

# Mine Truck 2



Encouraged by the success of the Mine Trolley Prop for stop motion project, I decided to design some wagons to fit the Mine Trolley. The 3D printed model presented here is a chassis that can be fitted with any other sort of top. For this first version, I just made a simple flat-deck using ice-block sticks.



The overall dimensions are 65mm wide x 120mm long x 32mm tall. The track gauge is about 38mm. The wheels have reasonably wide flanges and so can ride on rails up to about 40mm between rail centrelines.

The deck on top was made from iceblock sticks stuck together with PVA glue with a thin cardboard strip around the edge. Easy to make with a hacksaw and sandpaper. The iceblock sticks were painted with a sepia coloured brown acrylic house paint without undercoat. This allowed the paint to penetrate the wood nicely and give an aged stained look. I have not included an STL for this part seeing as it is so simple to construct anyway.

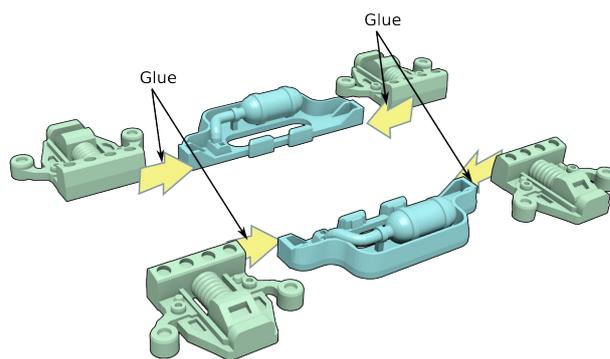
Things you will need in addition to the printed bits;

- 2 x Ø4mm rods of some sort for the axles. These are cut to 55mm long. I used dowel.
- Popsicle sticks for the deck.
- Glue. I use an epoxy glue, buy anything without too much flexibility will work.
- Any other structures you would like to add to it. For instance I shall build a tank truck at some stage. This may be made with something like a repurposed plastic container with some wire detailing for things like hand-rails.

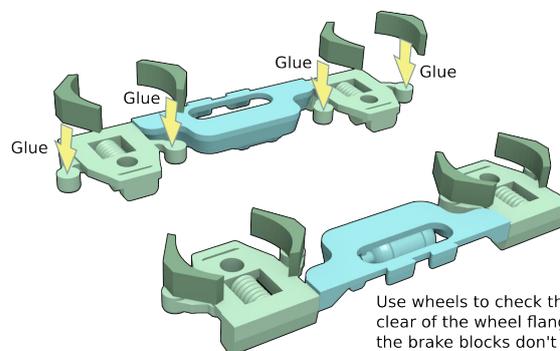
In the model shown here, the buffer channel sections were cardboard rather than being 3D Printed. This gave a slightly more rugged look. The original digital model and all STLs include these channel sections as you can see in the exploded view below.

There are quite a few pieces in this project. Below is a suggested assembly order.

**Step1:** Join the side parts.

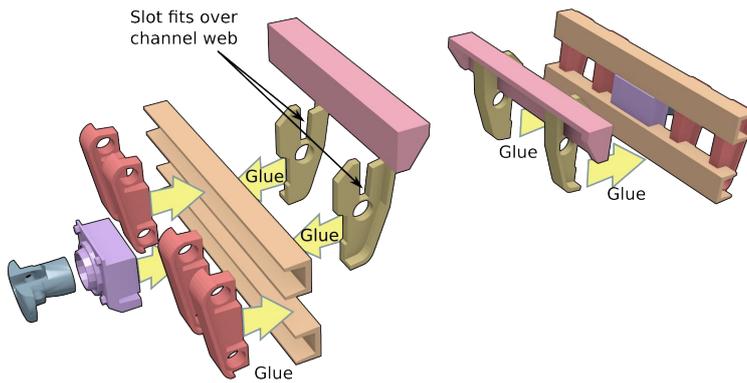


**Step 2:** Add the Brake Blocks



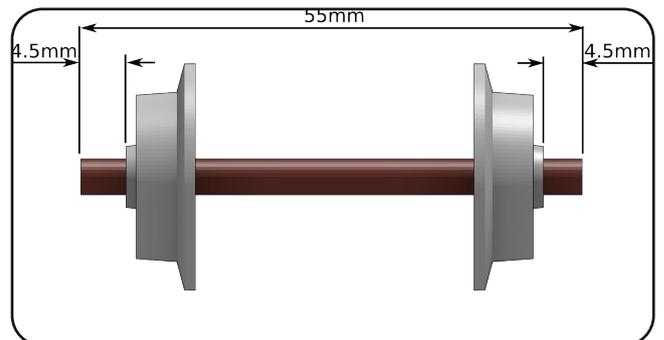
Use wheels to check that brakes are clear of the wheel flanges. Make sure the brake blocks don't project down too far either, otherwise they will be scraping on the rails.

### Step 3: Assemble the Buffers

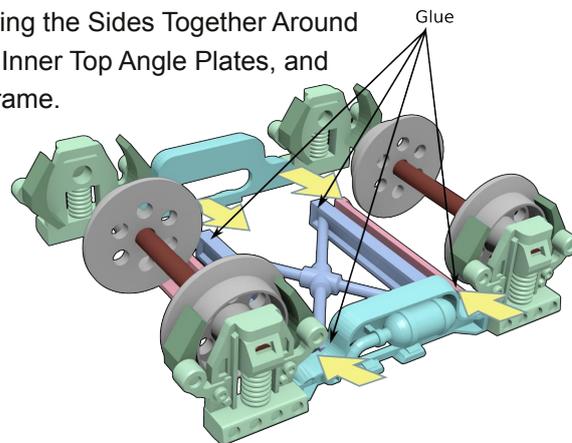


### Step 4: Assemble the Wheels

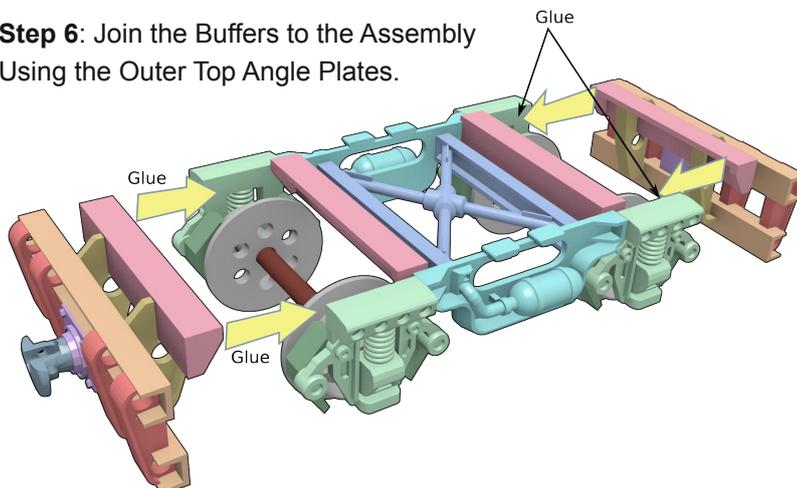
When you cut the axles and mount the wheels, make sure the wheels are pushed on about 4.5mm from the ends of axles.



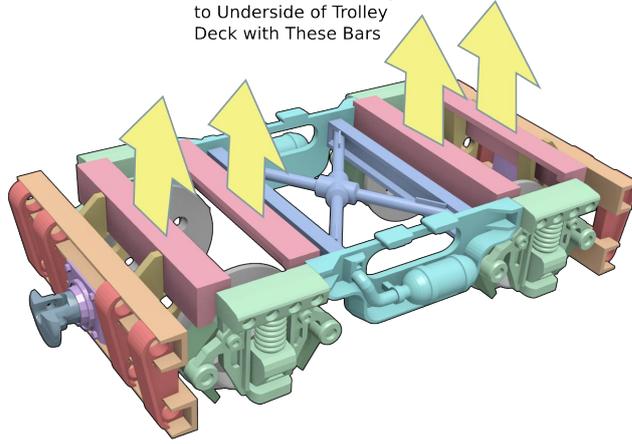
### Step 5: Bring the Sides Together Around the Axles, Inner Top Angle Plates, and Bracing Frame.



### Step 6: Join the Buffers to the Assembly Using the Outer Top Angle Plates.



Attach Wheel Assembly  
to Underside of Trolley  
Deck with These Bars



**Step 7:** Glue on the Deck or Whatever Using the Top Angle Plates.

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