NMRA
THOUSAND LAKES REGION

The FUSEE

NMRA

Thousand Lakes Region Winter Fusee Edition

Stay Warm & Enjoy the Events & Activities Around the Region!

In This Issue of the Fusee...

Regular Columns

Features

News and Directories

Cover Photo - by Ken Borowski MMR©

Nice shot taken by Ken of members at the **Share Your Skills Day** event. There were 4 topics, car weathering, freight car tuning, figure painting and DCC loco tune up. 18 people participated at the event.

Save the date...

2026 Thousand Lakes Region Convention (May 21-24)

Thunder Bay, Ontario CA

View from the Cab

President Art Suel

As I write this column, it is snowing outside this Saturday after Thanksgiving. Lots to be thankful for, family, good health and of course all the friends I have made in the Model Railroading hobby. Now on to other items of note.

Rebranding: Unless you have been under a rock, the NMRA has rebranded. New LOGO, new goals etc. As the membership increases, membership dues will come down. More members with fixed costs staying level, equals a drop in dues. This is good. To learn more, go to the NMRA website under members to read about the mission, goals and of course the new logo. It will take a while to get used to the new logo. Remember, as a group UNITED, we will succeed but fail if not united. (Link to NMRA branding FAQ)

TrainFest: I had fun and ran into many members from the Twin City Division. Vendors were excellent (at least in my opinion) and many operating modular layouts to view. Part of the charm is viewing the layouts and chatting with fellow modelers . TrainFest is now an NMRA event and will grow each year. The Baird Center in downtown Milwaukee is an excellent venue and has the space to grow. I will be back next November.

Progress Valley RPM: Wow, what a collection of modelers and their end results. Fantastic modeling was displayed in Burnsville MN. Thanks to Greg Smith for organizing this event for the second year.

Winter Months: For many modelers, this is the time of the year to disappear into their layout rooms and workshops and pull those projects out of hibernation and get them finished. I consider the entire year to be open for modeling, especially in the summer when the humidity and temperatures rise making it uncomfortable outside.

Upcoming events: Superior Rails is the theme of our upcoming regional convention in Thunder Bay Ontario, Canada. Had a zoom meeting with the committee and there are going to be a variety of activities to do. The convention is May 21, 2026, through May 24th, 2026.

Officers: We have a convention director. Jimmy Anderson has accepted the position . Welcome aboard Jimmy. We are going to need a new Treasurer after the convention. Tom Gay is stepping down after 10 years. Interested individuals can contact me for details.

Time to get back to the layout and figure out the electrical snafu.

Art

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Neil's Nuggets - Winter Season is Here - Fall was Chock Full of Events & Activities

The winter season is with us, which means members are looking forward to being inside more and working on their favorite model railroading projects and their favorite activities ☺

A continued big thanks to everyone (new and old contributors) that stepped up and provided content for this issue of the Fusee. We have some new contributors in this issue so be sure to check them out!

I really want everyone to know that their efforts are greatly appreciated! **(Keep up the great work, I will still need your help to continue bringing you the excellent content in the Fusee!)**. Remember, the Fusee is your newsletter, you need to let me know what you want to see in it!

Bottom line, if you have a picture, tip, technique, modeling or prototype topic that interests you, there are most likely other members in the region that would like to know about them too! I'd really like to encourage/challenge all of our members to contribute some content to me to include in the Fusee.

A big thanks to Collin Sullivan for submitting a great article and Jimmy Anderson for creating a new column (First article for Collin and a new column for Jimmy) and to all of my regulars that continue to provide excellent content to share with our members.

Next year our regional convention is planned to be in Thunder Bay, Ontario Canada, I hope everyone gets it on their calendar's and starts making plans to go! I'm excited about it and the crew working to put it on up there is going all out to make it an outstanding convention. (Check out the convention committee update on page xx)

A big thanks to all that have been sending me pictures of all the events and activities around the region! We have a ton of them to share in this issue as it was very busy this past fall. Keep up the good work, it's a great way to share all of the fun that takes place. We might set a record for this issue as I am putting it together it might be over 50 pages long! Very exciting!

Lastly, as Art has pointed out several of the region's leadership positions will need to be filled as many are reaching the end of their mandatory time limit they can hold the position. (See page 58) Think about getting uncomfortable and stepping out of your comfort zone and volunteer for one of the positions. You might be surprised at how rewarding it can be! Also, as Art points out the NMRA has adopted a new branding scheme, I encourage everyone to check out the hard work they put into it as it wasn't done on a whim. (I put a link in Art's column). I may not have used the new branding logos "exactly correct" in this issue, but gave it a shot as to how we should use/promote the new NMRA and TLR branding.

Happy Holidays!

Neil

612 940 0757 (Voice and Text ok)

Fusee Editor

Are you an old Goat? Have you been a NMRA TLR member for more than twenty years ore more? Speaking of old goats, let one of the board members know as there is a Thousand Lakes Region "Old Goat" pin available to those that meet this requirement.

TLR Board - Left to right, Shadow Redington, Tom Gay, Neil Maldeis, Art Suel, Rich Holzapfel (Jimmy Anderson has taken over role of convention director), Fred Holzapfel, Ken Zieska (Dan Cohen has taken over role of secretary)

The Call Board - *VP Fred Holzapfel*

Words from the Vice President -

Well now here we are in late fall heading towards winter. Seems to me my memory says that model railroading tradition calls winter time our prime time to model. I'm not so sure that is still true. Why? Were you able to display or attend the 2005 RPM that took place just a short time ago? That really tells a better story.

This years RPM was larger than the last time. I did not count tables or numbers of displays; yet there were two full rows of added displays and modelers. It was a real WOW event. Some of the Twin Cities best model railroaders were showing displays. Every one of them was more than willing to discuss what they had done and how they did it. I imagine someone may have had a count of the number of folks that came through just to see what it was all about. I know I saw many unfamiliar faces walking through and looking around. The event brought back some memories I'd like to share:

How many of you recall the days of the 'Mall Show"? Back when a shopping mall would provide free tables to folks to set up their displays. Northtown, Har-Mar, Signal Hills, Apache, as well as others would hold a model railroad show. Every one of those location managers would tell you more people came through their mall that week-end than any other time of the year. It was a great time for us model railroaders to show off our work as well as visit with the other folks that had displays. The RPM was a very good replacement for those.

N-scale, HO-scale, narrow gauge and standard gauge even a few large scale models were on display. Entire dioramas were brought in. I wish I'd thought to have my camera along so I could show you some pictures of the excellent work. I sure messed up on that one. Did not even think about how my cell phone has a camera. I was too busy looking and talking with folks. The Ma & Pa, the Great Northern, and many other railroads were displayed. All in one place. This event has already started planning for next year. Keep you eye on :"the Fusee" as well as various Twin Cities Facebook sites to see when the next years show will start advertising and asking for model rails to sign up. Don't miss the opportunity.

That's it for now. As our winter season gets off to a start just remember to have fun and enjoy your hobby. Happy modeling to you all!

Fred Holzapfel, Thousand Lakes Region, VP.

From the TLR Historian:

I haven't seen this plow for a few years, but it's back. Snow plow 100226 is parked on its old usual siding this year and I got a couple pictures for you.

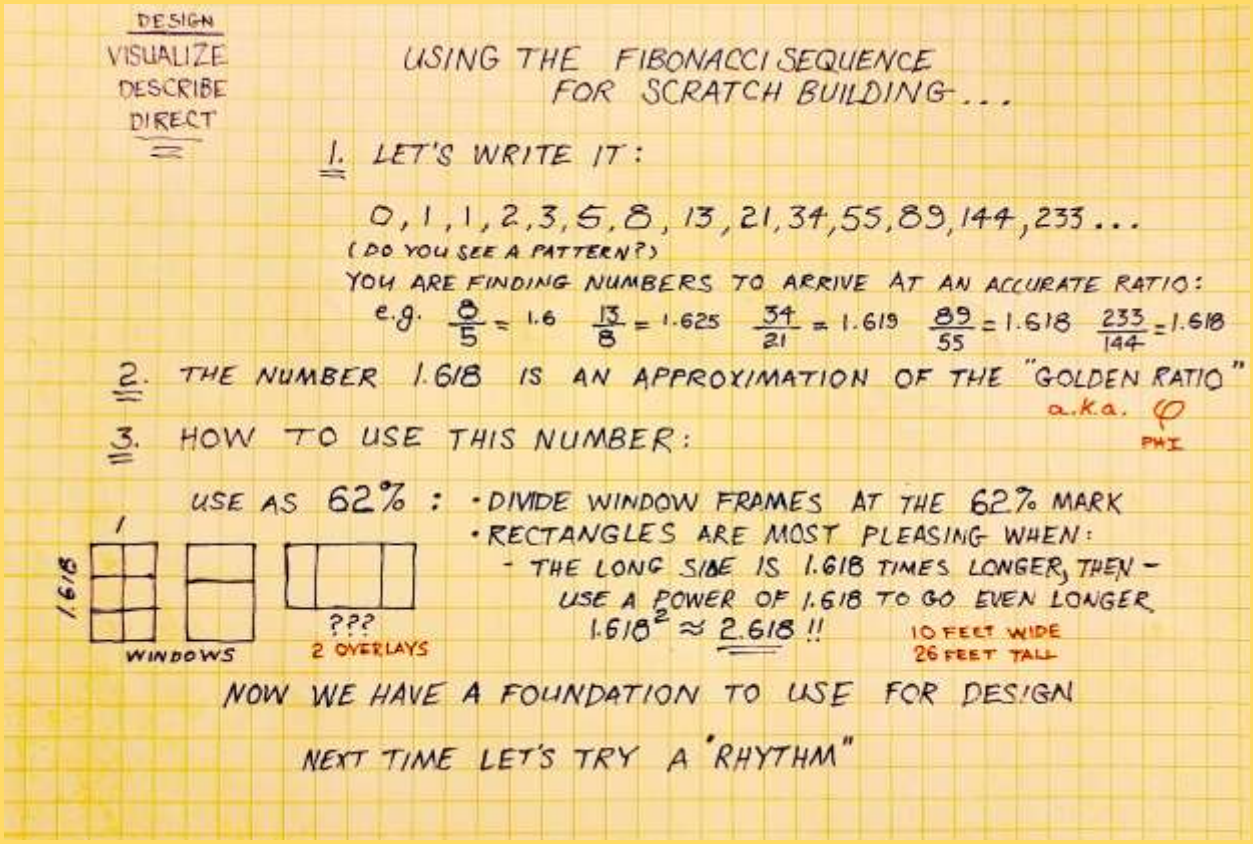
I'm sure many of you know the history behind this plow that was constructed from an old steam tender.

From the Desk of Matt Lentz - Simple Designs for Model Railroading Uses

Matt shares a design approach to use when scratch building.

I'm sure if you have any questions you can reach out to Matt and he'd be happy to help. (His contact info is on page 57)

Drawing by Matt Lentz 



Publishing Deadlines

Publishing Date	*Submission Deadline*
March Edition	February 28/29
July Edition	June 30
September Edition	August 31
December Edition	November 30

Modeling on a Dime - My Background Story- By Dan Dossa

Hello again fellow model railroaders. Welcome to this issue's installment of Model on a Dime. I hope you all enjoy a happy and healthy holiday season. May your New Year be one that is filled with wonder and joy and may you continue to enjoy our mutual hobby; model railroading.

In this installment I'll share some more of my secret Kryptonite; i.e., tricks I discovered that have a myriad of uses in model railroading and cost little to nothing.

So what's this background story that I allude to you ask? I am drawing a distinction between "background" and "backdrop." When I hear the word backdrop people speak of the wall or sheeting that lines it at the far back of a model train layout. To me, however, the word background speaks to more than just a backdrop. It encompasses some space in front of the backdrop which, in turn, can substantially enhance our layout's appearance (Photo #1).

Photo 1

When well done, backgrounds significantly improve our layout's appearance, and give our trains a context in which they operate. As they are not the primary feature of most model railroads, I am not an advocate of overly visually complex backdrops. I think of my model railroad like a theatrical set. In model railroading, the trains are the stars. This is where we want to focus our viewers. As we move further toward the background, scenery serves much like extras in a film. Its purpose is to make a scene more realistic, but not to distract viewers or upstage our star performers. What it comes down to for me is this. A well made background simply makes our layouts feel like they are part of the larger world, that this world, even though it is admittedly imaginary, extends beyond the confines of our square footage.

That said, let's turn toward the creation of a background. Commercially produced backdrops are easy to work with, and can be had in a variety of type, scale and scenes. And what could be easier? Unroll it, glue it up and you're done. That said, they suffer from two problems. First, they are very obviously two dimensional and that lack of depth or perspective can be distracting if not managed. That problem can be addressed by techniques I will be describing. The second problem is not so easy to fix, however; they are expensive; sometimes very expensive. And you, the faithful readers of my missives already know my secret: I'm cheap. Besides, I have a new Rapido RS23 on order and I am sure you all have better uses for your hard-earned modeling dollars too. So what can we do?

A cell phone camera, a computer printer and the internet are your best friends in creating your layout's background. Let's discuss using these and some other things to create inexpensive, yet convincing, backgrounds on our layouts.

I start by mixing things up. I don't think of my layout's background in two dimensions. Instead I use different techniques and materials to create an illusion of depth by creating a backgrounds that actually use depth, lending to the illusion that there is even more depth than actually exists.

Starting from the wall, I use blue latex paint that looks right to me as a match for the sky. Some of the photos you took can help here. Just tape them up in your train room and see how they look. I highly recommend getting paint chips or cards from where you purchase your paint. Hold or tape these to the wall behind your layout as well. See how they look at them in your room's lighting. Doing this before starting ensures that your selected color looks correct in your room (ask me how I know). When I am settled on my color, I use soft foam rollers instead of the fluffy fleece ones ordinarily used to paint walls. The foam rollers lay down a very smooth finish that I think looks better.

If you wish you can add some clouds using any of many paint techniques. I omitted clouds on my layout, but gently added some wispy white tendrils along the horizon. If you don't like how yours come out, just repaint it with your sky blue paint. Be careful here, and don't overdo it. A little goes a long way and too much, even well done, can look over crowded and distracting. I think of my layout as a composition and I want all the separate aspects of it to flow together into one complete scene.

As I mentioned earlier, commercial backgrounds are often expensive and sometimes, danged expensive. I found some easy ways to create your own if you don't mind spending just a little bit of time. What is really cool about what I describe here is that when you finish, it will be yours and yours alone, not someone else's work, and definitely not generic.

As I said, I create the illusion of depth by creating a background that has depth. Here's the great news. You don't need much depth to do so. Here's how…

I start by going outside on a bright sunny day with my handy dandy cell phone and taking loads of photos: tree lines, foliage, buildings, signs, bridges, etc. I will use these to later to create my background. If I find I haven't got what I need, I just go out and shoot more pics. I also go on the internet and look for photos I want to download and use. If you are using these for personal consumption and not re-using them for commercial purposes you are just fine.

Once I have my photos I make prints of these. I sometimes print them in different sizes, or print only portions of a photo I took. There are times when I have taken my photos to a commercial business and printed them in larger formats than my home printer can handle, but most I just print from home. If you have photo editing software, so much the better as you can clean up photos and improve their appearance. For trees and foliage, I take my photos and roughly cut off most of the sky in the picture. Then I feather the edges of the edges of the trees to create the illusion of branches and leaves against the sky-colored backdrop. This is more art than science and doesn't have to be exact. If a bit of the blue from the photo shows through it isn't that big a deal. Likewise, sometimes I cut away foliage that is more in the background of the photo leaving just the foreground foliage. The feathering helps conceal the fact it is just a photo and is the first part of adding a sense of depth and dimension.

Now let's make those scraps of printed trees and folliage pop. First, WORKING FROM THE BACK NEVER THE FRONT of the printed piece I use a black or grey magic marker and color the edge of the paper to hide the white edge. Make sure that the edge is not blue sky just foliage. I layer different pieces over one another to create an illusion of depth. To do so I like to fiddle with the pieces, tacking them with tape until I like how they appear. Then using photo mount spray adhesive or a glue stick, I affix the pieces to the wall and overlay those already in place with other pics. If a little more of an illusion of depth is desired one can also mount the photos to black posterboard (use the magic marker on the edges of the posterboard mounted pictures before installing them. Finally, add some 3D foliage and trees to create even more depth. This technique results in very realistic backgrounds at a fraction of the cost of commercial backdrops. If you want hills or mountains you can similarly use photos to create those effects again using a similar technique of layering your photos to create your background scene. Another oft used scenic technique is to have your scenery rise upward as it approaches your background, only to dip just slightly before it reaches the edge, to emphasize that what is seen on the background is some distance from the scene leading up to it.

This technique isn't limited to just trees and foliage. For urban modeling, I use photos of streets and buildings as well, creating building lined streets heading into the distance, or layers of buildings which are taller in the background to replicate a cityscape. This is easy but takes a bit of fiddling with the placement. Just play with it until you are satisfied with the results. Don't be afraid to reposition your pieces before you go to final applications of adhesives. Sometimes I add foliage in front of the photos of buildings or other 3d scenic features like fences. On my layout I did this with a picture of a water tower I added (Photo #2).

Photo 2

One building on my layout, Veit, was scratch built from scrap styrene and misc. building parts I had lying around. I liked the way it looked, in general, but the more I looked at it the more I realized something was off. It was a simple flat of a wall of a building and although it was set about a quarter inch out from my wall, it looked flat and unrealistic. This was principally because of an adjacent perpendicular road. It looked exactly like what it was, a building flat that appeared out of place. I needed to make it look like it belonged in the scene and for that I needed it to appear like it had dimension. The building as modeled had two roof lines which I extended to the left at angles to simulate the edge of the building along the road. The pieces I used were just parts of photos I had printed that were cut and fit into place. When I finished it looked like it belonged in the scene, not like it was set into the scene (Photo 3).


Photo 3

You can even take bits of your background foliage and have them partially overhang a print of a building to simulate a tree which is behind a structure but with branches that extend over it as well. One technique I especially love is to make multiple prints of a building. I cut out doors and windows and layered those over the first leaving underlying details on the piece closest to the wall visible. This adds a hint of depth that really looks nice. Again on my layout I used this trick for my Cream of Wheat building which used five different layers of the picture assembled into one (Photo #4).

Photo 4

Another thing to consider as you are creating your background is that you can vary the size of any structure you print to fit the scene you are creating. On my layout I have one background warehouse that is basically right at trackside so it looks correct at a full 1/87th representation. When I modeled Cream of Wheat, however, it needed to appear somewhat distant, so when I printed the photo I made it smaller, roughly the size of TT scale or N scale (i.e., 1/120th to 1/160th). (Photo #5)

Photo 5

Finally, I also use cut down wood or styrene buildings to further add depth to my backgound. These do not need to be parallel to the background. Angled buildings add visual interest and make scenes look more realistic. Likewise, adding a retaining wall or fence say 3/8th to even an inch out from the background helps blend foreground into background minimizing the transition from backdrop to layout. Scraps from past modeling projects can easily be used to create these.

All this can be accomplished for the cost of a few sheets of printer paper, a bit of adhesive and some ink. The 3D foliage and buildings incorporated can be added for little cost if one uses what one has on hand. Take a gander at my photos. Depending on the complexity of what you are modeling cost will vary, but it still will be considerably less than the cost of a commercially produced background print.

As we round the corner to the final stretch of 2025 and head for 2026, I invite you to take a look at your layout, and consider whether some or all of these techniques could enhance its appearance. If you give it a try, you may be pleasantly surprised to find that your layout suddenly looks less generic, more finished and more personalized. Mine certainly has.

In closing I wish each and every one of you wonderful holidays and a very healthy and happy 2026. Dan

Grade Crossing Signal Project

By Collin Sullivan

This project uses simple affordable components to create a grade crossing signal system for up to as many tracks as needed. In short, the system uses a timer relay board paired with infrared sensors to trigger a pair of flasher boards which operate the flashing grade crossing signals. Some simple modifications to some of the components are required. This project also requires some good skills with a soldering iron.

Things you will need

The items for this project can be found from any number of sites. I found everything I needed on Ebay.

Timer Relay, DC 5V-36V Trigger Cycle Delay Timer Switch Turn On/Off Relay Module

This module averages about $14.00 and is easy to use. It comes in slightly various configurations but they are basically the same from one to the next. Some even come in a box that can be surface mounted to your layout. Mine however came with no documentation so I found this document online which gave me all the information I needed to use the board.

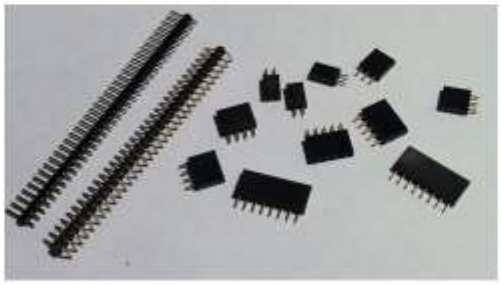
PEMENOL Dual MOS Timer Relay Switch DC 5-36V Programmable Cycle Delay High Level Trigger

2 sets of N Scale Railroad Crossing Signals 4 heads LED made Circuit board flasher

In this project I used N scale products but the same principals can be used for any scale. Here is a nice N scale signal that is sold with a handy flasher board for about $12.00. The newer models come with a potentiometer to adjust the flash rate of the signal. You will need two sets, one for each side of the grade crossing.

Infrared Obstacle Avoidance Sensor Module
These are commonly used in remote control cars or robotics. They use infrared detection to send a signal. They also come with a small potentiometer to adjust the sensitivity of the module. They often come in a pack of ten for about $12.00. You will only need two but it's good to have more on hand.

3mm 940nm Infrared Receiver Diode DC1.2-1.3V LED IR Black Round Head and
3mm 940nm Infrared Emitter Diode DC 1.2V LED IR Emitter Clear Round Head
Prices vary depending on how many you buy but they average around $0.15. You will need one of each for both sides of the crossing. If you plan to have more than one track at your crossing you will need two sets of each for every track.

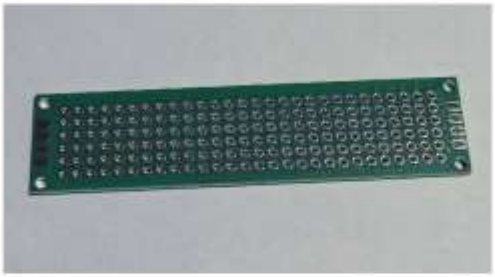


Male Header Pins, Male 90° Header Pins
A variety of Female Header Sockets, 2, 3, 4, 5, and 8 pins
These items are easy to find and fairly cheap. The sockets are often sold in packs of 50 or more. The pins come in strips that can be easily cut or snapped into any number required to fit the sockets.

Small diameter shrink tubing and some larger diameter tubing. This will be needed to ensure your electrical connections are fully insulated.

PCB Universal Prototype Matrix Double sided Protoboard Blank Board

These boards are inexpensive. I used a 20mm x 80mm board for this project. The boards are not hard to cut so other sizes might also be used. These boards would only be necessary if you plan to have more than one track at your grade crossing.

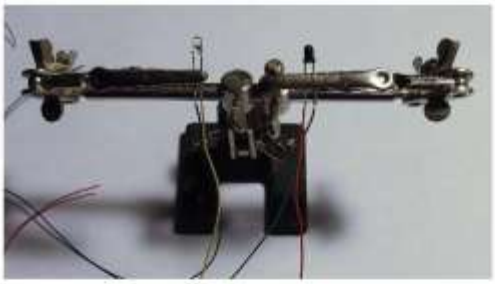


Fine Gauge Wire

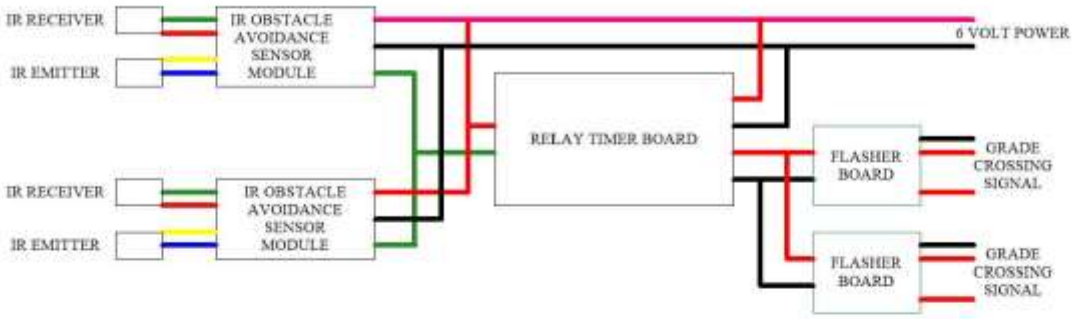
30 gauge wire is best for this project. One of my favorite sites for wire is BNTECHGO. I especially like their silicone wire as it is very flexible. You won't regret investing in some good wire for any project. Some of my older projects are a mess because I didn't take the time or spend the money for good wire.

Helping Third Hand Magnifier Stand Soldering Clamp Holder Alligator Clip Tool

This is a popular little gadget and very handy for any project.



Project overview



Above is an overall schematic of the project. On the upper right is the 6 volt DC input. Note that power goes to the relay timer board and to the IR obstacle avoidance sensor modules. The positive wire also serves the signal input on the left side of the board. The green wire, the output from the IR sensors, connects to the negative pole of the signal input. When the sensor trips, a signal is received which in turn triggers the relay timer. The load, or flasher boards on the lower right, is powering the grade crossing signals. One sensor is needed for each side of the grade crossing. Also, one flasher board and grade crossing signal is needed for each side of the grade crossing. Some modifications to the IR sensor boards will be necessary. The large 5mm IR emitter and receiver will be replaced with a smaller 3mm set to facilitate placement under the tracks, hence the emitters and receivers are shown separately from the modules. Have a look at the General Installation section of this article to get an idea how long to make your cables.

Why the relay timer board?

When a train passes over the IR sensor there are gaps between the cars that cause the sensor to send an erratic signal. This in turn causes the grade crossing signals to flicker because the electrical supply to the flasher boards is erratic. The relay timer board can be set to a specified time, in the case of this project, five seconds. The relay board can be programmed to seven different modes. The one we are interested in starts the timer when the IR sensor is tripped. The timer is programmed to run for five seconds and then turn off if there is no other signal. However the timer will reset if another signal from the sensor is received thereby sending a steady electrical supply to the flasher boards. So the IR sensors can flicker as the train passes but the relay timer will keep resetting with each signal from the IR sensors and keep a steady power output for the flasher boards/grade crossing signals. Below is an excerpt from the operating manual that describes the timer relay function in this project.

P1.2	The timer relay starts to output the voltage for OP time after receiving the trigger signal, and then turns off. If the trigger signal is obtained again during this OP time, the output and timing will restart.

Some modifications

My personal preference is not to use the screw terminals on any board if I can help it. For me they are often difficult and bothersome to use, especially when working upside down under the table fiddling with little wires and a screwdriver. The screw terminals on this board are a bit big and I don't think I could have removed them without making a mess so I opted for soldering some wires to the back of the board instead. Remember from the schematic diagram the 6 volt DC power runs to the power input on the board, upper left, and to the positive of the signal input terminal (on the right in this image). The load, which goes to the flasher boards, is at the lower left.

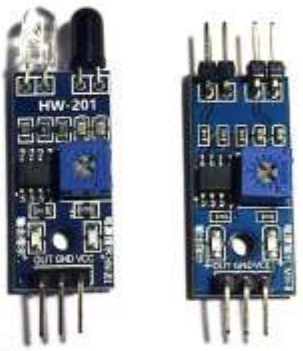
The wires that are soldered to the back of the board are connected to a 5 pin female header socket. From there multiple connections can be made. Three pins are used to supply power to the relay timer board and the two IR sensor boards. The remaining two pins are used for output to the flasher boards.

Multiple Connections In One Place

The image on the right shows several connections to be made using header pins and sockets. Three pins plug into the left side of the five pin socket which provide six volt DC power to the relay timer board and the two IR sensor boards, The schematic diagram on the following pages help to clarify

these connections. But first it may be wise to take a closer look at the IR sensors.

Infrared Obstacle Avoidance Module



Throughout this article I have been referring to these modules as IR sensors. You will need at least two of these boards and they will require some modification.

This somewhat large module isn't well suited to place under the track in N scale. Trust me, I've tried. In order to make this work the board needs to have the large IR emitter and receiver removed and replaced with two pairs of 90° header pins. The easiest way to remove the emitter and receiver from the board is to first bend them to a vertical position. Then clamp one of the alligator clips from a "helping third hand" to one of them. While holding the board upside down, lift the board so the full weight of the helping hand comes to bear on the part to be removed. Then apply a hot soldering iron to the back of the board. You may need to give the board a little wiggle until the part falls out. Repeat this procedure for the other part as well. Use a little solder wick to clean up the terminals. I sometimes use a small drill bit in a pin vice to clean out the holes in the board.

Next separate two pairs of two 90° header pins and solder them as shown in the top right image. This will serve as a plug for an extended connection to a new set of IR emitter and receiver.

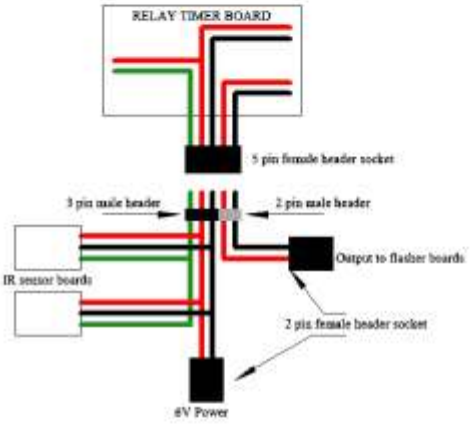
Note the three pins on the bottom of these boards. The right pin is VCC which is the positive input for power. The center pin is ground or negative and the left pin is the output pin. This pin will later be connected to the ground post on the Signal terminal on the relay timer board.

Now for the connections from the timer relay board to the IR sensors. For this step you will need to prepare three small wire bundles roughly eight inches long. You will also

need one three-pin male header, two three-pin and one two pin female header sockets.
Prepare three red, three black, and two green wires. Solder the red wires to the center header pin, the black wires to the right pin, and the green wires to the left pin. Remember to add shrink tubing as required.

Next solder the other ends of the wires to the female header sockets. One red and one black will go to the two-pin header socket. This will be the input for the 6 volt DC power.

Then solder one red wire to the right pin of the three-pin header socket. Next solder one black wire to the center header socket pin. Finally solder the green wire to the left header socket pin. To finish gently twist the wires together. Notice the red, black and green wires should match the VCC, ground, and output pins of the IR sensor modules.



The connection for the load (flasher boards) is made in a similar way. Here only a red and a black wire is needed plus a two-pin male header and a two-pin female header socket.

IR Sensor extensions

The IR sensors can be modified to facilitate installation of the IR emitter and IR receiver under the tracks. The image to the right demonstrates how these components are to be replaced. Note the IR emitter and IR receiver have leads similar to LEDs where the positive lead is longer than the negative lead. Also note the positive leads are on the outside of the IR sensor board. Keep this alignment in mind as we progress through the next steps.

Previously the IR sensor board was modified. The IR emitter and the IR receiver were removed and replaced with 90° header pins. Here it is recommended to determine where these components are to be located

on your layout in order to have a good idea as to how long to make the extensions. Remember to consider the depth of the layout from the top of the rails to the bottom surface where the IR sensor board will be mounted.

The best way to keep track of what you are doing is to place the IR emitter and IR receiver in the Helping Third Hand alligator clips as shown in the image on the left with the long positive leads positioned to the outside. This will ensure the poles will not be mixed up in the following steps.

The leads can be snipped to about ½ inch. I just made an arbitrary choice to use blue, yellow, red, and green wires. Use whatever colors you have on hand but it is important to be consistent throughout the project.

Apply shrink tubing making sure to completely cover and exposed contacts. Next, use a larger diameter shrink tube to bundle the IR emitter and IR receiver together.

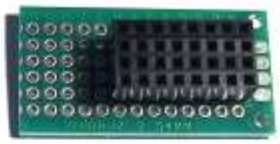
At the other end, using a 4-pin male header, make the same connections with the blue, yellow, red, and green wires. Remember to use appropriate shrink tubing. Finally, neatly twist the wires together to make a neat cable.

You will need to make two of these extensions for each track in the grade crossing.

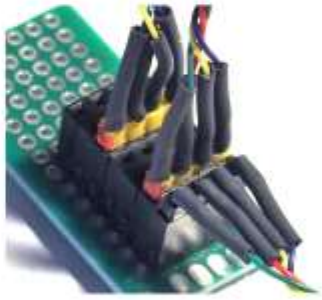
We'll need another cable to make the connections to the IR sensor extensions plus another component to be described later. This cable will use two 2-pin female header sockets and one 90° 4-pin male header. Solder the blue and yellow wires to one 2-pin female header socket and the red and green wires to the other socket. Solder the other ends of the wires to the 90° 4-pin header. Remember to keep the same color order, blue, yellow, red, and green. Also remember to use appropriate shrink tubing. The two female header sockets will plug into the IR sensor board. Remember to keep the same color order here too.

IR Sensor Extension Junction Box

The next component to make will use four 1x8 female header sockets and a piece of PCB Universal Prototype Matrix Double sided Protoboard Blank Board. You will also need some fine gauge wire. The intent here is to solder together all the pins for each 8-pin header socket. Run a piece of wire the length of each 8-pin header socket and solder each pin. This component will act as a junction box for connecting the IR sensor extensions to the IR sensors.



The 90° 4-pin header is plugged into the first row of the junction box. The IR sensor extensions can then be plugged into the junction box. Again, be sure to match the colors. It is helpful to mark one side of the plugs to keep them from being reversed.



Flasher Boards

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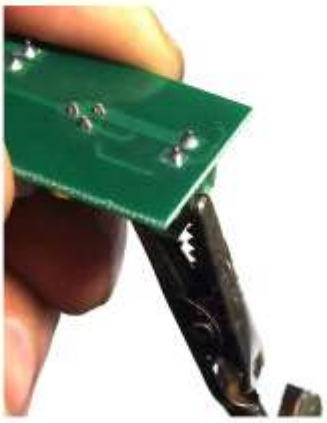
The grade crossing signals and flasher boards are usually sold as a set, one of each, so you will need two sets. The flasher boards come with screw terminals which I have removed using the same technique as described previously for removing the IR emitter and IR receiver from the IR sensor boards.

Attach one alligator clip from a helping-third-hand to the screw terminal. Lift the board to place the full weight of the helping-third-hand on the screw terminal while applying a hot soldering iron to the back of the board until the screw terminal drops out.



The flasher boards need to be connected to the timer relay board via the Load terminals. For this step you will need two 2-pin female header sockets, one 2-pin male header, and two sets of red and black wires. Solder two red wires to one pin of the 2-pin male header and two black wires to the other pin. Next, at the other end of the wires, solder one red and one black to each 2-pin female header socket. Remember to use appropriate shrink tubing.

The 2-pin male header plugs into the load terminal on the timer relay board while the two 2-pin female sockets connect to the flasher boards. Be mindful of polarity.

For the flasher boards we will make two cables. One cable has two red and one black wire. The other cable will have just one red and one black wire. You will also need one 2-pin male header and one 2-pin female socket.

The 2-wire cable is to be soldered to the V+ (red wire) and the V– (black wire) terminals on the flasher board. Solder the other ends of the cable to the 2-pin male header.

The three wire cable is soldered to the LED+ (black wire) and the red wires to the LED- terminals. This may seem backward but this is how the grade crossing signal is connected to the flasher board. At the other end of the cable, solder the black wire to the center pin of the 3-pin female header socket and the red wires to the remaining pins on the female header socket. Again, remember to use appropriate shrink tubing.

The flasher boards are plugged into the Load terminal on the timer relay board. Remember to be mindful of polarity.

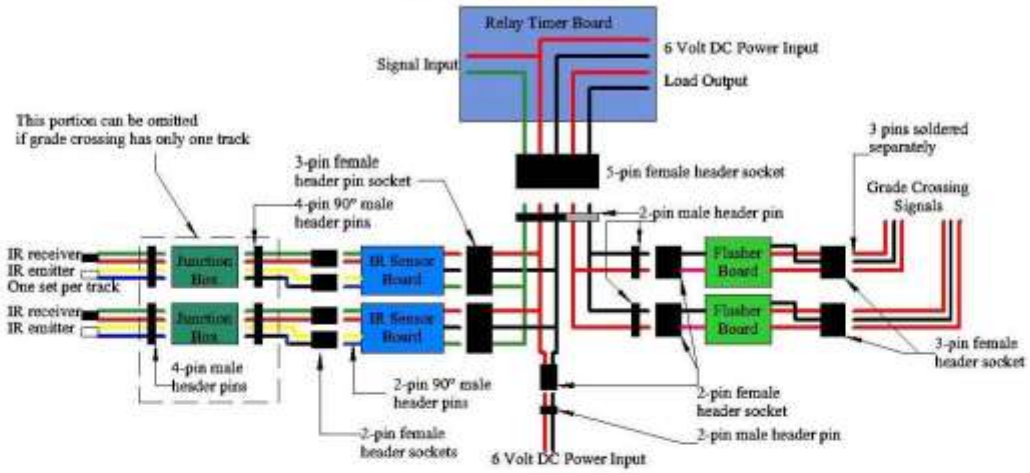
Grade Crossing Signals

The grade crossing signals come with a resistor connected to a common black wire and two red wires. These wires may be extended by soldering one black wire to the resistor and two red wires to the red wires on the grade crossing signal. Be sure to insulate these connections with appropriate shrink tubing.

At the loose ends of the wires solder a single header pin. The pin can be pulled from the header strip with a needle nose pliers. As an alternative, a three-pin male header pin could be used but this would require a larger hole through the layout table. Leaving the three wires separate allows for a smaller hole through the table.

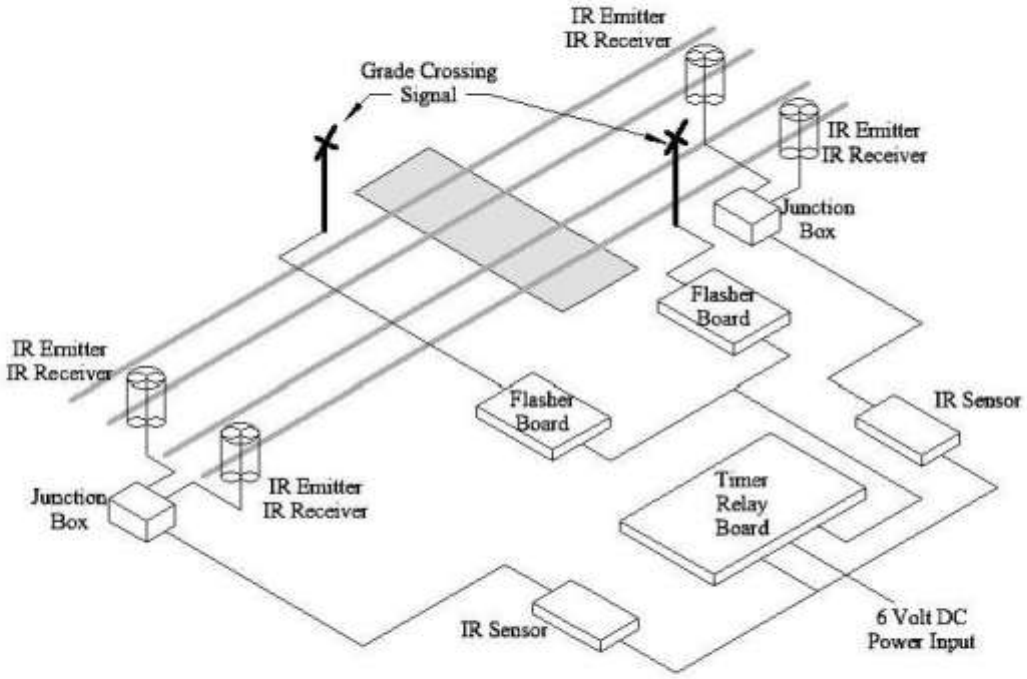
These pins can then be plugged into the three-pin header socket from the flasher board. The black bin is to be plugged into the center and the red pins to either side. Having the black common wire in the center helps to keep proper polarity. Note shrink tubing is applied to the three pins.

Circuit Overview



The above image is a schematic representation of the full circuit showing individual cables and connections. Note that if there is only one track for the grade crossing the junction boxes can be omitted and the IR emitter and IR receiver can be connected directly to the IR sensor board.

Installation Overview



The above image roughly represents the location of the system components. Consideration should be made as to the location of the IR emitters and IR receivers under the tracks. Keep in mind how close they are to the grade crossing. How much time would you want between the time the signals are triggered and when the train crosses the road? If the crossing is for a busy main line where trains are moving at higher speeds the IR emitters and IR receivers should be placed far enough from the crossing to allow adequate time. For N scale I recommend about sixteen to eighteen inches from the crossing. Larger scales of course will need a greater distance. If however the crossing is for a switching area where trains are moving slower, then the IR emitters and IR receivers can be placed closer to the crossing.

Before making any of the cables for this project consider where all of the components are to be placed. For example, the cables from the IR sensor boards to the Junction boxes may have to be up to eighteen inches in length for N scale and longer for larger scales. Likewise the cables from the junction boxes to the IR emitters and IR receivers may need to be up to twelve inches in order to have enough length to reach multiple tracks and still be long enough to reach up through any benchwork to be placed under the tracks. In some places on my layout there are two inches of pink foam board over a plywood sheet so allowances must be made to accommodate proper placement.

In the above image IR emitters and IR receivers can be seen in each of the three tracks. A 3/16" hole is enough to accommodate them. They should be mounted so the tips are just above the ties. Use a small pointed tool to tuck a small amount of tissue paper around them to prevent ballast from falling through the hole like an hour glass. Moisten the ballast with a little isopropyl alcohol and apply diluted white glue to secure everything in place. Be sure to leave just the tips of the IR emitter and IR receiver exposed.

Final Notes

There are two faults with this system. One has to do with the timer relay board. It works well under almost all conditions except one. When a train is moving over the sensors, the timer resets whenever a new signal is detected. If no new signal is detected, the timer relay runs for five seconds and stops. If a train comes to a stop over the sensors, the timer will eventually time out and stop. When the timer stops, the relay closes and the grade crossing signals stop. So if a train comes to a stop while over the sensors for more than, in this case, five seconds the grade crossing signals will stop.

The other fault has to do with the fact that the IR sensors don't detect black. Well, guess what is on the bottom of most model railroad equipment? I started to notice this problem when the grade crossing signals appeared to be delayed. The engines were already

crossing the road before the signals started flashing. I also noticed the signals would stop briefly while a train was still crossing the road. The fix for this is to add something lighter than black to the underside of your equipment. In some cases where there is a flat bottom such as a fuel tank under a locomotive. A simple fix is to apply a small piece of paper on the bottom. The adhesive portion of a Post-It note makes a handy removable way to apply a patch of white under a locomotive.

NMRA

NMRA

THOUSAND
LAKES
REGION

Region Round-up

South Red River Valley– Matt Lenz

In the South Red River Valley, our annual Shake Down event was held and we'd like to announce that our own Ben Tretter finally completed the qualification for the Golden Spike. We hope to see some pictures from him in the near future of his system that makes his layout portable. This layout is operational and has a scheme for operating that is very well done. A number of us got to test it during the evaluation. Then, Tom Gay submitted a completely scratch built "Lonestar" flatcar for evaluation and it easily made the grade for his next to last merit award before completing AP cars. Tom printed the complete instructions and bound them into a book. If you thought craftsman kits were complicated with a page or 2 of blueprints, you should see 84 pages of blueprints required to complete the car - that doesn't include obtaining the materials or painting and lettering! Another job well done.
This spring we are planning to do our Check Point event again for judged models and have it coincide with Tom Gay's operating session in March or April. Great chance for an AP evaluation or getting ready for the contest room in Thunder Bay.

No 1 Northern Division - Ian Plett

Nothing much is happening in the No 1 Northern division this winter. Only real big thing is this Friday the fifth the Winnipeg Model railroad club which is NMRA members now is having their annual Clinic carnival and hotdog evening at the general meeting.

Dakota Southeastern Division - Scott Nesbit

The DSED has kept busy this fall with a couple shows. First, we took all our layouts to the Watertown Mall October 18th and 19th for a craft show they have a few times during the year. We've been doing this for a few years now and it's turned into an event we all look forward to with big crowds every time.

Next up the DSED had its usual large presence at Trains at Christmas, a show put on by our friends at the fairgrounds club, The Sioux Valley Model Engineers Society. Many of us in the DSED are members of this organization also. This is a big show for us every year. We have all our layouts plus a large sales area filled with all kinds of bargains. Sales were brisk both days and our club did fairly well.

Our November annual election meeting got canceled due to the weather so we will be electing our new Chief Clerk at our December Holiday Social coming up soon. We also put up a small version of our HO modular layout at the Garretson First Bank & Trust the first Friday of December for their holiday open house. This is an incredibly rewarding small event as all the classes from the nearby school come up one at a time to look at our layout and a Lego layout put together by our own Finnlay Seeloff. Watching the kids check out both layouts will definitely put some holiday spirit in you! Next up is the Polar Express event at Minnehaha Country Club, another great holiday event.

Happy Holidays to all from the DSED!!!

Prairie Lakes Division - Jay Davis

The PLD's had its 4th annual fall show at the Clay County Fairgrounds at the Regional Events Center in Spencer, Iowa on Saturday October 4. The day featured popular vote contest, clinics, door prizes, model railroad vendors, operating layouts, tours of the Smokey Mountain Central layout and business meeting. We had 124 members and general public attending.

This spring of 2026 the PLD will be at Fort Dodge, Iowa on Saturday April 18 at the Webster County fairgrounds. More to come on this event.

No Updates from the Following Division Superintendents:

- **Southeastern**
- **Minnesota River Valley**

Region Round-up

Twin Cities Division - Tom Gasior MMR©

September started the train show/sale season and our BOD members Greg Dahl and Ken Borowski MMR© took the opportunity to set up a small N scale switching layout at the State Fair Show. It attracted many modelers and they even signed up a new member because of their discussion. The TCD hopes to have display tables at most of the larger upcoming shows.

The TCD started out the month of September with a new meeting location. VP Greg Dahl has secured the meeting room at the Augsburg Library on Tuesday evenings for us. It is a welcoming space, ample parking, outside food and drinks are welcome, and state of the art AV equipment.

Our first membership meeting of the new year featured some guests from the National Narrow Gauge Annual Convention. This will be held in the Twin Cities in 2026. We also received a report from Jimmy Anderson about his trip to the St. Louis RPM. Ken Zieska, Art Suel and Ken Borowski MMR© also described their adventure at the NMRA National Convention in Michigan.

The Show and Tell portion featured Tank Cars. We had cars from three different scales and many eras. Cars were from Collin Sullivan, Nick Christiansen, Greg Dahl, Ken Borowski MMR© , Ken Olsen, Ken Zieska, Mike Engler MMR©, and Lee Taylor

Our September event was our fall layout tours. We featured D&RGW in N scale by Jay Bickford. The Clinchfield Blueridge Division in N scale by Ken Borowski MMR© . Missouri Northern in HO scale by Greg Dahl, Norfolk & Western in HO Scale by Paul Krentz. The Credit River and Western by Art Suel. Jay Bickford stepped up and organized a great day of visiting layouts in the South Central and South East Metro

October meeting featured a clinic by Andrew Waldo on using metal benchwork. Dan Cohen brought some 3D printed sanding tools to share with members, and the Show and Tell portion was Maintenance of way cars. Many models were displayed.

Our October event was the Share Your Skills Day. This is a favorite of members as it is a hand-on class participation event. We had various stations set up for weathering trains, painting figures, DCC programming and troubleshooting, and tuning up rolling stock. Thanks go to Damian Kostron MMR© and Ken Borowski MMR© for running this event and securing a great location that allows us to mke a mess.

The November membership meeting showcased a clinic by William Sampson Jr on creating the right look for your grain elevators. William worked in a elevator and is creating the Hiawatha Line in his home layout. Creative tools such as drones were used to actually measure current elevators.
The Show and Tell portion featured passenger cars and equipment. Cars from every era were displayed. A wooden kit with full interior was brought by Bill Craig. Joe Binish displayed an entire Central of Minnesota passenger train with cars from connecting roads. New member Nick Christiansen showcased a Pennsylvania car that fits in his Penn Central era. Lee Taylor brought a CB&Q streamlined Budd RPO car.

On November 15th, The Progress Valley RPM allowed the TCD to have two tables for display. Ken Borowski MMR© and Thomas Gasior MMR© created displays and showed videos of TCD events. The TCD webpage was available to browse as well as our volume of YouTube videos.

The TCD webpage is full of updates so make sure to check the calendar sections for TCD events, meetings, and other train shows in our area.

TCD Winter Calendar:

December 14, 2025 – Sunday – TCD Holiday Party
January 13, 2026 – Tuesday – Zoom Meeting
February 10, 2026 – Tuesday – Zoom Meeting
February 28, 2026 – Saturday – Operators Retreat
March 10th, 2026 – Tuesday – Member Meeting
March – Second Weekend (TBA) – TCD Modelers Retreat
April 14th, 2026 – Tuesday – Member Meeting
April – Second Saturday (TBA) – TCD Spring Layout Tours
May 12th, 2026 – Tuesday – Member Meeting

Editor's Comment: I apologize upfront if I haven't given proper credit and/or haven't correctly identified events/locations/spellings, etc.. I try to do my best, but, realize that I may get something wrong. Please let me know if I do so I can correct in the next issue of the Fusee.

Activities Happening Around the Twin Cities Division

Trunk Sale 9/6/25

Announcement from Greg Dahl:

This year, at each of the monthly TCD meetings, we're going to have (what I am calling) a "mini-clinic" - a 15 minute presentation on something interesting that other members would find interesting or may not know about.

For example, I have Andrew lined up to talk about his metal benchwork. In September, we have Ken B. and Jimmy talking about the conventions they went to this summer.

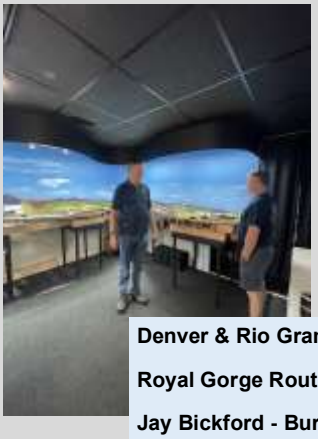
I'm looking to line up future presenters. If you have something you've discovered or have been working on - consider putting something together.

Better yet, if you know of someone who is doing something interesting, volunteer them and I'll track them down! All sources will remain confidential.

It doesn't have to be a massive, formal presentation. It can be really simple if it sparks a good conversation. I can guide you more what I'm looking for.

Activities Happening Around the Twin Cities Division

Fall Layout Tours 9/20/25



Denver & Rio Grande Western

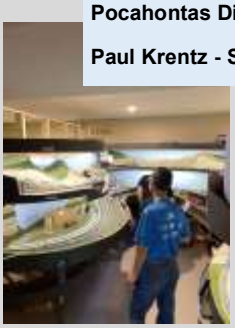
Royal Gorge Route

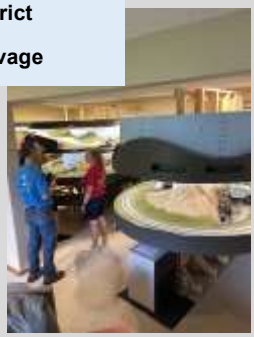
Jay Bickford - Burnsville

Norfolk & Western

Pocahontas District

Paul Krentz - Savage





Credit River & Western

Art Suel - Savage

Clinchfield Railroad

Blue Ridge Division

Ken Borowski - Eagan

The Missouri Northern

Greg Dahl - Rosemount

Activities Happening Around the Twin Cities Division

Skills Day 10/11/25

Activities Happening Around the Twin Cities Division

RPM Event

Photos from events around the region taken by Ken Borowski MMR© & Others.

2025 Trainfest in Milwaukee & 2025 NNGC in St Louis

Photos from events around the region taken by Tom Gasior MMR©

New Meeting Space - Augsburg College

TCD Members and Attendees at the Fair Ground Swap Meet

TCD Members and Attendees at the Fair Ground Swap Meet

Thunder on Rails Event (Thunder Bay ON)

Thunder On The Rails is a model train show sponsored by the Lions Club

Held every 2 years during the last weekend in September. All scales are represented plus Lego. Whereas most of the layouts are local, there were N scale modules from a club out of Milwaukee, Eau Claire and T-Trak modules from Winnipeg, MB

Pulpwood Load from Spruce Twig - by Christopher Robinson

My model railway layout theme is the Algoma Central Railway in Northern Ontario. Hauling pulpwood is a large source of income for the ACR, therefore I decided that a couple of pulpwood loads for gondolas would be suitable for my layout.


Fig 1

Much of the pulpwood in ACR territory is spruce, and by coincidence, there is a large spruce tree in from of my house [fig.1]. I began harvesting dead spruce twigs and small branches from the tree [fig.2], and letting


Fig 2

them lay around inside my house for a couple of years to dry out. After two heating seasons, I figured they were dry enough for my purposes. The next step was to seal them with Varathane [fig.3 & fig.4]. I used two coats to seal the twigs.


Fig 3


Fig 4

When the Varathane was thoroughly dry (48 hours minimum), I cut the twigs into short lengths to fit the width of my Rapido gondola cars. (Yes, these are mill gondolas, whereas the ACR used gondolas with standard height sides – unfortunately, I have no models of these in my collection.)


Fig 5

To facilitate accurate cutting, I created a jig using a small mitre box with a short piece of styrene taped along one inside edge [fig.5]. Cutting a sufficient number of logs from the twigs took many hours spread over several months. It was a very tedious task which I could manage only about 20 minutes per day once a week.

In order to reduce the number of logs required, I constructed a platform from styrene to serve as a base for the load. This also makes it easier to insert and remove the load while reducing its overall weight. And as you can probably imagine, gluing all of those bits of wood onto the base plate with the correct alignment would be quite challenging without the assistance of a jig to hold them in place while the glue dries, therefore I constructed a jig from styrene [fig.6]. The inside dimensions of jig were very slightly smaller than the inside dimensions of the gondola to ensure that the logs would be suitably lined up together, yet large enough to accommodate the base plate.

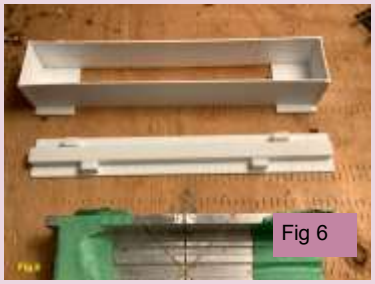


Fig 6

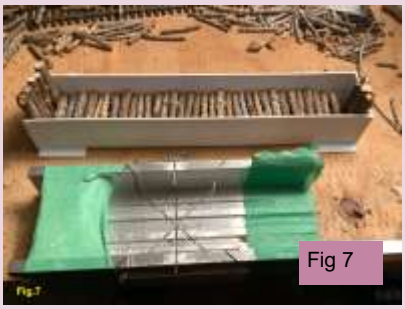


Fig 7

In fig.7 you can see the beginnings of the gluing process with the vertical retaining logs on the ends and one layer of logs on the base plate. I used E6000 Industrial Strength Adhesive to secure the vertical logs and the bottom layer to the styrene base plate. Subsequent layers were secured with diluted white glue aided by a light spray of wet water. Each layer of logs was added after the glue on previous layer had dried completely.


Fig 8

Fig.8 shows what the load looked like with five layers of logs; Fig.9 is the final product in loaded into a mill gondola.

Fig 9

Model Railroading Primer: Sculptamold - Dan Cohen

The first “creating” I did in model railroading was scenery. Scenery was my gateway drug to model railroading. Dumping ground foam was easy, but I wanted to give my layout some depth and realism. After researching most possible tools, I came across Sculptamold which would help form terrain and would not be too heavy for the layout. It's also paintable and could hold rock molds and other terrain features just by drying.

For those who prefer video, you can view the video version of this article at Model Railroading Primer - Sculptamold

The basics:

Sculptamold is a crushed paper product like plaster, however it is much lighter, and you don’t need cloth or other porous material to apply it.

This product is made by American Art Clay Co., Inc. (AMACO). The most common size is a 3 lb bag. I have used one and a half bags in 15 years.

It can be used to model scenery and terrain. It can also be used to create molds.

How to use Sculptamold (Terrain):

Sculptamold is simple to prepare, has plenty of working time, and can be molded with tools, or by hand (I prefer applying this by hand).

The direction for modeling is to mix two parts Sculptamold with one part water. By using and experimenting with mixes you will find your preferred mix. I prefer even parts Sculptamold and water.

This produces a very moldable paste that can be formed easily and hold its form through the drying process.

After mixing the sculptamold and water, you have about 15-20 minutes to apply the mix to the scenery base. At this time, you can apply the sculptamold with a spatula, popsicle stick, your fingers, or any other instrument. For the initial application, I use the styrene scraper supplied in a road-making kit.

Once applied to the surface, if you are not happy with the form and it is starting to dry, just stick a couple of fingers in water and apply to the area you want to reform. Then use your tool or fingers to form the Sculptamold the way you want it. For instance, you may have rock strata showing blast lines or erosion. You can use a sharp tool when the Sculptamold is not quite dry to form the strata the way you prefer, or you can add rock molds or talus to the scene. Allow 24 hours for the Sculptamold to completely dry and become solid. Depending on the thickness, you may need more drying time.

The directions do not give you a specific drying time, but Sculptamold starts to dry around 15 to 20 minutes after application. You can extend this by adding water to the surface or let it dry. If Sculptamold is not fully dry, it will feel damp or cool to the touch. After I apply it to the scenery base, I do not touch the Sculptamold for a full 24 hours and more if more drying is needed.

How to use Sculptamold (Molds):

Another use for model railroading is creating rock molds. You can create your own molds, or you can use Sculptamold in pre-made rock molds, such as those you can get from Woodland Scenics.

To give you a primer on rock molds with this product I am going to show you how you can make your own molds on the cheap. This method requires some aluminum foil and patience. Because of the higher water content it is recommended you let the rock molds dry for “several days.” I do not touch them for at least 48 hours.

Guestimate how big of a mold you would like and grab a piece of your preferred aluminum foil. Crumble/ball it up in your hands then unwrap the ball of foil. Once unwrapped create edges all the way around the piece of foil. Think about how dense you want your rock to be and give the edge enough height to be able to fill to the desired thickness.

You should wait 30 to 45 minutes then with the mold feeling “firm” you can remove the mold from the foil. It’s recommended to use a drying rack that will allow air to flow around the whole mold. Not having a drying rack, I simply turned these molds over a few times to let the air hit it.

You can add the rock molds to your Sculptamold structure in two ways. They can be added while the structure is drying or after dried you can add the molds. I choose to let the structure dry then add the molds.

Using either method you do the same thing. Figure out where the rocks will go by dry fitting. The rock molds are thin enough that you can break them apart when dry. Once you know where you want the rocks to fit, mix more Sculptamold and then use it as a paste to attach the rocks. Even if you are adding rocks to a wet base, I recommend using the new batch of Sculptamold to to fill any gaps or group rocks together on a surface.

What do you do when the Sculptamold dries:

It's time to make the Sculptamold come alive. Find a picture or whatever you use to inspire your scenery. You can use paint to paint a base coat and a glue for scenery material. You can also use washes to color your scenery.

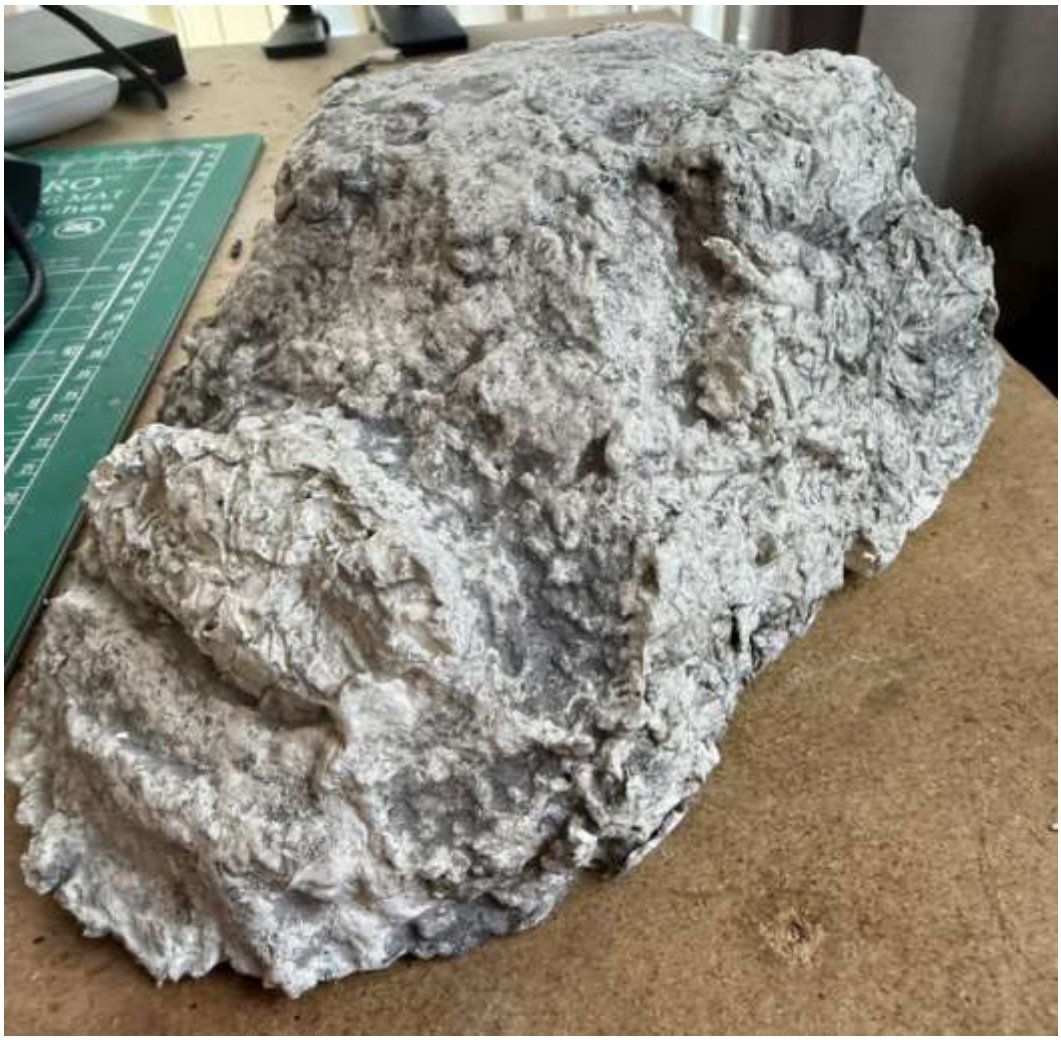
For this primer I am not using any reference photos, but you can use earth colors or greys for rock colors which I will show you here.

The easiest way in my opinion to apply color is through the leopard spotting technique as described by Woodland Scenics in this video: How To Color Plaster Rocks With Earth Colors Liquid Pigments | Woodland Scenics | Model Scenery . You can create washes from pigments, paint, or use pre-made washes. You apply colors from light to dark randomly over the mold. You then finish with a black wash, which will create depth and shadows.
I used Burnt Umber, Burnt Sienna, Yellow Ochre, Grey, and Black craft paints thinned with distilled water. I tried using 70% isopropyl alcohol; however, this broke up the pigments in the craft paint instead of thinning them. Since water is used it can take some time to dry, but acrylic paint dries relatively fast.

Using a foam brush dab the Sculptamold with each color in random spots (or specific ones if you are following a prototype). Start with lighter colors and then move to darker ones.

Once the washes are added you can use a scenic cement or watered-down white glue to add a protective layer. Then, you can proceed to add other scenery material, such as shrubs, talus, grass, water, snow, etc.

Plain (no additional scenery beyond the leopard spotting technique with two shades of grey.



Snow

Water and foliage

I hope this inspires you to #justjumpin and try Sculptamold on your diorama or layout.

If you have any questions about Sculptamold, the techniques shown here, or any other model railroading questions, or ideas for future Model Railroading Primer articles, feel free to comment on the companion video, reach out on Facebook, or email me at shaunadan94@gmail.com. Use subject line Sculptamold Primer Question. You can view other videos and connect through our Friday Night live stream at https://www.youtube.com/@dmrj, search @dmrj on YouTube, on Facebook.

“Cheap & Nothing Wasted” - by Jimmy Anderson

Cosmetic Sponge Wedges

The cosmetic sponge wedge is primarily used for the application of paints or powders for scenery work, but I found an alternate use for them. I needed to prop up a semi tractor cab to apply panel line wash into the grill. I noticed the sponges could be used like wood shims in carpentry; put two of them together and their inclined planes can be adjusted with precision. The soft sponges have a bit of grip to them so the cab stayed upright with no fear of sliding off.

What's on Your Workbench? Recent TCD Show and Tell Entries

Photos by Tom Gasior MMR©

Joe Binish

Mike Engler

Mike Engler

Ken Olsen

If you have a Model Railroad Project you are working on and would like to share with other members, send me a brief write up and a few pictures of what you are doing and I'll publish it in the next Fusee. I'd like to see a bunch of projects to share! Neil Fusee Editor

REMEMBER TO BRING YOUR PASSPORT TO RETURN HOME

Please join us in Thunder Bay, Canada for the 2026 convention

2026 Convention Hotel:

Delta Hotels by Marriot
2240 Sleeping Giant Parkway, Thunder Bay, Ontario, Canada
Reservations: Phone 807-344-0777 and ask for
NMRA TLR Superior Rails 2026 Convention rate
2 queens $219CDN or king $229CDN per night
Note that the hotel is located adjacent to Marina Park. Lakeside rooms offer a stunning vista of the pleasure crafts moored at the marina, the inner harbour, salties and lakers outside the breakwall, and, of course, the Sleeping Giant snug between the lake and the sky.
Alternatively, the other side is trackside with an endless parade of CKPC and CN trains.
Some of the proposed activities:

'The Soap Box Platform'

Simply put, in a 10 minute time span, whatever you got going, talk about it. Keep it simple. Bring a prop, or not. No a/v. Questions during or after. NO time extensions.

Women In Model Railroading [WMIR]

The Thunder Bay model rail club will be hosting a 2 hour operating session for women only at the clubhouse at 1109 East Victoria Ave. N, HO, and O scale trains. Sunday 10-12
Plus a taste of Thunder Bay's own 'Persians'. Mmmmm. Deeeeelicios!

Layouts: Thunder Bay talented modellers in all scales eager to show-off their layouts.
Will Annand and his N scale steam multi level Credit Valley RR.
Jason Baxter's CN Caramat Subdivision

Clinics

Contest models and photos

Inner harbour cruise on a catamaran style watercraft. See the shoreline from a lake perspective: grain elevators, Keefer Terminal, wetlands and perhaps a close up to a saltie in the harbour. This cruise is limited to 30 people and will take 2 hours. Separate registration and the fee will be about $100.

Prototype tours: Thunder Bay Terminals [coal, potash and dry bulk]. More tours to come.

Railfanning: local hotspots for railfans will be included with the convention package

Non-Rail Activities: Oliver-Paipoonge Heritage Park, **Lakehead Models,** Old Fort William, Aviation Museum, shopping at Intercity Shopping Centre, Thunder Bay Museum,
The full convention itinerary will be available in February. The convention package will be emailed to all registered members and will also be on the TLR website

Make plans to attend the TLR Convention in Thunder Bay, Ontario CA in 2026

NMRA
THOUSAND LAKES REGION

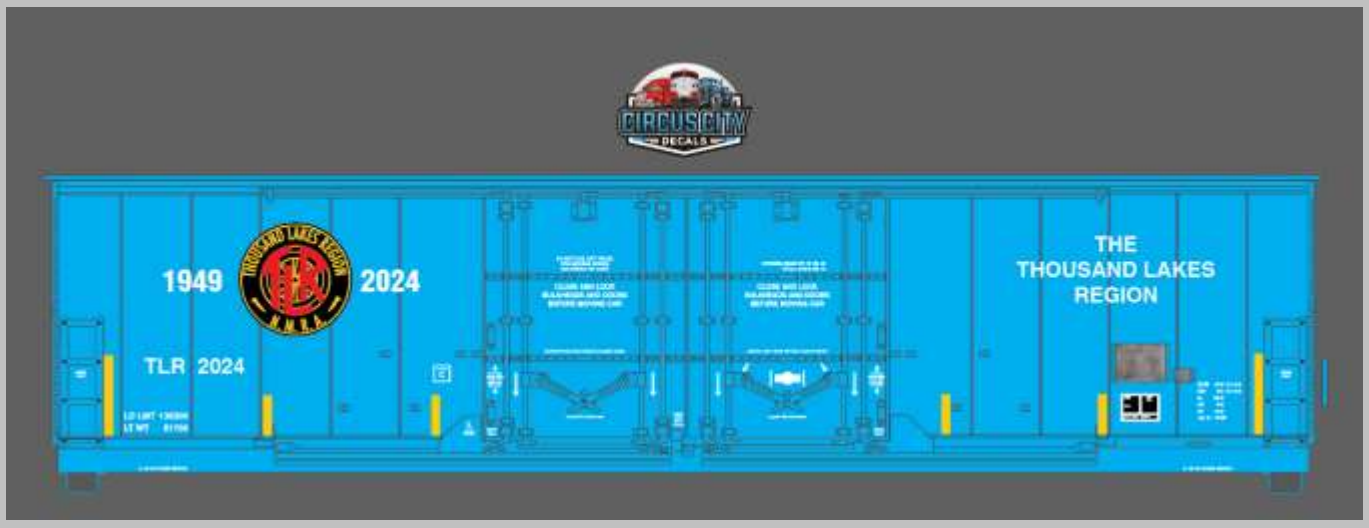
TLR Celebrates 75 Years

The TLR is celebrating 75 years by issuing a set of commemorative decals.

Decal sets are still available in N, HO, S and O scales.

Decals are $6.00 which includes postage.

Contact Ken Zieska at (mhry19@gmail.com) if you would like to purchase a set.



Set of HO scale decals

Don't Forget to Check out the Twin Cities Division Podcast

https://tcdnmra.org/

NMRA THOUSAND LAKES REGION

Be Sure to Check Out the Winnipeg Model Railroad Club Website

Winnipeg Model Railroad Club

Minneapolis & Northland Railroad Company

I enjoy model railroading and want to share my experiences with you! You can see my build of kits, how-to's, painting information and much more on my internet blog. Check out http://mnrailroadcab100.blogspot.com.

2025 - 2026 Region Roundup - model railroad-related events in and around the TLR

Dec 13	North Metro Model RR Club	VFW at Club, Coon Rapids, MN
Dec 13-14	Twin Cities MRR Club	TCMR Museum, St Paul, MN
Jan 10	Newport Train Club Train Show	Woodbury HS, Woodbury, MN
Jan 24	Amherst Train Show	West Springfield, MA
Feb 21	Mad City Train Show	Alliant Energy Ctr, Madison, WI
Mar 14	La Crosse & 3 Rivers MRR Show	Omni Ctr, La Crosse, WI
Mar 21	Newport Train Club Train Show	Woodbury HS, Woodbury, MN
Mar 21-22	Greater Sioux Falls Model Train Show	Convention Center, Sioux Falls, SD
Mar 28	Randolph Railroad Days	Randolph Schools, Randolph, MN
Apr 11	Greater Upper Midwest Train Show	Century College, Oakdale, MN
Apr 18	Prairie Lakes Division Show	Webster Cty Fair Grds, Fort Dodge, IA
May 21-24	2026 TLR Convention	Thunder Bay, Ontario Canada
July 27– Aug 2	NMRA National Convention (2026)	Chattanooga, TN
Sept 1-5 2026	National Narrow Gauge Convention	Doubletree Hotel, Bloomington, MN

Offer From Northern Utah Division - Still Looks Like This Is Available To Purchase

Add this superb, one of a kind, historical tank car to your collection. The Northern Utah Division of the NMRA is selling a series of HO scale Utah Oil Company (UTOCO) tank cars manufactured by InterMountain Railway. The cars feature a build date of 8/45 and a test date of 9/28/51.

Originally intended to be the convention cars for the 2019 NMRA convention in Salt Lake City, supply chain issues prevented the cars from arriving on time. Offered in six road numbers, the cars have metal wheelsets and Kadee couplers. Priced at$45.00 each with free shipping, you can get your very own historical tank car before this limited edition is sold out, go to either:

www.northernutahnmra.org/club-car or
http://northern-utah-division-nmra.square.site/

Geoffrey K Carter, Manager
Northern Utah Division Company Store
1903 S 2065 W
Woods Cross, UT 84087
801-815-6028

2026 SCENIC CITY EXPRESS CHATTANOOGA
NATIONAL CONVENTION

2026 NMRA National Convention – Chattanooga, TN

July 27 to August 2, 2026

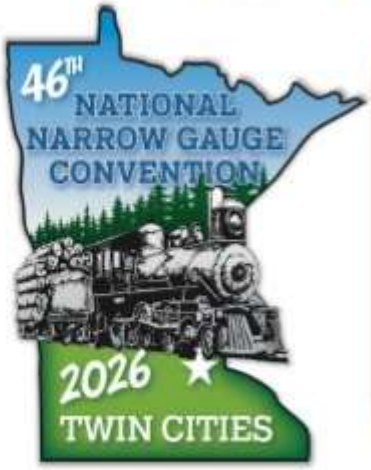
https://www.nmra2026.org/

Early Bird Gets The Worm Promo!

Register as an Early Bird and attend the 46th National Narrow Gauge Convention and have a chance to win a free hotel night at the convention hotel!!!

RGS 455 digging for worms the hard way

Photo used courtesy of the Friends of the Cumbres & Toltec Scenic Railroad



Live Drawing to be held at the 46th National Narrow Gauge Convention

Must be registered and attending the Convention

Grand Prize – 4 Free Nights

Runner-Up Prizes – 1 Free Night

Early Bird Registration $139 Until 2026-05-31

Model Railroad Advertising

Advertise your railroad here! Send me a photo, business card or whatever contact info you want to provide. This a service for the TLR and there is no charge for the ad.

Great Northern
O Scale
Kevin Dill
3920 15th St S
Fargo, ND 58104
701-298-0132

CB&Q – Chicago/Aurora/C&I
Model Railroad

Scott & Nancy Stearns
Scott: 507-358-0126 scott_b_stearns@hotmail.com
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Facebook: CB&Q Chicago-Aurora-C&I Model Railroad
20375 County 4 Blvd, Zumbrota, MN 55992

Dakota Division of Soo Line Railway
Thomas Day

2015 Rose Creek Drive
Fargo, ND 58104
701-219-0300
tomandkat@hotmail.com

Burlington Northern
Yellowstone Division

An HO scale model railroad in Bismarck, ND
representing the Bismarck-Mandan area
and branchline to Killdeer in the 1975-1980 timeframe.
Regular operating sessions using computerized switchlists.

Contact us for a schedule and like our page!
www.facebook.com/yellowstonedivision
mfarley@midco.net

White Iron & Northern RR
Logging Division 2.0 (HOn3 Narrow Gauge)

Neil Maldeis NMRA # 072482

nsmaide@yahoo.com
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Advertise Your Railroad Here!

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Bring a friend

To your next

Club meeting!

Advertising should be mailed to THE FUSEE editor as camera-ready artwork or electronic files (jpeg, tiff, gif, or EPS with outlined fonts).

Enclose payment in U.S. funds, international money order, or by check drawn on U.S. banks. Checks should be made out to **TLR**. Contact the editor if you have questions.

Fusee Advertising

Commercial advertising from hobby shops, manufacturers, and businesses associated with model railroading interests are accepted. All ads can be run in a single issue at 35% of the annual rate.

Railroad ads are for individual layouts, model railroad clubs,

Ad size (HxW)		Annual Business Rate	One-Time Business Rate	Annual Railroad Ad Rate
Full pg	9 5/8 x 7 1/8"	$145.00	$50.75	N/A
1/2 pg	4 3/4 x 7 1/8"	$90.00	$31.50	N/A
1/4 pg	4 3/4 x 3 1/2"	$45.00	$15.75	N/A
1/6 pg	4 3/4 x 2 1/4"	$35.00	$12.25	N/A
1/8 pg	3 3/4 x 2 1/4"	$25.00	$8.75	Free
1/12 pg	2 3/8 x 2 1/4"	$18.50	$6.50	Free
1/16 pg	1 1/8 x 3 1/2"	$15.00	$5.25	Free

THE FOLLOWING TLR BOARD POSITIONS ARE UP FOR ELECTION AND RE-ELECTION. At the Annual Meeting May 24, 2026 in Thunder Bay Ontario

Jay Manning, Election Chair

The positions up for reelection this year President Art Suel, Vice President Fred Holzapfel, Treasurer Tom Gay, and Convention Director Jimmy Anderson.

The TLR is a volunteer origination and without volunteers we will not exist. Serving on the Board of Directors will qualify you for the AP incentive. Once you earn your first AP certificate you will receive $50. If you are interested in running or have questions about one of these positions, please contact TLR President Art Suel (artsuel1956@gmail.com or TLR Nominations Chair Jay Manning (chessie@manningperry.com).
The list of duties for the positions up for election are listed below-

- President - The President shall:
    - Preside at all meetings of the Region and of the Board of Directors
    - Be an ex-officio member of all committees
    - Perform such other duties as, by custom, devolve upon a President or are conferred upon him by the Region or the Board of Directors
- Vice-President - The Vice-President shall be:
    - The aid and assistant to the President and shall assume the duties of the President in his absence or at his request
    - The Chairman of the Advisory Council.
- Treasurer - The Treasurer shall:
    - Have charge of the Region finances.
    - Keep accurate records reflecting monies received, monies disbursed and balance on hand.
    - Collect all Region dues and revenues from any Region sponsored activity.
    - Ensure that the books are ready and available for audit.
    - Provide a report and financial statement at the General Business Meeting.
- Convention Director - The Convention Director shall:
    - Be the representative of the President in working with the Convention Chairpersons.
    - Establish a convention schedule to ensure rotation throughout the Region.