

Getting started in

# Model Trains

Welcome to the World's Greatest Hobby<sup>SM</sup>

## Tips for building your first train layout

PLUS

Information to help you get started  
Choosing the best scale for you



# Welcome

There is no hobby like model railroading. In fact we think it is the greatest hobby in the world. That's a bold claim but here's why we feel that way.


Model railroading offers many activities for all ages. Interested in history? You'll enjoy researching a time period for your model layout. Enjoy woodworking? You can create everything from a simple train table to miniature wooden structures. Perhaps you have an artistic flair, which can be used to create realistic scenery, layout accessories, and backdrops.

The good news is you don't have to do all of these to be a model railroader. You can concentrate on the areas you find most interesting now, and learn other skills if and when you like.

## Fun for the whole family

Model railroading is a great family activity. Many couples participate in the hobby together. And of course kids have always been fascinated by trains.

What better gift can you give your children or grandchildren than your time? You'll make precious memories together as you share a lifetime hobby, one that teaches patience, builds skills, and rewards you with the joy of creating something with your hands.

Take your time and read through this helpful booklet. It has tips and resources to get you started. We hope it will inspire you to further explore this lifetime activity. Welcome to model railroading – the world's greatest hobby! 

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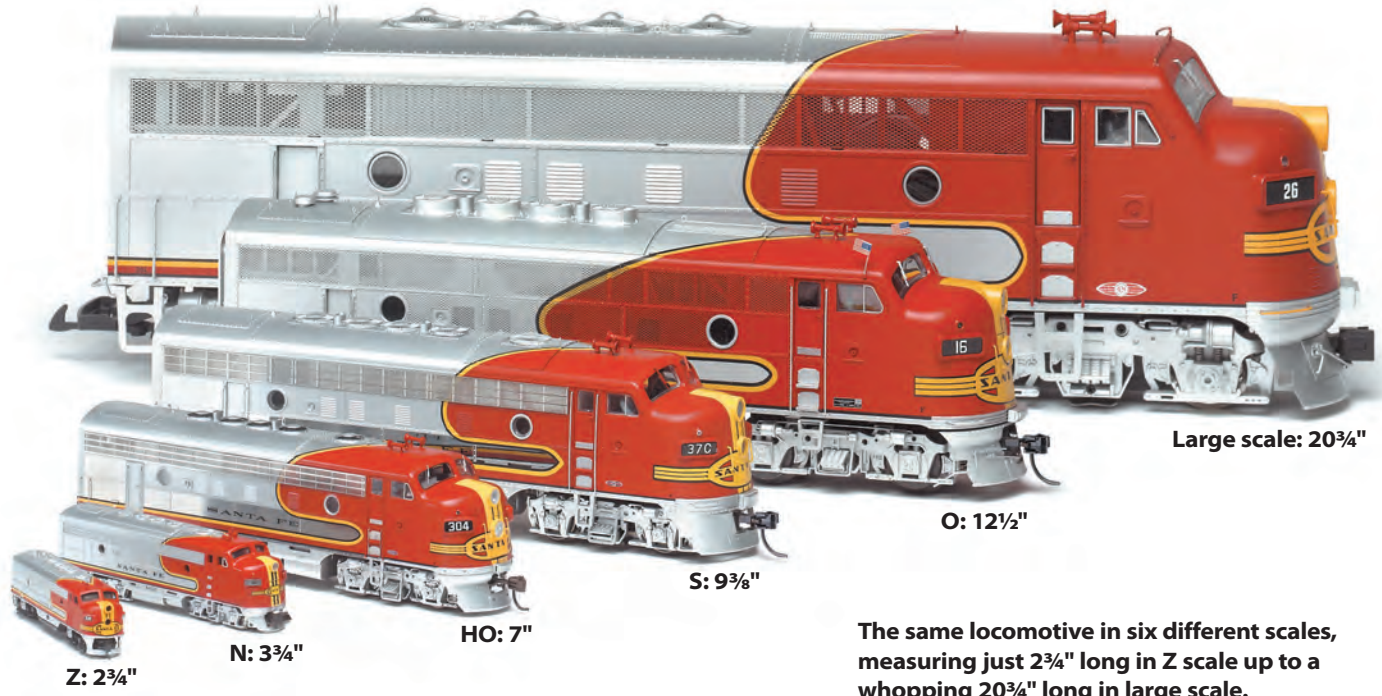
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**Controlling a train on a layout that you built gives you a great thrill. You get to set the speeds of the train and determine the scenery you want to put on your layout.**

# Understanding scale & gauge



The same locomotive in six different scales, measuring just 2 3/4" long in Z scale up to a whopping 20 3/4" long in large scale.

You don't have to spend much time with model trains to realize that they come in different sizes. Let's take a look at them so you can think about which size may be best for you.

We differentiate model and toy trains according to their scale and their gauge. "Scale" relates to the comparative ratio of measurements between a model and its full-size prototype.

"Gauge," the second aspect of a model's size, refers to the space between the rails of the track. Precision and consistency are essential when dealing with gauge. Manufacturers must be able to guarantee that the wheels of all the models they advertise as being of that gauge do indeed fit on that size track so all trains can be used together.

## The largest of them all

The largest scales in use today are collectively called "large-scale trains." These models are offered in a range of scales, and all operate on Gauge 1 track. This track has 45 mm between the rails. To give you an idea

of the size of these trains, the 50-foot-long locomotive shown in the photo above measures about 20 3/4 inches in 1:29 scale.

The most popular gauge for toy trains is O, with 1 1/4 inches between the rails and built to a ratio of 1:48. The 50-foot locomotive in the photo is 12 1/2 inches long in O.

Slightly smaller than O gauge trains are S gauge trains. They run on track whose rails are spaced 7/8 inches apart, and have a ratio of 1:64.

## Small and popular

Scale models built to be approximately half the size of O gauge models are called HO. These trains have a relationship of 1:87 to their full-size compatriots, and the track gauge measures 16.5 mm. Our 50-foot locomotive now measures only 7 inches in length.


HO trains are small enough to allow you to plan a satisfying layout in a compact space, and still are large enough to show off lots of detail and be easy to work with. HO railroading is the most popular of the scales, with more than two-thirds of

modelers making it their top choice.

Smaller still is N scale. Rolling stock and locomotives of this size are designed to be in a ratio of 1:160 to their prototypes. The track gauge is 9 mm between the rails. N scale works well for modelers who don't have a lot of space at their disposal or who prefer to run their trains through truly expansive scenery.

Even smaller are Z scale trains. Their proportion to the prototype is 1:220, and they run on track whose rails are 6.5 mm apart. How tiny is this scale? That 50-foot locomotive measures just 2 3/4 inches in Z.

## Which size is best?

No one scale is right for everyone. Look at several scales and consider how much space you have to devote to your trains. Talk with experienced modelers, club members, or hobby shop employees. Don't worry if you change your mind and later decide that a different scale is a better choice for you. No matter what you choose, prepare to have a blast! 

# Model railroading is fun

What is it about scale model railroading that makes it such a great hobby? At the heart of it all is our fascination with miniatures of all kinds. We find a thrill in studying tiny duplicates of real objects. Even though a precision model of a locomotive is a work of art in its own right, placing that same model in the context of a complete setting makes it come to life. Building a complete model railroad that evokes a sense of time and place is the heart of this hobby.

Many scale model railroaders recall their childhood when a train set allowed them to travel through an imaginary world. As adults, they find they have the means and skills to bring that world to life.

Although there is a tremendous variety of fine-running, beautifully detailed locomotives, cars, buildings, and accessories available to scale model railroaders, this is still a personal and creative hobby.

There are no minimum requirements for entry, and people of all levels of participation, skills, and interest are welcome to join in the fun of model railroading, meaning there is a place for you.

## Fun in all kinds of ways

So who are scale model railroaders? They come from all walks of life and enjoy the hobby in different ways. There are model



**Narrow gauge railroads blend the mystique of the old West with spectacular scenery and the sights and sounds of the iron horse.**



**In the model railroad hobby, you have many choices of what you want to model. Many modelers prefer creating different eras when building their layouts. In this picture, the modeler went back in time and produced a 1950s layout.**

railroaders who rarely, if ever, build a model. They enjoy reading about the hobby and thinking about the model railroad they're going to build someday.

Other hobbyists build detailed models of locomotives or cars. Some focus on building structures and scenery. For them, model railroading is a form of sculpture. They may even look upon the trains as a secondary consideration—providing movement in an otherwise static world.

Then there are those who focus on tinkerering with mechanical and electrical aspects of their layout to the point they never feel the need to build scenery.

The majority of model railroaders find the greatest enjoyment in combining all these approaches, tailoring the hobby to suit their interests.

## An evolving hobby


Despite the variety of commercial products available, model railroading is a creative endeavor. If two model railroaders

started with identical track plans, their finished layouts would look nothing like one another. One might create a whimsical desert setting, while the other could end up with a busy urban scene.

The track plan is merely a blueprint, a diagram showing where the pieces should go. It provides a starting place but it takes the scenery and settings, and the creativity of the modeler, to breathe life into the layout and make it unique.

## Starting small

Most model railroaders start small—a 4x8-foot layout is the most common size, at least in HO scale. They add a few buildings, some scenery, and additional cars and locomotives as the mood strikes.

No matter how big or small, no layout is ever really finished. There's always some new technique to try and something to improve or change. A model railroad is a form of evolutionary art that changes and grows with its creator. 

# Action-packed toy trains

In the years following World War II, it seemed that just about every boy wished for a colorful train or an action-packed accessories from Lionel or American Flyer. In the 1950s, electric trains were the number one toy for boys – and these toys are just as exciting today.

Today's O gauge and S gauge have the appearance, ruggedness, and heft of electric trains produced in the 1950s, but today's models feature state-of-the-art electronics, including realistic sound systems and digital, wireless control systems.

Because of their strong heritage, today's toy trains remain compatible with those manufactured 50, 60, and even 70 years ago. Track sizes and basic electrical functions have not changed, so it is a common sight to visit a toy train layout and see a locomotive manufactured in 1953 running side-by-side with one manufactured a half-century later. 🚂



Hobbyists like Rick Wright combine newer locomotives with vintage Lionel accessories and built-from-scratch structures for a unique toy train layout.

## GARDEN RAILROADING

# Enjoy model trains outdoors



A garden railroad is a fascinating addition to any landscape and is a great way for the whole family to enjoy model railroading.

A garden railroad brings your trains and scenery outdoors. Mountains are made of dirt, rivers are real water, and rocks are actual stone.

Part of the fun in this hobby is following the practices of a full-size railroad and working with the landscape. The "garden" part of garden railroading is another fascinating aspect of this hobby. Many nurseries and specialty plant growers sell dwarf and miniature versions of all types of plants. These specimens are ideal for garden railroads since they fit with the scale of the trains by having smaller features and a slower growth rate than their full-size cousins.

Garden railroading is a deep and exceptionally rewarding hobby anyone can enjoy. It might be the best hobby for your family, because increasing numbers of women, children, and families are enjoying it together. 🚂

# Five easy ways to get started in



Nothing says Christmas like a toy-train layout. Many holiday buildings and accessories are widely available to help you get started.



Dick Christianson and his grandson, Elliott, enjoy this simple toy train layout on Christmas morning. You can easily build a version of this 4- by 6-foot O-27 gauge layout for your family. Dick added cabinet handles so Elliott can easily roll the layout under his bed.

You might already have a starter set in the attic or tucked away in a closet, but aren't sure what to do with it. Maybe your son or grandson enjoys Thomas the Tank Engine or Brio toys. Here, we'll help you make the transition from thinking about model railroading to actively participating in it. It's easier than you might think.

## 1. Train under the Christmas tree

For some folks, it just wouldn't be Christmas without a toy train running around the tree. With the availability of starter sets and snap-together track, it's never been easier to set up a holiday-themed train layout.

A basic oval, perhaps with one pair of switches to provide interest with an alternate route, is all that's needed. If you want to run two trains, set up another oval inside the first.

Tie the tree and the train layout together in some way. A winter scene works well, even in warm climates. Accentuate the whimsical: cute buildings, oversized accessories, and blinking lights. Many discount stores sell holiday-themed accessories that work great for toy-train layouts.

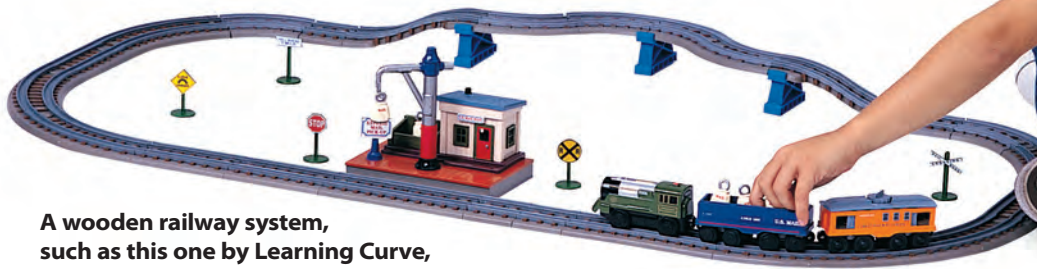
You should also do something to set the layout apart from the rest of the room and protect the carpet. Little accidents happen—lubricating oil sometimes splatters, fake snow gets out of hand, artificial coal spills—and you'll want something to contain or absorb these mishaps. If you're doing a winter motif, a white bed sheet will work well.

Set up your train and accompanying scene, sit back, and enjoy. You might find that you'll want to keep the trains out all year!

## 2. A layout for kids

Many stores now sell "play mats" for kids; basically, they're a piece of carpeting with roads and a city scene imprinted onto the fabric. Dick Christianson, retired Managing editor of *Model Railroader*, used a play mat as a basis for a simple toy-train layout. He attached the carpeting to a piece of plywood to form a train table, and screwed 3-rail track on top of the carpet.

# model railroading



**A wooden railway system, such as this one by Learning Curve, exposes kids to trains at a young age.**

### 3. Wooden railroad systems


Wooden railroad systems are a great way to introduce the excitement of railroading to children as young as age three. Popular wooden railroad sets, such as those made by Brio, or those featuring the popular Thomas the Tank Engine & Friends characters, offer plenty of hands-on fun right out of the box. Best of all, a kid (along with his/her family) equipped with a train and plenty of track will soon start to experiment with building new track arrangements and thinking up stories to go along with the action.

That's the kind of creative play that really fires a kid's imagination and boosts problem-solving skills. You can't beat a quality wooden train set for years of railroad fun!

### 4. Simple outdoor set up

Perhaps you received a large-scale starter set as a gift and aren't sure what to do with it. You don't need to build a complex garden railway to enjoy your trains outdoors. Set up the track in a corner of your yard or on a deck and watch the trains run. The best part is, you can leave the track outdoors if you wish (but bring the transformer and train inside after an operating session).

### 5. Attend a train show

There's no better way to get started in the hobby than by attending a train show. Shows in all scales are held across the country year round (to find one near you, see the events database list at [trains.com](http://trains.com)). Many train shows feature operating layouts and displays, so you can experience the hobby first-hand. Often, club members and hobby representatives are available to offer assistance and answer your questions. 



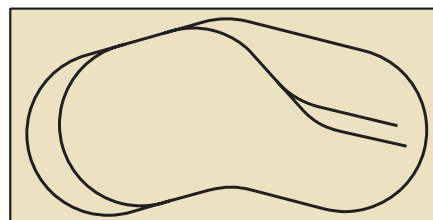
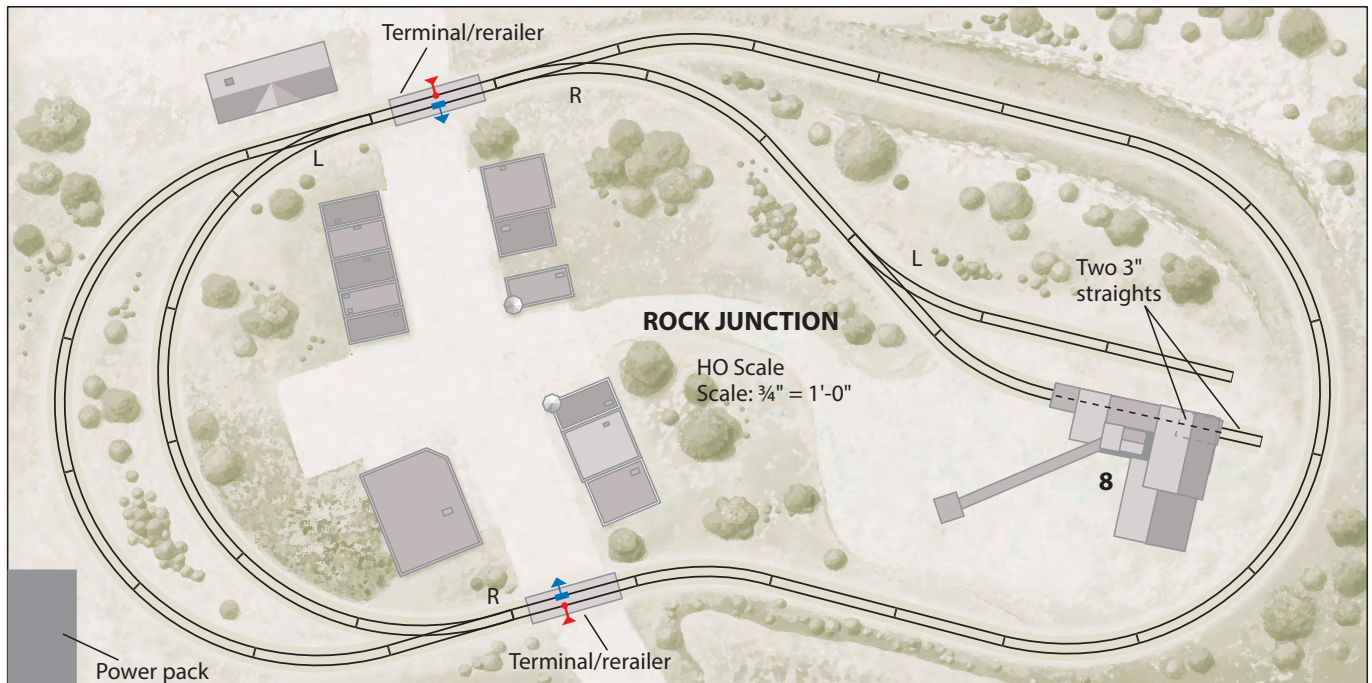
KEVIN STRONG

**A grape arbor provides a pleasant backdrop for the beginnings of a garden railway. If you choose to expand the railroad, the dry rock garden can become part of the landscape.**



**There's no better way to experience the hobby than by attending a train show. Many shows feature operating layouts, like the one above.**

# Building a simple layout



HO scale layout (4 x 8 feet)



N scale layout (3'-6" x 7'-0")

**This simple track plan of the HO scale Rock Junction is a great for beginners. It's easy to recreate and small enough to fit in a room or basement.**

## Planning a layout

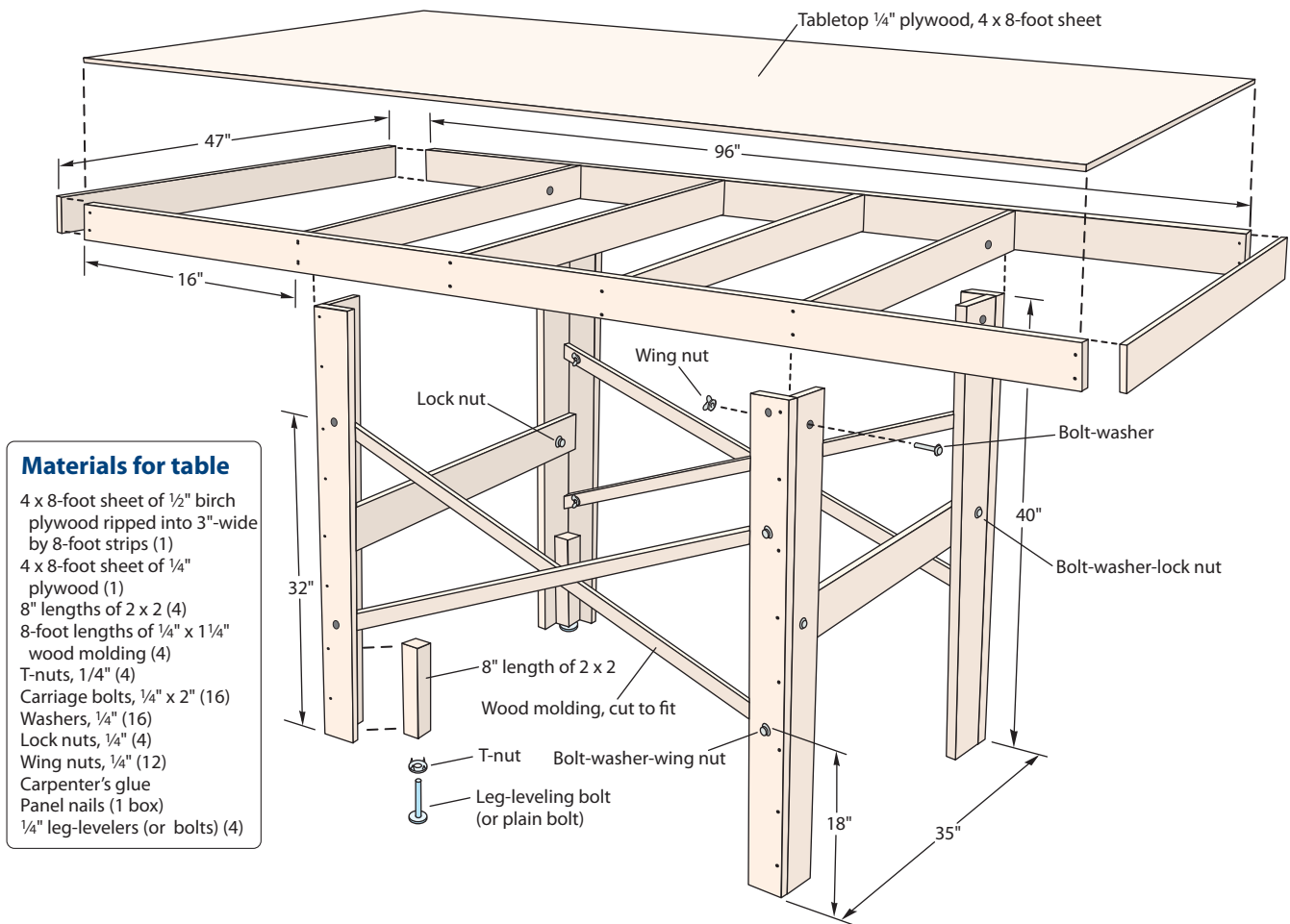
Train sets usually come packed with an oval or a figure-8 of track. Hobby shops and other dealers sell extra track sections – straights, curves, and turnouts (sometimes called switches) that allow you to design a layout in almost any track configuration. The only limits are your imagination and the space available in your home for a layout.

Some of the best track plans come from

specialty books available at hobby shops and through the Internet that contain page after page of plans in different scales and in sizes from 4 x 8 sheets of plywood to basement empires. Different plans focus on different aspects of model railroading, from mainline running to rural branch operations to yard switching. Your own tastes will dictate which plan is right for you.

Once you've selected a plan, you'll need to translate it into track sections. Some plans come with a "shopping list" of sections used to construct the layout. Other plans leave it up to you to study the catalogs and Websites of track manufacturers to determine what straight, curve, flex-track, and turnout sections you'll need to build the layout and in what quantities.





**Model railroad benchwork doesn't need to be fancy, but it should be sturdy. Here is a sample of benchwork you could build at home.**

### Train tables

There are many different ways to build the support structure of your railroad, but they all fall under the general heading of "benchwork." Benchwork can be just about anything, from a shelf attached to a wall to an unused kitchen table.

Typical benchwork starts with four legs, a horizontal support frame made from 1 x 3 pine boards, and a piece of plywood screwed to the top of the support frame. The end result looks much like a table,

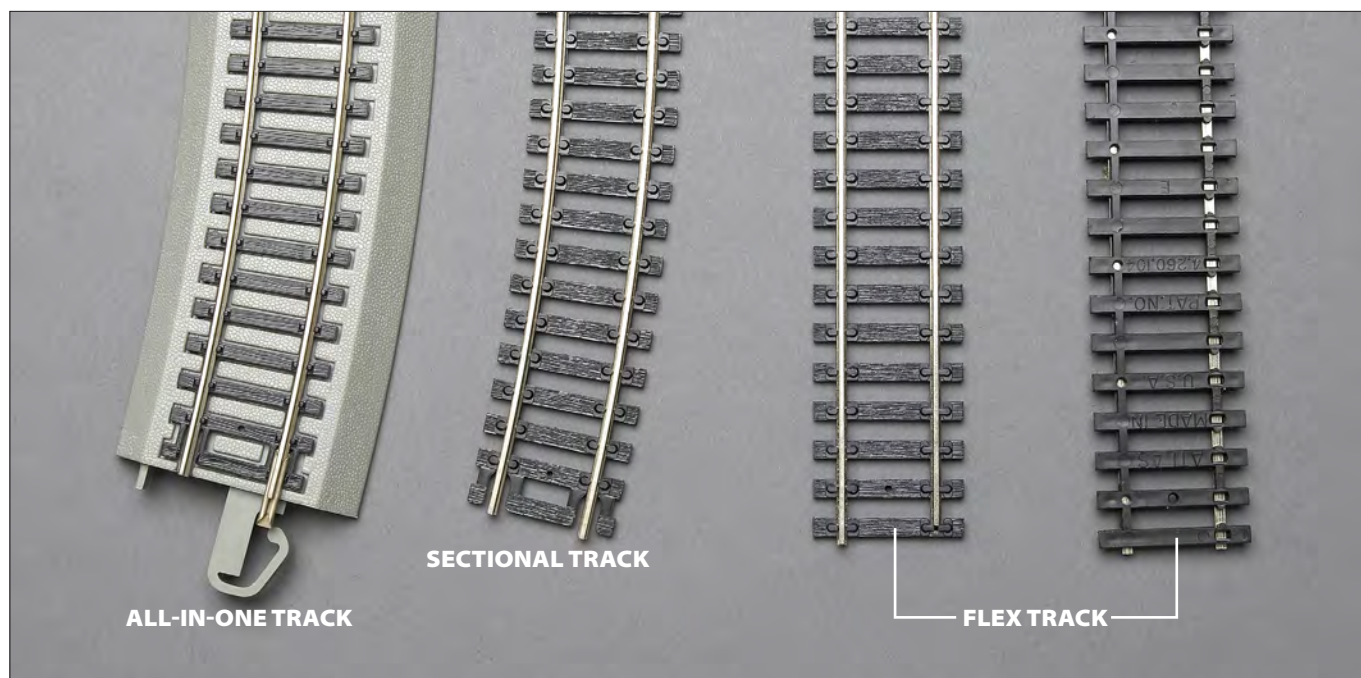
hence the term "train table."

Benchwork for larger layouts often requires more versatile designs to conserve material and provide more latitude for scenery construction. While they may seem complicated at first glance, they are actually easy to build.

Among the most popular of these designs is "L-girder" benchwork. This open-frame benchwork gets its name from the appearance of the cross-section of the

strip-wood girders, which looks like an uppercase letter L. The other parts of L-girder benchwork are legs, joists, and risers. Horizontal L-girders join sets of legs together, horizontal joists run perpendicular to the girders and give the framework lateral strength, and risers support the track. By modifying the height of the risers you can create scenery effects that go far beyond the parameters of flat-topped tables.

## BUILDING A LAYOUT



Three types of commercially-available track. All-in-one track is sectional track with built-in roadbed. Sectional track comes in predetermined straight and curved sections. Flex track (shown from both the top and underside) can be bought in three-foot sections and can be formed to your specifications.



All-in-one track has roadbed integrated with the rails. To use, simply snap the pieces together.

### Track

Many hobbyists get started with the loop of sectional track that came with their first train set. You can expand your loop with the same brand of track or you can use another brand in the same scale.

Two types of sectional track are available: regular and all-in-one. Regular track features rails mounted on injection-molded plastic ties. All-in-one track includes plastic roadbed that represents the layer of rock ballast under the ties.

Nearly all brands of regular track will fit together with each other using metal rail joiners since the rails use the same cross-section profile. All-in-one track often uses clips on the ends of the plastic roadbed to mechanically join sections, so some manufacturers' clips may not fit into another manufacturers' track sections.

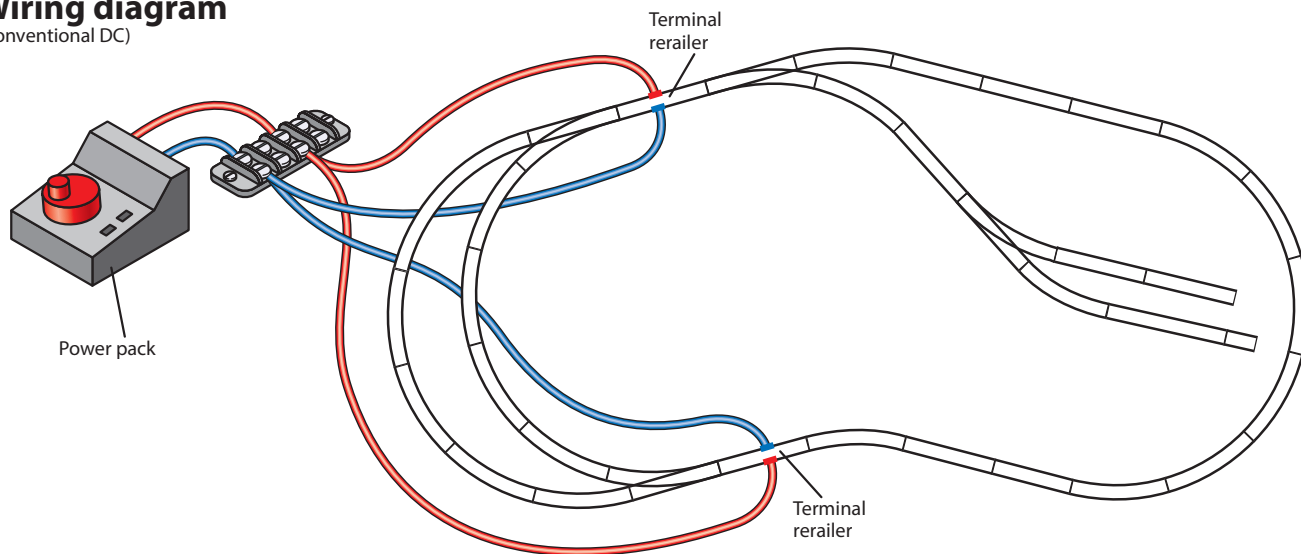
Turnouts, sometimes called switches, are made to match the radii and length of track pieces offered by manufacturers.

Often they are described by a numeral such as 4, 6, or 8 that corresponds to the angle at which the diverging track turns away from the main line.

Flextrack can be bought in bendable sections (usually 3-foot long) that allow you to construct a layout with curves different in radius from those created with standard curve pieces.

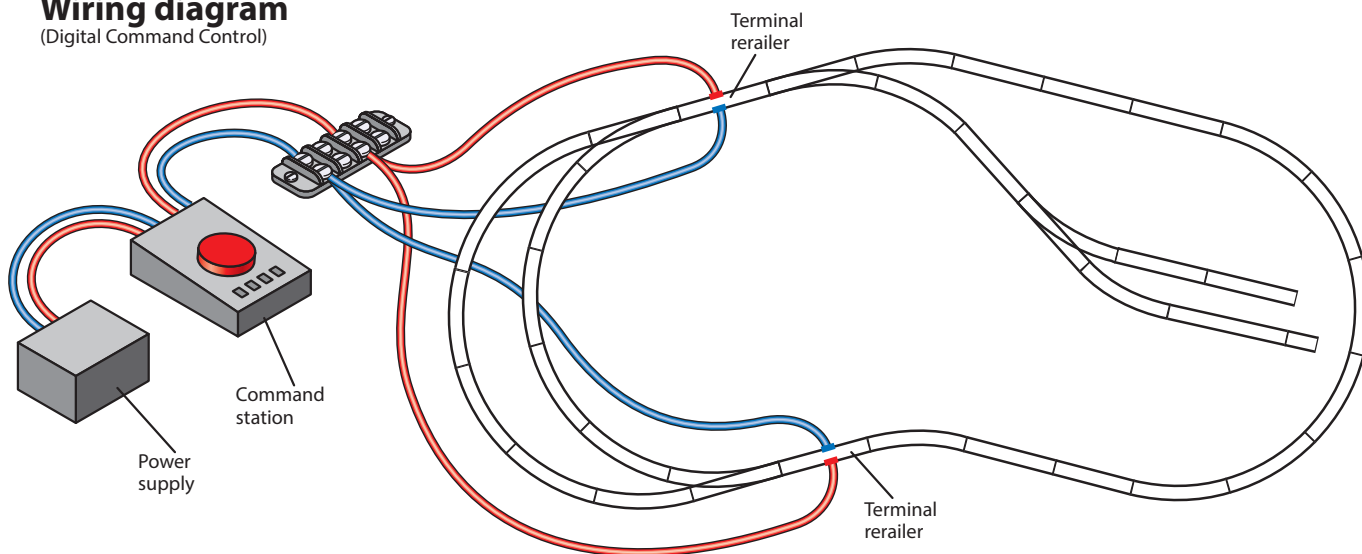
## Wiring diagram (conventional DC)

(conventional DC)



## Wiring diagram (Digital Command Control)

(Digital Command Control)



**The upper diagram illustrates direct current (DC) wiring, while the lower diagram is wired for Digital Command Control (DCC).**

## Wiring

For most model railroads, the simplest wiring system is straight DC (direct current). If your layout is fairly simple without any return loops that would create positive/negative polarity problems, all you need are a locomotive, a power pack capable of producing variable voltages, and two wires. Your train moves at a speed determined by the track voltage.

As your layout grows you'll want to

create electrical "blocks" of DC power. By using two power packs, you can use toggle switches to alternate which power pack is electrically connected to which block, allowing you to operate a second train on the same layout independent of the first.

Advanced model railroaders often use electronic control systems, such as DCC (Digital Command Control). On DCC layouts, track voltage remains at a constant

rate. All of the locomotives contain digital receivers that do not recognize the track voltage until a control unit sends a digital signal to a specific locomotive's unique "address," in effect "waking up" the locomotive and telling it what to do. Since each locomotive has its own digital address, dozens of locomotives can be operated independently on one layout at the same time.



**With the multitude of scenery products available at hobby shops, it's never been easier to detail your model railroad. Here, premade ground cover is sprinkled onto wet paint to simulate grass.**

### Scenery

Model-railroad scenery can be as simple or as elaborate as you'd like. Hobby shops sell an abundance of scenery products to make the job easier, from rock molds and miniature trees to scenic backdrops and shrubs. Books and videos are available that

show scenery making in detail.

Create simple landscaping to your layout by adding grass, sand, or roads to your layout. For instance, in the photo, grass is being made by sprinkling premade ground cover (found at a hobby shop) on top of

wet paint. You could add to the scene by adding clumps of a dense ground cover to make bushes, or by "planting" a few pre-packaged trees.



**Structures and other details bring your layout to life. Cork is used as a base for this structure. T-pins secure the cork until the glue dries.**

### **Structures and details**

Make your layout come to life by adding structures and details. It's never been a better time to enter the hobby. Products are available to suit nearly any scale, time

period, skill level, and price range, in either kit or presassembled form. Many kits and details are available in plastic, but you can also purchase them in wood or even brass.

As your skills improve, you may choose to make structures from scratch using your choice of materials.

## BUILDING A LAYOUT



You can almost hear the two Wisconsin & Southern engines roll past this train depot. This HO scale scene features regional railroading in southeast Wisconsin.

### Locomotives and rolling stock

You don't have to spend too much time walking the aisles of a hobby shop to notice the variety of locomotives and freight and passenger cars (collectively known as rolling stock) available to hobbyists. Models of diesel, steam, and electric (powered by overhead wires) locomotives are available in all scales, in nearly all railroad names, and in prototype designs from the 19th century to today.

Model locomotives are manufactured from plastic, steel, alloys, and even hand-crafted brass. They come with a wide range of details, depending on price. Many higher-end locomotives contain digital control receivers and some even offer remotely controlled sound and smoke effects.

Models of rolling stock, too, are available in different scales, road names, and time

eras. Some are ready-to-run straight from the box while others come in kit form to be assembled. Nearly all manufacturers use wheels and couplers that are standardized following National Model Railroad Association guidelines, so locomotives and rolling stock from one manufacturer can be combined with those from other manufacturers in the same train. 🚂

### DVD FOR BEGINNERS

This instructional video, narrated by Michael Gross, guides you through the process of building a simple HO layout. Available at the Kalmbach Hobby Store [www.KalmbachHobbyStore.com](http://www.KalmbachHobbyStore.com) or on the World's Greatest Hobby website [www.GreatestHobby.com](http://www.GreatestHobby.com)



# Where do I go next?

You've made the decision that model railroading would make an ideal hobby. Now what? To help you take the next step we've compiled this list of resources. It's by no means all-inclusive but will provide a good starting point. You'll find information on train shows, publications, videos, and websites with the appropriate contact information.

## Hobby shops

To find a shop in your area, check your Yellow Pages or the hobby shop directories at the back of most model railroad magazines.

## Train shows

Hundreds of local shows are held throughout the year all across the country. In addition, numerous large shows are held throughout the country. Contact sponsors directly for show times and locations.

**National Train Show** (an annual show sponsored by the National Model Railroad Association), P.O. Box 1328, Soddy Daisy, TN, 37384-1328, 423-892-2846, nmra.org

### Trainshow.com

P.O. Box 1192, Lombard, IL 60148  
info@trainshow.email  
trainshow.com

### Trainfest

21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187-1612,  
train-fest.com

## Scale model railroading

### Publications

*Model Railroader*, P. O. Box 1612, Waukesha, WI 53187-1612, 877-246-4879, trains.com

*Model Railroad News*, P.O. Box 48, Bucklin, MO 64631, 877-878-2467, modelrailroadnews.com

*N Scale*, 5811 75th Ave NE, Marysville, WA 98270, 360-658-2458, nscalemagazine.com

*N Scale Railroading*, P.O. Box 77296, Seattle, WA 98177-0296, 206-364-1295, nscalerrailroadn.com

*Narrow Gauge & Short Line Gazette*, P.O. Box 48, Bucklin, MO 64631, 877-787-2467, nsglsgazette.com

*O Scale Trains*, P.O. Box 48, Bucklin, MO 64631, 877-787-2467, oscalemag.com

*Railroad Model Craftsman*, P.O. Box 48, Bucklin, MO 64631, 877-787-2467, rrmmodelcraftsman.com

*Ztrack*, 6142 Northcliff Blvd., Dublin OH 43016, 614-764-1703, ztrack.com

### Books

*Build Your First Layout*, by Peter Vassallo, Kalmbach Media Co., P. O. Box 1612, Waukesha, WI 53187-1612 877-246-4879  
KalmbachHobbyStore.com

*Building the Right-Sized Layout*, by Thomas Klimoski, Kalmbach Media Co., P. O. Box 1612, Waukesha, WI 53187-1612 877-246-4879  
KalmbachHobbyStore.com

*Building Realistic Model Railroad Scenery*, by Kathy Millatt, Kalmbach Media Co., P. O. Box 1612, Waukesha, WI 53187-1612 877-246-4879  
KalmbachHobbyStore.com

*How to Design a Model Railroad*, by Lance Mindheim, Kalmbach Media Co., P. O. Box 1612, Waukesha, WI 53187-1612 877-246-4879  
KalmbachHobbyStore.com

## SCALE MODELING TERMS

**Benchwork:** A sturdy, level frame which is the foundation of a model railroad layout. Wood is the most popular material for benchwork.

**Free-lance:** Modeling that doesn't closely follow an actual railroad.

**Kitbashing:** Taking one or more model

railroad kits and changing the construction process or combining parts from different kits to create a unique model.

**Motive power:** Another word for locomotives, the pieces of rolling stock that do the work of moving trains down the road.

**Narrow gauge:** Rails spaced closer together than the standard gauge of 4' 8½". Three-foot was the most common narrow gauge in the U. S.

**Operation:** Running trains on a layout in a way that simulates real railroad activity.

**Power pack:** Electrical

device used to supply current to a model train and control its speed and direction.

**Rolling stock:** Any piece of railroad equipment that rides on the rails.

**Scratchbuilding:** Making a model from raw materials and parts, not using kits.

**Sectional track:** Prefabricated interlocking track sections that can be easily assembled and disassembled.

**Weathering:** Making new models look more realistic by simulating age and exposure to the elements.

## RESOURCES

### Videos

#### Green Frog Productions, Ltd.

189 Waterbury Way, Douglasville, GA 30134, 800-227-1336, greenfrog.com

### Online resources

#### Model Railroad Academy

2955 Xenium Lane N, Suite 10, Plymouth, MN 55441, 855-208-7399, modelrailroadacademy.com

#### Trains.com

Kalmbach Media Co., P. O. Box 1612, Waukesha, WI 53187-1612, 877-246-4879, trains.com

### Clubs and associations

#### National Model Railroad Association

P.O. Box 1328, Soddy Daisy, TN 37384-1328, 423-892-2846, nmra.org

#### National Association of S Gaugers

P.O. Box 268, Middlebury, CT 06762-0268, nasg.org

#### Ntrak Inc., P.O. Box 1301, Tuttle, OK 73089,

ntrak.org

## Garden railroading

### Publications

*Garden Rail* (UK publication), 108 Phil Hardin Rd., Newton, NJ 07860, www.warnersgroup.co.uk

*Steam in the Garden*, P.O. Box 335, Newark Valley, NY 13811-0335, 607-642-8119, steamup.com

### Books

*Miniature Garden Guidebook*, by Nancy Norris, Kalmbach Media Co., P. O. Box 1612, Waukesha, WI 53187-1612, 877-246-4879, KalmbachHobbyStore.com

### Videos

#### Movie-Mix Productions

282 Kerry Dr., Santa Clara CA 95050 408-248-7846 moviemix.com

### Online resources

#### Trains.com/grw

Kalmbach Media Co., P. O. Box 1612, Waukesha, WI 53187-1612 877-246-4879 trains.com

## Toy trains

### Publications

*Classic Toy Trains*, Kalmbach Media Co., P. O. Box 1612, Waukesha, WI 53187-1612 877-246-4879 trains.com

*O Gauge Railroading*, 1310 East-side Centre Ct., Suite 6, Mountain Home, AR 72653, 800-980-6477, ogaugerr.com

### Books

*Greenberg's Pocket Price Guides*, P. O. Box 1612, Waukesha, WI 53187-1612 877-246-4879 KalmbachHobbyStore.com



## GARDEN RAILROADING TERMS

#### Battery power:

Onboard batteries that provide power to a locomotive that's controlled by radio.

**Flextrack:** Longer sections of track that are flexible enough to bend to any desired curvature.

**Gauge 1:** 45 mm (just over 1¾") between the

rails. Although a garden railroad can be built to run on any gauge of track, gauge 1 is most commonly used.

**Groundcovers:** Low-growing plants that spread to cover the ground, useful for filling in areas and preventing weeds and erosion.

**Large scale:** A generic term that includes all trains running on gauge 1 track.

**Live steam:** Miniature locomotives that run on steam, just like real locomotives. They have fire in their fireboxes and boil water in their boilers.

#### Railway garden:

Garden planted with dwarf and miniature plants to be in scale with the trains.

**Roadbed:** The material that supports the track and provides drainage. In garden railways, this is most often ballast (crushed rock and rock dust).

#### Sectional track:

Commercially made track that comes in predetermined straight lengths and curved sections with a set radius.

**Water feature:** A pond, river, or waterfall on your railway, often incorporating fish and water plants.





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877-246-4879  
KalmbachHobbyStore.com

### Videos

**I Love Toy Trains series**  
TM Books & Video, Box 279,  
New Buffalo, MI 49117  
800-892-2822  
tmbv.com

### Clubs and associations

**Lionel Collectors Club of America**  
Business Office, P.O. Box 529,  
Peru, IL 61354  
lionelcollectors.org

**Lionel Operating Train Society**  
6376 W. Fork Rd., Cincinnati, OH 45247  
lots-trains.org

**Toy Train Collectors Society**  
Holger Krogemann, 3460 Jeffery Rd.,  
Palmyria, NY 14522  
tcsLtd.org

**Toy Train Operating Society**  
Barbara Rohrs, 3950 Mack Rd., - 57,  
Sacramento, CA 95823  
ttos.org

**Train Collectors Association**  
P.O. Box 248, Strasburg, PA 17579-0248  
tcatrains.org

### Online resources

**Trains.com/ctt**  
Kalmbach Media Co., P. O. Box 1612,  
Waukesha, WI 53187-1612  
877-246-4879  
trains.com

## OTHER RESOURCES

### GreatestHobby.com

This site has everything you need to get started in model trains: find answers to frequently asked questions, read articles, and much more.

### Trains.com

Find in-depth product reviews, modeling techniques, and instructional videos on model railroading. You can also sign up to receive free e-mail newsletters related to the scale(s) you're interested in.

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## TOY TRAIN TERMS

### Collector:

Toy train enthusiast who acquires vintage or contemporary models to display or study.

### Modern-era:

Descriptive term for toy trains manufactured since 1970.

### Operator:

Toy train enthusiast who acquires vintage or contemporary models to repair, restore, or run on track.

### Postwar:

Descriptive term for toy trains manufactured between 1945 and 1969.

### Prewar:

Descriptive term for toy trains made in 1942 or earlier in the 20th century.

### Reproduction:

Toy train patented after an antique that is long out of production.

### Restoration:

Toy train returned to its original operating condition and appearance by repair and repainting.

## PHOTO GALLERY



LOU SASSI

Southern Ry. RS-1 no. 405 pulls a string of empty hoppers destined for Tennessee Consolidated Coal Co. on Bob Lawson's HO scale layout.



GEORGE HALL

A photo like this of Ken Kelley's standard-gauge layout is like a time machine. No matter how old you are or where you're living, one glance at this terrific picture and you feel as though you have gone back to the early 1930s and are standing in front of a department-store window.



MATT HUTSON

Many garden railways operate year round. A snowplow extra heads north on Matt Hutson's railroad in Colorado. The plow and caboose are made from scratch, while the locomotives are from USA Trains.



Glenn Nilsen captures the essence of the Pennsylvania Railroad in the 1940s.

## PHOTO GALLERY



Few organizations surpass the San Diego 3-Railers in their passion for sharing the pleasures of toy trains with the public. Besides some appealing wall displays, club members designed and worked together to build a 42- by 44-foot O gauge model railroad at the San Diego Model Railroad Museum.




While employees at Baxter's Supply organize materials on the dock, a New York, New Haven & Hartford RS-1 engine leads a manifest freight into Pawtucket, R.I. The scene is on Marshall Sommer's HO scale Rhode Haven layout.

LOU SASSI



Engine no. 15 crosses a bascule bridge on the *Model Railroader* magazine's 2014 HO scale project layout, Rice Harbor.



It's early in the morning on a bright sunny day in May 1927, on the Buttonwood Valley Railroad as train and station crews in Buttonwood make ready for the passengers arriving at the station. Simple plantings like bleeding heart (left) and daylilies (right) can add a nice backdrop to the scene. 

MARTIN KERN

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The World's Greatest Hobby is a non-profit organization to promote model railroading. Initiated by Kalmbach Media Co., one of the largest publishers of hobby magazines and books, including *Model Railroader* and *Classic Toy Trains* magazines and the Trains.com website, the effort has grown to include the support of other model railroad publishers, model train manufacturers, and a variety of model railroad organizations and businesses.


Perhaps you received this booklet when you attended a model railroad show, perhaps curiosity compelled you to visit the local hobby shop where you learned about model railroading, or perhaps you heard a presentation about model railroading from a hobbyist.



**World's Greatest Hobby**  
PO Box 1192, Lombard, IL 60148  
info@greatesthobby.com

The World's Greatest Hobby organization exists primarily as a means to coordinate these grassroots efforts. It also distributes videos and introductory booklets, as well as providing promotional material to the sponsors of all kinds and sizes of train shows.

The organization maintains GreatestHobby.com, a website with tips and information designed to help the beginning model railroader get started.

Today's model trains, structures, and accessories are all better than they've ever been. It truly is a wonderful time to be part of the World's Greatest Hobby, and we're here to help make your transition from beginner to seasoned model railroader smooth, simple, and fun. 



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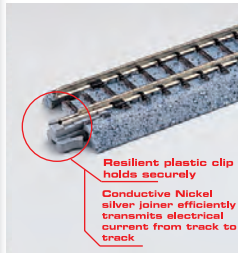
## The UNITRACK Advantage

Why Kato **UNITRACK** is ideal for building both your permanent and temporary layouts

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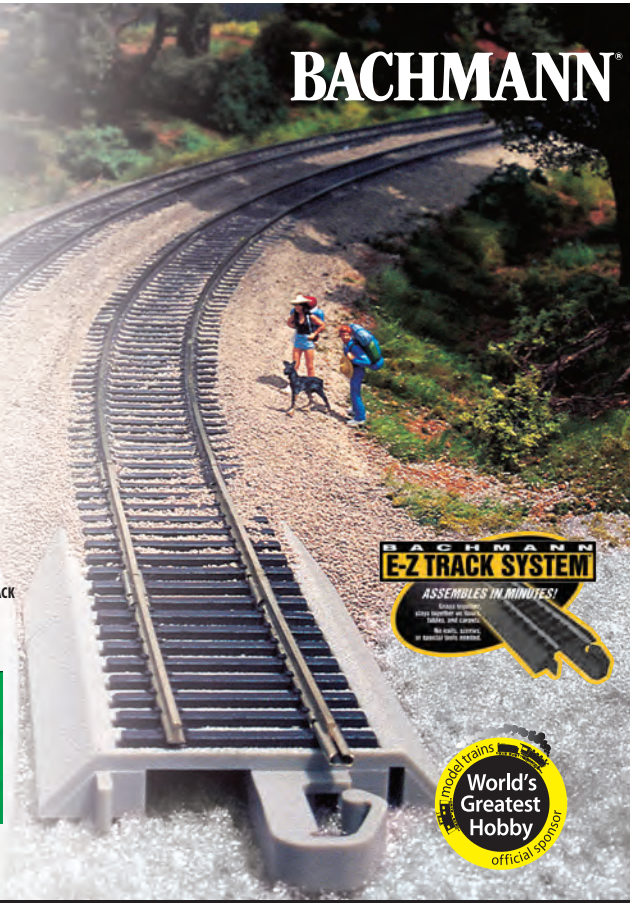


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