

Engine Shed Assembly Instructions

This kit is a freelance engine shed inspired by several photos in the Industrial Railways Societies books on industrial railway sheds. Our aim was to produce an engine shed which would not look out of place next to our other wooden station buildings. The building has no base so that you can easily lift the building to get to any locomotive within the shed. Also the office or mess room may be assembled on either side of the main building



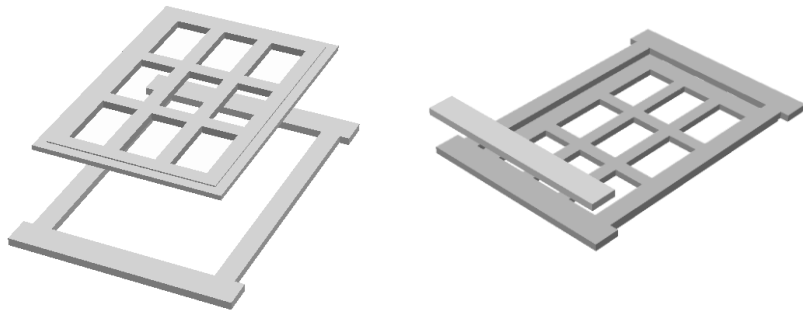
Most of this kit is laser cut Poplar plywood. This is moderately water resistant but with a reasonably amount of painting or varnishing should prove rain resistant if not left outside all winter. We do however recommend using water proof PVA wood working glue (e.g. Evostick in the blue bottles) to glue the plywood parts together.

The window panes are laser cut "PETg". These are totally weather proof and easy to glue. We recommend gluing with a "canopy glue" like Microscale Krista Klear or a contact adhesive like Evostik or UHU. Be careful of super glues because many brands can leave white "smoke marks". The roof overlays are vacuum formed HIPS. This is easily stuck with various glues and we suggest that epoxy resin (e.g. araldite) is used to stick them to the plywood roof rafters.

Painting or varnishing is very much a matter of personal preference. We suggest you plan ahead and either paint the components before you assemble them or assemble the lot; paint in your base colour and then pick out the details in other colours. It's whatever works for you.

1 Windows and Doors

All these parts will need separating from the 1.5mm thick fret with a sharp knife through their holding tabs



For each of the 9 windows (4 large, 4 small and a medium for the office), glue the frames onto the backs of their casings. Take care to align the frames so that the lips left around the edges of the frames are even. Turnover and glue the little strips of ply onto the bottom of the casing to form the window sill.

Glue the office door to the back of its door frame ensuring the bottom edges are flush and that there is an even lip on both sides. Note that the door knob pilot hole can be placed on either side.

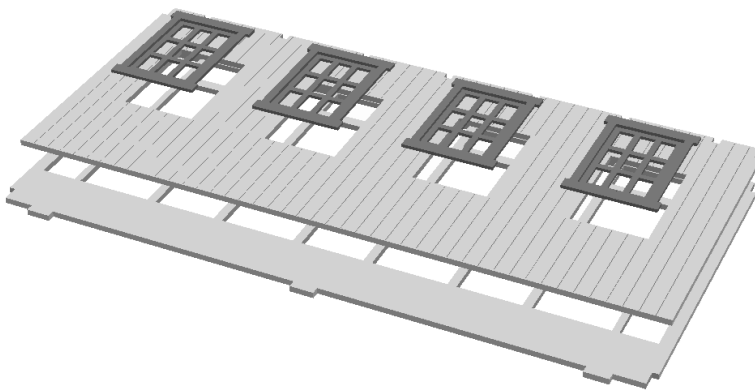
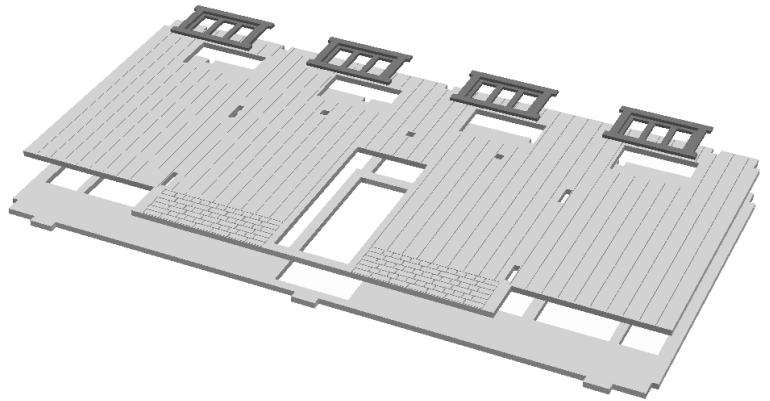


Now glue the “Z” frames to the back of the main shed doors (both 3mm thick). Take care with the positioning of the door catch locating holes which are towards the bottom of the doors. Ensure no glue oozes into the door hinge strap locating holes.

Once all the glue is set we suggest that you paint or varnish these assemblies.

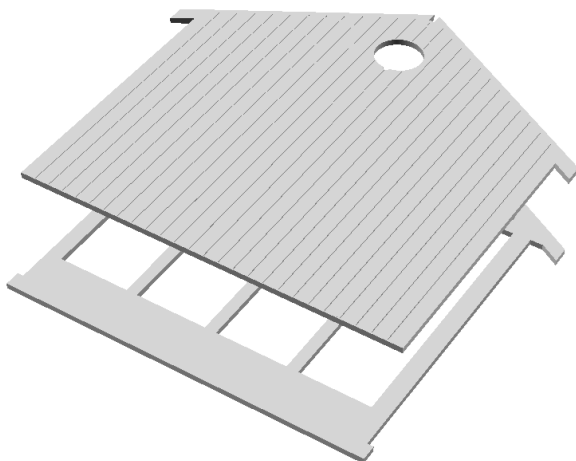
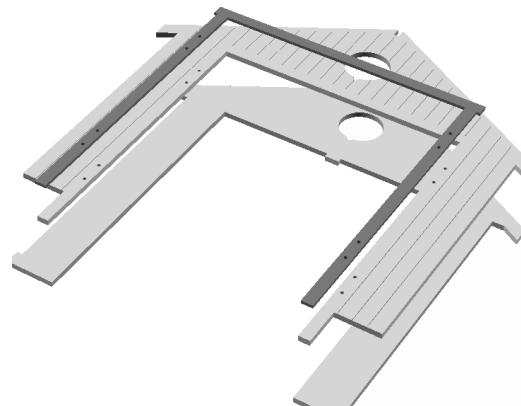
2 Wall Overlays

Glue the wall overlays (3 mm ply) onto the four wall frames (3 mm ply). Make sure the rafter slots align at the top of the side walls. Also the engraved brickwork goes on the inner faces. The outer faces have a gap where separate brick plinths glue in later.



Optionally glue the window assemblies onto the walls now or leave until the final stages of construction when all other painting is complete.

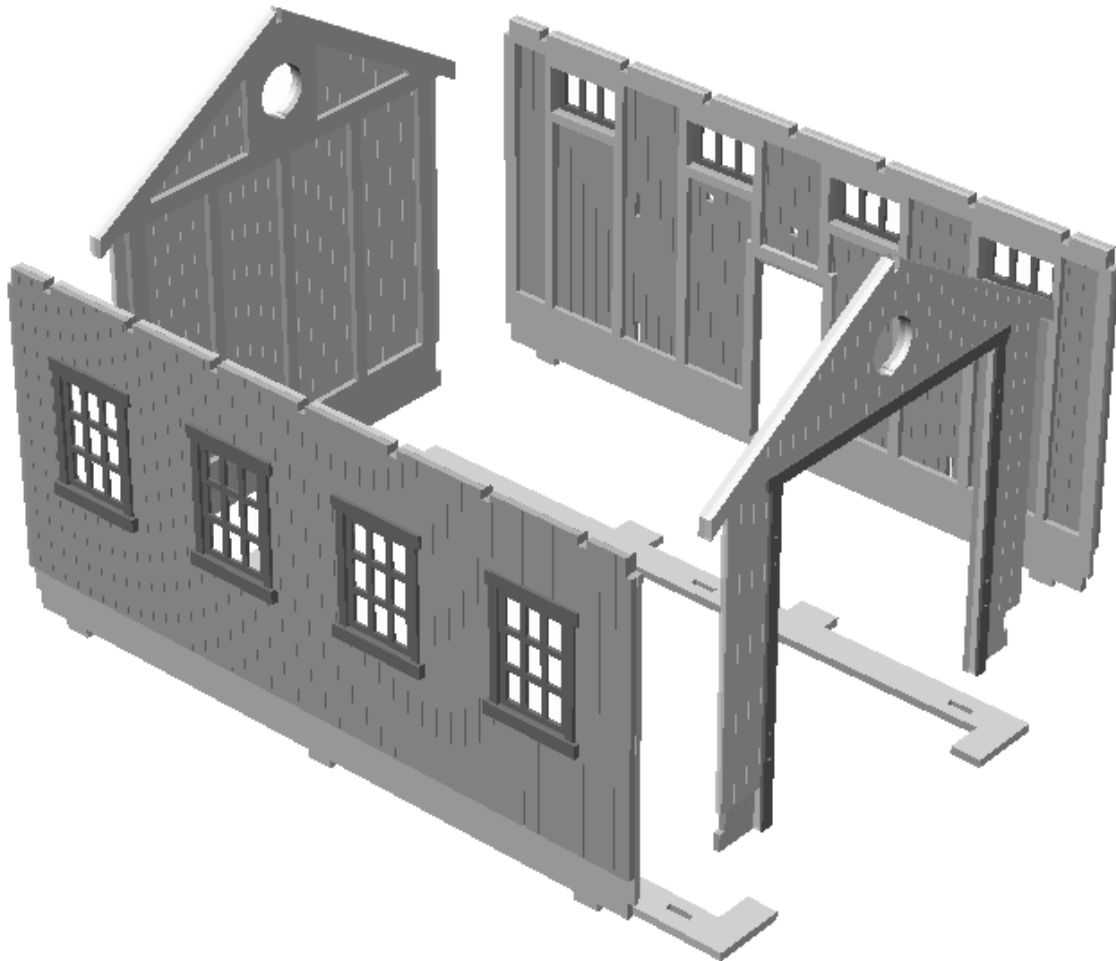
Note the main doors outer frame is 1.5 mm thick



Clean off any glue that oozes onto the front face or onto the side edges. Place something flat and heavy on top of the assemblies and wait for the glue to set

3 Main Shed Assembly

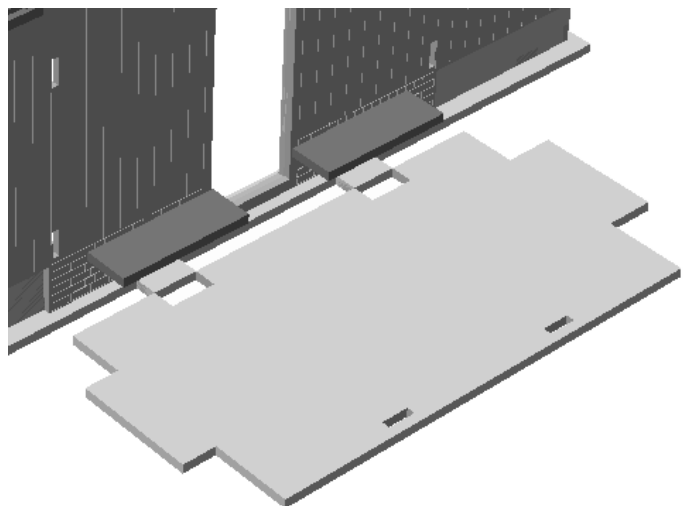
It's at this point you decide which side you want the office/ mess room on. We strongly suggest you have a dry run of this step.



Glue the four walls together onto the base placing the small doorway onto the desired side. **Ensure the 2 locating lugs on the base are on the "office" side.**

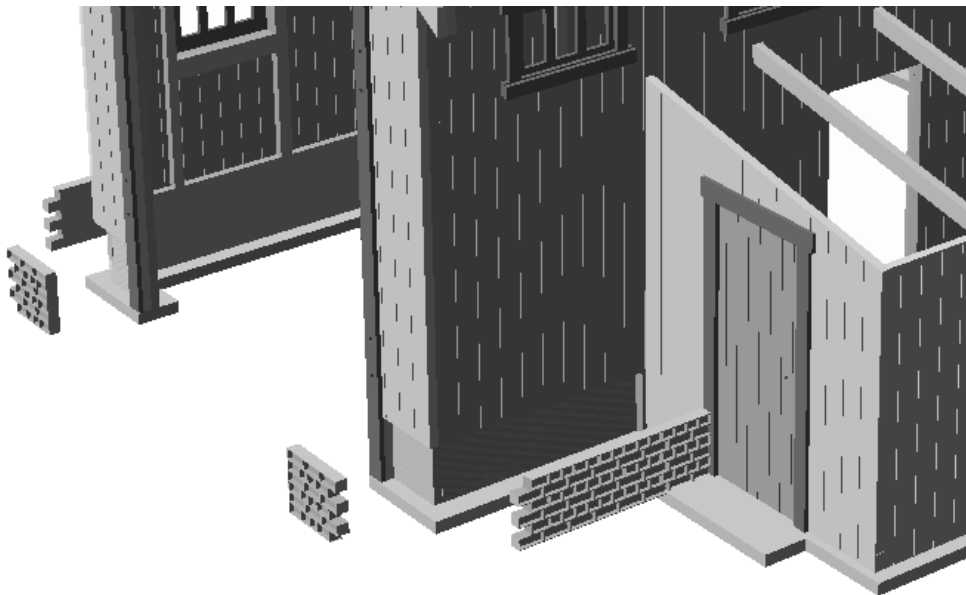
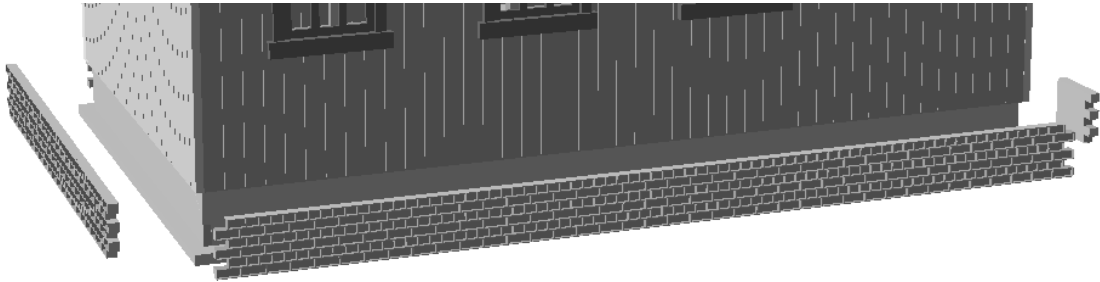
Clamp up and remove any glue "oozage". Set aside to dry.

Glue the office base to their locating lugs outside the side door. There are two 4mm thick splint pieces that can be glued on top of the lugs to strengthen the joint. Note the smaller door-step goes to the front and the larger chimney base goes to the rear.



4 Brick Plinths

Now fit the brick plinth overlays to the bottom of the outside walls. The trick is to ensure that the brick fingers mesh without force. Lightly file the slots if necessary then glue into the gaps between base and the bottom of the wall overlays. Glue all the brick plinth pieces in one go with PVA wood glue (or similar) so you get a few minutes to adjust the exact positions.

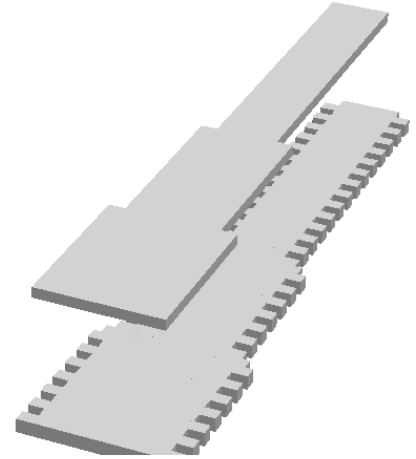


Once the glue has set you might find that the ends of the brick fingers protrude slightly (we have to allow for variances in the plywood's thickness). If so, lightly sand the ends back a bit, but not too much as you don't want to lose the "mortar courses".

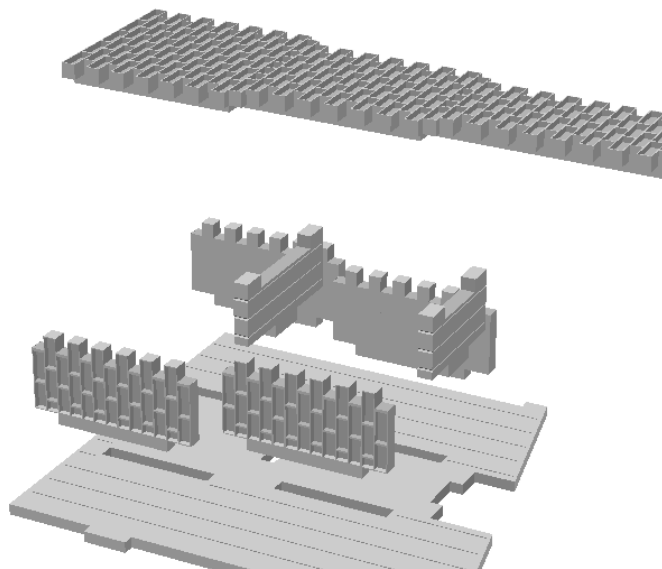
5 Chimney Stack

A dry run of this step is strongly recommended.

Glue the chimney strengthener to the back of the main chimney piece. Ensure the bottom edges are flush and the sides of the strengthener are flush with the bottoms of the teeth. Clamp the two parts flat onto a board and allow the glue to set.



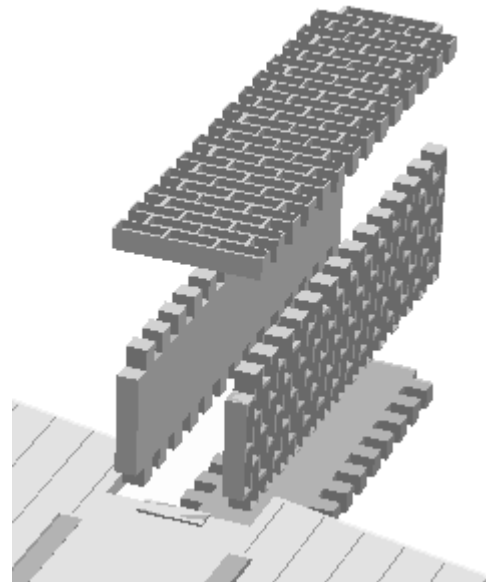
Glue the chimney pieces together as shown. You may find the “teeth” a tight fit in which case lightly file the teeth sides. You do not want to have to force the teeth together as you glue them.



Note get the office wall the right way around depending on whether you are assembling the office to the left or right!

Once the glue has set, gently file back any corner teeth that are slightly proud. (We have to cut the teeth slightly long to allow for variations in the plywood's thickness.)

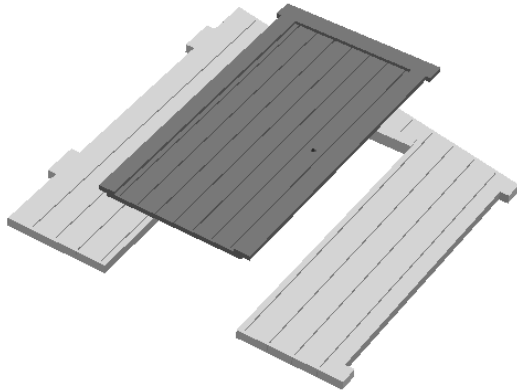
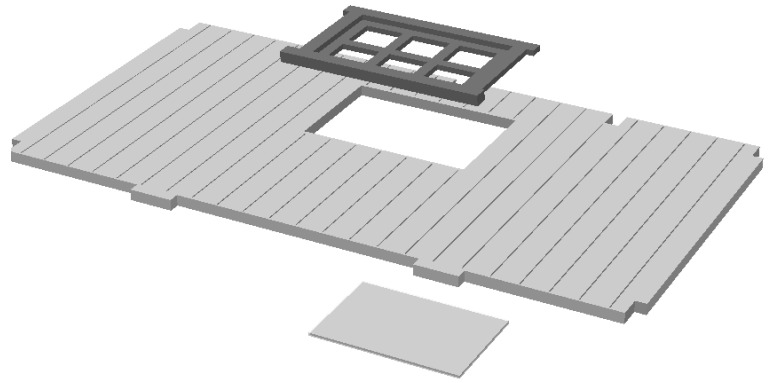
Now is a good time to paint the chimney. A quick way is to spray it with red oxide car paint primer from a “rattle can”.



6 Office/Mess Room Assembly

Note the office walls are engraved on both sides to allow for assembly of either a “left hand office” or a “right hand office”

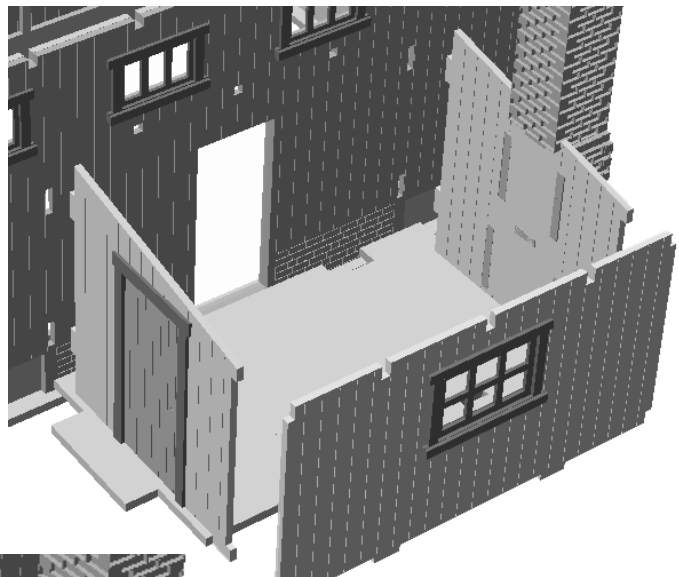
Glue the office window and window pane to the office side (don’t leave the window pane to later as you are about to glue the office rafters on).



Glue the office door to the matching wall.

Glue the three office walls in place on their base and the main shed’s side. Again a dry run of this step is recommended.

Optionally fit the 3D printed door knob now or leave to later.

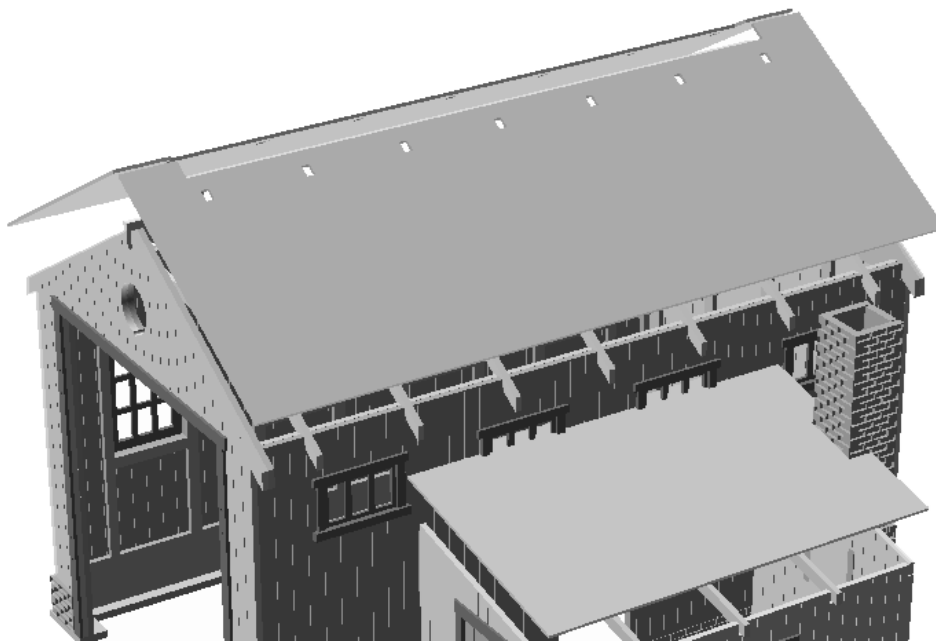
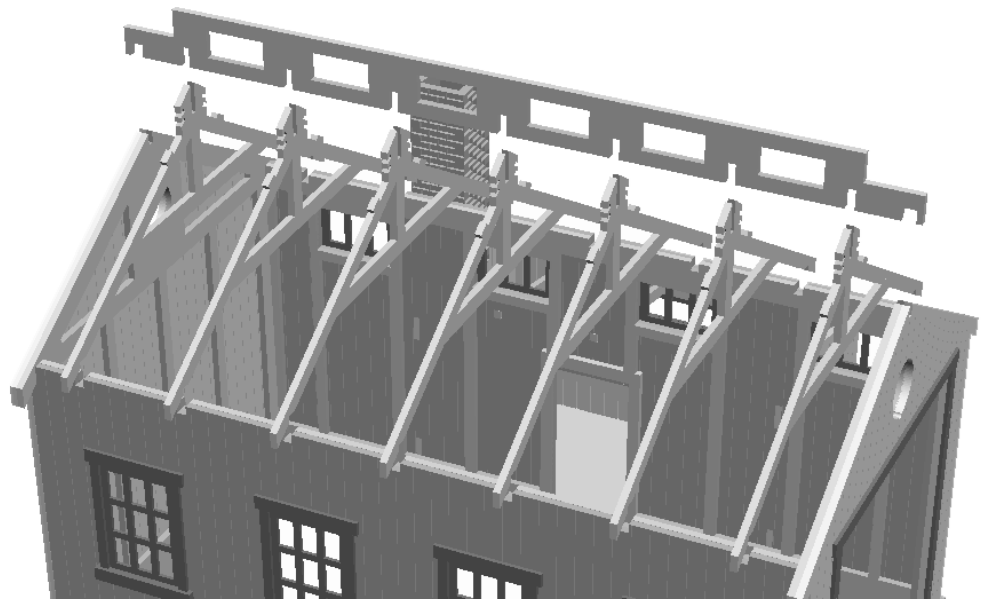


A spare office door is provided which may be fitted in the doorway between shed and office if desired.

Glue the three sloping rafters into their sockets

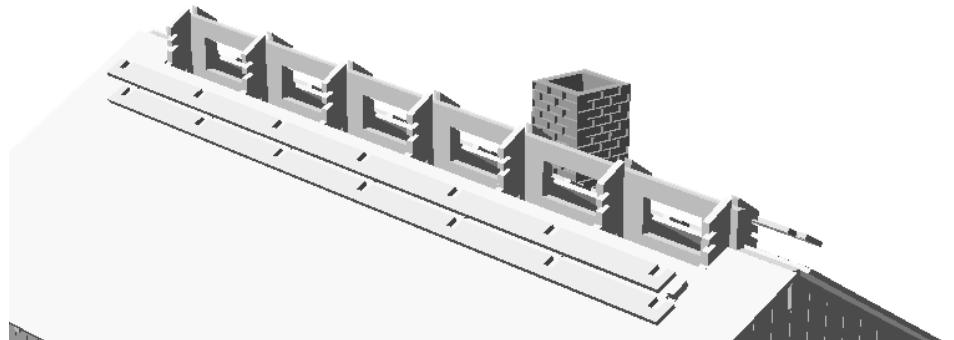
7 Roofs

First dry fit the rafters and roof ridge in place. Chances are you will need to ease the sockets with a file so that everything fits nicely. Once happy with fit, glue in place.

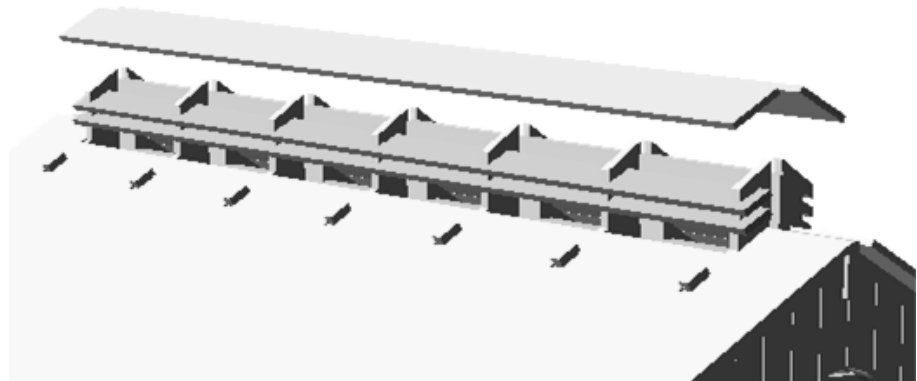


Glue the three wooden roof panels to the rafters.

Glue four long slats into their angled slots in the smoke stack



Glue the 1.5mm thick smoke stack “roof panels” into place



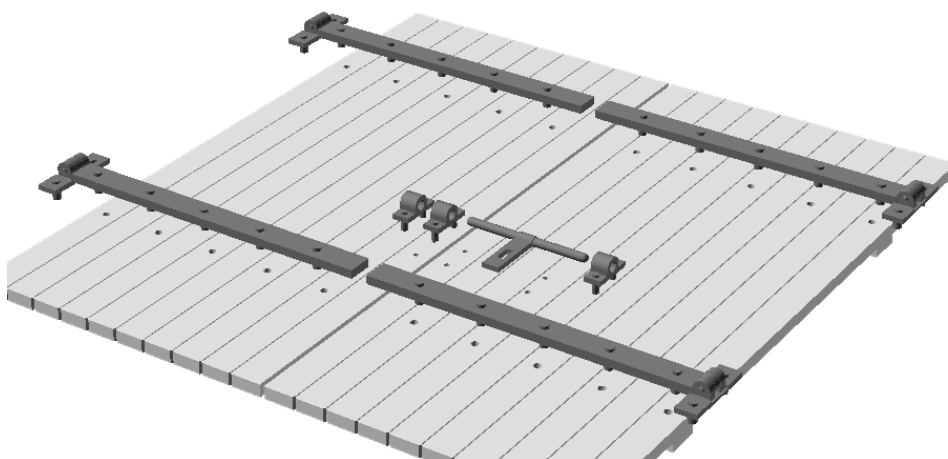
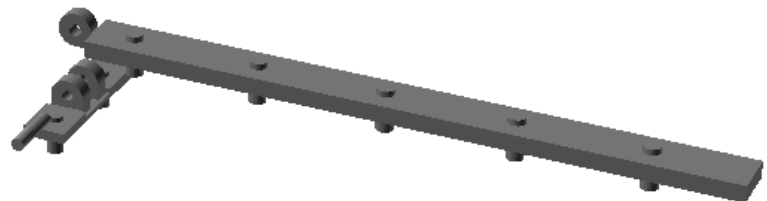
Glue the three pre-cut corrugated roof overlays in place. We suggest you use a gap filling adhesive like epoxy resin or the new Gorilla Glue “Kristal Clear” (not the original brown foaming stuff!).

Trim a piece of plastic roof ridge to 318mm long and glue to the top of the smoke stack. Trim two pieces of plastic ridge to 28mm long and glue to the roof ridge either side of the smoke stack.

8 Door Hinges

Separate the door hinge components from their printing sprues. Little white marks will be left where you remove the sprues. “Colour in” these white spots with a black permanent marker pen. Poke a small piece of wire through the pivot holes to remove the loose printing dust.

Cut four 7mm pieces of brass rod from the supplied rod. Push the little rods into the hinges as shown. (You shouldn’t need any glue)



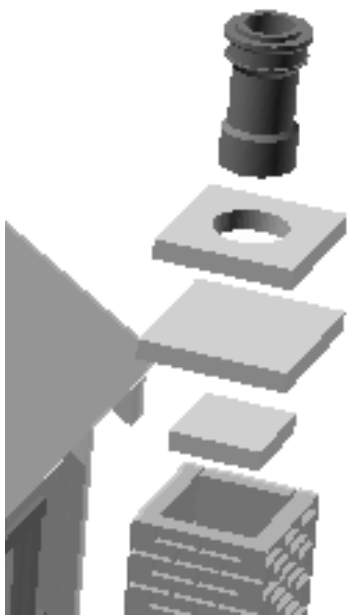
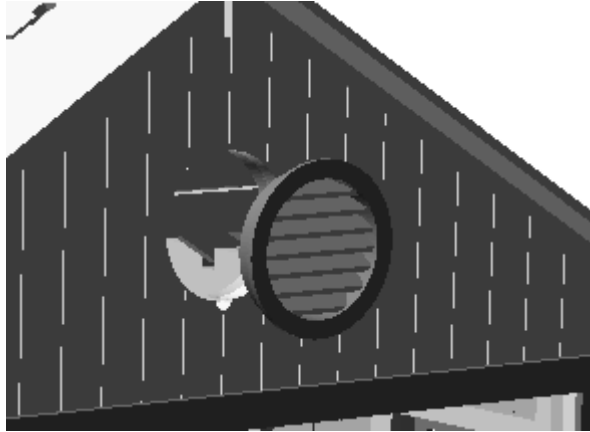
Glue the four door hinges to the main doors. Then insert the “T slide” into two of the round brackets and glue to the right door. The other bracket goes on the left door.

Then glue the four pivot plates into their location hole in the main door frame.

9 Finishing Touches

Glue the 8 window panes to the rear of the 8 window frames in the main shed.

Glue the two circular smoke vents into the gable ends



Glue the 3 chimney cap pieces to the top of the chimney stack and fit the chimney pot.

JOB DONE !