

The Nob Hill Cable Car

Enjoy a weekend of great fun building this child's Cable Car replica



Here's a toy that brings to mind all the charm of San Francisco's famed Cable Cars – the clanging bells, the roller coaster hills and the thrill of seeing such sites as Fisherman's Wharf, Nob Hill and Golden Gate Park. Build it as the perfect gift for a favorite child this Holiday season...or for yourself!

The construction of this toy requires a series of simple sub-assemblies, while ready-made wooden toy wheels help make construction even easier. For best results, we recommend that you read through all of the instructions before beginning. Ready? Let's go!

1. If you're making just one car, prepare a 1/2" x 3-1/2" x 36" long piece of stock by either resawing or thickness planing a 1" x 4" piece of nominal stock to the proper 1/2" thickness. Also, have on hand, a 36" length of 1/4" diameter hardwood dowel — 6" of 3/4" dowel — and some 3/4" stock. We used poplar for our example, but clear pine works just as well.

2. Cut all pieces to size according to the List of Materials, using your Bandsaw or Table Saw.

WARNING: Since many of the Cable Car parts are small, be sure to use proper safety equipment to control and guide your stock when making all cuts.

3. Lay out and drill 1/4" dia. by 1/4" deep holes in the Base (A), Roof (B) and Ends (C)...as well as the 1/4" dia. through-holes in the Axle Blocks (J). When laying out the holes in the Base, Roof and Sides, accuracy is important, since the Side Poles must be parallel once assembled.

4. Drill 3/4" dia. by 1/8" deep holes in the Ends (C) for the Lights (M)...then drill the 1" dia. window holes in the Sides (D), as indicated in the drawings.

5. Form the contour on the top of the Roof Vent (E), using your Disc or Belt Sander.

6. Glue and clamp the Axle Blocks (J) to the Axle Spacers (I); the Roof Vent (E) to the Roof (B); the Rear Seats (C) to the Rear Seat Back (F); and the Front Seats (H) to the Sides (D). Once the glue has dried thoroughly, square-up the Front and Rear Seat Assemblies using your Disc Sander.

7. Check the fit of the Side Poles (K) and Corner Poles (L) in the holes indicated in the Roof, Base and Ends. **NOTE:** Since dowel stock varies slightly in diameter, you may find that it's necessary to taper the ends of the Poles so they will fit easily into the holes for gluing.

8. Assemble the Ends (C), the Side/Front Seat Assemblies and the Rear Seat Assembly to the Base (A). Make sure all parts are square and clamp them until the glue has dried.

9. Once the Base Assembly has dried, dry-assemble the Roof Assembly to the Base with the Poles in position to check for proper fit. Glue the Poles, Roof and Base Assembly and clamp until dried. Be sure to allow the glue to dry thoroughly before proceeding.

10. Sand the Car Sides and Ends flush using the Disc or Belt Sander. **CAUTION:** While sanding, round the corners slightly...but be careful not to round them too much, since the Corner Pole holes are so close to the corners.

11. Glue the Wheels (N) and Axle Pegs (O) to the Axle Block Assemblies. After the glue has dried for about 10 to 15 minutes, carefully move the Wheels to make sure they don't get glued into place. Be careful not to move the Axle while doing this.

12. Attach the Wheel Assemblies to the Base with glue. Glue the Lights (M) into place.

13. Final sand the assembled Car with 100-grit sandpaper, being sure to knock off all sharp edges. Apply a non-toxic finish such as Salad Bowl Finish – or, if you prefer, leave unfinished!

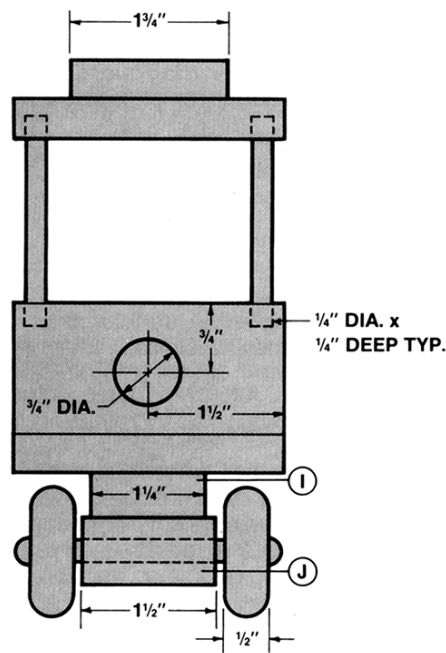
List of Materials

(finished dimensions in inches)

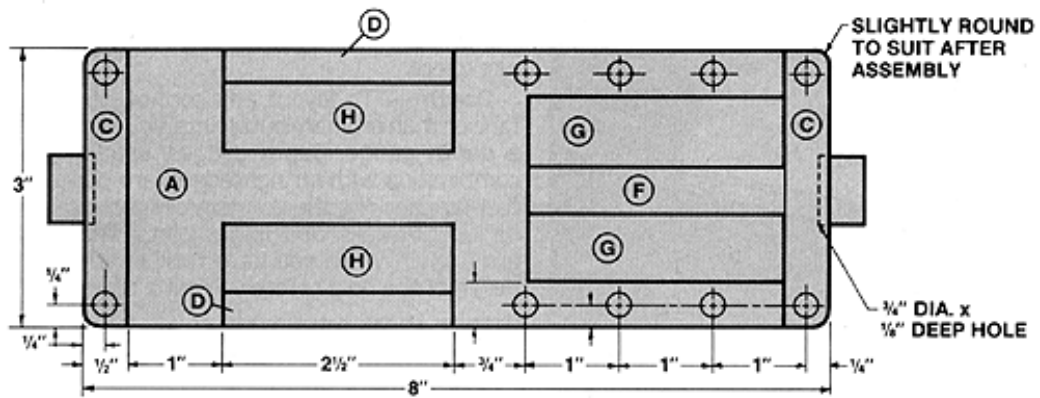
A	Base (2)	1/2 x 3 x 8
B	Roof (1)	1/2 x 3 x 8
C	Ends (2)	1/2 x 3 x 1-1/2
D	Sides (2)	3/8 x 2-1/2 x 3
E	Roof Vent (1)	1/2 x 1-3/4 x 7-1/4
F	Rear Seat Back (1)	1/2 x 1-1/2 x 2-3/4
G	Rear Seats (2)	3/4 x 3/4 x 2-3/4
H	Front Seats (2)	3/4 x 3/4 x 2-1/2
I	Axle Spacers (2)	1/2 x 1-1/4 x 1-1/2
J	Axle Blocks (2)	3/4 x 1-1/2 x 2-1/4
K	Side Poles (6)	1/4 dia. x 3-1/2 long dowels
L	Corner Poles (4)	1/4 dia. x 2 long dowels
M	Lights (2)	3/4 dia. x 3/8 long dowels

Miscellaneous

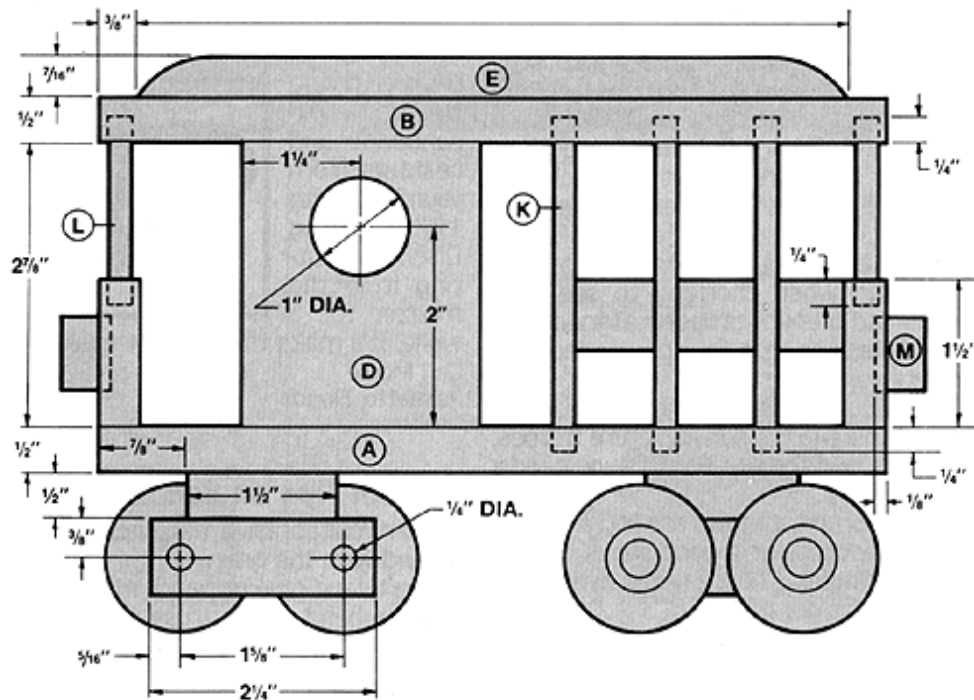
N	1-1/2" dia. Wooden Toy Wheels (8)
O	1/4 " dia. Axle Pegs (8)



END VIEW



BASE LAYOUT



SIDE VIEW