

THE BRASS POUNDER



Newsletter of the Carolina Southern Division 12, Mid-Eastern Region,
National Model Railroad Association

Volume 21 Number 3

March 2021

Division Coming Events

(See [CSD Website](#) for
further details)

**VOLUNTEERS
NEEDED
for packing and
moving
preparations at
Brookford
Community Center
1700 South Center
Street, Hickory, NC**

**Saturday March
13th and 20th
10:00am – 2:00pm**

**[CLICK HERE](#)
to volunteer**

Superintendent's Corner

By Alan Hardee

Another month behind us. March looks like it may be a better month. COVID numbers going down, more people getting vaccines, Governor easing back some meeting restrictions. I just returned from the train show in Fletcher, NC. The show was well attended and the vendors I spoke with were having surprisingly good sales. The next show on our horizon will be the Hickory Train Show put on by our friends at the Newton Depot on April 9th and 10th. Hopefully this is a sign of better times ahead. We haven't had a lot of division activities during this pandemic, but hopefully we can get back to it soon. We are still in the planning stages of our 2022 MER Convention. It will be 24 years since our last convention in 98. Neal has already been working on Hotels and others are working on Tours and Layouts. The main thing we need for a successful convention is **YOU!!!** We will be making contact later to see where you may volunteer. Please be thinking of how you can help.

Congratulations to Larry Paffrath on his re-election as CSD Director. A big thanks for all his dedication to our division!

19TH ANNUAL NC RAILROAD EXPO!

Fri-Sat, April 9-10, 2021

FRI 12 PM EST - 7:00 PM EST

SAT 9:00 AM EST - 4:00 PM EST

Admission \$5 Kids under 12 free

**HICKORY METRO
CONVENTION CENTER**

www.tarheelpress.com/Trainshow



UPCOMING AREA TRAIN EVENTS

**Columbia, SC Model
Train Show
Jamil Shrine Temple
206 Jamil Road
Columbia, SC 29210
Saturday, March 27
9:00am – 3:00pm**

**19th Annual
[NC Railroad Expo](#)
Hickory Metro Center
1960 13th Ave Drive SE
Hickory, NC 28602
Friday, April 9th
12:00 – 7:00pm and
Saturday, April 10th
9:00am – 4:00pm**

**Fort Mill SC
Train Show
Clarion Hotel
3695 Foothills Way
Fort Mill, SC
Saturday, April 24th
9:00am – 3:00pm**

**COVID-19
PRECAUTIONS IN
EFFECT AT ALL EVENTS.
STAY SAFE AND
HEALTHY.**

Editor's Notes

By Ed Gumphrey

Another month has come and gone without a formal meeting or event for the Division. Nevertheless, there were a number of activities during February that foretell a gradual return to normal and I am more optimistic as I put together this month's newsletter.

First off, as Gil Brauch, MMR, notes in his update on the next page, six volunteers generously devoted their time to help conduct an inventory in preparation for relocating Wade's Train World from Brookford.

Similarly, Superintendent Alan Hardee volunteered at the North Carolina Transportation Museum in Spencer to help about 450 Boy Scouts earn their model railroading merit badges. His efforts were rewarded by Seth Gardner who provided him with a ride in his railcar. Alan posted a video on his [Facebook page](#).

The Board of Directors held a Zoom virtual meeting to discuss planning for relocating Wade's Train World, and many members cast their votes to reelect Larry Paffrath to another term as one of the Directors.

I was pleased to hear from Fred Miller, MMR, who reported good health, completed vaccinations and sent me an article with an interesting electronics project.

Meanwhile, model railroading activity shared on Facebook showed more projects underway by Division members, all of which added to my optimism.

To cap off that positive trend, there was a Train Show in Fletcher this past Friday and Saturday. My spirits were lifted by Ed Smith's pictures from the show, especially seeing that Metrolina members had set up their layout at the show.

I know more of you have been working on various projects as well. Please let me hear about them. I'll be happy to help you share your efforts with other Division members.

SUBMISSION GUIDELINES

I target the 1st of each month for publication. Please submit articles for publication by the 27th of each month.

The preferred format is MS Word, but I can convert most other formats.

For questions and help, email me at editor@carolinasouthern.org

Train Town Relocation Progress

Gil Brauch, MMR - Project Manager

The CSD Board of Directors has received a draft Memorandum of Understanding from a local organization and is in the process of deliberations with them on the details. Hopefully we will be able to announce the new location later in March. In the meantime, we continue to work toward an ultimate move with September as the target month for completion.

Now that we know what we have, we must start working to get it ready for relocation or disposal. Many thanks to Alan Hardee, Fred Miller, Larry Paffrath, Keith Iritsky, Ed Smith, Joe Skorch, and Andrew Stitt for their help in completing the inventory. In the process they discovered lots of 'goodies' we never even knew were there. Wade Warren was a true modeler who belonged to the BODNETNA (Brotherhood of Don't Never Throw Nothin' Away) like the rest of us. The next step in the process is to prepare things for moving or disposition.

This next phase involves taking all of the removable items off the layout (mostly buildings and vehicles) and packaging them up so they can be safely moved. This is in preparation for actual disassembly of the layout structure, which we will be shooting for in April. We believe it will take two work sessions to get the packaging done, so we have scheduled them for March 13th and March 20th, with each session beginning at 10 am. We will work for about 4 hours, or until the work planned for that day is completed, whichever comes first. As with previous sessions, we will need three volunteers per session to get this done, in addition to the three of us (Keith, Ed, and me). COVID restrictions will be followed as before.

Check your calendars and choose which day you would like to help out with this. Email us at wadestraintown@carolinasouthern.org to schedule your time. We will take the first three volunteers for each day. Remember that you gain points toward your Association Volunteer Certificate for each time you volunteer, so act now in order to keep your total growing.

Looking forward to seeing you in Brookford.

DIVISION AND REGIONAL NEWS

By Ed Gumphrey

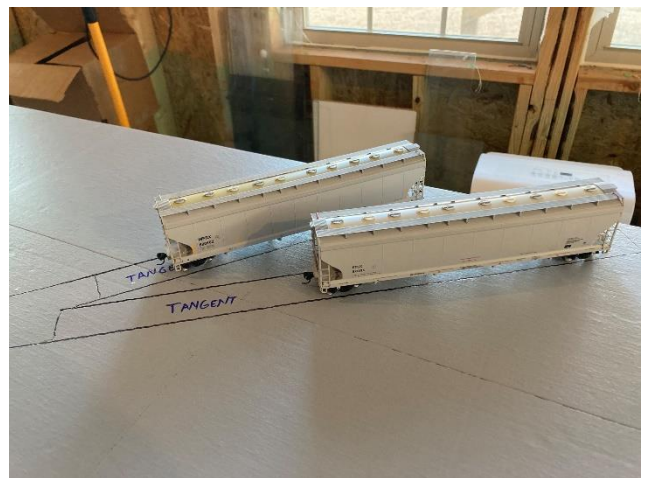
Another month went by without the Carolina Southern Division holding a formal meeting in February. However, as Gil Brauch, MMR reported above, there were a number of volunteers who gathered to help with inventory of equipment at Wade's Train World in Brookford. I share Gil's thanks to the volunteers. Members also voted – a resounding victory for Larry Paffrath as he was reelected as a Director. Congratulations and thanks.

February also marked continuing social media posts from Scott Perry and Seth Gartner's NYC Piney Fork Branch. I was glad to see Neal Anderson, MMR, posting on social media again. Happily, he's on the mend from Covid-19 and posted a ride-by video of his 7½" gauge train.

Scott has been busy. His coolest post was a link to his clinic on NMRA-X that he gave last May. If you missed it, check it out on Scott's blog for a look at [Scratch Building Structures](#). Based on his most recent posts, he's got his benchwork completed for his HO scale switching layout based on a Georgia shortline in the current era. As I mentioned last month, you'll get to see more of Scott's great models in future issues. He has generously volunteered to return to his role as a contributing author and I look forward to his future offerings.



Scott Perry's benchwork has been assembled and painted to protect from changes in humidity. He's ready to start laying track. Photo from Scott's Facebook Post.



Scott Perry's careful planning revealed a need for a slight track layout change. He'll make a bit more room for these covered hoppers. Photo from Scott's Facebook Post.

Seth Gartner posted pictures and construction tips for making trees. His series of posts provides a great guide to using [Scenic Express Super Trees](#). After showing his fabrication steps, Seth followed with more posts showing how he planted the trees on his layout. Check it out on Seth's [Piney Fork Facebook](#) page. As always, it's full of gems.



Seth Gartner started a series of posts with a picture of Super Trees unpacked and ready for work. Photo from Seth's NYC Piney Fork Facebook Post.



Seth continued his tutorial with photos up to painting and beyond. Photo from Seth's NYC Piney Fork Facebook Post.



Seth Gartner added some fall color as he added foliage to his Super Trees. Photo from Seth's NYC Piney Fork Facebook Post.



Planting the trees brings a scene to life. Seth says he made about 140 trees from the large box. Photo from Seth's NYC Piney Fork Facebook Post.



Neal Anderson, MMR, posted a ride-by video. It's good to see him back on his train. Photo frame from Neal's Facebook video post.

Of course, some of the best news for the Division in February was a TRAIN SHOW. I didn't make it to Fletcher for the show on February 26th and 27th, but some of our members did. Special thanks to Metrolina members (also CSD members) for setting up their display layout at the show. The below photos are from Friday. Attendance wasn't at a peak, but you have to admit, it's good to see a lot of vendor tables again. My thanks to Ed Smith for the photos. Next fairly close train show is Saturday March 27th for those willing to make the trek to Columbia, SC. **Close by, the Hickory Train Show is scheduled for Friday and Saturday, April 9th and 10th.**



As usual, DCC Installs and Sales had their table set up right inside the door at Fletcher.



It's good to see lots of vendor tables at a train show again. Friday wasn't too crowded.



Tables lined with orange boxes illustrate the continued popularity of Lionel trains.



In the world of railroadiana, I'd probably go for that B&O dome.



Superintendent Alan Hardee talks with an out-of-view visitor at the Metrolina display layout .



An overview of part of Metrolina's layout. Thanks to members who made this display possible.

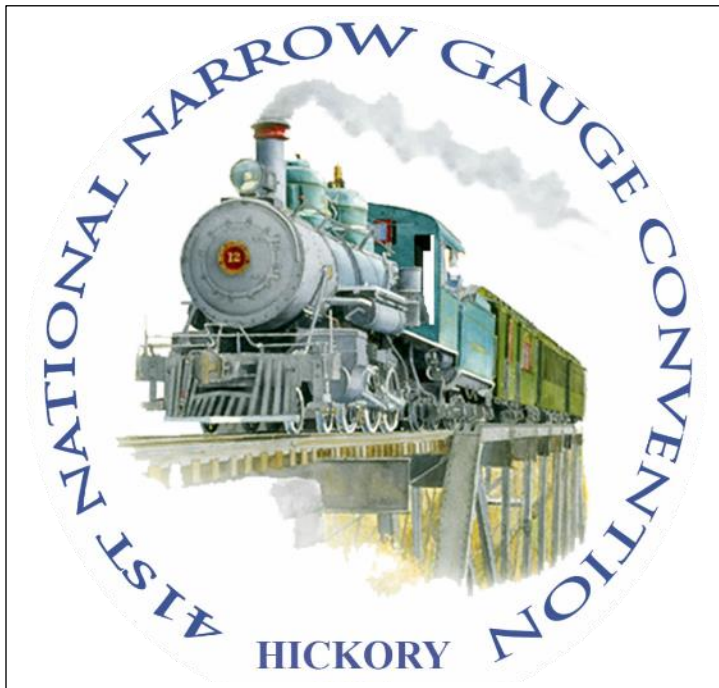
UPCOMING CONVENTION NEWS

By Ed Gumphrey

There are THREE relatively nearby Conventions on the calendar for 2021.

- First up is the [41st National Narrow Gauge Convention](#) to be held at [Newton Depot](#) September 1-4. Although not affiliated with the NMRA, this convention promises a lot of interesting activities for model railroaders. Their website is up and being updated as plans become firm.
- The second is our neighboring Southeast Region (SER) Convention in Greenville, SC and has been rescheduled from June to September. Their website has been updated with clinic information and photos of the layouts on tour and for operating sessions. Make your plans for September 9-12 and get more details at www.swamprabbitexpress.org
- The third is our own Mideast Region (MER) Convention in Baltimore, MD. Make your plans for next October 21-24 and get more details at <https://mtclarejct.com/>

FIRST UP:



The 41st National Narrow Gauge Convention is being hosted by the Southeastern Narrow Gauge & Shortline Museum at Newton Depot September 1 – 4, 2021

Information at:

<https://41nngc.com>

FOLLOWED BY:



The SER Convention is being hosted by the Palmetto Division at The Hilton Hotel in Greenville, SC
September 9 – 12, 2021

Information at:
<https://swamprabbitexpress.org>

Download their [overview](#)

THIRD UP:



The MER Convention is being hosted by the Mount Clare Division at The Delta Hunt Valley
October 21 - 24, 2021

Information at:
<https://mtclarejct.com>

LED STRIP SUN CONTROLS

By Fred Miller, MMR

LED strips have become a popular and inexpensive means of lighting layouts. Simple electronic circuits can be used for those modelers who would like to apply a bit of 'automation' to their artificial Sun, aka LED lighting strips. Small micro-controllers are well suited to vary the LED strip intensity.

This article presents a circuit which can gradually move the 'SUN' from full ON to night time OFF. A switch closure is used to initiate the SUN activity by gradually fading the LED strip intensity from full on to off while in one position and reversing the activity, gradually bringing the intensity back to full on in the other position. The time to accomplish the fading on my project is about 20 seconds but this can be adjusted in the micro-controller software. I include an onboard LED which is lit when the transitions are taking place

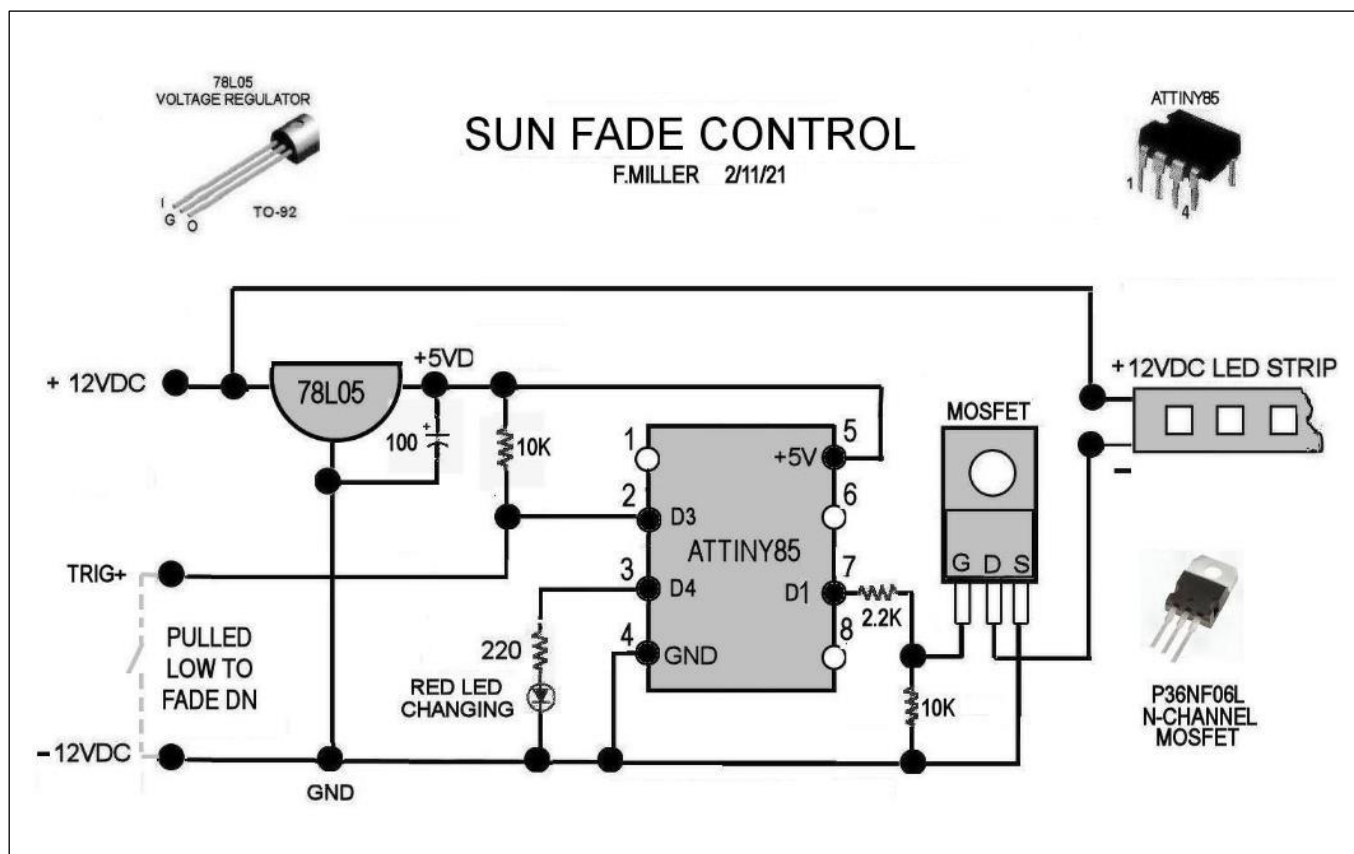
Most LED strips are powered by 12VDC. Many different colors are available but I have found that the 'warm white' color best represents the SUN for layout lighting.



The 12VDC power is easily supplied by 12VDC adapters. I have found that readily available 2 amp adapters are well suited to lighting one of the LED strips. The 16 foot strip I am using draws about 1 amp. Driving more than one of the strips would require an adapter with more amperage.

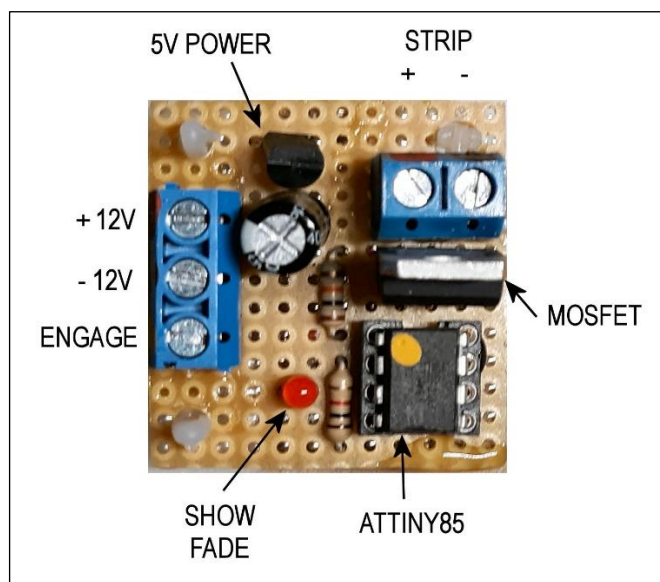
My circuit makes use of Pulse Width Modulation (PWM) output generated from an ATTINY85 micro-controller. (PWM is similar to Train Control with Pulse Power in days before DCC.) Varying the 'ON' pulse width effectively varies the LED intensity.

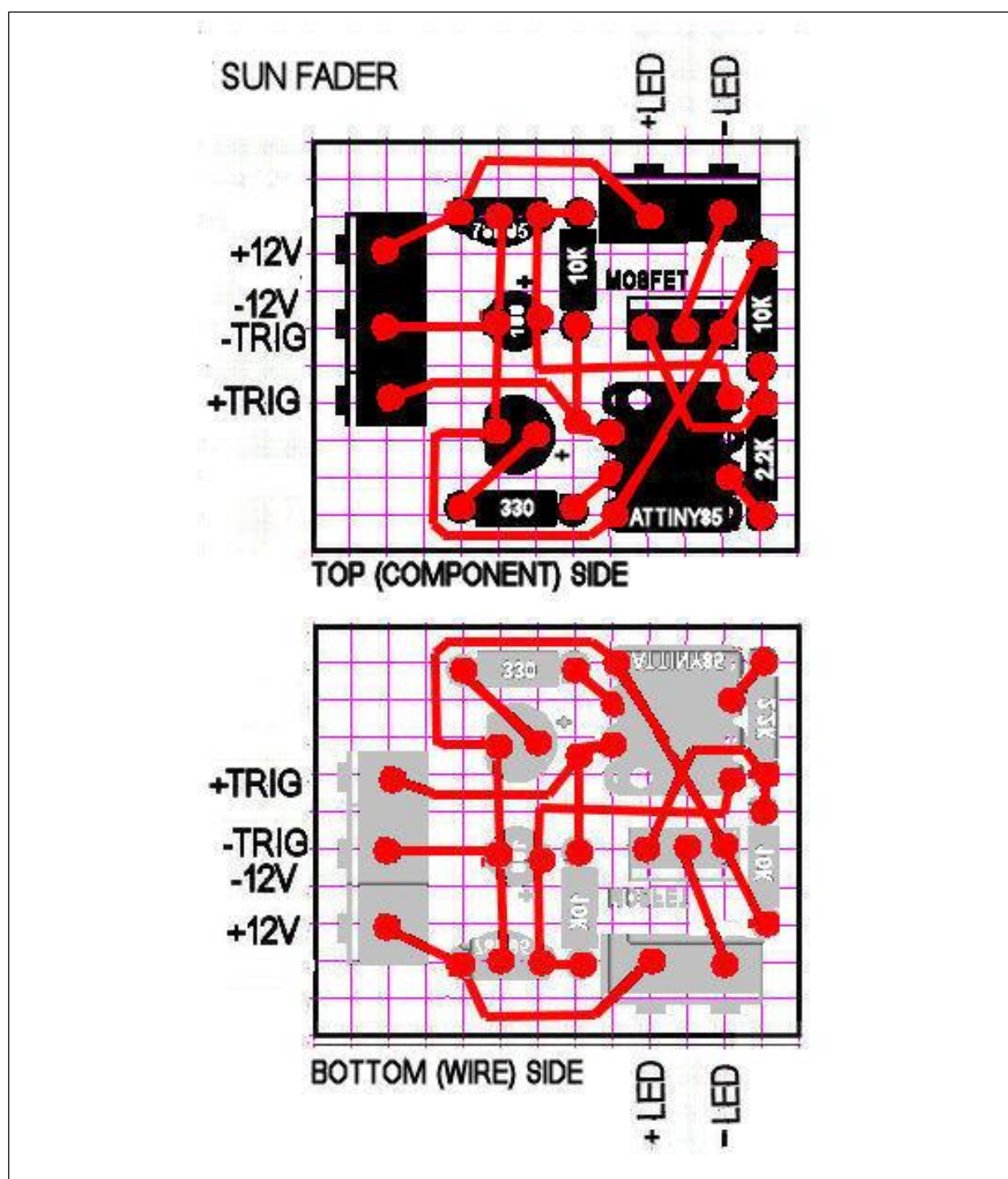
The power from the 12VDC source is controlled by a MOSFET transistor. The MOSFET I selected can easily handle the 1 amp requirements of the LED strip. In fact it could handle up to 30 amps with proper heat sinking.



The micro-controller program (called a Sketch in the Arduino world) is developed along with the circuit on an Arduino UNO with breadboard. (Many articles and descriptions are available on the net on how to do this). After successful operation on the UNO, I move the Sketch to the smaller ATTINY85 and test the operation on a breadboard. 5VDC for the controlling circuit is obtained from the 12V LED strip power using a simple voltage regulator.

I design my final circuit board layout (shown on the right) using a PC graphics program and a collection of component templates that I have developed over the years. The graphic components are cut-and-pasted into locations on a grid representing a perf board. This design process places the components and then 'wires' them together graphically (shown in RED). Graphically flipping the drawing provides a bottom, or wiring side view which is then used to construct the circuit board and components on a blank 'perf board' of appropriate size. These graphics are shown on the next page.





I can provide the software (sketch) as well as more detailed drawings, files and parts information. I would be glad to even provide a 'programmed' ATTINY85 for those modelers who would like to construct the circuit but stay away from programming micro-controllers.

References:

Arduino website (for tutorials, etc.): <https://www.arduino.cc/>
 Amazon website (for parts): <https://www.amazon.com>
 Authors email (for further information, files, etc.): tractionfan@aol.com



INCENTIVE AND INSPIRATION

By Ed Smith

As I've said before, model railroading has many facets. I find the artistic areas are the most interesting and satisfying for me. One area that I struggle with, mentally not physically, is the electrical component of the hobby. I just can't seem to muster the drive and desire to complete the wiring on my layout. The peculiar thing is that this is my vocation. I am a journeyman electrician with almost 35 years in the trade before retirement. Working for the Goodyear Tire and Rubber Corporation, I worked on high voltage generation, construction jobs, building maintenance, and maintained tire building equipment. You would think I could find some motivation to put my skills to use and finish this job. But I've struggled in this area.

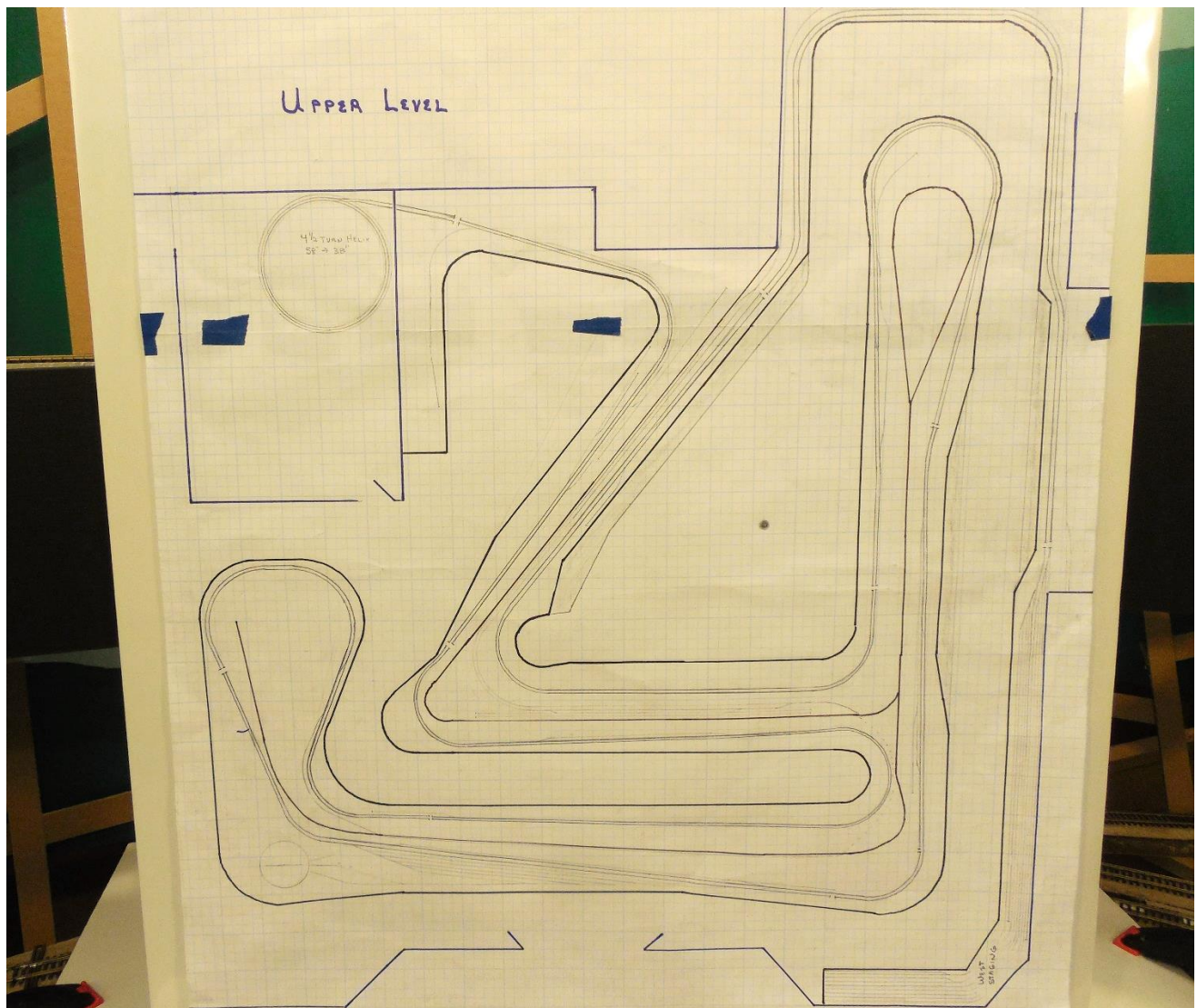
The incentive to complete this task is two-fold. First, trains would be finally running, and second, I would complete the A.P. Electrical merit award. I've had all types of excuses, good and bad, over the last year or so. There is the Covid-19 situation, which eliminated group work sessions, the cancellation of our Regional Convention, which eliminated a hard deadline, thus allowing me to slow down, then stop. Also, I had back problems and subsequent surgery. But, besides all the excuses, I still needed inspiration.

On a more somber note, In January my friend and neighbor, Dick Williams, passed away unexpectedly after surgery. I've mentioned Dick in my past articles, because he opened his wood shop to me. His help, knowledge, and instructions were integral in building the wood infrastructure of this large layout. So much so that I scratch built a replica of his wood shop and found a place on my prototypical layout to display it. His shop turned out to be my first A.P. merit award in scratch building (pic 1). Sadly, his loss is also serving as my inspiration to complete this long overdue task. Over the years spent in his shop, Dick would kid me by saying "Do you think you'll ever get anything running before I die?" I would always respond "I don't know if *I'll* ever see anything run". We'd laugh and go about our business. Now that he's gone, those words ring loudly in my head. That's my inspiration. So here is an overview of my plan for the rest of the year.

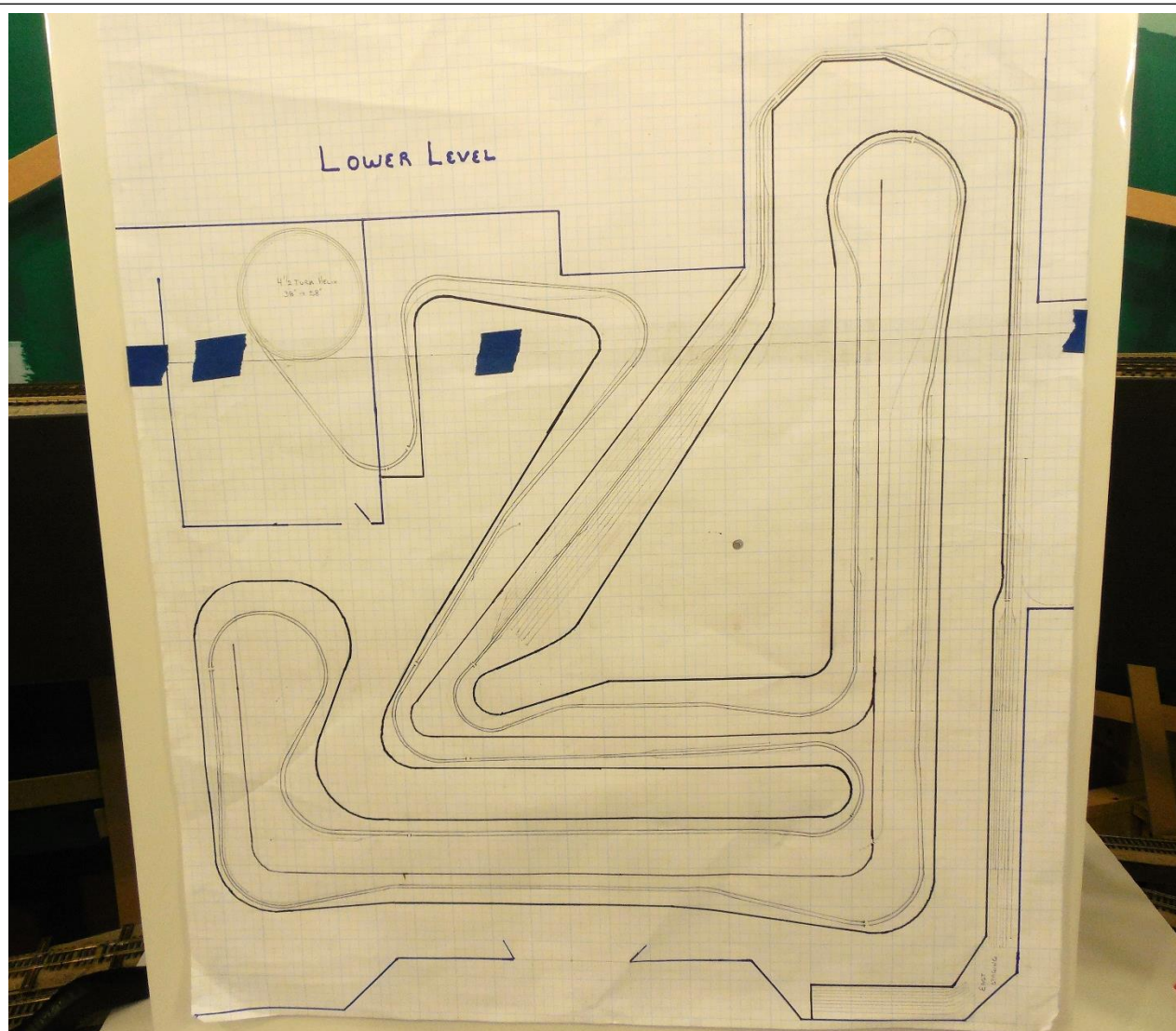


Pic 1: I earned my first AP Merit Award with this model of my late friend Dick Williams' wood shop.

The first decision I made was that I wanted a double track mainline with signals. The main grew to almost 700' on two levels. I didn't want Bruce Chubb's complicated signals, just simple red, yellow, green 3-aspect tumble-down signals on the main. At my drawing table, I made two drawings, one of each level of my layout. My apologies for the pictures. They do not do justice to the drawings (pic 2, 3). They depict the double track main, and the yards, spurs, etc. are lightly drawn in. It is all done in pencil, because you never know what changes will be needed. The drawing designates all the insulation gaps for the signal districts on the mainlines. There are 17 signaled districts on each main (East and West) and 2 signaled districts on Division Interchanges. A total of 36 Districts.



Pic 2: Upper Level Track Plan



Pic 3: Lower Level Track Plan

Over the years, I have accumulated a vast quantity of electrical components. Here is a list of the major products:

Digitrax: I've decided to use their products for my DCC system. I've probably gone into overkill mode because I have accumulated a large quantity. First, the Super Chief Xtra Duplex Command Station, 4 DB150 Boosters, 2 DB200 Boosters, assorted power supplies, 2 UP92s, and 25 UP5s (pic 4).

I will use #12 awg wire for the feeders. I've changed my mind on wiring several times, each time removing the feeders. The installed track has #22 awg wire installed as drops.

DCC Specialties: PSX Boards will be used for protection on each District (pic 5). They come in groups up to 4 sections. I have accumulated enough for 45 districts, good enough to handle all main districts and auxiliary yards, etc.



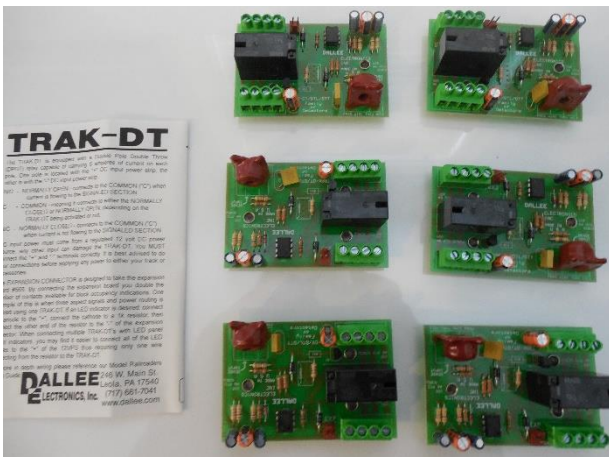
Pic 4: My collection of Digitrax components awaiting installation and hookup.



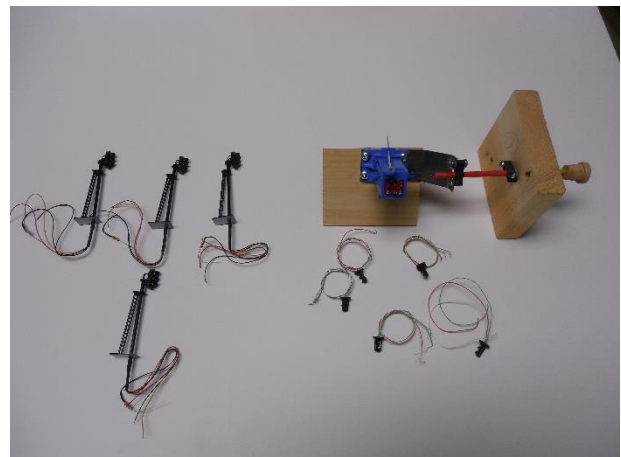
Pic 5: PSX boards in various configurations will be used for current protection in each district.

Here is where I turn back the clock and use hardwiring for detection. A major decision I made was that I didn't want to get involved in computer interface to drive signals or run the railroad. The setup and programming seem like a hobby in itself and I didn't want to spend the time. Also, the old electrician came out, and I feel more comfortable hard wiring everything. I'm using [Dallee](#) Trak-DTs for detection (pic 6). I'll need at least 36 individual boards, 29 are secured now, and assorted power supplies to drive the boards.

These detectors will drive 34 LED 3-aspect signals, one for every district, plus 2 2-aspect signals for the interchanges. Also, 2-aspect dwarf signals by [Tomar Industries](#) will be used in the staging yards. These will be controlled by the manual Blue Point switch machines that I use to throw the turnouts (pic 7). The limited electronic technology and manual ground throws all add to my 1946 era railroad.



Pic 6: Dallee Trak-DTs will be used for occupancy detection for signaling.



Pic 7: Tomar Industries mast and dwarf signals will be used along with Blue Point switch machines.

Finally, I have purchased some Fiber Optics from Dwarvin. Although I have no desire for night effects on my layout, I do have several Craftsman kits that I want to illuminate (pic 8).



Pic 8: Dwarvin Lamplighter fiber optics will be used for several craftsman kits that will be illuminated.

So, there is a quick run through of my next 9 or 10 months on the layout. That along with the relocating of Wade's Train Town, I should be fairly busy. Inspiration comes from many places, some good, some bad. My friend's death has made me get off my butt and get some trains running. Rest in Peace, Dick.

Oh, by the way, Elway and Dick were buddies. Elway loved going into Dick's wood shop to find him and maybe always get a treat. He hasn't figured out where Dick has gone and looks for him every day during our walks around the neighborhood (pic 9).



Pic 9: Elway seems confused and saddened that he can't find his friend Dick outside of the woodworking shop.

I'll try to give updates in the upcoming months. Until then, stay safe and get your vaccine shots so we can meet again.

ED

CLOSING PAGE BONUS



Did you know that NS tracks run under some taxiways at the Charlotte airport? The train is heading toward the container handling yard and the plane is heading toward the terminal on a taxiway from runway 18R

Photo from NS internet pages

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