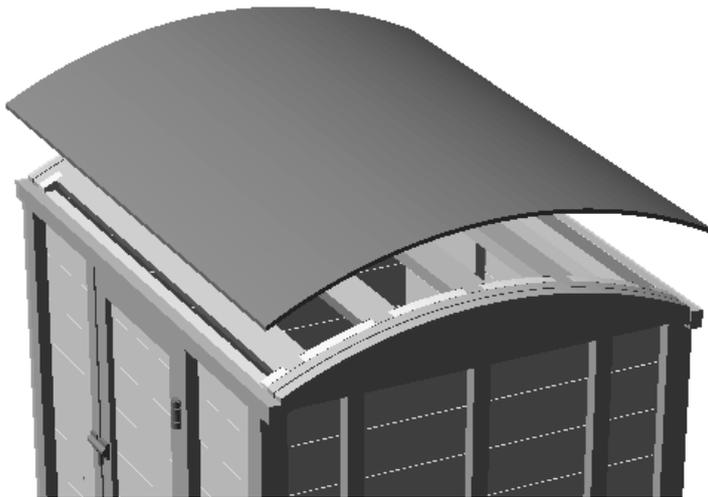


Carefully trim the pre-formed roof overlay to width with a steel ruler (pressed against the edge of the lip) and a very sharp modelling knife. Try and leave about 2mm of the overlay lip hanging down.

Now trim the overlay to length.

Press the overlay down with the steel ruler so it's flat on the cutting mat, run the sharp knife down the plastic a couple of times to cut. The overlay will spring back into shape when you release the pressure

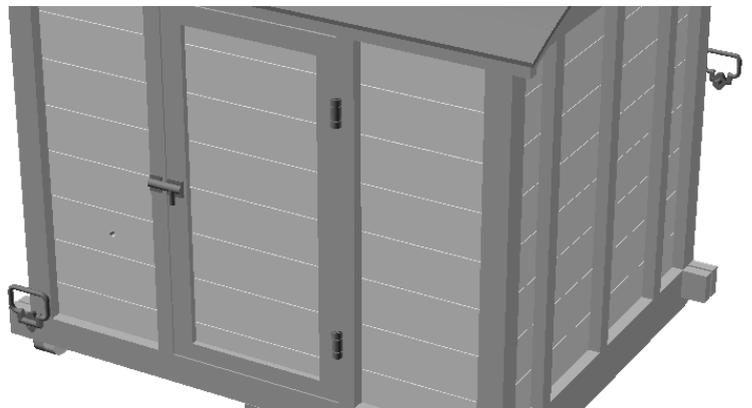




Glue the over lay into place with plenty of glue on the outer struts.

Step 7- Final Assembly

Paint, stain or varnish the body as you see fit. Then glue the document clips into their holes to the left of the doors.



Glue the body onto the chassis

Job Done!