



BASIC MODEL RAILROADING

Part 2: A HOME FOR YOUR RAILWAY

Getting it off the floor

Basically, you become a model railroader once you make the decision to get your track off the floor.

Whatever its origin, a train set becomes a model railroad when it gets a designated space of its own, so that the track and scenery don't have to be set up and taken down each time.

Most modellers aim for a permanent, or preferably a semi-permanent, set-up, but some prefer a portable module arrangement that they can move around the house or take to a show.

Location

The space for a “permanent” set-up is most popularly in a basement, but also commonly in an attic, garage, spare room, a shed, garden, or on a ledge as part of a room used for some other purpose.

Leaving aside the garden railway and the “ledge-in-a-room” options, let's call this space “the train room”.

The three enemies of any model railroad are the three D's – dust, damp and damage. (Also there are comfort issues, such as adequate lighting and heating.)

There is always some dust in the air, but be sure that you have a proper ceiling in place and that the floor is as dust-resistant as possible.

A short-weave carpet is ideal both to combat dust and to give anything that falls off the layout a chance of surviving!

Damp will play havoc with your woodwork and your electrical connections, so your space should be well-heated in the winter, and if necessary capable of dehumidification in the summer. Buy a simple humidity meter.

Properly built benchwork at a reasonable height will help to avert accidental damage, but be sure that nothing can fall on the layout.

Benchwork

Don't build anything that can't be taken apart and moved without destroying what you have created. Any modeler who has endured the anguish of tearing out a permanent layout will resolve to work with freestanding modules in future.

A permanent layout is one that has been built in such a way that it cannot be dismantled without destroying it.

A module is a section of model railway that is self-contained, but can be connected to another section of the same or another layout. It may be attached to the walls for stability, but if it comes time to move, each module can be detached and separated with minimal loss of track and electrical connections. Hence the reference to a semi-permanent set-up.

“Benchwork” is the term for whatever you resolve to build your layout on.

“Benchwork” has three components: the frame, the deck, and the legs (unless it is to be attached entirely to the wall. In that case the maximum width at any point should not be more than 24”, preferably 18”).

Whatever you decide to build, take into consideration what is conveniently available at your local building centre or lumber yard.

The Frame

A rectangular or square wooden frame that supports the deck on which you will create your layout.

Opt for 1 x 4" white pine as the optimum (especially if you plan on using 2" thick rigid styrofoam), but 1 x 3" as a minimum. Most modules are constructed as oblong. When determining the overall size of each module, bear in mind two things:

1. Can you get it out of the room if you need to?
2. Will you be able to reach all parts of the module for maintenance and repairs?

Take into account the usual dimensions of lumber and decking materials at the building centre, in order to cut down on the amount of waste after trimming to the selected size.

Most lumber comes in 4ft, 6ft and 8ft lengths, and decking materials usually come in 8 x 4 ft or 8 x 2 ft sheets. (Most building centres may also stock some 4 x 4 ft or 4 x 2 ft sheets, or if not, will be happy to cut the sheet for you for a small fee.)

An ideal module length is 4 ft or 6 ft, and the width should ideally be no more than 30”.

Before you construct the frame, decide whether your decking is to go on top of the frame, or whether (especially in the case of styrofoam decking), you prefer to install it flush with the top edge of the frame. (See “The Deck” below.) Use #8 screws rather than nails to construct the frame.

The Deck

Once the frame is up and braced, it has to be topped. The three popular deckings (in descending order of popularity) are:

- styrofoam sheeting (2" thick ideal for ground sculpting, but 1½" or 1" also acceptable)

- plywood (½" or ¾" thick)
- homasote (trainboard)

These are all obtainable at building supply stores (although homasote is not stocked as universally as it used to be).

With plywood, a cork bed underlay (obtainable at hobby or hardware stores) is recommended to deaden the noise of the train.

There are two basic styles of decking - solid (i.e., the whole top is covered), or open (i.e., there is only decking where the tracks are). Many modellers use a mix of both.

Solid decking is faster to construct, but results in a uniform flat surface. It has to be cross-braced horizontally across the frame, and a good rule of thumb is that the decking should not move when you press down on it with your fist. This means that for ½" plywood or homasote, or 1" styrofoam, cross-bracing should ideally be 12", but no more than 18" apart (1 x 2" pine is fine). For 2" styrofoam, 24" intervals should suffice.

Open decking has to be supported by "risers" fastened vertically to the horizontal cross-bracing (2 x 1" or 3 x 1" knotty pine will work fine).

The advantage of open decking is that it allows for below deck scenery and easy pop-up access, but it does require careful pre-planning of the track layout, and skill with a jigsaw to fashion the required sections.

Support – Brackets or Legs

A preferred height for the main layout surface is usually between 42" and 48".

Most layouts are supported by legs to the floor, and most modelers use wood, although steel and PVC piping (very light, but strong) supports are also to be found.

If wood, legs should be of 2 x 4" pine, although 2 x 2" may also suffice for intermediate or short sections. Cross-bracing parallel to the width of the module is recommended.

If the module is to be bracketed to the wall, the brackets should be of tri-angular design and sufficiently strong that the module will not move if pushed down upon.

PORTABLE MODULES

A portable module consists of a frame and a deck without the legs. You may wish to add a carrying handle for easier transportation. A portable module should ideally be no more than 4 x 2 ft in dimension. You will have to decide whether it is preferable to have the line-side structures detachable, or glued securely to the deck.

SUMMARY

All that is needed is for this leaflet to be supplemented by a good "how to" book available in any hobby store, a little confidence and a visit to a building supply store.

Ideas can also be obtained from talking to other enthusiasts, and one will very quickly discover that everyone has their own ideas of what works for them. Fact is that no two "benchworks" are built the same way.

The hardest part is always making a start, but it's so surprisingly easy that you will wonder what kept you so long.

It is all really quite doable if one can handle a saw, drill, hammer, measuring tape, spirit level, and a set of screwdrivers.

The only hard-and-fast rule about "benchwork" is that it must not collapse if you lean on it, so build sturdy and brace well!

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