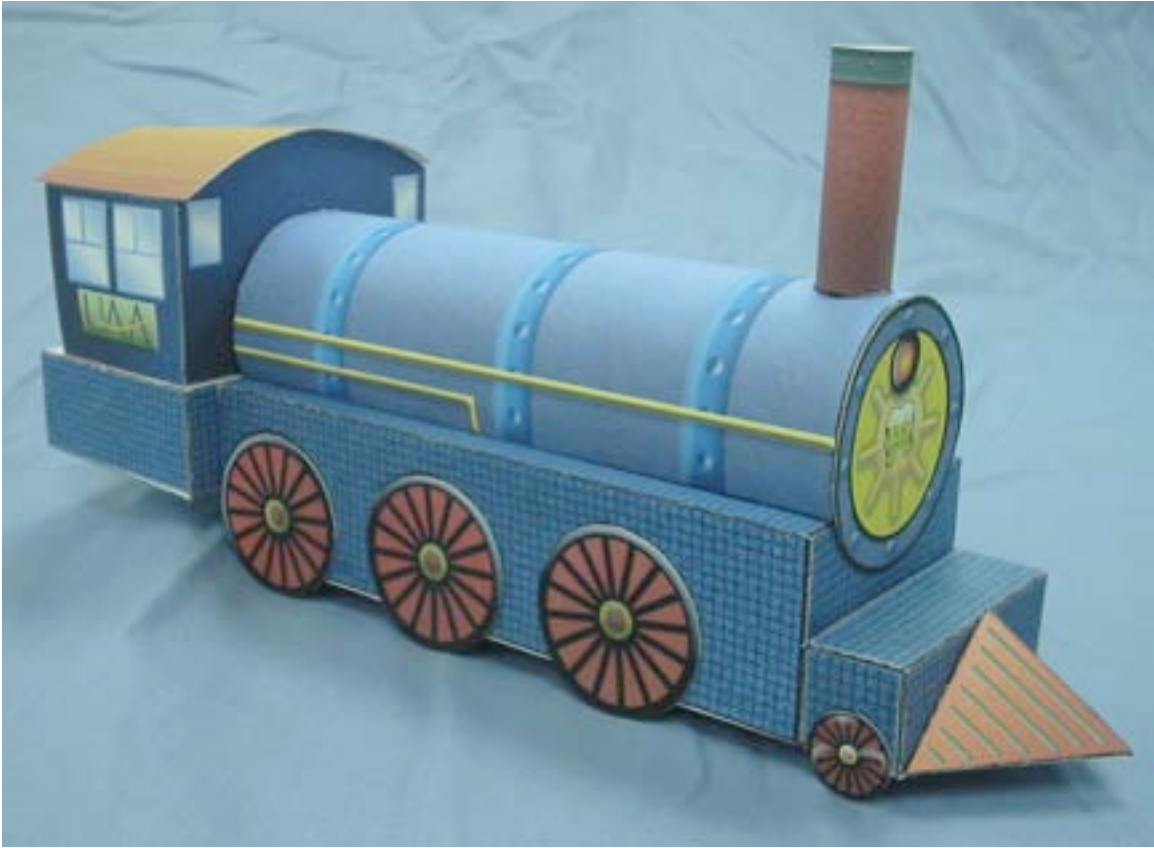


UAA Theatre For Young People
Christmas Train Model



This document contains the instructions for assembling a paper model of steam engine. There is a total of twenty parts and will take, on average, two hours for a single adult to complete. The only tools you'll need are scissors, a gluestick, some craft glue (I recommend Elmers school gel glue), a ruler for drawing straight lines, and a black pen to draw indents on the fold lines.

The model can be printed out on 110 lb cardstock, available in the office supplies section of many stores. Alternatively, the model can be printed on regular paper and then glued onto heavy construction paper. However, the 110lb stock is quite sturdy, very inexpensive, and fits in most inkjet printers.



Tools necessary for the model; Scissors, glue, gluestick, black ink pen, and a straight-edge.



First cut out all of the parts. There are twenty parts and this step takes about twenty-five minutes. Be very careful to follow the border lines around each piece while cutting.



Next take your straight-edge and pen and crease all of the fold-lines by drawing over them while pressing down hard. Do this to every piece, it will help pieces to fold correctly. The wheel pieces are a good place to start.



Once the fold-lines have been creased it makes it very easy to fold them correctly. Fold the wheel piece in half as shown.

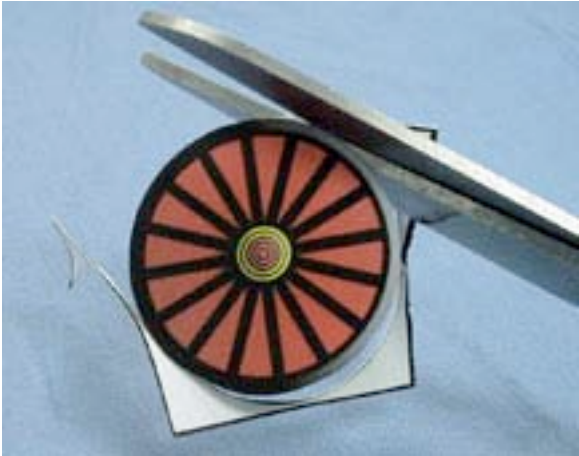


Next, apply glue or use a gluestick to coat half of the blank side of a wheel piece.

*Note: Gluesticks are good for covering large flat areas.



Fold the two halves of the piece together and press firmly all over. Setting a book on top of the piece while it dries helps.



Once the piece is dry (several minutes) carefully cut around the wheel.



There are six large wheels and two small wheels. You won't need them for awhile so put them someplace safe, such as a Ziploc bag.

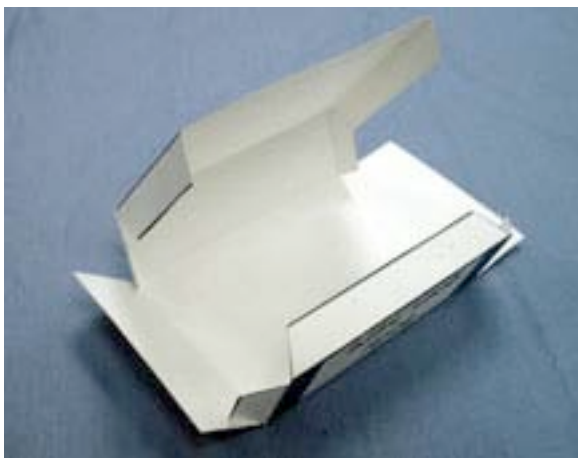


Now you can start on the three boxy pieces in the model: the cab base, the boiler base (or main body) and the front step. They all go together the same way and take about ten minutes apiece to construct



I'll show the process for the cab base, but they all go together the same way.

Always crease the fold lines first on every piece.



Then crease and fold all of the pieces to start getting the box shape.



Apply a bead of glue along the long flap as shown. I like gel glue for as it tends to warp or deform the paper less than white glue. Spread the glue out on the tab with your finger.



Press the “bottom of cab” piece down onto the flap. You can stick your fingers into the box and pinch the paper onto the glue flap to help it set. A thin coat of glue takes about 20-30 seconds to adequately set.



Apply glue to the tabs on the ends of the box and fold up the end flaps to close the box. Hold each end for about thirty seconds to set.



Once you have all three boxes built you can start gluing them together. The front step attaches as pictured. Refer to the guide marks on the model for reference.



The easiest way to attach the cab base is to flip the body over and then line up the boxes to glue them together.



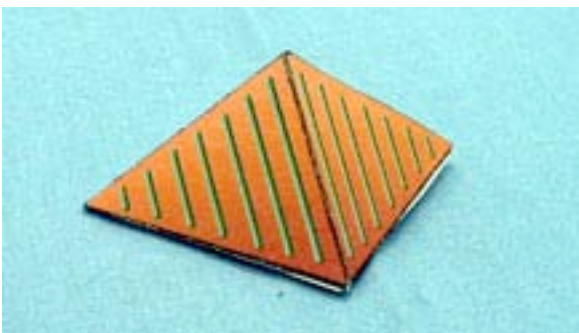
Your model should now look like this.



Now it's time for the cattle guard. Crease it and fold it as shown.



Glue the tab coming off of one of the red sections to the blank white section so that the piece now looks like this.



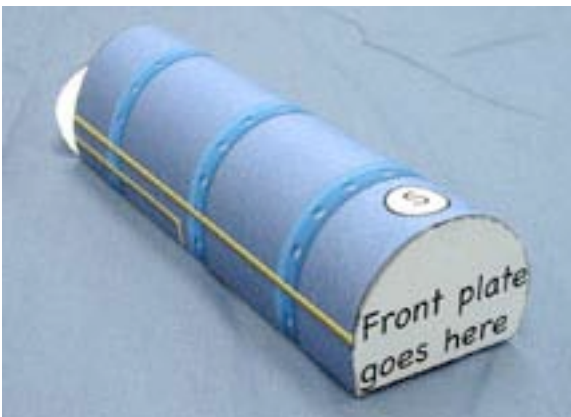
Glue the section labeled 'cattle guard' onto the two flaps along the edges of the red sections. This closes the piece.



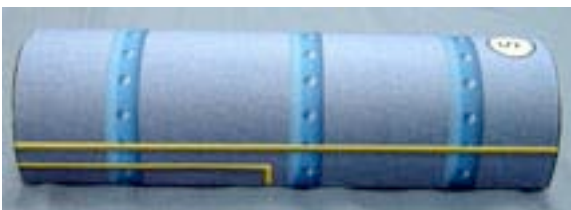
The cattle guard piece attaches to the front step piece as shown.

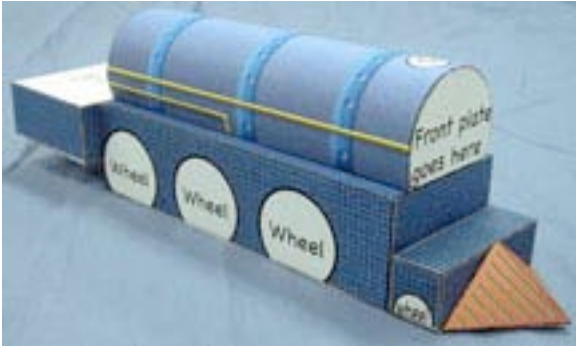


Now it's time for the boiler. The boiler is a partially rounded tube-shape. It can be very helpful to wrap the piece around a can or jar first to help curl the paper.

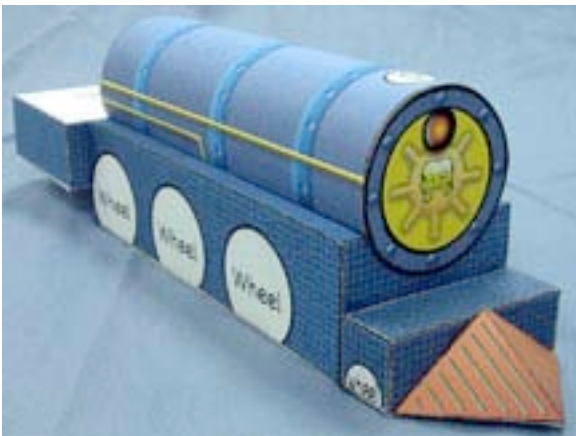


Put glue along the long flap and curl the boiler over and attach it to the long flap. Then place glue on the small triangular flaps on the boiler ends. Fold up the boiler end pieces and glue in place as shown. Now you should have a tube that has a flat base.





Attach the boiler to the body as shown. Make sure the circle with an “S” inside is towards the models front.



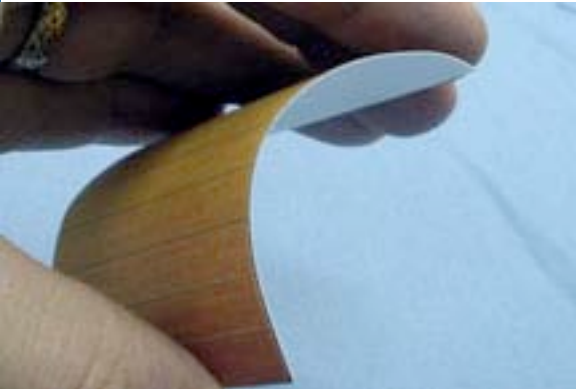
Attach the piece labeled ‘front plate’ over the front end of the boiler. The front plate overlaps the boiler and the body and glues to both. It should be placed as shown.



Now for the cab. The cab goes together like a standard box with no roof or back. The roof is added later.



The cab interior and cab floor get glued into place now. The shadowed end of the cab floor should be at the wall base.



The cab roof piece needs a little curve in it just like the boiler. It helps to press the piece around a can to get the right shape.



Glue one end of the roof to the tab on end one of the cab walls. Apply glue to the triangle tabs, roll the roof over them and attach it to the tab on the other side wall.



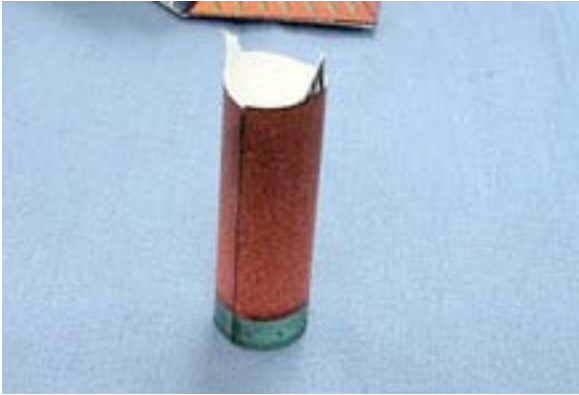
The roof does overlap the cab both front and back, there are small brown guide marks on both ends of the roof to be lined up with the ends of the side walls.



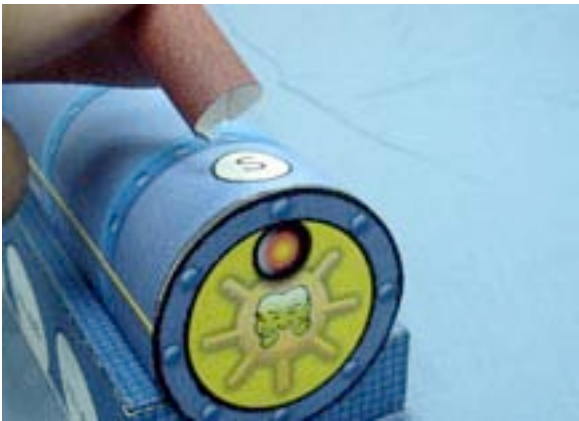
Attach the cab to the cab base and the boiler as shown.



The smokestack is another tube, you can roll it around your pen to get the curve into the paper. This is the one piece that it is not necessary to crease the fold line on the glue tab.



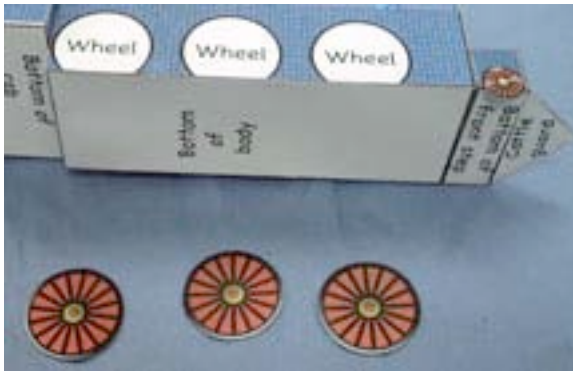
Glue the smokestack into a tube shape as shown by placing glue on the glue tab and pinching it together.



Fold the small smokestack glue tabs into the tube and apply glue to the circled "S" on top of the boiler. Press the smokestack down onto the circled "S".

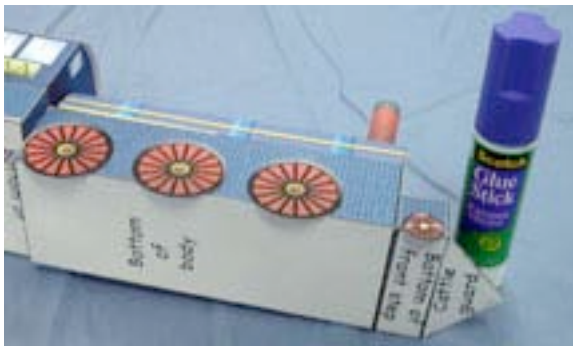


Almost done! Now it's time to attach the wheels.



The big wheels attach onto the sides of the body where indicated.

*Note; One side of the big wheels has a lighter edge; the lighter edge goes up to simulate a highlight.



The little wheels attach to the sides of the front step where indicated, with no particular side up.

You're done! Now it's time to make train chuffing noises and whistles and enjoy your model.

If you have questions or comments feel free to email
Eric Brown at:
anerb1@uaa.alaska.edu