

Michiana Division



National Model Railroad Association
Midwest Region

FORM - 19

Model Railroading in the Digital Age



A publication of the NMRA, Midwest Region, Michiana Division

Model Railroading in the Digital Age is the slogan of the Newsletter.

In keeping with this line we will feature electronic information depicting aspects of analog and digital modeling.

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Quarter Schedule**

- **July: No Meet**
- **August: No Meet**
- **September: Division Meet**
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JULY 2023 Form-19 Superintendent's Message By Greg Bueltmann

Greetings Model Railroaders.

The Michiana Division Board of Directors has been approached by the leadership of the Midwest Region to host the 2024 Midwest Region Convention with the event to be held in South Bend, IN. in May 2024. The Central Indiana Division (CID) has committed to providing volunteers to help with the event, but we will need volunteers from the Michiana Division in order to make the convention a success.

The discussions have been focused on a two or three day event which may consist of a Thursday evening early bird event, followed by clinics and layout tours on Friday and Saturday and perhaps a program on Friday evening. The committee will finalize these details and be responsible for planning and executing the event with the assistance of MWR leadership, CID volunteers and Michiana Division members.

We are seeking volunteers to chair committees for , registration, clinics, AP model evaluation and coaching, budget and accounting, layout tours, operating sessions, promotions and advertising, website and social media, and non-railroad activities for spouses and guests. Hosting the 2024 MWR Convention is a serious undertaking. Expanding the pool and working with CID and MWR volunteers to conduct an enjoyable event in our region would provide many benefits including convenience, greater involvement from our membership, and unique learning opportunities based on our location.

If you are interested in volunteering during the convention and/or to serve as a committee chairman, please contact me. Include the capacity that you would like to serve in and any questions you may have. Thank you for your consideration,

Greg Bueltmann, email: greg@uncleheavy.com
Superintendent, Michiana Division
2024 Convention Chairman

**PLEASE,
STAY SAFE AND
HEALTHY**

Welcome to the 3RD Quarter of the FORM-19 for 2023

REMINDER: The Michiana Division has moved our regular Saturday meeting to the second Saturday of the month.

Invitation: Please join us in our meetings for fellowship and learning with other model railroad enthusiasts. We meet on the 2nd Saturday, almost every month. See the location, time and topic at <http://michiana-nmra.org/meetings.html> as well as topics from previous meetings. The **next regular meeting** is **September 9, 2023**.

Future meetings & ideas for topics: Future meetings for the Division would like to alternate locations between eastern and western areas of the Division, attracting more members from west of La Porte. Also, we may be able to “Zoom” some meetings in the future for those who cannot attend in person. We invite you to suggest topics interesting to you. You can do this by posting your ideas on the Division’s **groups.io**. Meeting locations and other attractions are mapped at <http://www.michiana-nmra.org> just click on “Resources” “Michiana Division Interactive Map”.

ROAD TRIPS?

Train shows are continuing to come back and so are in-person conventions. So lets look at the possibilities of hitting the road over the next few months. We’ll look at both model and prototype getaways available and the opportunities to get together with old friends we may not have seen for a while and meet some new friends. Don’t forget to take your models and photos to display and/or enter into the contest rooms when attending a Region and National Convention.

MICHIANA DIVISION ROAD TRIP IDEAS

SWAP MEETS AND TRAIN SHOWS

Here is a source for train shows and swap meets that may be in the primary area of the Michiana Division and the five state areas of Wisconsin, Illinois, Indiana, Michigan and Ohio.

<https://www.trainshowlist.com>

MICHICANA DIVISION AREA TRAIN MEETS

November 19, 2023 Michigan City Swap Meet
Held at the La Porte County Fair Grounds

**NEXT MICHIANA DIVISION MEET IS SCHEDULED FOR
 SATURDAY SEPTEMBER 9, 2023
 10:00AM CT / 11:00 ET
 CLINIC: TBD BY: TBD
 LAYOUT TOUR: TBD**



Central Indiana Division
 of the
National Model Railroad Association
presents the 2023



FRANKLIN TRAIN SHOW

Saturday, Aug. 5th, 10am to 4pm
Sunday, Aug. 6th, 10am to 3pm

- 4 Buildings filled with vendors and portable layouts
- 1 Building for demonstrations



Admission: \$7.00 per Adult
(Kids under 16 free with parents)
(\$5.00 with proof of NMRA membership with card)

JOHNSON COUNTY FAIRGROUNDS
 250 Fairground St., Franklin, IN • Check in at Shooting Sports Building

Show Features:

• Operating Layouts	• Displays
• Dealer Tables	• Demo's
• Manufacturers	• Door Prizes
• Free Parking	• Food

★ Popular Vote Contest ★
Bring what you are working on





Vendor Tables \$22.00 each [8 foot] for both days
Set-up from 7:00am to 10:00am for both days
Table reservation form at: cidnmra.org

For information contact Michael Roderick at (317) 833-3556 or FranklinTrainShow@gmail.com

Check out our website at <http://www.cidnmra.org>

NOTE: The next CID train show is at Danville, IN on November 18, 2023

ARTICLE BY DAN BREWER

Creating scale sized industrial safety and way finding signs for your model railroad

Making scale-sized industrial signage for your model railroad can be enjoyable while adding realistic detail to your scenes. All you'll need is a source for your sign ideas, some photo editing software to manipulate the images, a black & White or color printer, and some simple office and modeling supplies. Creating your own signs not only saves you money but also allows you to be creative while producing high-quality signage that can make your railroad more realistic.

Resources and tools

There are many online sources for signage images of all kinds. For this article, I chose to focus on Warning, Safety, Parking, Property, Emergency, and Traffic signs. Underlined below are the tools I used to make my signs.

I went to the SafetySign.com website to get image ideas for the signs that I made. They can be found at (<https://www.safetysign.com/>).

For image editing, I used Photoshop Elements 2021, which was purchased from Amazon. I paid about \$75 for the software which has been a bargain as I've used it to make background photos and building interiors, as well as for this signage project. Photoshop Elements 2021 is a great tool for manipulating images and adjusting the size and scale to fit your model railroad perfectly.

The printer I'm using is a Brother HLL8350CDW Wireless Color Laser Printer that I purchased from Amazon for about \$270. It was originally purchased for printing backdrop photos and building interiors and now, industrial signs. The only downside to this printer is the cost of the cartridges. A full set of them is about \$250. They do yield around 4500 pages of hi-res color work, so I guess ~6 cents per page isn't so bad.

I used common office supplies that many of us already have on hand. Some of these supplies include pens and fine mechanical pencils, a guillotine paper cutter, scale rules, Exacto knives with a ready supply of #11 and #16 blades, a cutting mat, and a clean work surface. In addition, I purchased 0.10 white styrene to mount the signs on and letter-sized and legal-sized mailing labels as the paper for the signs; all from Amazon. You might also want to purchase a can of spray fixative to protect the signs. Krylon K01306 Workable Fixatif Spray Clear Aerosol is about \$8-\$9 on Amazon.

I like the self-adhesive labels as there's no glue involved and a whole sheet can be mounted and ready for cutting out as needed. As with all model railroading supplies, I have found that having an ample stash of labels and styrene at my disposal has helped me to stay on task. The colored pens and markers are great for adding small details or touch-ups to the signs.

Making the signs

I started by searching for the images that I wanted on the web. When I find an image that suits my purpose, I right click on the image and select "Save image as...", choose my images directory, name it (e.g., Safety First), and save the image to my computer.

Figure 1

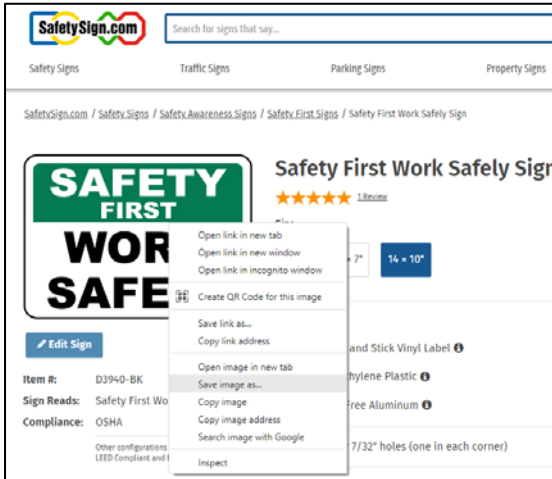
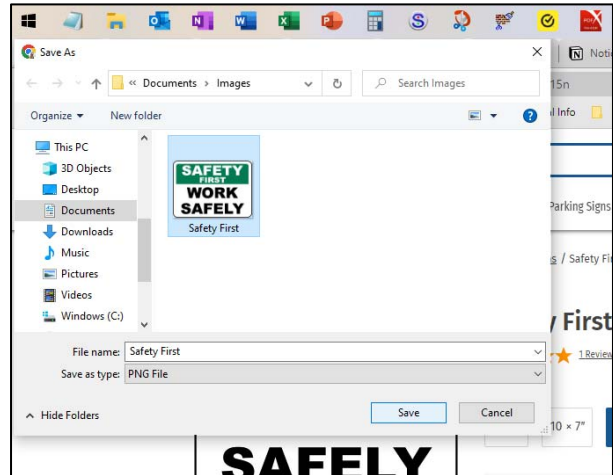


Figure 2



Once the image is saved to my PC, I open the image in Photoshop Elements.

Figure 3

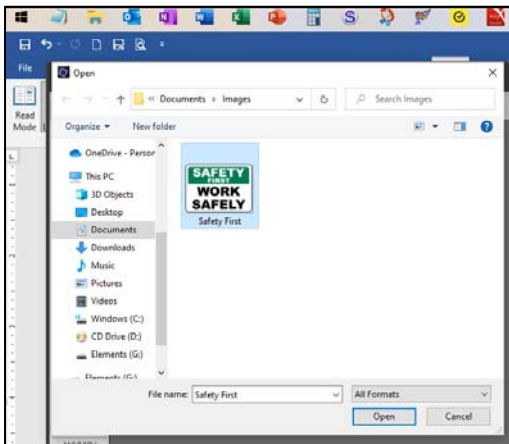


Figure 4



After opening the image I inspect it for size and clarity. I have found that sometimes the images from the web look good in Photoshop, but are a bit grainy when you print them. If I suspect that it might be grainy, I size it appropriately and print it in HO scale as a test. The Safety First sign is a pretty standard size at 14" x 10". To convert those measurements to decimals (so it can work in Photoshop Elements) I used this website: https://www.engineeringtoolbox.com/inches-decimal-equivalents-d_471.html.

The sign in HO scale is 5/32" x 7/64" or 0.15625" x 0.109375". Here are the steps (figures 5-9) I took to resize the image.

Figure 5

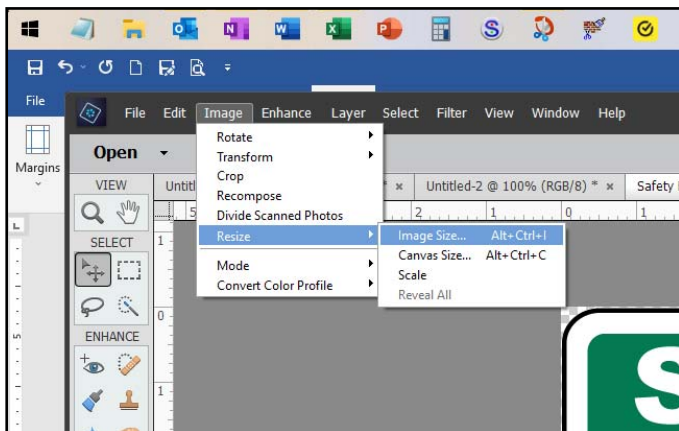


Figure 6

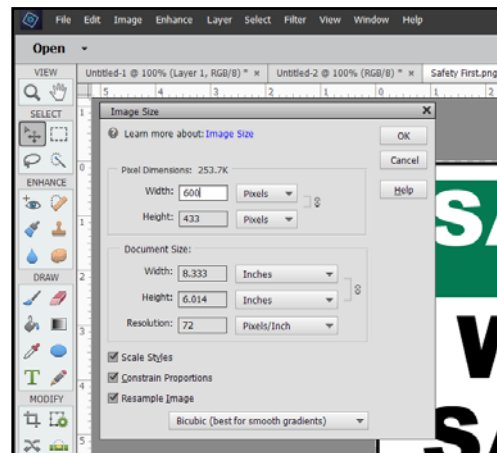


Figure 7

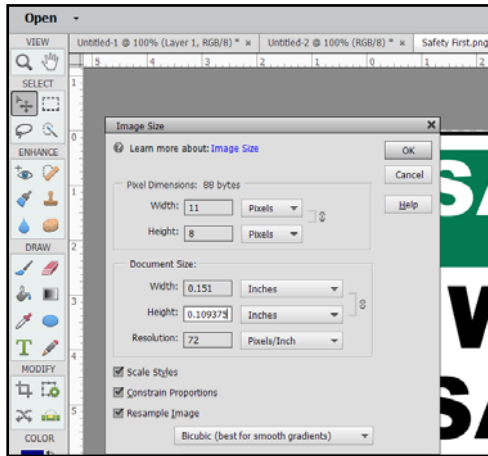


Figure 8

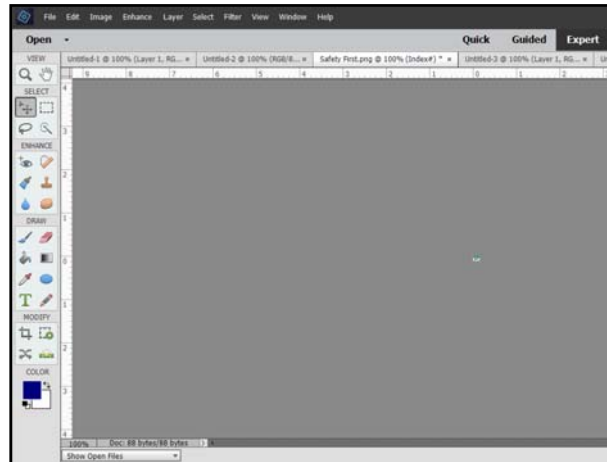
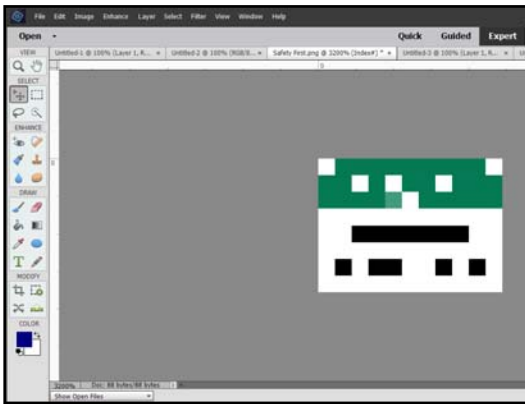


Figure 9



Oops, logic fail! After using the dimensions above to resize the image, it's obviously too small and no longer legible!

So, what to do now?

I have to make reasonably sized signs that will retain all of the detail, so I standardized on 600 pixels by 433 pixels for all horizontal signs and 433 by 600 pixels for vertical signs. Those numbers are not random. They are the size of the image(s) as downloaded from the website where I found them. I then saved the files using a meaningful name and saved them as .jpg files at the highest resolution as shown in figures 10-12.

Figure 10

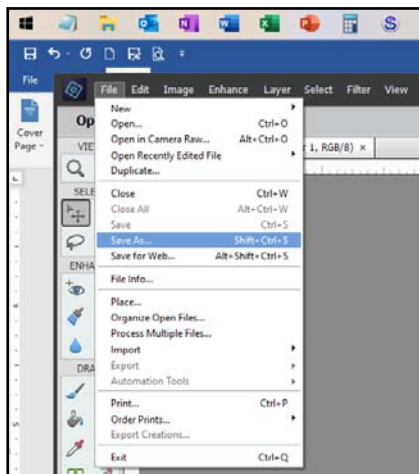


Figure 11

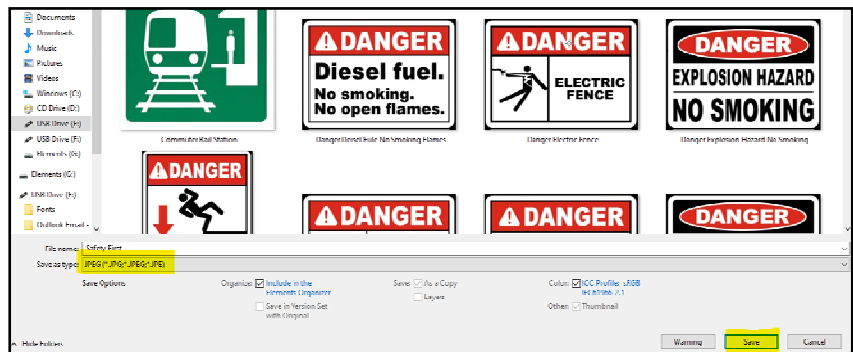
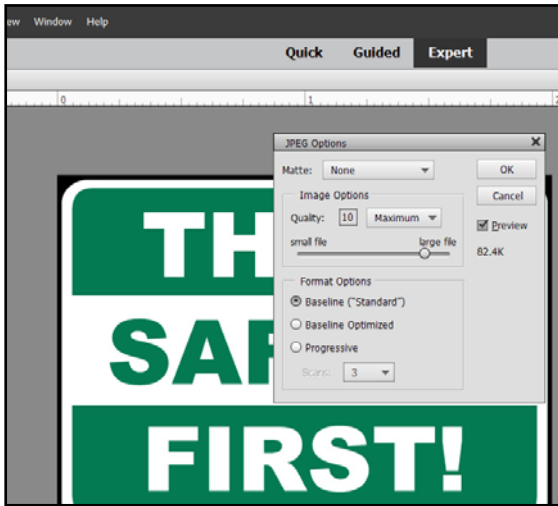


Figure 12

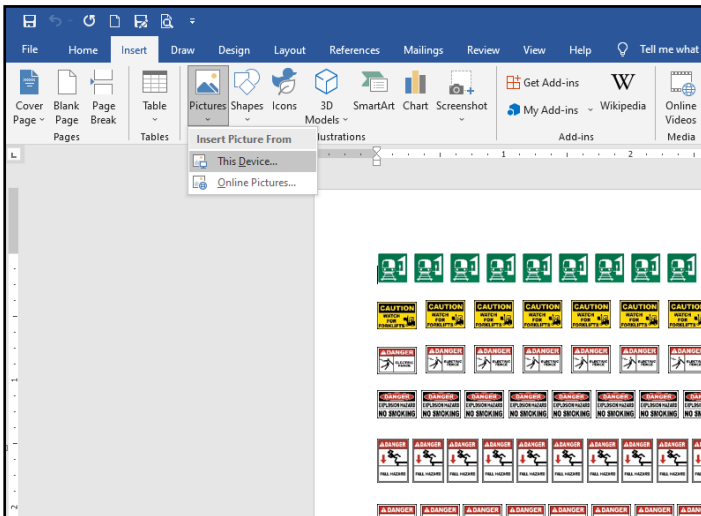


Printing the Signs

The next thing to do was to come up with a way to print them en masse to conserve ink and label paper. The best idea I could come up with was to arrange many different signs on a legal sized page using Microsoft Word. I was able to get about 20 signs across and 30 rows of them on one legal sized page. Lifetime supply!

First, I had to save them as .jpg files so that they would go into Word using the “insert picture from this device feature” (figure 13). I did this for all 35 of the signs that I downloaded.

Figure 13



I found this sign project to be great fun! With some web resources, a good printer, some image editing software, and some common office supplies, creating custom signage for your model railroad can be an enjoyable and rewarding experience. Plus, saving some money and getting the exact signage you need makes this more than worth the effort.

Anybody wanna buy some signs? Kidding, just ask.



LAYOUT ELECTRONICS PROJECTS

HIGHWAY-RAIL GRADE CROSSING SIGNALS, PART 2

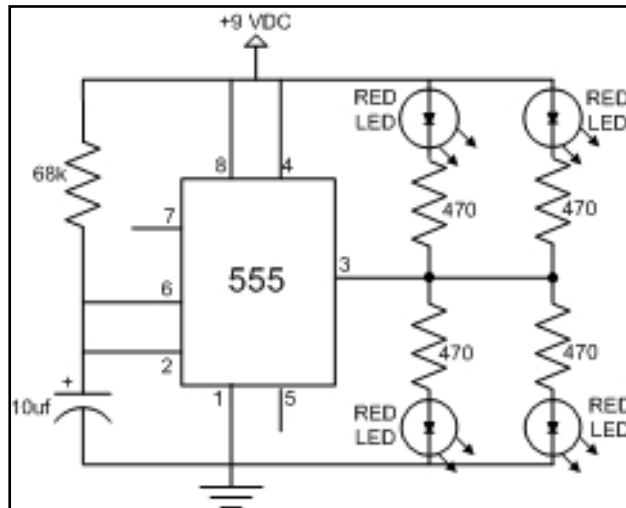
BY CHUCK HART

In the April Form-19 Newsletter I described how to design a Highway-Rail Grade Crossing Signal using NPN transistors. In Part 2, I'll show a similar design by replacing the transistors with an integrated circuit device.

Refer to the April 2023 FORM-19 Newsletter for the Federal Railroad Administration Code of Federal Regulations regarding Flashing Light Units.

LED Flashing Light circuit – Part 2

There are many model suppliers of highway-railroad grade crossing signals available. In Part 1 of this series we looked at a simple LED flasher circuit using a few common components and two 2N3904 NPN transistors. In this build for the crossing lights we'll use a 555-timer integrated circuit. The circuit shown below will alternately flash the LED pairs at about 43 flashes per minute. This puts the flash rate about mid range of 35-65 per the CFR Requirements.



Electronic components for this circuit.

IC, 555 Integrated circuit

4 each Red LED's.

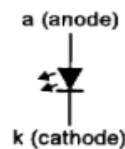
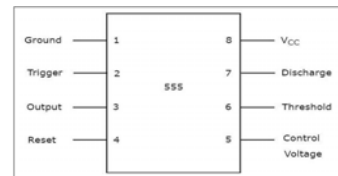
1 each 10 uf electrolytic capacitor measured in microfarads.

4 each 470 ¼ watt resistors measured in ohms.

1 each 68K ¼ watt resistor measured in ohms.

Power is supplied from a 9 VDC wall wart.

Note the specific pin connections in the picture to the right.



The parts below are catalog numbers from All Electronics <https://www.allelectronics.com/>

Parts list

9VDC 1A WALL TRANSFORMER

CAT # DCTX-9111

TWO HOLE PAD, SINGLE-SIDED BREADBOARD

CAT # SB-2H1

555 INTEGRATED CIRCUIT

CAT # MC1455

10 MFD 25V RADIAL ELECTROLYTIC CAP, 105C DEG

CAT # 22R25-C

470 OHM 1/4 WATT RESISTOR

CAT # 291-470

68K OHM 1/4 WATT RESISTOR

CAT # 291-68K

Red LED of your choice for size fit into your signal mast.

Notes:

The 1-amp power supply will power many circuits of this type.

Some components are supplied in multiple quantities.

Search Google for 'prototype board' for other choices of the prototyping board size.

This is a simple LED flasher circuit using a 555 timer chip which flashes the LED's- meaning it turns them ON-OFF, ON-OFF, ON-OFF.

By connecting Pin 2 and 6 of the 555 timer IC, we put the IC in astable mode. In astable mode, the 555 timer IC acts as an oscillator (re-triggering itself) generating square waves [PWM Signals] from the output pin no. 3.

the values of the 68K ohm resistor and the 10uf capacitor determine the frequency of the output pulses generated at the output pin number 3.

When power is applied the capacitor begins to charge through the resistor. When Pin 2 of the IC detects voltage LESS than 1/3rd of the supply voltage, it turns ON the output at pin 3. And, when Pin 6 detects voltage MORE than 2/3rds of the supply voltage, it turns OFF the output.

When the output is OFF, the Discharge Pin (Pin7) gets internally grounded.

This is how the trigger pin (Pin 2) and the threshold pin (Pin 6) of the 555 timer IC sense voltages and controls the output at Pin 3.

The capacitor will be in a discharged state immediately when we firing up the circuit.

So, the voltage at Pin 2 will be 0v which is less than 1/3rds of the supply voltage, this will turn ON the output on Pin 3.

At the same time Pin 7 will internally disconnect from the GND and the capacitor will start charging via the resistor.

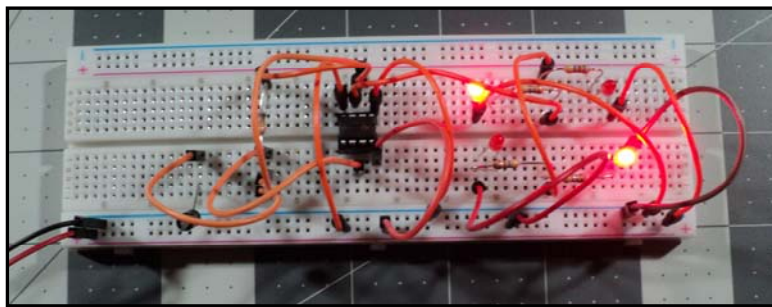
Once the voltage across the capacitor charges to 2/3rds of the supply voltage, Pin 6 turns OFF the output.

At the same time Pin 7 will internally reconnect to the GND causing the capacitor to discharge via the resistor.

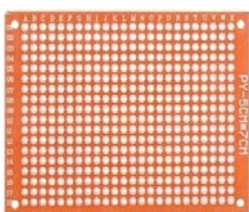
Once the voltage across the capacitor falls below 1/3rd of the supply voltage, Pin 2 turns ON the output, and the above cycle keeps repeating itself.

Since the 68K resistor is involved in both charging and discharging of the capacitor, increasing or decreasing its value will increase or decrease the duration of the OFF cycle and will decrease or increase the flashing rate of the LED, as the capacitor will take more time to charge and discharge.

By replacing the capacitor with a higher or lower value, you can also get a longer or shorter flashing rate.



ABOVE: I used a prototyping breadboard to test different component values to obtain the LED flash rate desired for this project.



LEFT: Prototyping board with solder pinholes

RIGHT: Prototyping breadboard with solder-less connections





NMRA NEWS

Join the new NMRA Interchange

From: Speed Muller

IT Manager, NMRA

Have you joined the Interchange yet? If not, follow this link to get connected!

Go to www.nmra.org/nmra-interchange

NMRA Digital Magazine

We hope you are all are trying out and enjoying the launch of the NMRA Digital Magazine as much as we are. So far, we have provided the basic information in terms of dues, availability and general benefits.

On mobile devices, laptops, and desktops, the magazines are available as full pages as if reading the print version, as well as a special flowable text version. The flowable text makes it easier to read individual articles by enlarging the text and placing it into one continuous column for easy scrolling. It is simple to go back and forth between the versions.

The digital NMRA Magazine is searchable by keywords so it is easy to find your favorite railroad or topic. You can also bookmark articles for quick access later.

Members are able to save issues offline for viewing when Internet access is not available. This means you can access current and back issues of the NMRA Magazine anytime and anywhere.

Did you miss it?

Thanks to volunteer Tom Bensberg, all NMRA eBulletins and NMRA Dispatches are archived on the NMRA website in the Members Only section.

Are you taking advantage of the NMRA Partnership Program?

The NMRA has partnered with model railroad manufacturers of all sizes who have agreed to give discounts to NMRA members. To see the current listing, log in to our website and visit the Partnership page in the Members Only section: www.nmra.org Membership, Member Home, Benefits, NMRA Partnership Program. **There are now more than 50 Partners participating in the program. Conowingo Models is the latest to manufacturer to join the partnership program.**

It just became easier to purchase stuff from the NMRA

The NMRA now accepts

PayPal™

Renewals, Memberships, Books, Donations, Online store, EVERYTHING



National Model Railroad Association, Inc.
New Member Application

Name:		
Address:		
City:	State/Country	Zip:
Phone:	Birth Date:	Scale:
Email:	Occupation:	

Membership	1 Year	2 Year	Total
Member - All rights & benefits as well as the digital NMRA magazine access.	\$68.00	\$136.00	
Member with Printed Magazine Subscription – All rights & benefits, digital NMRA Magazine access and the Printed Magazine.	\$92.00	\$184.00	
Family – Spouse or minor child of above member. No magazine, no voting rights, not allowed to hold office.	\$10.00	\$20.00	
Sustaining – Mandatory for group memberships (Clubs, Business, Associations). All rights & benefits, digital NMRA Magazine access and the Printed NMRA magazine.	\$120.00	\$240.00	
Student – Between the ages of 19-25 years of age. All rights & benefits, digital NMRA magazine access.	\$40.00	\$80.00	
Membership			\$
General Donation			\$
Merchandise			\$
Region Subscription			\$
Total			\$

Thank you for being a member of the NMRA! It is extremely important to have your current email address on file. This is used for access to the member only section, turntable, ballots, voting, annual donation statements, online renewals and communication. Please be sure to note your email address below.

Email:

Region Subscriptions			
If you do not see your region listed, there is no charge for region subscription! Most regions offer the subscription online on the website.			
21 Northeastern Region	\$12.00	28 Midwest Region	\$6.00
23 North Central Region	\$10.00	33 Southeastern Region	\$10.00
26 Pacific Coast Region	\$8.00	36 Sunshine Region	\$12.00

Make Checks Payable to NMRA. We accept MasterCard, Visa, Discover, and American Express.

Credit Card Number:

Expire Date: CVV Code: Signature: _____

Mail To: NMRA, P. O. Box 1328, Soddy Daisy, TN 37384-1328
Email: HQ@NMRA.ORG
423-892-2846

Thursday Evening Zoom Meets

We began meeting on Zoom every Thursday evening back in May 2020 during the Pandemic and we've kept a steady pace since that time, delivering over 125 online clinics and layout visits in just less than three years. These meetings are open to all modelers and attract visitors from all over the country. Following the call, a video recording of the event is posted on our YouTube channel. The NMRA Michiana Division YouTube channel now has 313 subscribers and receives over 3,700 views and more than 600 hours of watch time each month. A directory of available videos is provided on our division website at www.nmra-michiana.org. If you would like to receive the weekly invite that is sent out for these sessions, please contact me at greg@uncleheavy.com.

JUNE 10, 2023 ANNUAL DIVISION MEETING MICHINANA DIVISION ELECTIONS RESULTS FOR 2023

1. *Michiana Division Board Of Directors Elections* was held during the 2023 Annual Membership Meeting in June 2023. John Banicki and Chuck hart were re-elected to the Michiana Division Board of Directors.
2. *Michiana Division Superintendent Election* was held during the 2023 Annual Membership Meeting in June 2023. Greg Bueltmann was re-elected for a two-year term.



Pictured above are Michiana Division members attending the June 10, 2023 Annual Division Meeting. Ken Hough presented a history of Railroads of Porter County. Photo, Greg Bueltmann

Michiana Division YouTube Channel is now live!

You can now view videos from our Division ZOOM meetings and other event videos. Check out our YouTube channel at <https://www.youtube.com/channel/UCbvaWZMhVoRweILW3aiXZlQ>

YOUR Michiana Division needs a Membership Chairman.

Neal Thomas has left the MWR Michiana Division and has moved to the NCR. Neal contributed to the Division as the Membership Chairman. If you have experience with Microsoft products including MS Word and MS Excel please consider filling the position for the Division Membership Chairman. Only a few hours a month are required fro this important member position. Please contact Superintendent Greg Bueltmann.

Michiana Division - 2815

The Michiana Division was activated effective September 13, 2009.

Includes the following Counties in Indiana: Elkhart, Fulton, Jasper, Lake, La Porte, Marshall, Newton, Porter, Pulaski, Saint Joseph, and Starke and the following Counties in Michigan: Berrien and Cass.

Michiana Division Committees

AUDIT COMMITTEE	JIM TEMPLE
NOMINATING COMMITTEE	JIM TEMPLE
ELECTION COMMITTEE	JIM TEMPLE
MEMBERSHIP COMMITTEE	VACANT
CLINIC COMMITTEE	RON CHRISTENSEN, MMR
INTERNET COMMITTEE	GREG BUELTMANN
PUBLICATIONS COMMITTEE	CHUCK HART
CONVENTION COMMITTEE	VACANT
MEET LOCATION COMMITTEE	JOHN BANICKI
AP CHAIRMAN	RON CHRISTENSEN, MMR

We are always looking for help with organizing and making the division stronger from within the membership. Please consider taking the load off by volunteering a small amount of your time.

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DIRECTOR-AT-LARGE	VACANT	
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