PDF Models Freelance Tram Instructions

Thank you for purchasing this PDF Models Loco kit. Please read all instructions before assembly. PDF Model kits use a combination of laser cut acrylic, 3d printed and resin parts. Some of these parts may require sanding smooth before assembly/ painting. Basic hand tools such as a sharp knife/scalpel, screwdrivers, pliers, tweezers, files, Allen keys, etc may be required. TAKE CARE USING SHARP TOOLS! Some parts of the model may want painting before assembly. When working with acrylic, it is important to prep the surface prior to painting as it requires 'keying' to allow the paint to adhere properly. This is best done using p400 wet and dry sandpaper, then using a plastic primer (Halfords grey will work for this), followed by light sanding using p600 or higher wet and dry to get a smooth surface ready to accept your topcoat. Slots in laser cut acrylic can sometimes be tight, when this occurs use a file to gently ease the slot rather than trying to force the part as this could cause the acrylic to snap or crack. 3D printed parts can have some print lines visible. These can be sanded smooth using p240 wet and dry and then primed using a filler/ high-build primer followed by sanding with p400 wet and dry and a coat of plastic primer as with the acrylic parts. Resin parts may require some light sanding before priming with plastic primer. When applying rivets at 5mm intervals before the topcoat glue the rivets on with liquid poly. When dry, paint with primer again and finish with topcoat. Take your time ensuring the prep work is good and you will be able to produce a superb model to be the pride of your railway and bring you much enjoyment!

Parts list for the tram body:

Quantity:	**Part name:**	**Quantity:**	**Part name:**
1	Footplate	2	Side Skirts
2	Side skirt overlays	2	Buffer beam inner
2	Buffer beam outer	1	lower cab floor
1	Cab rear	2	Cab Sides
1	Cab front	1	Cab floor upper
1	Nut holding plate	2	Water tank inner
1	Water tank end	1	Water tank top
1	Set of beading	1	Firebox
1	Firebox front	1	Smokebox door
1	Smokebox dart	1	Firebox detailing set
1	Chimney saddle	1	Chimney
1	Chimney top	1	Dome
2	Safety valve bottom	2	Safety valve pipe

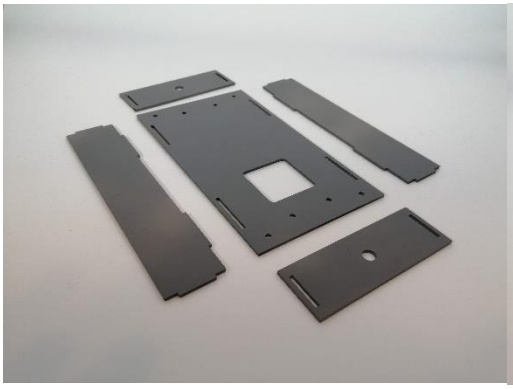
1	Roof	5	Main curved roof supports
8	Secondary roof supports	2	Roof spacers
1	Boiler top	1	Bag of bolts

Chassis assembly:

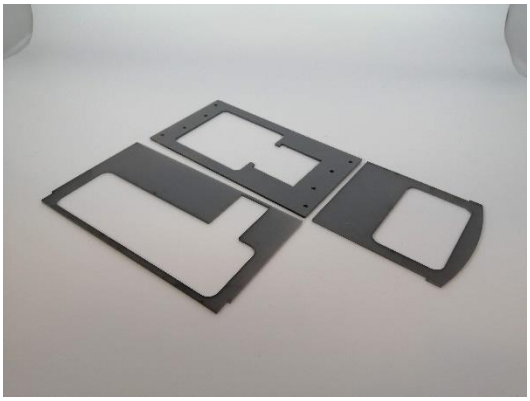
This model makes use of the PDF models Baguley Drewry chassis kit. Please follow the instructions for the chassis found on our website https://www.pdf-models.co.uk/building-instructions.

Tram body assembly:

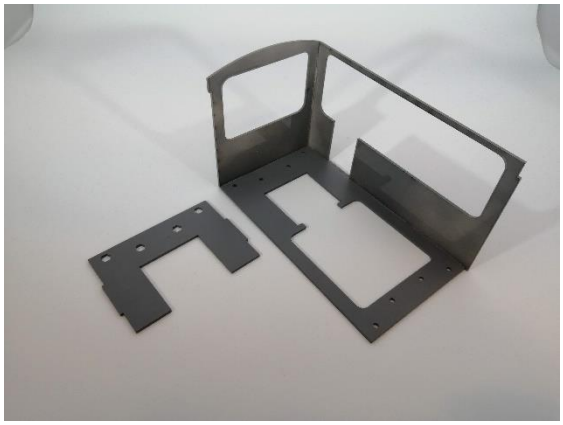
We will start by assembling the footplate and the skirts. Take the footplate, side skirts, side skirt overlays and buffer beam inners. Starting with the side skirts, locate and glue these to the footplate using the slots in the footplate. Now using the slots in the buffer beam inners, locate and glue these into place. Finally, take the side skirt overlays and glue these to the side skirts; take care as these should have the cab step facing the rear (the hole for the motor) end of the assembly. For now set this assembly to one side.



Now, take the lower cab floor, cab rear and 1 cab side, glue the cab rear to the cab side using the tab to help locate the pieces together. Then glue the lower cab floor to the cab side and cab rear (check the orientation, the smaller cut-out goes to the rear).

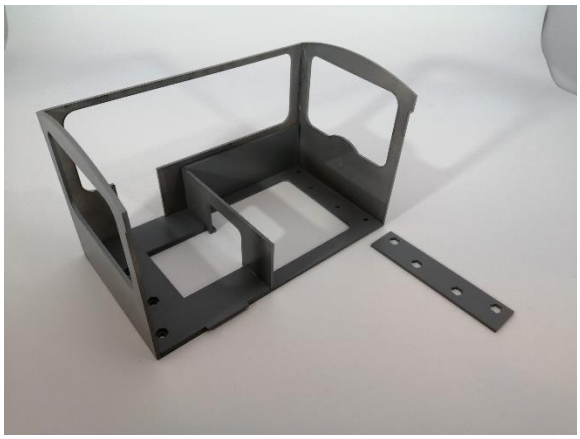


Next, we take the cab floor upper and glue this into place using the cab side opening and the bolt holes as a guide to help locate everything squarely. Take the time to glue 4 nuts into the hex holes now.

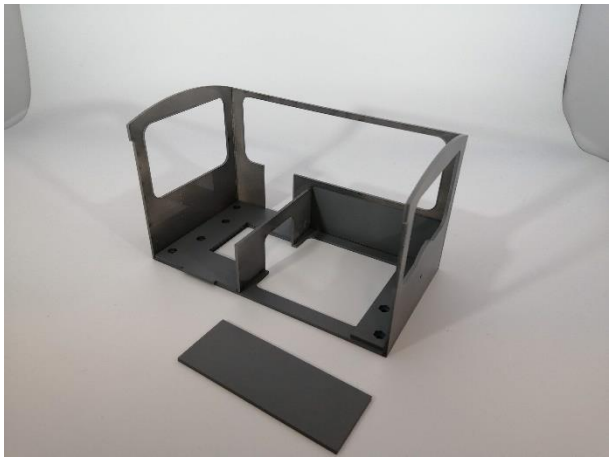


Next, taking the water tank end and 1 water tank inner, glue the water tank end to the lower cab floor butting it up against the edge of the upper cab floor. Use the water tank inner to help set this square and vertical. Once secure, glue the water tank inner to the inside face of the cab side keeping it hard up against the water tank end.

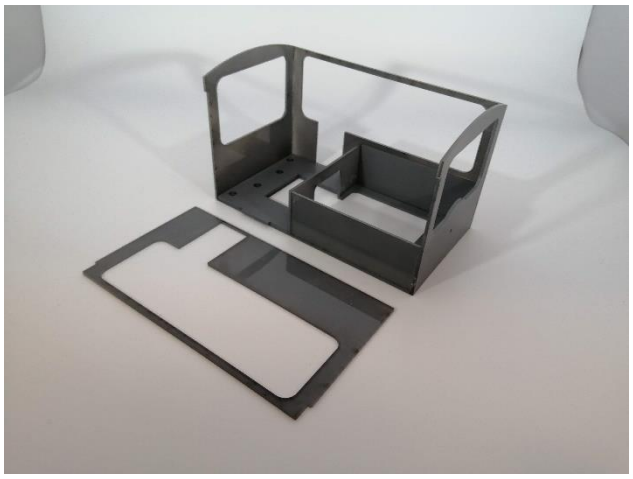
Now glue the Cab front into place using the tab to help locate it. Taking the nut holding plate, glue this into place against the cab front and carefully align with the holes in the lower cab floor.



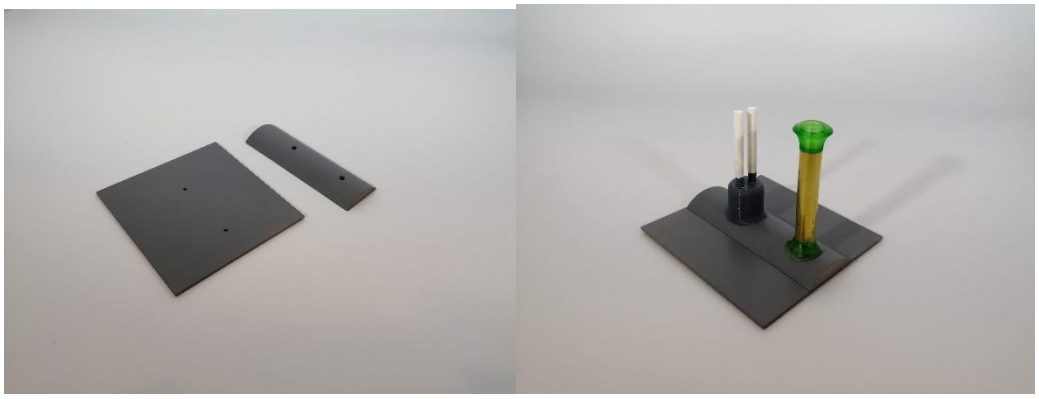
The remaining water tank inner can now be glued into place between the water tank end and the cab front.



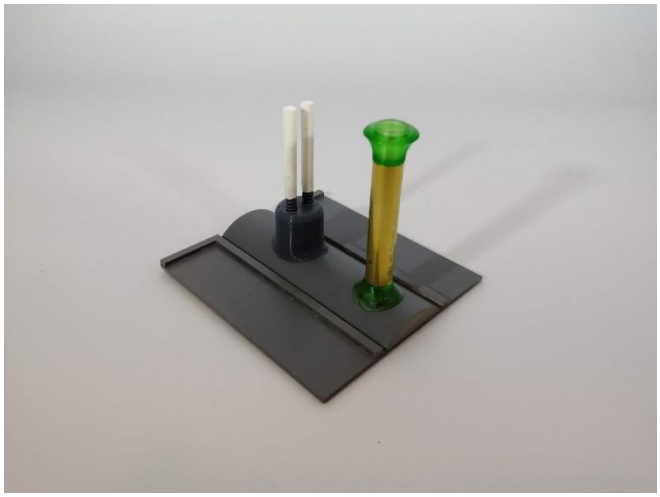
Finally, the remaining cab side can be glued into place.



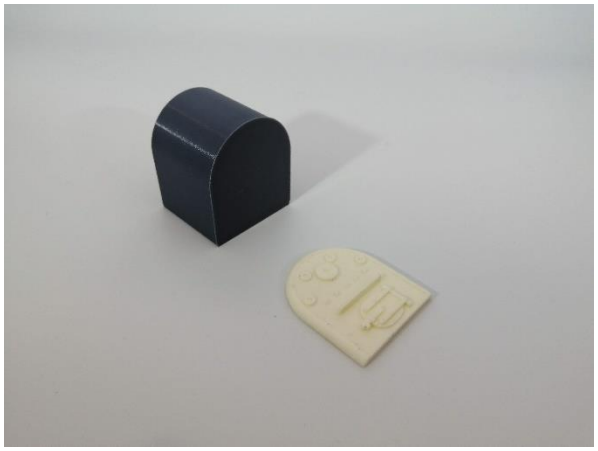
Now we take the water tank top and the boiler top and screw these together using the 2mm bolts provided. The chimney , dome and safety valves can now be assembled and fitted.



The L shaped beading can now be glued to the top of the water tanks to complete this sub assembly.



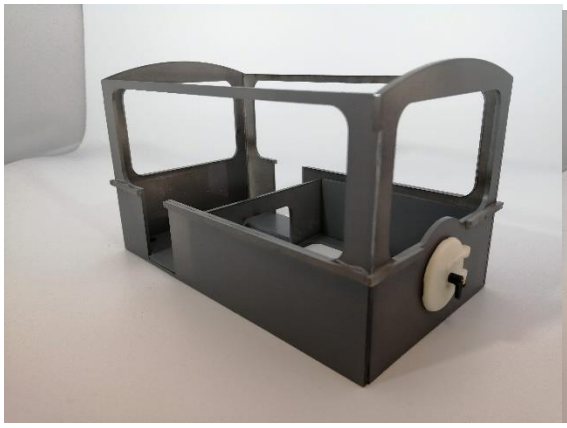
The firebox and firebox front are now glued together, the casting should be aligned with the top edge of the firebox leaving a small gap to the bottom. We suggest detailing the firebox now before fitting it into the model.



The smokebox door and smokebox dart can now be fitted to the front of the model.

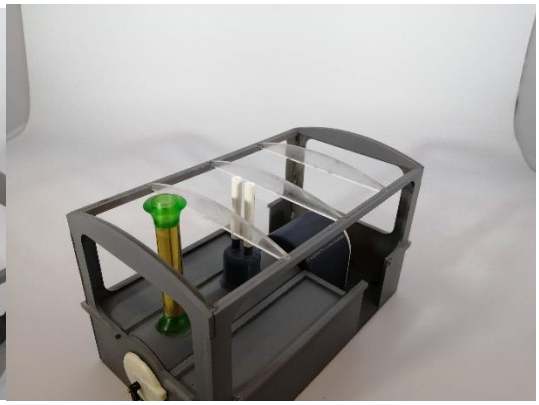
Now we will fit the beading to the model. Start by using a ruler to draw a line along the bottom edge of the side openings.

There are 4 different types of beading strip: 2 front, 2 side front, 2 side rear, and 1 rear. Starting with the sides, carefully glue the strips along the bottom edge of the opening and following your pencil lines to the ends. The ends can then be glued on taking care to overlap the edge of the side beading so as to give the effect of it wrapping around.

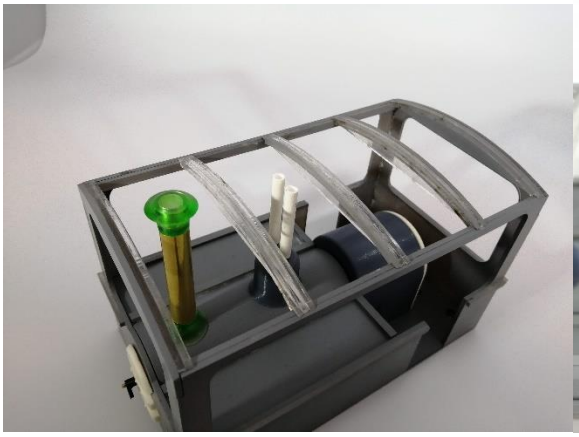
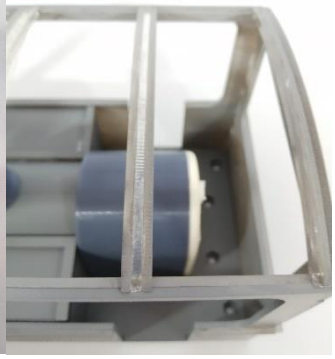


Now fit the water tank top and the smokebox into the model. The firebox should be a press fit into the opening and the water tank top should be a tight fit between the firebox and the cab front.

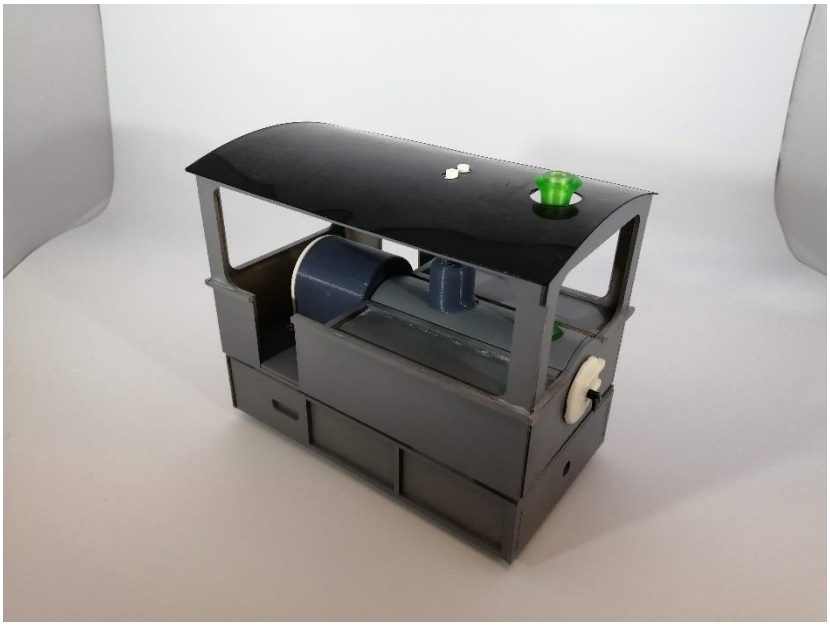
Next up is building the roof structure. Starting with the long roof spacers (the bits with the cut outs in), glue these with the cut outs facing upward on the inside of the top of the cab sides. then glue the 5 main curved roof supports in place using the cut outs to locate them.

The secondary roof supports are glued either side of the main roof supports and one on each end.

Finally, the roof can be glued down to complete the assembly.



The body can now be bolted to the skirt using the 4 outermost bolt holes (2 front, 2 rear).

The chassis can then be bolted in using the 4 innermost bolt holes.

Fit couplings of your choice to the buffer beam outers and then glue the buffer beam outers into place.

Your tram in now fully assembled and ready for painting.