

Bursledon Guards Van

This model is based on photos of the guards van used on the Bursledon brickworks railway in Hampshire. It is remarkably small (and so a good match for our industrial wagons) and appears to have been built on an ex MOD railway wagon chassis.



Tools

The following tools will be required:

- A sharp modelling knife or scalpel
- 2 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

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

Most 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.

MDF Parts

Also supplied in frets and will need separating with a sharp knife. We use a quality MDF product (NOT from the DIY store) which already **has a good surface ready for priming and painting**. By all means clean up the “burnt” edges by light sanding but leave the main surfaces alone! MDF parts can be glued with the same glues as the plywood parts

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.

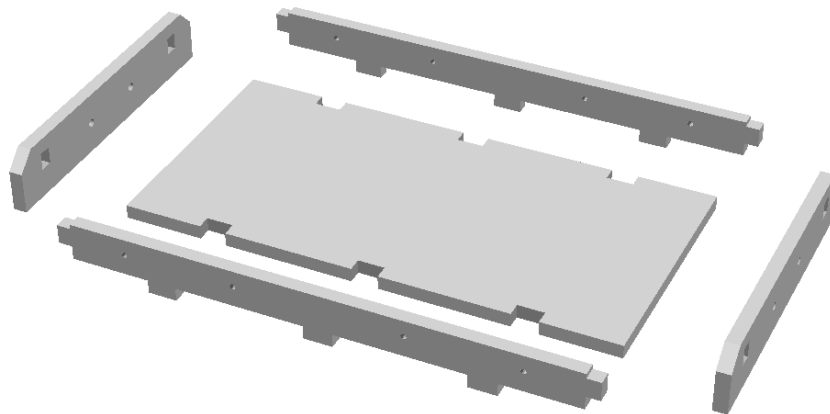
Glazing

The pre-cut glazing in this kit (its PET sheet if you are interested) needs its protective film removing from both sides before gluing in place. This is best done by digging the point of a scalpel at an acute angle into the film close to the edge and then lifting. Aero modellers “canopy glues” such as Microscales “Krystal Klear” are recommended for gluing.

Painting

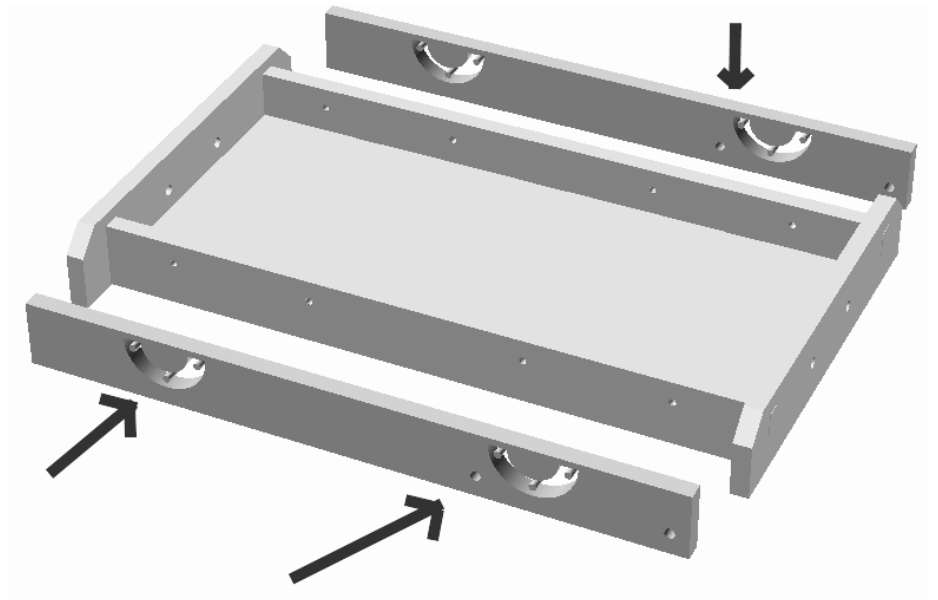
This is very much a matter of personal choice. As poplar plywood is used for the body, leaving the model mostly unpainted can be very attractive however if you plan to run your trains in all weathers, **some form of protection (especially on the MDF parts) will be needed**; a couple of coats of acrylic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

Step 1 - Chassis



Glue the 2 MDF inner sole-bars and 2 MDF buffer beams to the MDF floor. The parts should fit together snugly but if necessary lightly file the lug edges if the fit is too tight. Make sure the parts are squeezed together properly. Wipe out any glue that oozes out of the joints

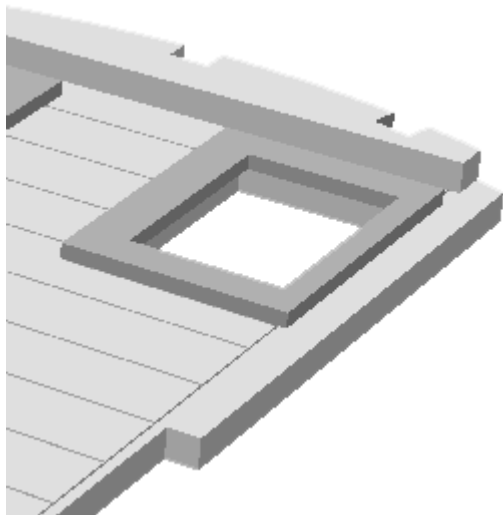
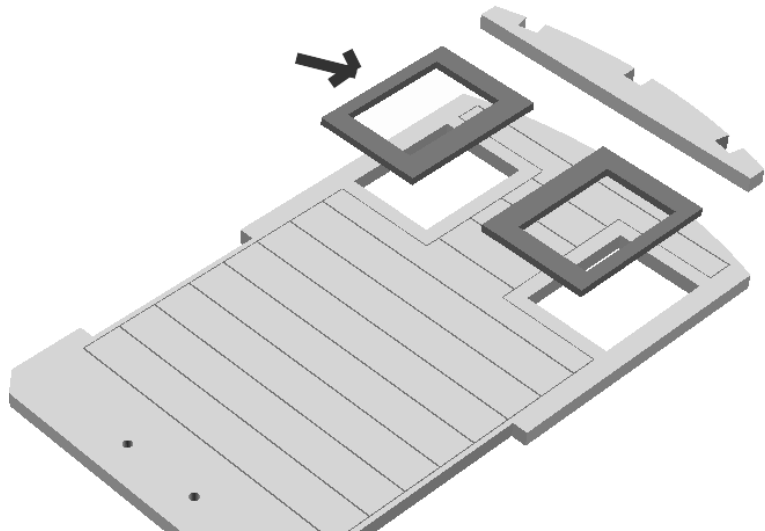
Glue the two plywood outer sole bars in place. **Note the orientation of the "half moon" plates and the veranda step pilot holes**



Step 2 – Main Body

Glue the little roof member support strip to the top of the window body end ensuring the top curved edges are flush.

Glue the 1.5mm thick inner window frames in place, thin sides to the outside. Note these are the slightly larger frames.

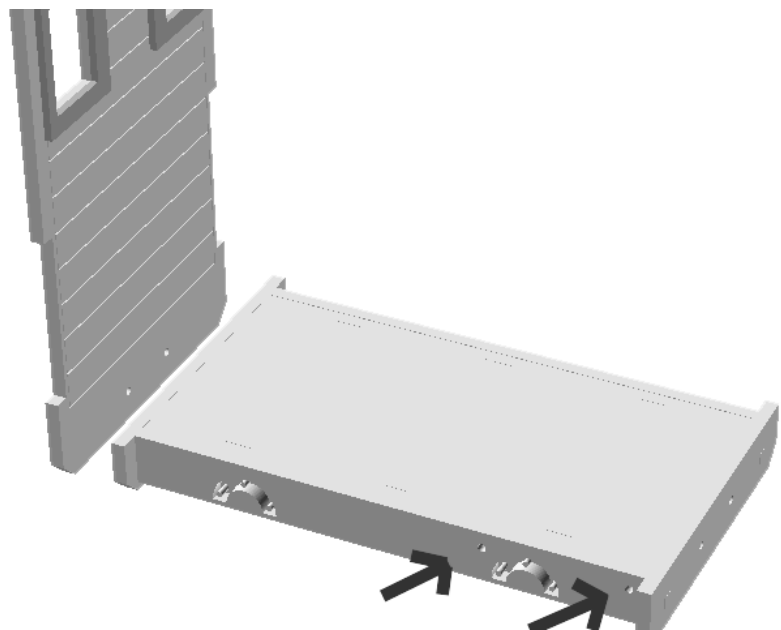


The frames should be positioned so that 3mm lip is left on the outside for the body side to glue to later.

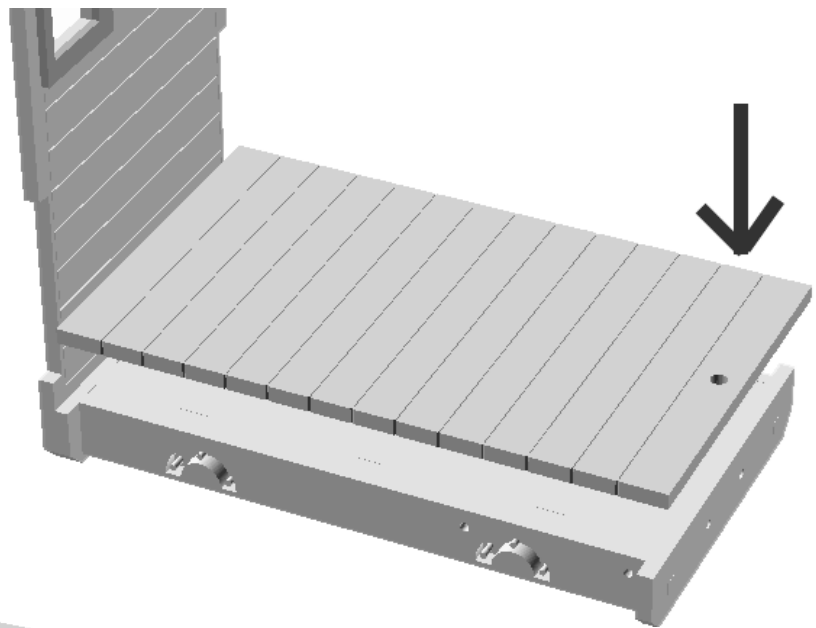
Allow glue to set.

Glue the window end to the chassis ensuring the bottom edges are flush.

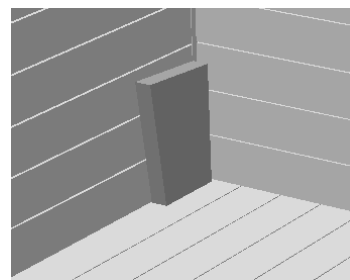
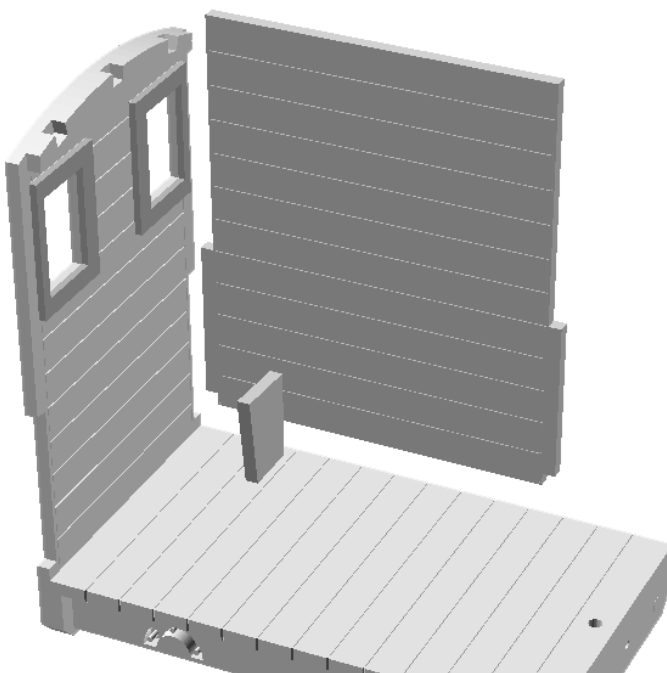
Note the veranda step pilot holes are the opposite end to the window end.



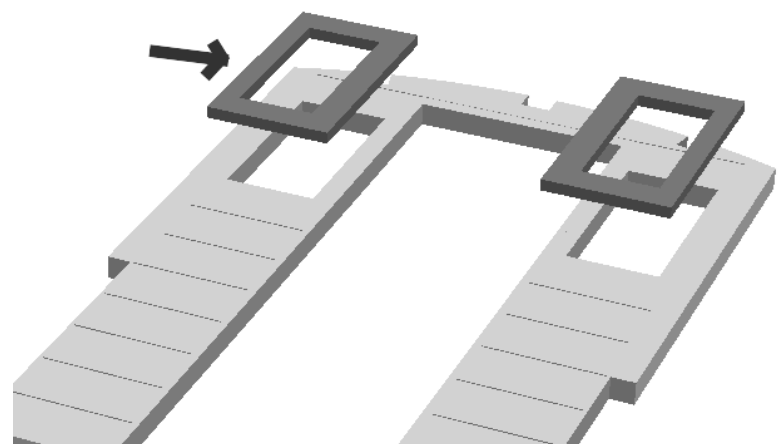
Glue the floor overlay in place ensuring the brake stand hole is at the veranda end.



Glue a body side to the floor and end wall.
Glue a seat support into the corner.

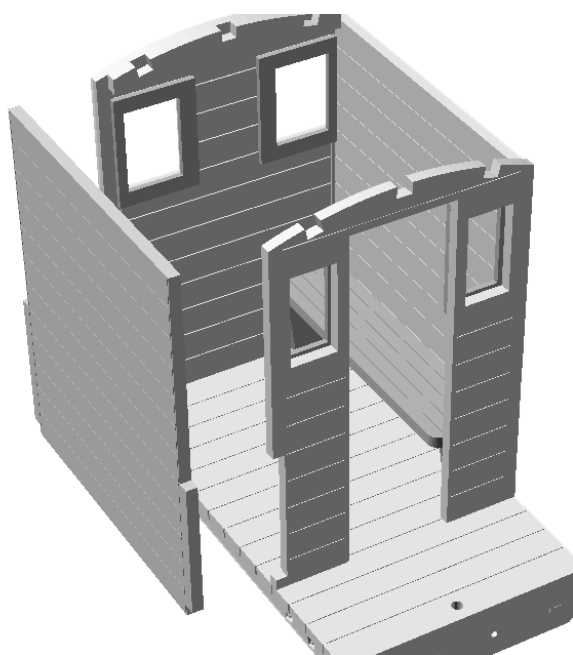
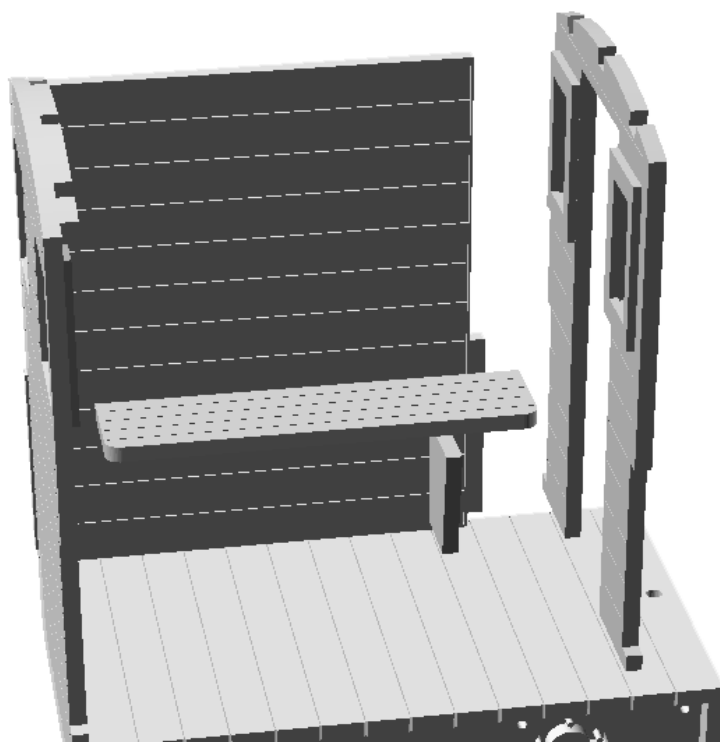


Glue the smaller window frames to the doorway wall. Again thinner sides to the outside leaving a 3mm lip for the side walls.



Glue the door way to the floor and side wall. Note temporarily “dry fitting” the remaining wall at this point helps to get this part square.

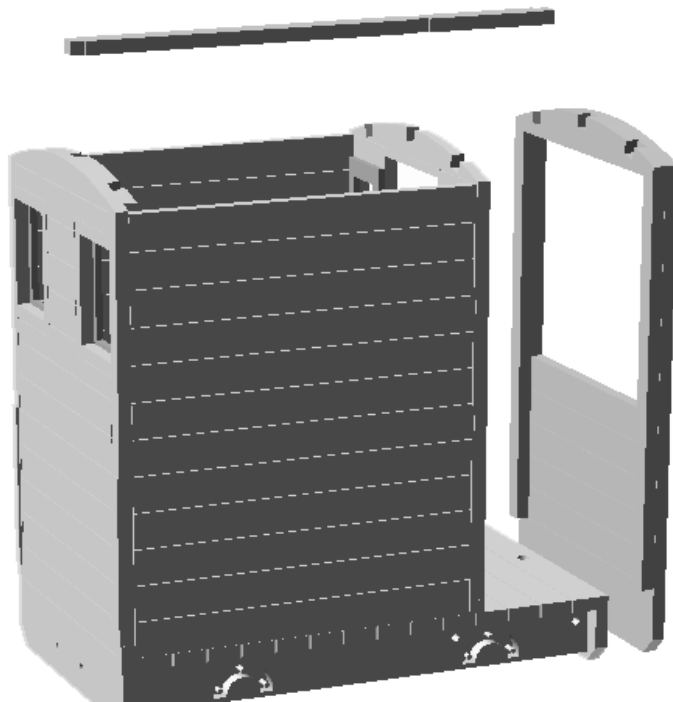
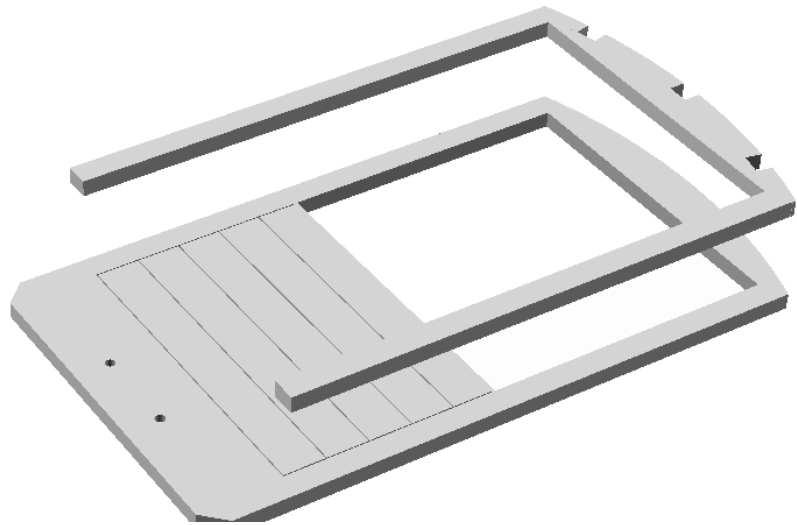
Glue the remaining seat support in place and then the bench seat on top of the 2 supports.



Once the seat is in place, glue the remaining wall in place and allow glue to set.

3 – Veranda and Roof

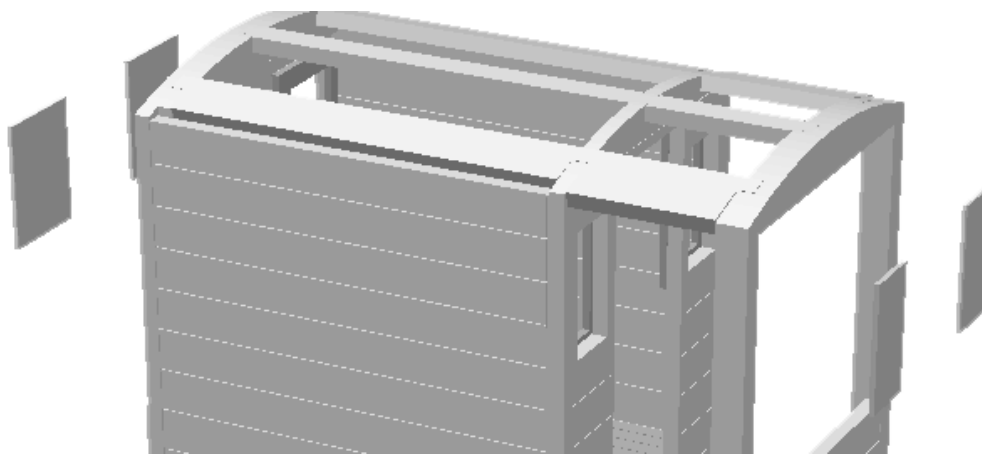
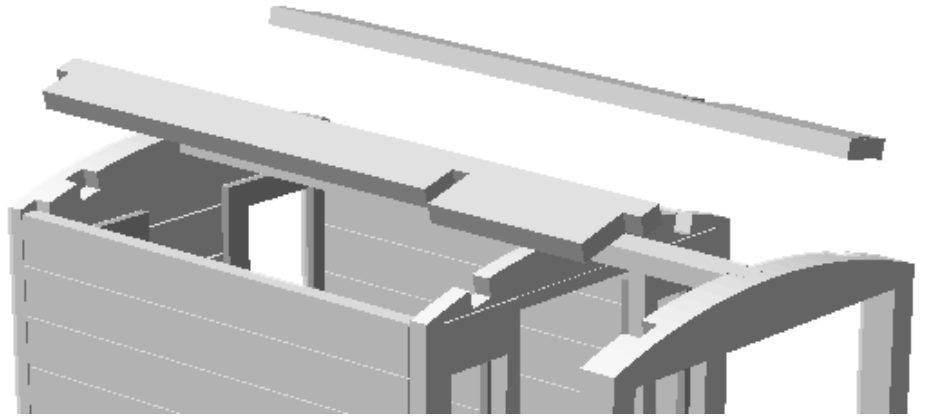
Glue the roof support and pillar thickeners to the veranda end. Take care that top curved edges are flush. Allow glue to set and then lightly sand the outer faces of the pillars. **You will need a nice flat surface here for the grab rails to glue to later.**



Glue the veranda end to the chassis end (ensuring bottom faces are flush) and then glue the central roof support into its locating sockets.

Check all is square and set aside to dry.

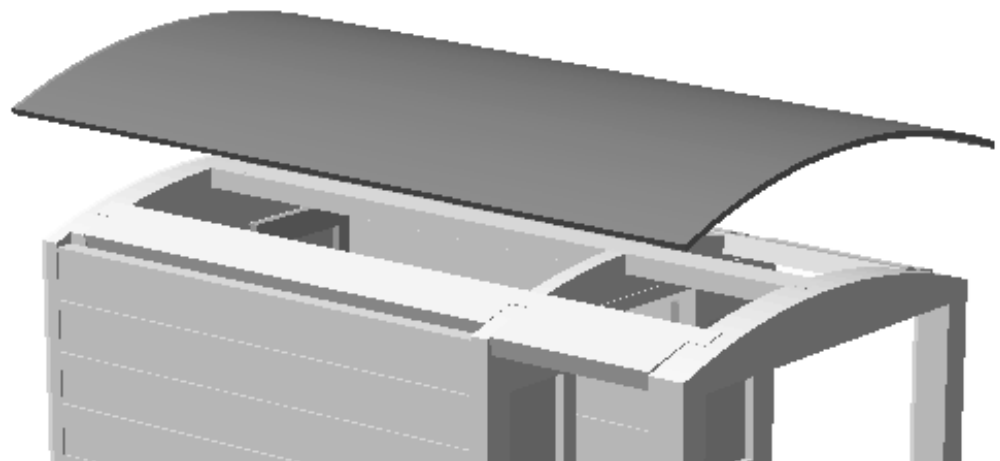
Glue the side roof supports in place. Note that they angle down to form the doorway's lintel.



Remove the protective film from the window glazing and glue into their recesses.

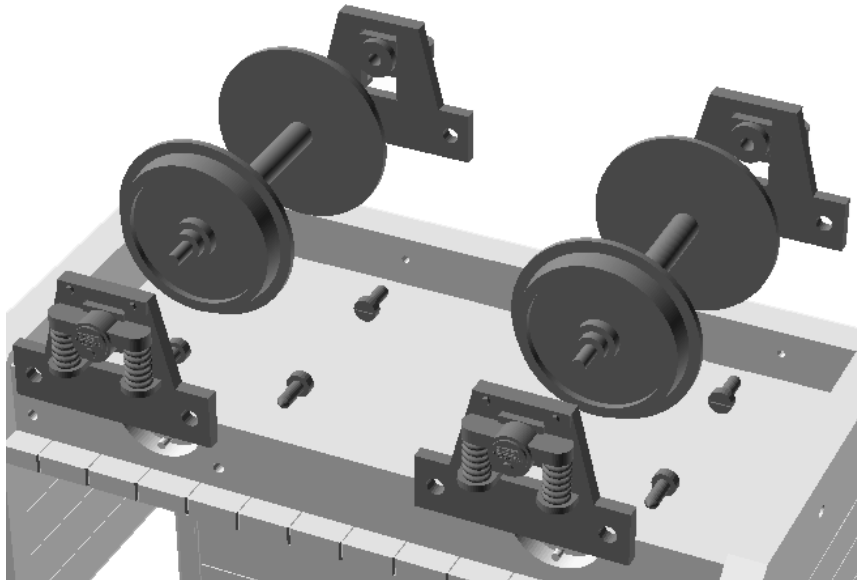
Trim the preformed roof to size with a very sharp modeller's knife and steel rule. Suggest you trim the width first leaving about 2mm of the lip on and then trim to length.

Glue the roof in place. Epoxy resin glue (e.g. Araldite) is recommended.



4 – Wheels

Note the supplied axle guards come with two little ring securing lugs sprued off their sides which are not needed for this kit. Trim them off and place in your “will come useful” tin. Clean out any printing dust in the axle journals by “twizzling” a 2mm drill bit in them.

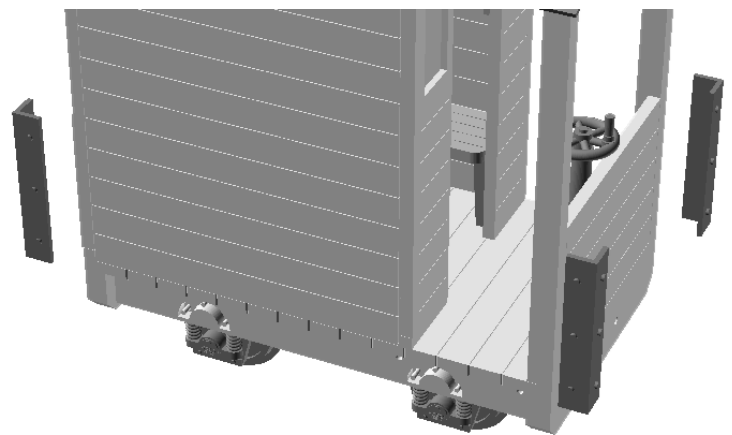
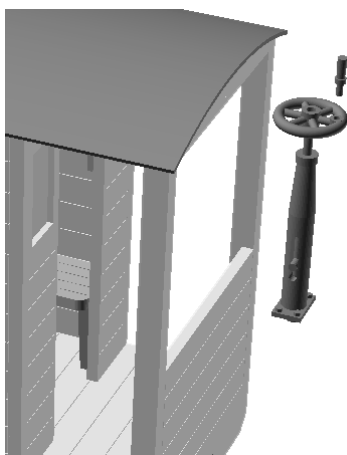


Fit the axle guards to the wheels and then screw the axle guards to the inner sole bars.

Give the wheels a flick, they should spin freely. Add a drop of light oil (e.g. 3in1) before the wagon enters service.

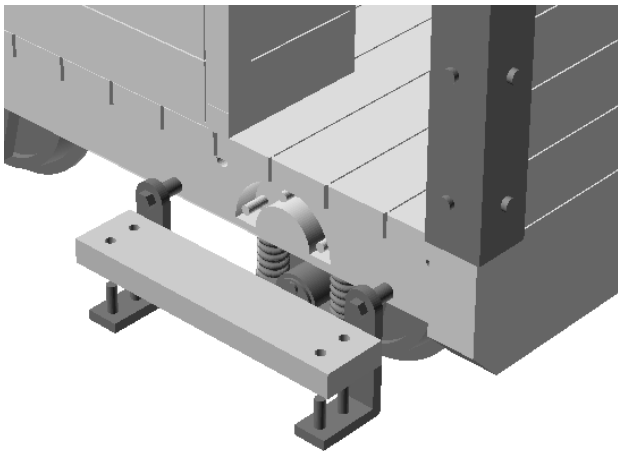
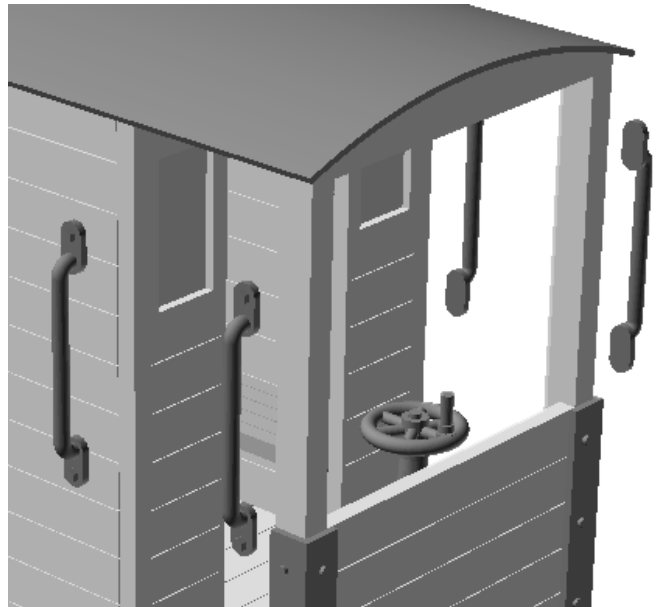
5 – Finishing Touches

Glue the four corner plates in place.



Assemble the brake stand and glue into the locating hole in the veranda floor.

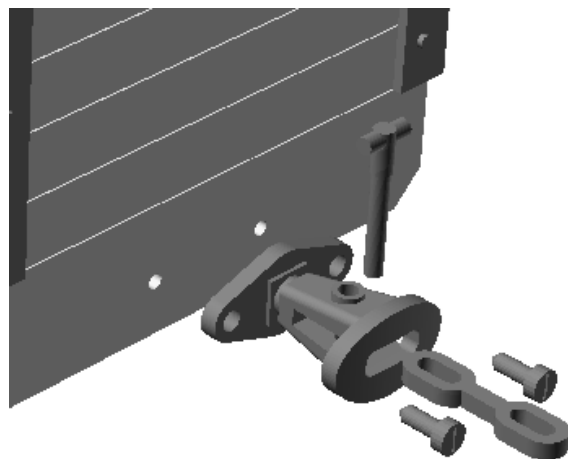
Glue the four grab rails either side of the doorway.



Glue the wooden steps to their support brackets and then into their locating holes in the sole bars.

Screw the bell mouth couplers in place with 4 self-tapping screws

The modeller has the choice of using this coupling in a prototypical manner; i.e. keeping the link engaged in one buffer and sliding the t-pin in and out of the other (tweezers recommended) to couple the wagons together. Alternatively dispense with the link bar and permanently glue the t-pins in place. The small coupling chain may then be slipped over the T-pins to couple in a more conventional garden railway like manner.



Job Done!