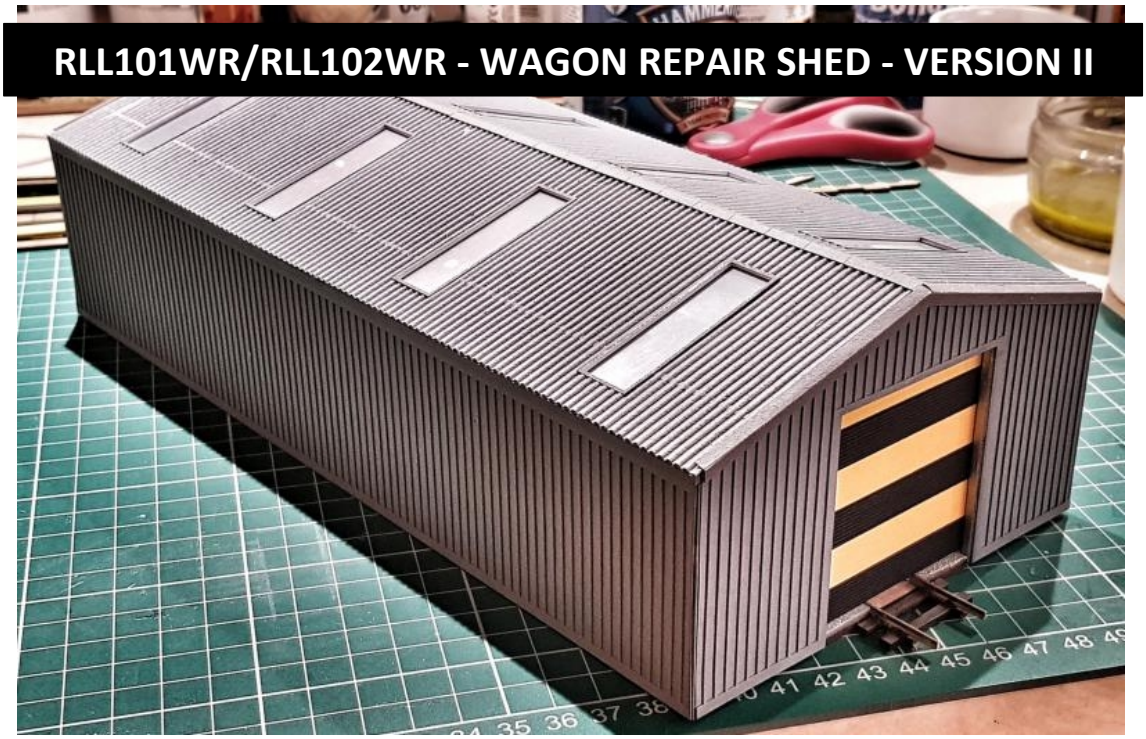
RLL101WR/RLL102WR - WAGON REPAIR SHED - VERSION II



Tools Required

Sharp Craft Knife/Zippy Blade
PVA Glue or Equivalent
Sanding Block/Sandpaper
Dust Mask
Wooden Pegs

Masking Tape
Paint Brushes
Primer Spray Can
Acyrlic/Enamel Paints

NB: When priming/painting, do so in a well-ventilated area and use an appropriate mask. Some items are very fragile so handling with care is paramount.

We strongly recommend that you read through the instructions prior to making to familiarise yourself with the build. Dry test fitting is also recommended and most important, take your time when making as some of the kit parts are extremely fragile and we cannot accept any responsibility through breakage during the build!

Instructions are often updated and we therefore suggest that prior to building, make sure that you have the most up to date instructions to hand.

KIT INSTRUCTIONS: LAST UPDATED: SUNDAY 6TH JUNE 2021

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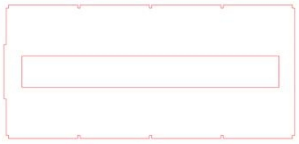
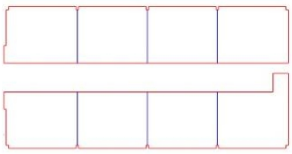
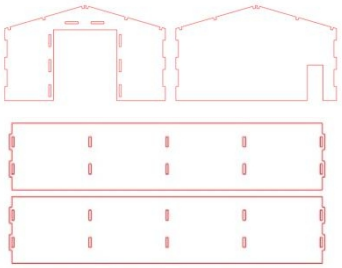
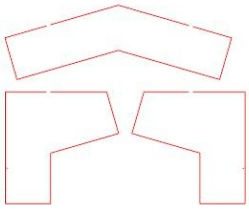
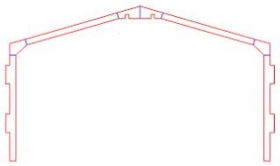
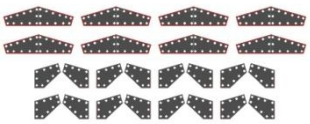
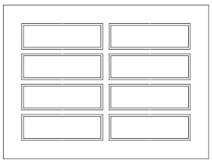
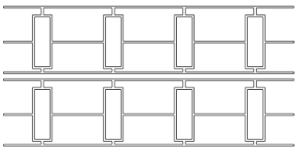
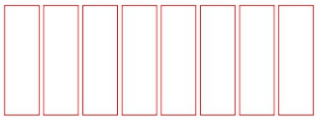
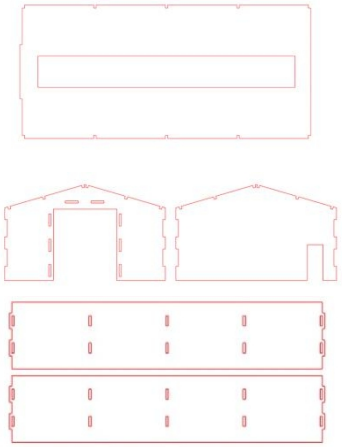
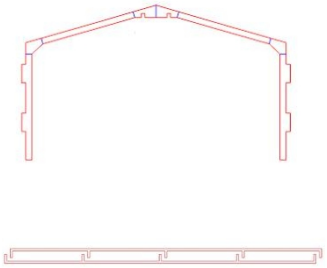
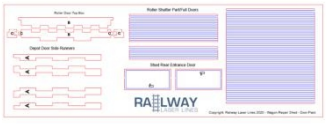
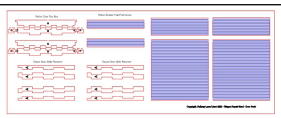
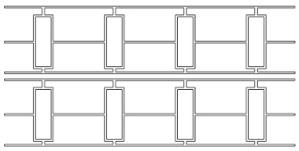
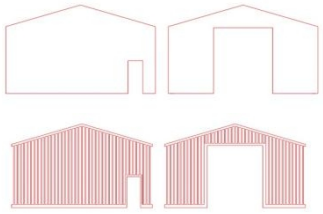
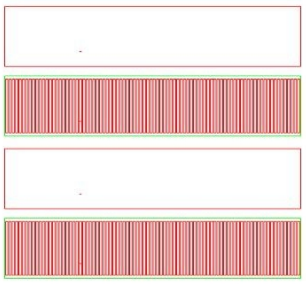
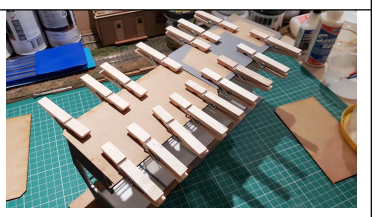
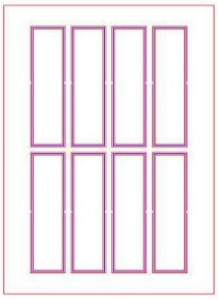
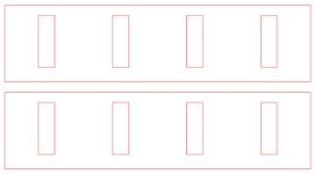
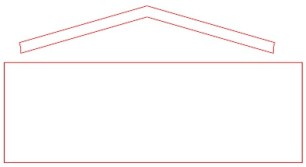
1	The bottom base will require a piece of track (not included) to be cut to fit and allow a small overlap so that you can connect up to another piece. You will need to trim away some sleepers at the entrance so that it fits nicely over the base support where the track goes. Then turn the base over and used some masking tape to keep the track in position. At this point, it may pay to paint the inner rails as you will be adding a centre strip soon. If you have purchased the through road version, you need to remove sleepers from the track at both ends.	
2	Prime the base overlay and centre strip prior to fitting . With the track in position, you will now need to glue the base overlay to the bottom base. Cover the bottom base in a thin layer of PVA and then offer up one side of the base overlay and fit into position. Make sure that the outer edges are flush and the roof support holes are also flush to the bottom base otherwise your supports will **NOT** fit! The overlay should also butt nicely up against the outer rail. Wipe away any excess glue. Repeat the process with the other side base overlay. Place to one side and allow to dry.	
3	Glue the centre rail strip to the sleepers using either PVA or an adhesive. Make sure you centre this strip to allow the movement of wagon wheel flanges to move freely. Allow to dry. Once dry, the centre strip and base can now be painted on the top surface. Do **NOT** paint inside the roof support holes or around the outer edges of the base.	
4	The skeleton framework needs to be primed on the inner sides of the framework. Dry fit these around the base and make a pencil mark on each section on the outer sides as this will remind you to prime the other sides. Prime in the colour of your choice. A couple of light coats will cover the parts. Allow to dry, then lightly sand these and wipe away any excess dust. Re-prime a top coat using a couple of light coats to cover the area. Allow to dry. The through road version will have two end entrance panels.	
5	There are 5 roof supports and you need to glue the top roof centre rivet panels and also the side top rivet panels to each of the roof supports. NB: The two end roof supports **DO NOT** require any rivet panels on one side as these will be facing up against the skeleton framework. Use the enclosed jig.  The jig will help you keep the rivets in position when gluing	 

	these to the roof supports. Make sure that these are fitted to match all the roof angles….these are fiddly! Allow to dry. Mask off the small side supports that will slot into the side framework as this will help when coming to fit them. If you prime them and they do not slot nicely into the side framework, then you will be required to sand these down. Prime one side of each of the roof supports in the colour of your choice. To keep these from blowing away, place them down on a flat surface and with some masking tape, hold them down across the protruding side parts. Allow to dry and then repeat doing the other sides. **REMEMBER**: two of these are fitting against the framework so you do not need to prime these two on both sides (the ones with only rivets on one side!).	
6	Version II (from July 2020) Kit now comes with a slightly modified roof and now has roof window inner surround frames that need to be glued in. Cut these out from their sprue. Lightly sand sides if required…..**VERY FRAGILE - BE CAREFUL** and then glue these to the inner sides of all the roof cross member window frames with a small amount of glue. These inner frames need to be flush with the bottom edge of the roof cross members as you will be fitting glass panes inside here and these will need to be flush with the top edge once fitted. Allow to dry.	
7	If you are going to be painting the roof cross members in the same colour as the roof supports, then you can prime this at the same time once you have done 6. **NOTE:** Again, this piece will only require priming/painting on the side that is facing inwards. ***(THIS IS THE SIDE WHERE THE INNER FRAMES ARE FLUSH WITH THE ROOF CROSS MEMBER PIECE)*** . Allow to dry.	
8	You can now glue the 8 roof glass panes in place. The panes come with a protective wrapping on them. You can leave these on if you want a frosted effect, or simply peel the wrapping off to reveal a clear surface. I used Deluxe Super-Phatic glue for this as it is thin yet very strong. They simply lay on top of the inner frames that you glued in earlier. Use a small amount of glue to secure them in place and immediately wipe away any excess glue with a small damp brush.	
9	Also, the roof ladder supports that slot within each roof support between the rivet panels can also be primed in the same colour. Mask off the parts that slot into the roof supports to allow easier fitting. Allow to dry.	

10	Now it is time to start gluing the skeleton framework (well, 3 of the 4 sections!) Get hold of your base and place on a flat surface. Dry test the skeleton framework around the base to make sure that it fits. If it doesn't, then your base is most probably not even around the edges with the base overlay and some sanding may be required. You need to glue one of the skeleton side frames to both end skeleton panels. Add some PVA or equivalent glue to the edge of the skeleton frame and fit together to form a nice tight fit. Remove any excess glue. Make sure that each end is at 90 degrees so when you eventually come to fit the other side panel, it will fit flush. (You **CANNOT** fit this side yet as we have to fit the roof supports in place first!) If you have any magnetic 90 degree clamps then these will hold everything in position nicely. If not, use the long scrap piece of MDF that was in the middle of the bottom base where the rail now goes and butt this up into one corner. Then using some masking tape, add a few strips around the outer edges of the framework to hold in position. Repeat with the other end. Allow to dry fully before removing the masking tape.	
11	Now that the 3 sides of the framework are dry, you can now offer up each roof support into the designated holes along the side panel. Start at one end and fit a roof support that does **NOT** have a rivet on one side. Add some glue into the side frame holes and fit the roof support. You can add some glue to the back of the roof support to fit flush against the side panel should you wish. Now, repeat this step all the way along. **REMEMBER**: If you didn't mask the protruding lugs of the roof supports, you may need to sand these. These should fit nicely into position but be **CAREFUL** as these roof supports are thin and fragile! Use wooden pegs to secure them in place at the bottom. Once these have all been done, you can now add the roof support ladder into the holes within each rivet panel. Add some glue and push in to fit. These supports will also give the whole structure added strength. Once we have done this, you can now add the final side of the skeleton framework up and do this from one end first. Add a small amount of glue into the framework holes and work your way along. This will get slightly more fiddly as you go along as you will need to be careful when slotting the luggs of the roof supports into the skeleton frame holes. **TAKE YOUR TIME!** Use wooden pegs to secure the roof supports on this side too at the bottom of the side frames. **DO NOT GLUE THE SKELETON FRAMEWORK TO THE BASE!**	
12	The dead-end door pack includes the parts to make the depot door side runners and top box, plus 3 different size depot doors should you wish to occassionally lift the shed up and slide a different size door in, plus the rear shed doors, which simply glue together to form one door (paint in the	

	colour of your choice). If you have purchased the through road version then you receive a door pack to produce side runners, top box and assortment of depot doors. Using a sharp knife/zippy blade, cut out the surround pieces of the depot entrance runners, top box, depot doors and rear door. You may need to lightly sand/file where you have cut them out of the sprue. Glue each depot door side runner (A up against A), forming a 90 degree part. Allow to dry. Light sanding may be required to make these flush if you used too much glue. Glue the roller door top box (B to B) and then glue parts C into the sides (this part is very fiddly as the parts 'C' are extremely small, so you may need to manipulate these into position with your fingers. Lightly glue the inner edges to help with the bond on all these parts. Allow to dry. All these parts can then be painted in the colour of your choice using either acrylic or enamel paints. I painted the inner sides silver to represent the sliding area of the door and the outer edges black, but could also be silver/yellow! Once painted and dried, these can now be glued into position on the skeleton entrance frame. Do the side runner pieces first, then add the top roller box. Allow to dry.	
13	You can now glue the roof cross member part into position. The end skeleton framework has recesses for this part to slot into, so add a dab of glue in each of these and also on the top of the roof supports (dry fit this first and mark with a pencil on all the supports where this goes and you can then glue just that area). Allow to dry.	
14	The end card cladding now needs to be glued to the end card panels. The method I used here was the 'dabbing' method. Add small dabs of glue around the outer perimeter of the end cladding piece and then fit this onto the desired end panel making sure it is fitted in the right position. Do the entrance panel part first as you will get to feel with your fingers that the cladding is correctly positioned around the entrance of the door and gently press all the way around to fit. Now, with some slightly watered down pva (80/20), get a thicker/wider brush, add a small amount of glue and gently work your way vertically down the card from top to bottom, from left to right over the surface. The glue will start to bond on the card and the cladding will start to stick in place. **DO NOT ADD TOO MUCH GLUE**, otherwise the cladding strips will sag and bow! Allow to dry fully. Once dry, it is ideal to place these parts under a weight (A few magazines is enough) to keep them flat as this will make it easier to fit to the skeleton frame later on. I normally allow 12-24hrs for these to fully dry and flatten. Repeat with other end card panel/cladding.	

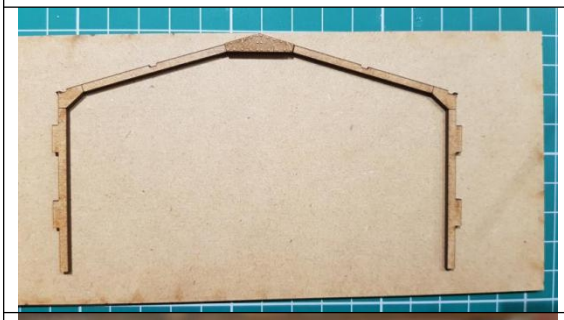
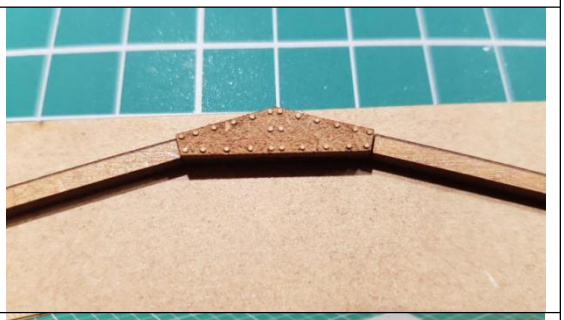
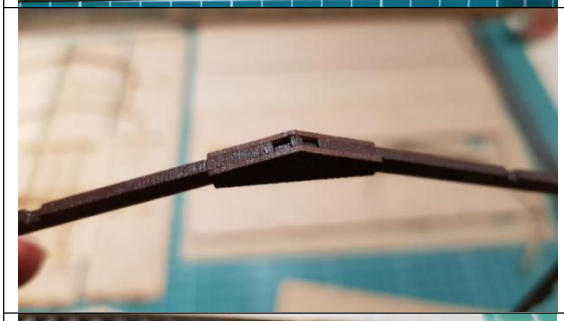
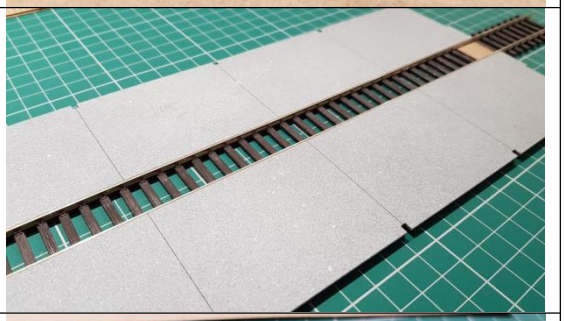
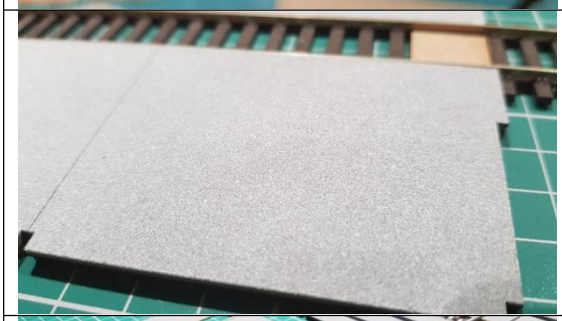
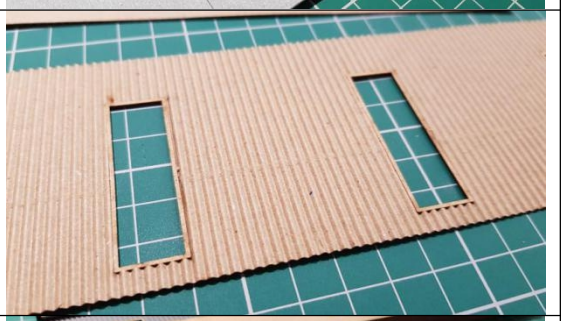
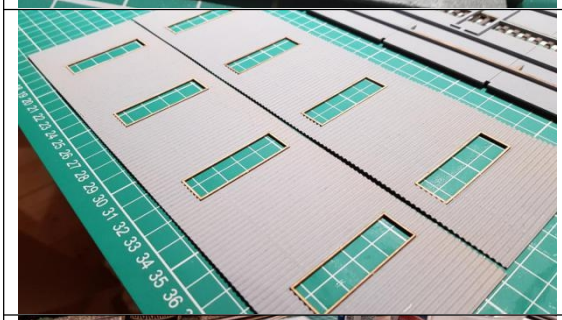
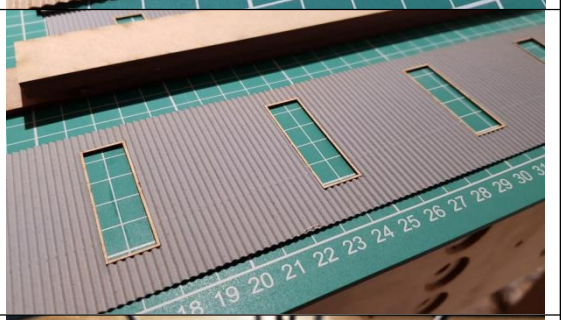
15	You now need to do exactly the same to both side panels making sure the cladding fits around the edges neatly, especially the bottom and side edges. The top section will have a gutter strip added later. Again, place under a heavy weight to keep them nice and flat. Once fully dry, you will need to prime/paint these and the end panels in the colour of your choice. I simply used a grey primer. Give the panels a few light coats to cover and allow to dry fully before then placing them under weights to keep them flat.	
16	Once all the cladding pieces are completely dry and flat, you can now glue these panels to the skeleton framework. Fit the front entrance panel first, followed by the rear end panel and then both sides. It is easier to add glue to the skeleton framework rather than the back of the card. Gently position the entrance panel into position aligning the door entrance. I used some wooden pegs to hold the card into place around the depot entrance and then held an off piece of MDF up against the two ends to allow the card to bond to the framework. You may have to have them there for a few minutes. If you have long clamps then you could use these but make sure you protect the cladding first! Or use wooden pegs where possible. Allow to dry. Repeat the process with the other end panel. Allow to dry. I then added the side panels. Again, I used pegs to hold the side panel in place (using off cuts of MDF/Card) to protect the cladding	
17	The corrugated roof panels need their window frames added. Turn upside down so the corrugation side is face down, add some glue around the edges of the window holes and gently lower each frame into position making it flush with the inner card edge. Wipe away any excess glue and allow to dry. Now, the corrugated panels need to be primed. You may want to prime the inner side the same colour as the skeleton framework. Allow to dry and place under a weight to keep flat. Once fully dry, you can prime the outer side in the colour of your choice. Again, allow to dry and keep flat with a weight as it will make gluing to the roof cross members that much easier. Once fully dry, dab some glue on the tops of the roof cross members and window surrounds and place the corrugated roof panel on top making sure the window holes fit exactly over the window framework and press down to hold. Allow to dry.	 

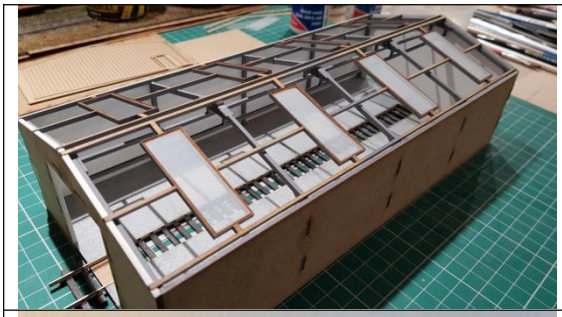
18	Glue the underside of the roof apex strip (be careful not to tear this as the ridge tiles are engraved) and gently offer this up to one end and fit into position. This covers the gap between the two corrugated roof panels. Allow to dry.	
19	The roof end cappings have a card template that you can use to mark around the foil tape with a felt pen. Cut around the outline and then trim to fit the edge capping. Once you are happy, remove the backing tape from the foil and place into position. Make sure this is firmly set. With the remainder of the foil tape, you can use this to make 4 end pieces for the side cladding where they join at the corners. Again, trim to fit (I leave approx 3mm for each side, so cut a 6mm piece and trim at the top. Remove the backing tape and fit. The foil tape can be painted using either acrylic or enamel paint. Allow to dry.	
20	Prime/paint the side gutters strips (except one of the long sides as we will be gluing this to the side cladding). Once dry, glue the non primed/painted side to the gutter strip up against the side cladding and right underneath the edge of the corrugated roof panel edge. You can add some glue to the top ridge of the gutter strip to bond to the corrugated roof.	
21	Glue the two doors pieces together, prime/paint (if you haven't already done so) and allow to dry and then glue this into position.	
22	(Optional fit) We have now included in version II of the kit, an exterior bottom plinth that can be glued around the exterior of your wagon repair shed. Prime these parts and allow to dry. Then paint in the colour of your choice and then glue into position.	
22	You have now completed the build of your Wagon Repair Shed. The base of the shed can be glued to your layout base using pva. **Remember to connect up your track and test before gluing the base down**. Once the base is fully dried you can place your Wagon repair shed over the base and into position. Fitting is easier by tilting the shed and fitting into the base holes one side and gradually lowering the shed down into position. You may need to manipulate it slightly to fit around the entrance and it should then slot into the other base holes. Remember: if you are adding any depot doors, fit these into position before fixing into place. A small piece of Blak-Tac can be inserted into the door runner box to hold your door in place but will also allow easy removing for changing doors or not having any.	

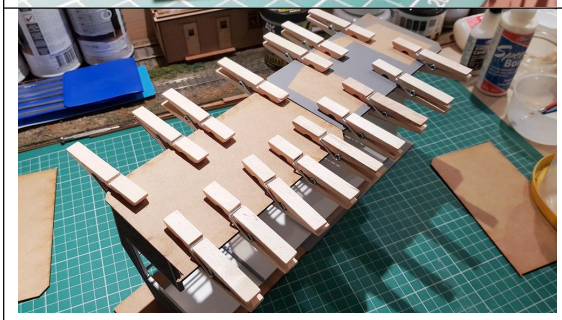
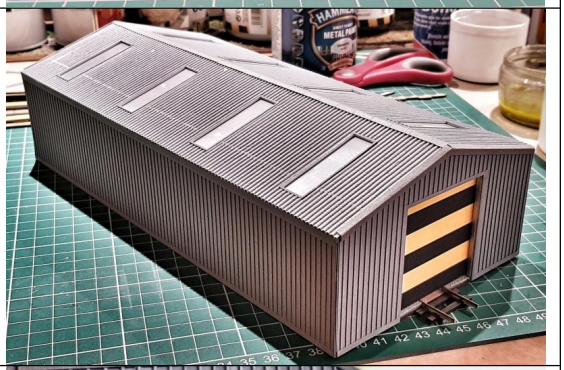
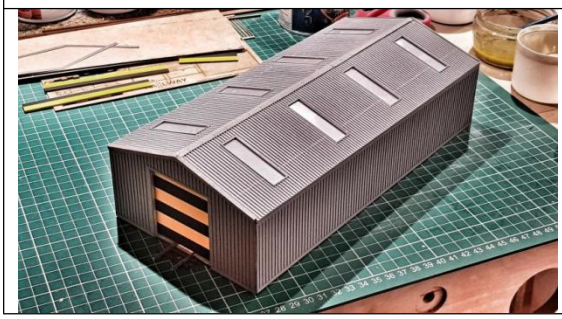
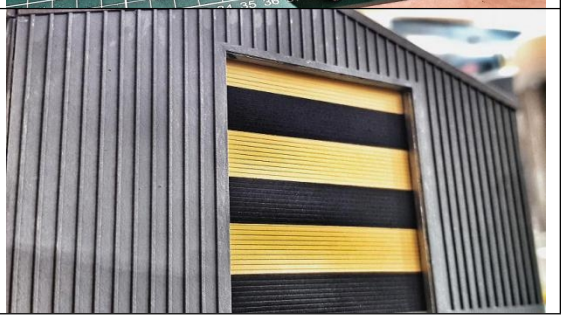
If you have any questions or queries please don't hesitate to get in touch via either our Facebook Page, https://facebook.com/railwaylaserlines or our product support page and click on the required product ID - https://railwaylaserlines.co.uk/product-support/

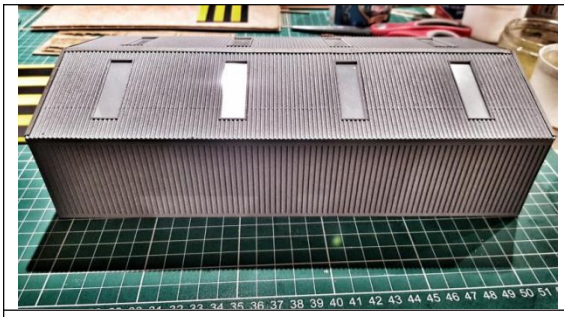
Below are a selection of images that I took during the build of our demo wagon repair shed (version I)

that may also help.





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