

# PlanetChristmas



the magazine for the serious decorator

Light-O-Rama  
Company Story

*Show Testing  
with an iPad*

DIY LED  
String Tester

*Tree Toppers*

ChristmasExpo

July 2012

Light-O-Rama's Dan Baldwin





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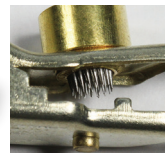
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# LED String Tester



Save time. Save money! Page **28**

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**Publisher**

Chuck Smith  
[chuck@PlanetChristmas.com](mailto:chuck@PlanetChristmas.com)  
615-301-1671

**Editorial Director**

Marla Smith

**Sales Manager**

Willy Loman  
[Sales@PlanetChristmas.com](mailto:Sales@PlanetChristmas.com)

**Creative Director**

Paula Hanback

**Production Staff**

Brenda Nobling  
Aly Smith  
James Toliver  
Robin Williams

**Printing**

Planet Publishing Group

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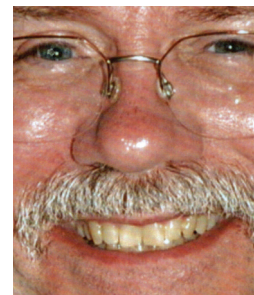
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## Chuck's Thoughts



**S**eems thoughts of Christmas are in the air again. Serious decorators don't wait until December but start plotting and planning much earlier in the year. I'm one of those people. I used to think it was weird but luckily I got over it. We're making lifelong memories for others and let's face it, this is hard work.

We've made this issue of the magazine Light-O-Rama centric because there are so many of you into light animation. We managed to track down the owners of LOR and got some behind-the-scenes information about the company; past, present and future. If you're thinking about making your decorations dance to the music, checkout the Light-O-Rama articles.

Behind the scenes we're also planning Christmas Expo 2013. This will be number six but your help is needed, in a different way, this time. Find out all the latest.

As usual, we have some diverse articles and we even venture into USA presidential politics. Enjoy this issue of PlanetChristmas magazine and get ready for a great Christmas season. ❄️



# Letters



PlanetChristmas: I saw a video on YouTube of a house totally covered in lights and every bulb was changing colors while pulsating to the music. There were pictures scrolling across the roof and messages above the garage. OMG. OMG. I'll admit the thing was dazzling but I was certainly glad I didn't live next door to this too over-the-top light show. Have the light shows gone too far? Any suggestions? Jerry B in Modesto

*We're thinking we saw that video and were totally amazed at the never-ending eye candy. Technically, it was an amazing show. Realistically, it appeared totally out of place. The staff is anticipating HOAs putting a stop to these super-shows and can understand why some might be offended by the equivalent of a TSO concert light show going on every night in their normally tranquil neighborhood. What's the answer? Save the blinding light shows for the proper venues. Tastefully done shows in a neighborhood setting with 5-30 minutes of calmness between dancing lights and music seems reasonable for everyone.*

Dear Editor of Gaudy Decorations Magazine:

What is wrong with you people? You've taken something simple and uglified it up. Christmas is about being with family. Take your magazine and shove it where the sun don't shine. Understand?? Eric J

*Ouch. Someone needs a cookie.*

*Decorators happen to celebrate the season a bit differently than Eric J and in the process make lifelong memories for countless others. Being with family during the Christmas season is very important. Seeing the holiday decorations and getting everyone in the festive Christmas spirit is even better for those certain family members that are Bah-Humbug! bound.*

Hello Christmas Planet Magazine, I started the 2011 Christmas season off in a funk. Career stress and usual setup stress. I had two events that just pulled me out of my funk and I'm not sure which one was the best. A few days after I turned the lights on, I had a five year old watching the display yell from the back of his parents van "Hey those lights are blinking to that music!" He caught on quicker than some of adult neighbors. It's all for the kids. That's why I do my display. If I give one wow kid moment, it's all worth it. Then I received the December issue of *PlanetChristmas Magazine*. After a few days of last minute craziness at home I finally perused the magazine. I love the section showing off others displays....only to find you included a picture of my house. NOW THAT WAS A THRILL I NEVER EXPECTED! My wife was so excited she facebooked the entire planet. The guys at work where printing the picture and running around telling everyone on the floor and across the intranet. After winning the local Ward 4 contest last year I never expected more. Thank you for all your hard work! You have a great site and wonderful magazine. I only hope I have added to the PlanetChristmas community. Thank you, Mark S of Pittsburg

*We really can't add anything to that, nor do we want to. Thanks!*

PlanetChristmas: I want to sell my Christmas display. Long, painful story. Any chance you're interested? Signed Kelly R in NC.

*Think PlanetChristmas Classifieds. Most are free in the PlanetChristmas forums so give it a shot.*  
<http://forums.PlanetChristmas.com>. ❄️

**Want to send a letter to the editor? We'll publish as many as we can though we reserve the right to edit a bit to fit as much as possible in a limited amount of space. Send your questions or comments to [letters@PlanetChristmas.com](mailto:letters@PlanetChristmas.com).**



# Synchronized Christmas



Synchronized Christmas provides design, consultation and programming services for commercial and municipal displays featuring synchronized Christmas lights.

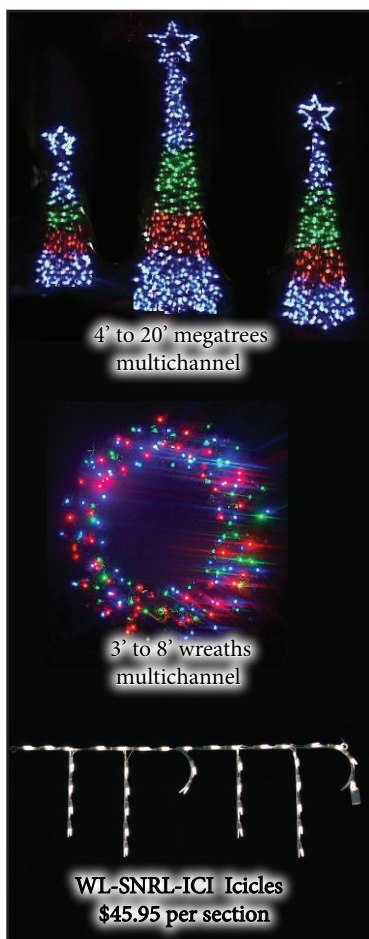
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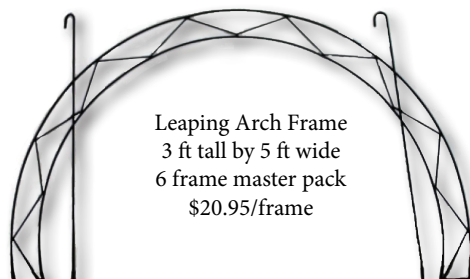
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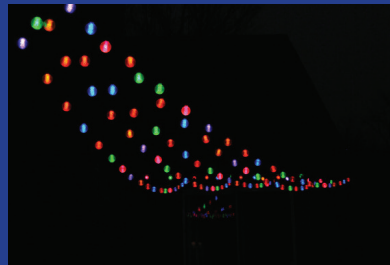
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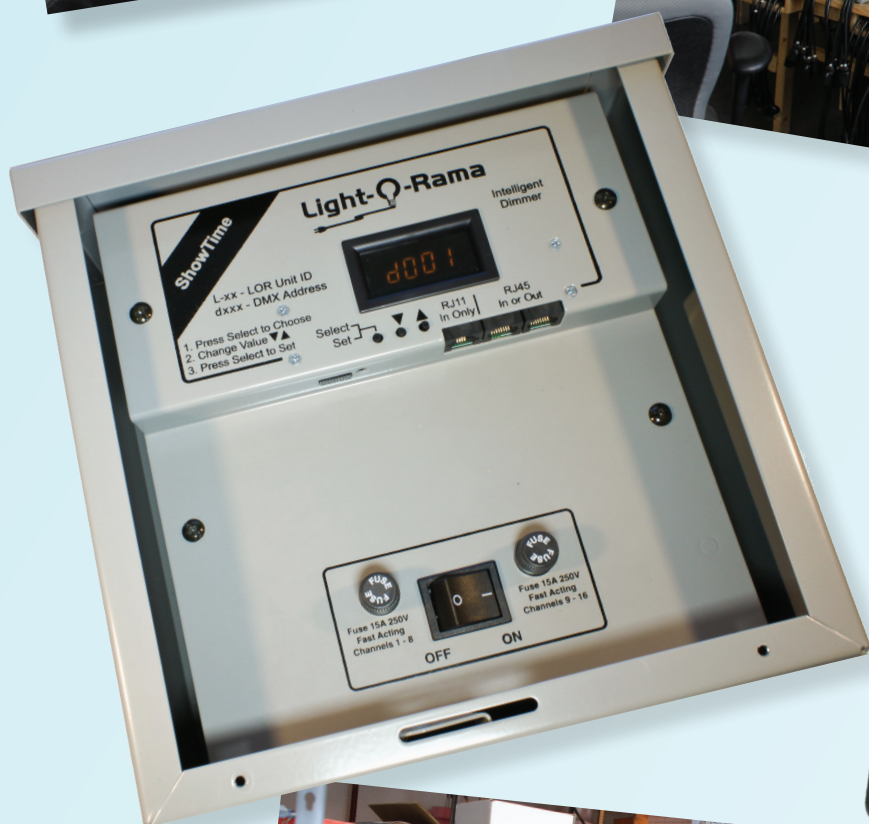
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Light-O-Rama

The PlanetChristmas staff was looking through previous issues of the magazine and realized there was an elephant in the room we really needed to acknowledge. Seems almost every issue had an article about using Light-O-Rama products. No other vendor could make that claim. Maybe we needed to find out a little more about this company.

The staff started digging and we heard nothing but glowing comments about Light-O-Rama. Great products. Reliable. Reasonably priced. They believe in the hobbyists as well as the pros. They'll fix broken products without putting you through the third degree. They're just good people.

*One name came up continuously: Dan Baldwin. Smart. Easy to talk to. Never tries to sell you something you don't need. A pleasure to do business with.*

The PlanetChristmas staff decided to build this issue of the magazine around Light-O-Rama. We sent someone to South Glens Falls in upstate New York (about an hour north of Albany) to visit the Light-O-Rama facilities and talk with the employees. We even found the first Light-O-Rama controller that never made it into production.

We're impressed with what Light-O-Rama has done in the past and where they're going in the future. The company is a bit different than most as you'll soon discover.

***Make up your own mind.***

# Light-O-Rama

Ten years and still counting.

By Robin Williams



*The editors gave me the task of writing a story about Light-O-Rama. My first reaction was this had the potential of being a really boring assignment. I jumped on a plane and headed for South Glens Falls, New York and the worldwide headquarters of Light-O-Rama. What an interesting company, but you be the judge.*

In 1975 Dan Baldwin was a newly minted computer science wizard and had just married his longtime sweetheart, Mary. That first Christmas together they bought a three foot tree upon Mary's insistence and a family tradition was born. For the next 20 years that little tree, plus some accessories, was just about all the decorating the couple did for the holiday season.

Something changed in 1995 when Mary took it upon herself to go outside and string a few lights along the top of the fence. Dan looked at her work and said "we need more lights!" Soon there were lights in the bushes, a new nativity scene in the yard as well as the obligatory Santa

and four tiny reindeer. The decorating bug had bitten the Baldwin family.

In the beginning the light animation consisted of X-10 modules. Dan was so proud that with the press of one button the entire display could be turned on or off. Soon he started playing with other light switching ideas as he merged his technical talents with the fun of decorating for the holiday season.

Over the years Dan and Mary's home display grew at an astonishing rate. To handle the power load they had to increase their service from the local utility. They installed 36 dedicated 120 volt 20 amp circuits for the regular lights and two 240 volt 60 amp circuits for the megatrees. The Baldwin extended family of some 20 members would spend the long Thanksgiving weekend putting up the grand display.

Mary admitted she thought it was "a little insane" but the project had become a family tradition everyone enjoyed.

By 2002 Dan was using a computer stuffed with DIO (direct input/output) boards controlling over 1100 electrical circuits. 25 conductor control cables were snaked from the nerve center in the basement all over the yard to what the family called R2D2's that handled the power switching and distribution to the lights. Music was MIDI (musical instrument digital



Dan Baldwin of Light-O-Rama

interface) based and Dan used a bit of MIDI magic to flash the lights to music so no programming was required.

The biggest challenge wasn't the technology but nature. Squirrels loved eating the wires and soon became especially fond of megatrees. The Baldwin's lost 5000 lights in just one day but had some very happy critters running through the yard.

During all this time Dan did work inside the famous AT&T Bell Labs and become a vice president of software development for a company in New Jersey close to New York City. Life was good.

## *The 'aha' moment...*

In 2002 Dan stepped back and admitted his Christmas display was getting too complicated. Everything was home-brew/DIY (do it yourself) when he suddenly had one of those 'aha' moments. He realized others wanted to get into creating great displays, didn't have the technical talent and had no idea where to start. They needed the computer magic and he knew how to do it. A potential new company had just been conceived.

Dan always had a fascination with company names from the 1950's and thought Light-O-Matic would be perfect for his new venture. Someone already had snagged the Internet name and on April 24, 2002 Light-O-Rama was born at [www.LightORama.com](http://www.LightORama.com).

Dan looked hard at what was currently available for the DIY community and knew the keys to success would be a reliability, versatility and ease of use. The first products for the company had to include some sort of gizmo to switch electrical circuits on/off with computer commands along with a program to create the light patterns and keep everything synchronized to music. Dan also decided his switching product had to be able to dim/brighten the circuits since no one else was doing it. He had too much to



*Dan and Mary's  
original home  
display*



do with so little time and he was working a full-time job to support the family.

The Internet bubble had burst so the developers under his command at the software company had a little extra time on their hands. To keep everyone busy he challenged them to create some sort of tool to blink lights in patterns to music. They soon came up with their version of what we now call grid sequencing. Each cell of the grid represents a particular electrical circuit and a point in time. As you scanned the grid from left to right, repeatable light patterns could be created and kept in sequence with the music being played. Programming was easy. Click a cell in the grid and it would toggle on or off. Drag the cursor across multiple grid cells and the electrical circuit would fade up or down.

While the software developers did real work with a touch of Light-O-Rama on the side, Dan was working in his garage and basement designing the hardware and firmware to do the circuit switching magic. The prototype was what can only be called a smart six outlet power strip. It was an off-the-shelf product that had been totally re-engineered on the inside so the switching triacs and control electronics would fit. The software could individually switch



*The original light controller that never made it into production*

any outlet on the power strip. It didn't prove too practical so he soon designed just a printed circuit board that could handle eight electrical channels. The CTB08 Modular Controller was born. What did the CTB mean? Computer Triac Board. It went on sale for \$79.95 fully assembled and was later followed by kit versions for those willing to do their own soldering.

Now that Light-O-Rama had designed and built the initial product suite of hardware and software controllers Dan assumed people would beat a path to his door ready to buy. The problem was no one knew Light-O-Rama existed, at least until later that year when he stumbled upon an odd little website called [www.PlanetChristmas.com](http://www.PlanetChristmas.com) with its very active user forums. Dan had found where all the over-the-top decorators hung out.

Light-O-Rama sales were non-existent for the longest time. Dan made the decision to make a formal introduction to the decorating community by being a vendor at PLUS2003 (now called Christmas Expo.) From that show came the first order for \$446 from David Horting. The rest, as they say, is history.

The company was being run out of the Baldwin house with the final product assembly done in his garage. Dan ran out of space and luckily his mom had a huge garage but she lived in upstate New York. They rebuilt her garage to make it more work friendly and added HVAC. By now more members of the family were getting involved assembling the products and his

*...late at night his sister would pack up the car, drive to the state line, meet Dan and transfer the new inventory so it could be shipped the next day from Dan's house in New Jersey*

mother loved it because she could see everyone more often. At times Dan's mother would help assemble the controllers and late at night his sister would pack up the car, drive to the state line (which was half way), meet Dan and transfer the new inventory so it could be shipped the next day from Dan's house in New Jersey.

## Light-O-Rama

### Introducing Light-O-Rama computerized lighting controllers.

Light-O-Rama is an affordable, computerized lighting system designed to control elaborate or simple lighting displays. The Light-O-Rama system can be applied to almost any lighting situation, from stand-alone controllers to synchronizing hundreds of controllers, motion detectors, animation servos and other devices using a personal computer or master controller.

Light-O-Rama controllers are micro-processor based (miniature computers inside) and are equipped to produce a number of great lighting effects such as smooth ramping, cyclic/cross fading, dimming, twinkling and many others. Every Light-O-Rama controller can act as a Director or Companion controller. Even our most basic controller can "take charge", directing many controllers to create a synchronized lighting show. This gives you the ability to create a custom controller with an almost unlimited number of channels by simply plugging together smaller controllers.

All our controllers work with Light-O-Rama PC software which allows the user to easily design light animations. The software is easy to use, and very powerful, allowing the user to build large light shows that are synchronized to music. Lighting designs can be viewed in motion on the computer prior to actually building the display. Using the scheduler, light shows can be set to run unattended. The software will not only control Light-O-Rama light controllers but will also control industry standard controllers such as X10 controllers and Digital IO cards, allowing you to preserve your investment in these other technologies.

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*The original webpage*

Light-O-Rama needed more of Dan's time as he was plowing all of the family savings into the company. In 2005 he thought the time was right, quit his real-paying job and moved to Hudson Falls. It just happened to be where he grew up and close to his mother's garage. The not-so-good news was he had to leave Mary in New Jersey until things settle down. Dan says it was a difficult time. Mary caught up with him a year later.

About the same time Dan had left the security of the software company so he could focus on Light-O-Rama, John Potochnak retired from the same company and was looking forward to a life of leisure. It lasted seven months before he was bored and started looking for something to do. John called Dan and soon became part of Light-O-Rama. John saw it as a good investment and brought financial stability to the new company as well his impressive design engineering experience. The best kept secret is John's behind the introduction of Light-O-Rama's Cosmic Color Ribbon.

By early 2006 mom's garage was packed and out of expansion room. Dan found the perfect production space in South Glens Falls that allowed for significant growth in the future. Light-O-Rama is still there today but has outgrown the original space and expanded into more. The company still uses his mother's garage for staging Light-O-Rama kits.

What happened to Dan's wife, Mary? In 2001 their son Alex joined the family so she suspended her job as a nurse to become a full-time mother. That job soon evolved into helping Dan at Light-O-Rama when needed. Now Mary spends all her time in a fancy new office



*Dan's wife, Mary*

at Light-O-Rama. She's a vital part of the growing company and in charge of order fulfillment. If you've ever called, you might have even talked to her.

Is it easy in small business? Nope. Just ask Dan.

Dan will quickly tell you it's a lot of very hard work running a company. When he's not in the office, he's at home logged into the office. The first six months of the year are devoted to recovering from the last year and creating products for this year. The last six months are dedicated to just making it through the rest of the year. The phone begins ringing steadily in July as the world starts to think about Christmas. By September there are no more free weekends for the family. In November the company is handling 200-500 calls a day plus another 500 emails and trouble tickets from the helpdesk. Dan also gets to hear the UPS drivers constantly



*The Light-O-Rama world headquarters in South Glens Falls, New York*



*Dan and Kevin checking out a troublesome controller*

complain about having too much stuff to put in their trucks. Even when Dan and Mary go home for dinner, they're responding to emails while eating. Dan calls the last quarter of any year a blur. Mary just calls it exhausting.

I got Dan to start reflecting on the history of Light-O-Rama and asked if there was anything he would do differently today. He opened up and said he had made plenty of mistakes over the last ten years. The first major lesson learned the hard way came with the release of the second generation sequencing software called S2. He thought it was almost ready to go and told the world, only to find the software had issues and it wasn't ready for prime time until 18 months later. You'll never hear the company talk about a product until it's all-but-ready to ship.

Then Dan started talking about the product shortages of 2011. The company had redesigned the controller boards to what they now call G3 (Generation 3) and was confident of a smooth manufacturing transition. Light-O-Rama underestimated the product demand, but they were too far down the G3 path to backup and restart the old production lines because of component lead times. Then they were blind sided by extra production time needed by all three

of their board manufacturers as they shifted to the new design. Each company had a different excuse why product couldn't be delivered on time, yet no one had timely solutions. Both Dan and John made some tough decisions and product finally started flowing, though many weeks late and after paying substantial financial incentives to the board production companies. Neither Dan nor John want to re-live 2011.

Light-O-Rama products are manufactured in Asia and the USA. Products for this Christmas season are already arriving at the Light-O-Rama warehouse. John took an extra precaution and ordered Asia to send product to the USA on different ships. If one shipment has a delivery issue Light-O-Rama will still have product heading to the warehouse via a different route. Sounds like the company has learned its lesson well from 2011 and there will be plenty of product available when needed this year.

***John took an extra precaution and ordered Asia to send product to the USA on different ships***

What's new for 2012? Keep in mind Dan doesn't like to talk about new products before they're all-but-ready to ship. PlanetChristmas did a little digging and caught a glimpse of what's heading our way. This is double-top-secret information and subject to change so don't share it with anyone.

Cosmic Color Pixels, Bulbs and Floods are being rolled out to compliment the RGB based Cosmic Color Ribbon.

There's a new ShowTime MP3 Director with a much more powerful internal processor that can drive two data networks.

ShowTime Central will be introduced and packages a mini-Director and FM transmitter in the same enclosure. It's one more step toward simple plug and play solutions.

The S3 software SuperStar add-on is getting new capabilities added to the existing Instant Sequence feature. It's a great solution for when you need something sequenced in a hurry (think weddings, birthdays and parties.)

The off-the-shelf sequence selections are being expanded and are all designed for 48 channel displays. Initially there will be a separate on-line storefront dedicated to these sequences.

The Light-O-Rama website is being totally reworked to make it easier to find information.

The Light-O-Rama forums will be migrated to a new host to add more social networking features. A new emphasis will be put on treating everyone with dignity and respect. Bullying of any sort will not be tolerated. Both John and Dan are quite committed to this.

Is there more? Yep, but apparently it's super-double-top-secret and the information can't be shared outside the walls of Light-O-Rama.

Wrapping up the interview with Dan and Mary Baldwin, I asked if there were any high points during their ten year ride. Mary was quick to say she really enjoyed working closely with her husband but the family missed being able to have a Christmas display since they spent all their time working at the company.

Dan paused for the longest time and finally said he was amazed at what people were doing with Light-O-Rama products. The enthusiasm shared by so many and the special bonds that had been formed within families as they decorated meant the world to him. I saw a tear running down his cheek. Enough said. The interview was over. ❄️



*Some of the Light-O-Rama factory floor*

# SuperStar Sequencer

A brave new world.

By Brian Bruderer



For Christmas of 2008 I spent untold hours building my first SuperStar display using 288 segments of green and white rope lights. Controlled by 48 multiplexed channels it was a true example of Light-O-Rama's motto of "imagine it, then do it." Traditional mega-trees can spin, but my SuperStar could do patterns in all directions. Most importantly it could shoot beams downward from the star to the ground.

The next summer I got an email from Light-O-Rama announcing a device called a Cosmic Color Ribbon. I thought, well they did it, they made my SuperStar display obsolete. With 12 Cosmic Color Ribbons you could not only do patterns in all directions but also do them with any color and it would be way easier to set up and take down, and much lighter in weight than rope lights.

But 50 pixels per Cosmic Color Ribbon, and three channels per pixel means 12 CCRs use 1800 channels to control all those colors in all those pixels. No way could you do patterns in all directions with all those pixels using traditional sequence editors. So I set out to develop some software that could, and that's how SuperStar was born.

To control all those pixels required a new approach to sequencing. Instead of seeing each channel that was being controlled, everything needed to be an "effect" with attributes like a start and end point, and a start and end color. It makes for a very different user interface than traditional sequence editors.

I am a computer programmer and have worked with computers over 30 years, but I'm as fearful as anyone when it comes to learning new software. If offered the choice between water boarding and learning new software I think I'd try the water boarding. Like when I got that new version of Microsoft Office, I had an older version I had grown to know and love and it did everything I needed, and then I was forced to jump into this strange new interface that apparently made sense to someone at Microsoft but made no sense to me. I expected the menus to be different, but I didn't expect the menus to be missing! For 30 years all software had menus and now they decide to remove them?

The first launch of SuperStar can be a similar experience. You knew what to do with all those squares in the other sequence editors, but what are you supposed to do with these green squares and the ruler at the top? And after adding an effect, instead of a bunch squares being filled in, all you get is a bar underneath the ruler. It may be intimidating at first, but trust me, the new features are worth learning.

Once you take the plunge into SuperStar, what do you do first? SuperStar is a part of the Light-O-Rama S3 software suite so the first thing is to download S3. Go to the Light-O-Rama web site, find the software download page and click on "Download Latest Version Now." Once S3 is on your computer, find the list of Light-O-Rama programs and click on

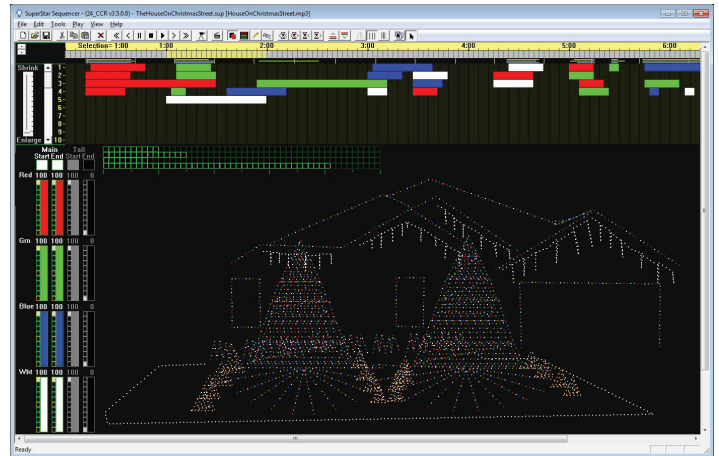
“SuperStar.” At the top of the program it will tell you what version you are running. If you have not paid for a SuperStar license then it will say “Demo” at the top. With the free demo you can do everything that the paid versions can. You can sequence up to 24 CCRs and save the sequences. You can also sequence all your other lights by importing a visualization file. And you can experiment with the Instant Sequence feature. The only limitation in the free demo version is that it cannot export.

What is export you ask? The SuperStar Sequencer is a “front end” to the Light-O-Rama Sequence Editor. As such it can save and open sequences in its own SuperStar format, but to play the sequences it exports them into a file that the Light-O-Rama Sequence Editor can open and then you use the Light-O-Rama Sequence Editor to play the sequence to your actual lights.

But you don’t have to export your sequence to see what it will look like. When you play the sequence within the SuperStar Sequencer you will see the sequence on your computer screen.

Even though the SuperStar Sequencer started as a tool just for sequencing CCRs, it can also be used to sequence all your other lights. You do this by creating a Visualization file in the Light-O-Rama Visualizer and then you import the Visualization file into the SuperStar Sequencer. You can then click on light fixtures in your display and apply the same effects to them as you can to CCRs. This opens up a whole new world of sequencing tools. You can select all the lights in your display and then add a red effect, and all the red lights in your display will be used in that effect! Copy and paste that effect elsewhere and change the color to green and all the green lights will be used. To learn more about how to apply these effects, just take a look at the video tutorials on the Light-O-Rama website.

SuperStar can also do an “Instant Sequence.” This feature started out as a way to have the computer automatically generate effects for CCRs, but it has been expanded to also work with your other lights using an imported Visualization. Don’t have a visualization file? SuperStar now



*SuperStar Sequencer with imported Visualization. courtesy of Don Teague, Synchronized Christmas*

has the ability to create a “Quick Visualization” file based on the number of controllers you have. Once you have a “QuickVis” file you can then create an “Instant Sequence” on all of the lights in your display. The Instant Sequence video tutorial can demonstrate how to create an Instant Sequence.

What about support? As a part of the S3 Software Suite you get all the support you have grown to trust and expect from Light-O-Rama, and many of the questions will come to me so you will get answers directly from the creator of the software.

Do I still write sequences for CCRs? Yes I do. The SuperStar Sequencer is sold through Light-O-Rama as a part of the S3 Software Suite. The SuperStar sequences are available at the SuperStar web site at [www.SuperStarLights.com](http://www.SuperStarLights.com). Click on the “Videos” link underneath the word “Sequences” to see the sequences.

I can’t express enough how wonderful it has been to be able to contribute and be a part of all the computerized lighting enthusiasts. I am still a newbie in many ways and have learned a lot from all the others in this “hobby.” I’m a sentimental sap at heart and I still get teary eyed when I see a beautiful light display. And the real reward is seeing children’s eyes light up when they see some of their favorite songs come to life on huge light displays. I sometimes joke, “all this fuss over a bunch of blinking lights,” but it is oh so much more. ❄️

# 4x4 Design

Get into light shows the easy way.

By Robin Williams



So it's time to take the big step and animate your light display? Since most people use Light-O-Rama controllers we figured they would have a few tips on how to get started. We talked to John Potochnak and he said they're now getting serious with simple plug and play solutions. Light-O-Rama is about to make available 50 music sequences that should help bring animation to more displays.

The challenge is everyone uses their light channels differently so it's tough to create sequences that will work over a variety of venues. Luckily the pros have figured out a trick that will make life easier for the rest of us.

Think about old movie marquee signs where a row of border lights appeared to chase each other. If you watched carefully, every fourth light came on at the same time. Chasing is nothing more than a pattern of 1, 2, 3, 4. The eye is attracted because it perceives movement. Light controllers love to make their channels chase.

Now start thinking about your venue in groups of four. Four groups of bushes. Four windows. Four columns. Think about each group of channels chasing each other: 1, 2, 3, 4. Then think about groups chasing groups. Now you have natural chasing elements that a creative sequencer can take advantage of and make your venue dance.

The new Light-O-Rama sequences are based on the 4 x 4 concept. It doesn't matter what's in a group. Your house might have four segments

of a roof outline, four windows, four bushes and four columns. My house might be four bushes on the left, four bushes on the right, four windows upstairs and four windows downstairs. The same sequence will look great on either house since it's built around four groups of four.

With their emphasis to simplify creating shows, the Light-O-Rama sequences come ready to work with 48 channels (three 16 channel controllers). They slipped me some of the documentation that will be included with the new sequences. Channels 1-16 are meant to be the primary channels and are used constantly. Channels 17-48 are for accent purposes within the music. The trick is you can start small this year with just 16 channels and add on later.

Channels 17-32 use the 4 x 4 concept and for Light-O-Rama demonstrations they use four minitrees, each with four different colors. With channels 33-48 they bent the 4 x 4 rule a bit and used 2 x 8 or two groups of eight meaning eight channel leaping arches. I arranged for the publisher to insert old articles in this *PlanetChristmas Magazine* edition showing how to build minitrees and leaping arches.

I'm now seeing vendors touting 'LOR Friendly' design elements. Be sure to check out a Winterland ad in this edition of the magazine. If you're not too handy making things, buying everything off-the-shelf is the next best thing.

Four groups of four. 4 x 4. It's a simple concept and removes much of the uncertainty designing your display.

# Typical Layout

16, 32 or 48 Light Channels



## House *(light channels 1-16)*

1. Think in groups of four
2. Four windows, four bushes, four roof sections, four columns, etc.
3. Each group of four will typically follow a light sequencing pattern
4. Place controller in central location so wires are short

## Trees *(A-D) optional channels 17-32*

1. Four color mini-trees could be 16 one color items placed in a row
2. Mini-trees could be wreaths, candy canes, stars, etc. or any combination
3. Be creative by thinking in four groups of four

## Arches *(E-F) optional channels 33-48*

1. Each leaping arch is eight sections of lights
2. Arch could also be simple vertical or horizontal pole
3. Arches could be eight candy canes lining each side of driveway
4. Be creative by thinking in two groups of eight

## Suggestions

1. Keep it simple
2. Label ends of every wire to make troubleshooting easier
3. Lights can be all the same color and still make a great show
4. Keep controllers away from direct sprays of water






# Cosmic Color Ribbon

Light-O-Rama introduces our ShowTime Cosmic Color Ribbon guaranteed to dazzle everyone. Each ribbon is over 16 feet long and has 150 super bright red, green and blue LEDs providing control in how you make the lights dance. Imagine leaping arches of lights, letters outlined in changing colors or even a giant TV screen showing moving Christmas images in your display. It ties into your existing ShowTime products meaning you can add incredible new effects to your existing display. ***Imagine it, then do it.***

Find more information  
on our website or look  
for details in this issue  
of PlanetChristmas magazine

**Light-O-Rama**  


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(518) 539-9000

Light-O-Rama, Inc., 22 Hudson Falls Rd, Suite 52, South Glens Falls, NY 12803

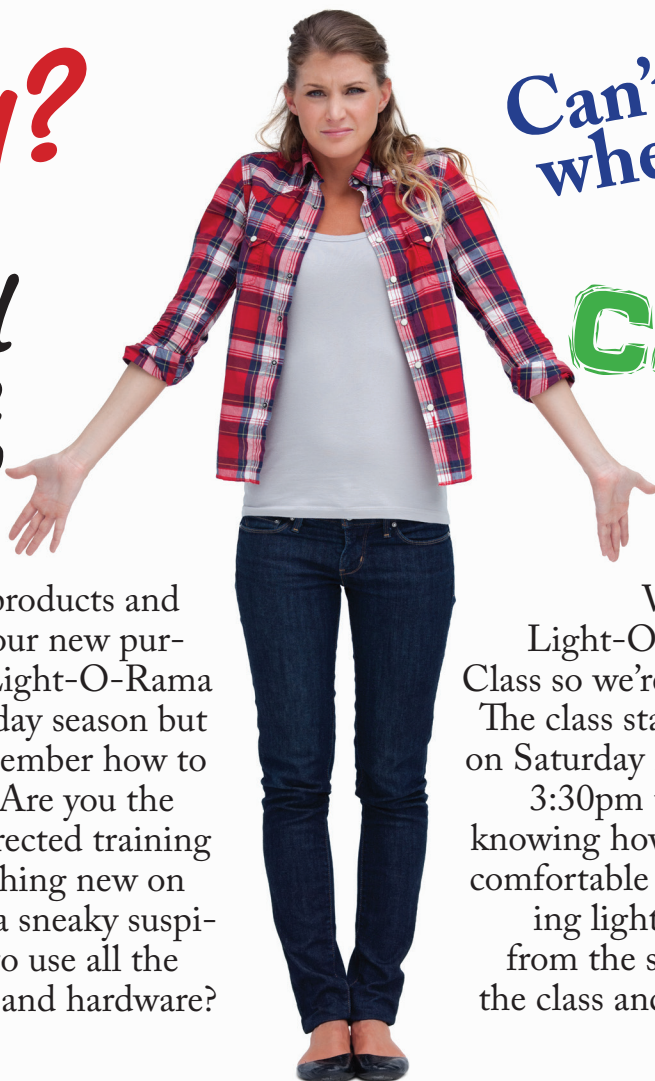
**Rusty?**

**Need  
some  
help?**

**Can't remember  
where to start?**

**CLUELESS?**

New to Light-O-Rama products and feel overwhelmed with your new purchase? Do you only use Light-O-Rama products around the holiday season but it takes a few days to remember how to do things from last year? Are you the type that prefers some directed training instead of learning something new on your own? Do you have a sneaky suspicion there's a better way to use all the Light-O-Rama software and hardware?



What you need is an official Light-O-Rama JumpStart Training Class so we're coming to a city near you. The class starts bright and early at 9:30 on Saturday morning and runs through 3:30pm that afternoon. You'll leave knowing how things fit together and be comfortable with the basics of sequencing lights to music. You'll also learn from the seasoned instructor running the class and answering your questions.

## Light-O-Rama JumpStart Classes are coming to you!

| City                     | Date               |
|--------------------------|--------------------|
| Ft. Lauderdale, FL       | July 28, 2012      |
| Minneapolis/St. Paul, MN | August 18, 2012    |
| Kansas City, MO          | August 25, 2012    |
| Philadelphia, PA         | September 8, 2012  |
| San Diego, CA            | September 15, 2012 |
| Little Rock, AK          | September 22, 2012 |
| Las Vegas, NV            | September 29, 2012 |
| New Orleans, LA          | October 6, 2012    |
| Louisville, KY           | October 13, 2012   |
| Spokane, WA              | October 20, 2012   |
| Atlanta, GA              | October 27, 2012   |

There are limited seats available so sign up for the class nearest you now and get a discount for registering early. The day will be fast moving but you'll walk away with the confidence to create a great display with Light-O-Rama products. What are you waiting for? [www.LightORama.com](http://www.LightORama.com)

**Light-O-Rama**  
[www.lightorama.com](http://www.lightorama.com)

# Show Testing from an iPad

Technology to the rescue!

By Wayne Gateman



So, you want to test your lights, and the more you have the more you need to test as you get ready for launch night. Like most however, I started off my first year of doing animated lights using the more primitive 2FSS run method.

Better known as the two feet, two sneakers and stairs method, aka: running upstairs to turn on display, then back down to see if it works, then back up if it did not, or if it started some of them, but not others. Wow, plain exhausting, and the more lights, stairs, yard you have, the more you develop a love / hate relationship with the 2FSS method.

To make the point, the first year I did this I only had 5,160 lights spread across a large yard, so the 2FSS method gave me a big workout and major frustration when something would not work or light up when I expected it to.

In my second year (2011) I had 17,305 lights! That's a 235% increase from the first year and the very thought of 2FSS was making me exhausted.

Did I mention that the entire staff for my show is one? There was some pity help from my wife on the days she felt her sanity at risk if she did not prevent me having a heart attack trying to get all the lights up by myself.

So, how to get the lights in place and test them to make sure they not only went on and off, but would perform correctly when a sequence was run? A starting point was PlanetChristmas,

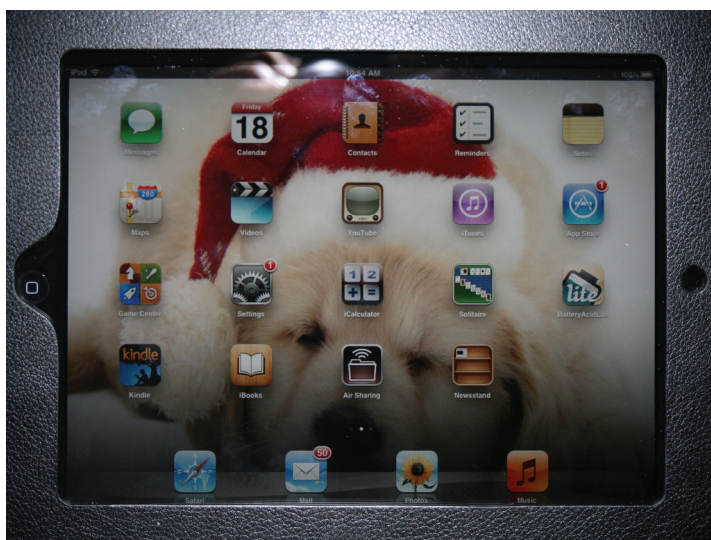
followed by an article in the *PlanetChristmas Magazine*.

The story showed how to use a modified small light show controller to do quick testing, nice but limited to a small section of lights without the ability to test larger groups of lights as you progress along.

Now, by trade I am a computer systems engineer, which means I have been working with computer systems for over 30 years now, networking, operating systems and for the past ten years: virtualization, which involves getting a single large computer to run many virtual computers on it. So, if anyone should have SOME idea of how to do this, it should be me. One would hope, expect, count on, and prey for! Yeesh!

This led me to ponder a solution, or in computer speak, 'parse the data through many filters to reduce total dataset down to a few ideas for testing' and while pondering I was using my new iPad my wife had given me for the 2010 Christmas holiday. And then the little idea icon in my head started flashing, (think C9 bulb) the iPad is small and portable and most of all powerful enough to do so many things.

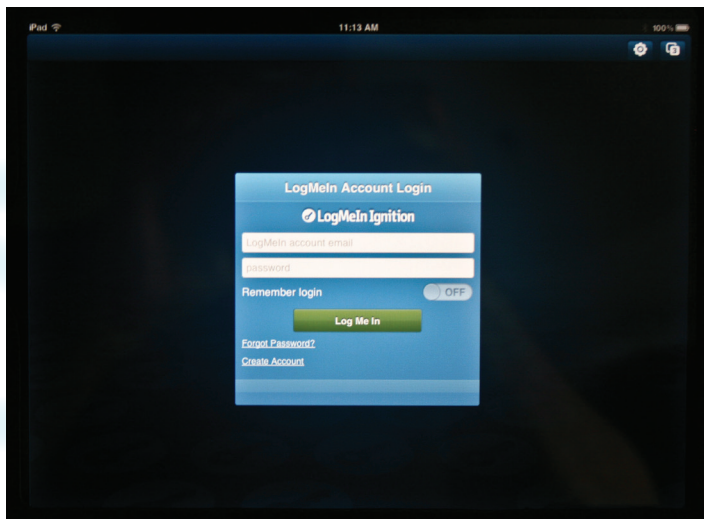
I already have wireless connections in my house, the iPad receives and sends wireless signals, so my mind is saying 'Hello', wake up, idea here, why not use the iPad to test the lights?



*Use your iPad*

Ah, ha you say, and that is exactly what I said, followed by the next question, how to run the Light-O-Rama software on the iPad. Simple answer, you don't, it runs on the PC, I just have to be able to see it and control it from the iPad, and I have been working with remote access for a long time.

Next step: locate software that would allow my iPad to talk to my PC so I can reach and run my lights. To do this, my first stop is online software that allows me to use remote access to any computer that has the client installed on it, from any other computer. So I headed for [www.LogMeIn.com](http://www.LogMeIn.com), it offers free and paid versions of its software, so I could install the client on my PC without any problems.

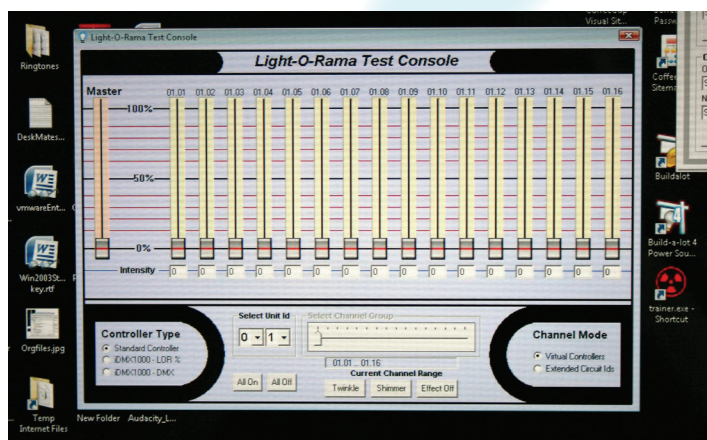


*LogMeIn Ignition access to your desktop*

Now I just needed some way to connect to the client aka: iPad, you see LogMeIn works with Internet Explorer or Firefox and while I could connect with Safari, it just won't work correctly from a small screen such as the iPad, and is not supported by LogMeIn.

And the flip side is IE and Firefox do not run on the iPad.

LogMeIn figured out real quick that many iPads and smart phones desire for remote access would require a non-browser product to use remote desktop access. And they were ready with a product called "Ignition" which allows for direct connection to the remote agent on the actual PC.



*Light-O-Rama's Hardware Utility running on my iPad while I stand in the yard*

So, now I have my wireless router, my iPad and a connection between the two, so I am good to go.

I setup my lights, and when I had a section to test, all I had to do was leave the software open on my desktop (I could open it remotely, but come on, I already had it open and was working on it, so why would I close it?) Head outside, open the iPad, make the connection, and like a shining beacon, there it is my desktop and the Light-O-Rama sequence editor or hardware utility depending upon what I was testing, just waiting for me to click on it. Now it is just a matter of using the hardware test sliders to see if each section of lights will turn on correctly and then I run a sequence to see if the lights do what they should in the correct order.

This is way to cool! ❄️

# Squeezing More from your Light Controllers

What I figured out really works.

By Brian 'Papa Elf' Rieger



**D**o you wish your light controllers had more channels? Me too. If you have recently joined the ranks of the “Computerized Holiday Lighting Crowd” you’ve probably figured out it takes a bit of an investment to get a decent display up and running. Controllers, light strings, extension cords, FM transmitters - it adds up quick. Most reasonable people operate within some type of budget when planning a light show, so where do you draw the line (from an investment standpoint) from year to year?

Last year I learned the hard way why it makes sense to have a spare controller/board on hand at all times (segue harp music into the story): Like a lot of light enthusiasts out there, I typically plan on starting our Christmas light show on Thanksgiving evening. Everything went as planned for the most part - a few tweaks here and there but no major snags...until two days later. One of my controllers didn't want to work anymore. The fact that I didn't have a spare started making me a bit “twitchy.” You know what I mean - the mental state between being stressed out and on your way to the edge where you don't care if someone is listening to you talking out loud to the controller, and asking it why it didn't want to work and be part of the show like all of the other “cool” controllers. Acting crazy wasn't working and I needed to formulate a “Plan B” strategy quick. I knew getting any type of replacement board very

*Last year I learned the hard way why it makes sense to have a spare controller/board on hand at all times*

quickly in the middle of the Christmas lighting season was going to be tough, but I had to come up with something until a replacement board materialized.

We promote our light show through social media and have been featured on the local TV news stations and in the local newspapers, so everyone knew our show was supposed to be running by Thanksgiving evening. We also host an annual charity event every December called “Christmas in the Sky”, which features commercial-grade fireworks along with our light show. Over 500 people attended this past year. Thinking about all this just added to my anxiety. I didn't want to let anyone down. Sometimes necessity can be a mother...um, the Mother of Invention that is.

So - I started “stacking” different display items into the same channels. Sound pretty basic? Well, it is. But in some cases, you can use one channel to light up two or more display items without the effect looking too obvious or redundant. ESPECIALLY if you are in a pinch or on a tighter budget.

## *Here's why I believe it makes sense to not only use this concept in a pinch, but also on a more permanent basis: it can look really good.*

Let me give you some examples of what I did to light up all my display items without the extra channels I needed: I added a six channel (Bellagio) pole to my display last year. I was going to run this on six independent channels but couldn't after the loss of the controller. Coincidentally, I had six mini trees that were already set up on six independent channels. Hey - I'm not a math-a-magenius but six and six matched up pretty good. So, I started stacking some things together.

I'm going to pause here to let this marinade for a moment, especially for the really smart folks out there. Let me restate this: I know this is a basic concept. But have you ever thought, "I'm under utilizing my channels?" Here's why I believe it makes sense to not only use this concept in a pinch, but also on a more permanent basis: it can look really good.

One of the stacking techniques that I am keeping in my show permanently (for now) is to use the same color flood lights on the house, in conjunction with what's running on the roofline (red C-6 bulbs on the roof line, red spot lights on the house). At first I was a bit skeptical of even trying this and my son (who helps out with set-up and sequencing) implored me not to do it saying: "it's gonna look stupid." It has actually created one of my favorite effects in our show and everyone in the family, including the all-important Mama Elf, agreed. Now all the cool

fading, shimmering and "full on" light effects that are already set up for my roof line (I run two colors on the roof line), are also washing the whole front of the house via flood lights, perfectly sequenced together and it didn't take any extra channels.

Here is some additional reasoning why I think it makes sense for SOME things: When sequencing a song, a lot of folks typically will light up more than one display item together on hard rhythmic beats, like a kick-drum or snare hit. If this is typical of your sequencing style, you can stack some of these things (display items) together IF they are frequently sequenced together.

What about channel under utilization? Seems a waste to dedicate one controller channel to a single 100 count sting of mini lights on one section of a leaping arch. Would it really look good to run an animated eight channel arch with other display items, together? How about with eight mini-trees? Or a basic eight channel smaller mega tree. It can work because all of the animated chase patterns will work when they are stacked together in the same order. The animation will be in exact time with the arches and actually look very tight.

Computerized lighting seems to be evolving by the minute: DMX control, lasers, computerized plotting, etc. So does a basic concept like channel stacking really have a place in a hobby where "more is better" usually seems to be the mantra? I don't know, I'm not much of a minimalist myself but I am pretty darn pragmatic. And maybe it can get you out of a pickle. I prefer sweet pickles over sour grapes.

Now, who is Brian Rieger? We are running 80 channels of animation and about 32,000 lights total this year. I have been programming custom sequences for hire for the last three years and sell sequences along with a limited number of wireframes at our retail website, [www.girardlights.com](http://www.girardlights.com). Currently, I'm programming animation for a customer's 160 channel show, and I have been contracted to build a simple "strobe light run way" finishing line for a local marathon race organizer. ✱

# LED String Tester

Salvage those dead strings!

Inspired by Roger Forbes and enhanced by the PlanetChristmas Staff



**B**ack in the good old days of incandescent minilights, most strings could be repaired with a bit of patience and some simple tools. Along came LightKeeper Pro and things got even easier to fix that string buried deep in the tree. Attach the device, pull a trigger and like magic, a bad string would come back to life.

The world changed when LEDs came on the scene. Some strings require odd shaped power adapters. Others had funny looking bumps along the string of lights to make them work. So high tech! The biggest challenge was, and still is, most LEDs aren't meant to be replaced so the sockets are molded directly to the lights. This might be good for weatherizing the lights but fixing anything is pretty tough.

It would be easy to jump to the conclusion that LED light string manufacturers prefer you not repair any bad sets so you'll buy new ones. That might work for people with more money than they know what to do with, but the serious decorator wants to be in total control of when their lights are trashed.

Roger Forbes posted some information in the PlanetChristmas forums about how to repair LED strings and it drew a lot of attention. We asked him to write an article for the magazine and he was more than happy to share his knowledge with the world. But...

As our intern was building Roger's DC based battery operated device and then testing it in real life, she made some interesting observations.



*The Roger Forbes inspired LED String Tester ready to bring life to those lights you're right on the edge of tossing into the dumpster*

LEDs will typically only work when electricity is flowing in the right direction. Connecting the tester to a bad light string involved some initial trial and error as you established a reference point. She also noticed the nine volt batteries Roger liked so much had this bad habit of wearing out too quickly and nine volt batteries had really gone up in price the last few years. After \$20 in batteries, she was open for options.

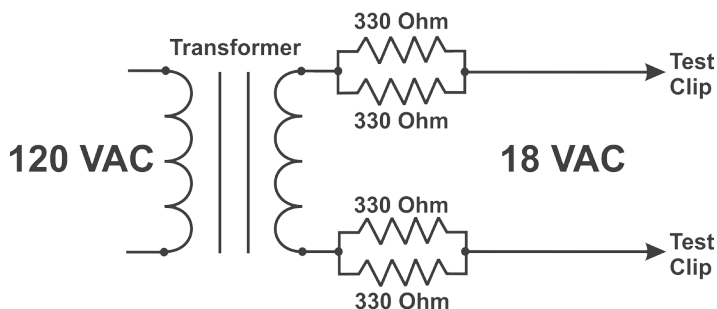
Here's all you need to build an LED light string tester:

| Qty | Description                      | Part                     | Price  |
|-----|----------------------------------|--------------------------|--------|
| 1   | 120 VAC to 18 VAC transformer    | Jameco 2082142           | \$6.00 |
| 4   | 330 ohm ½ watt resistor          | Radio Shack 271-1113     | \$1.20 |
| 2   | Test Clip by Mueller Electronics | Allied Electric JP-25182 | \$3.36 |

Add a bit of wire between the resistors and the test clips and for less than \$15 you have a tool to repair thousands of dollars' worth of LED light strings.

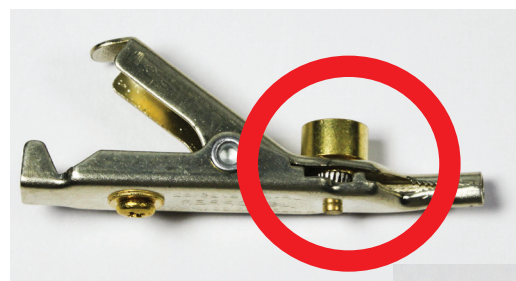


*Resistors are wired in parallel and attached to the transformer*

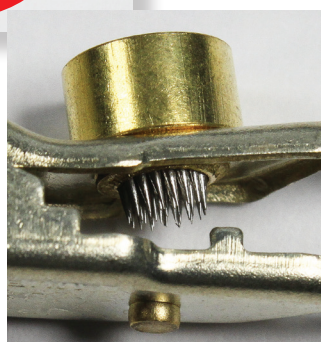


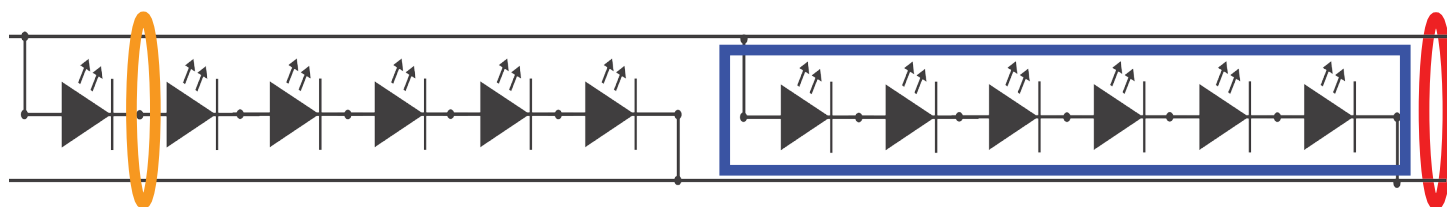
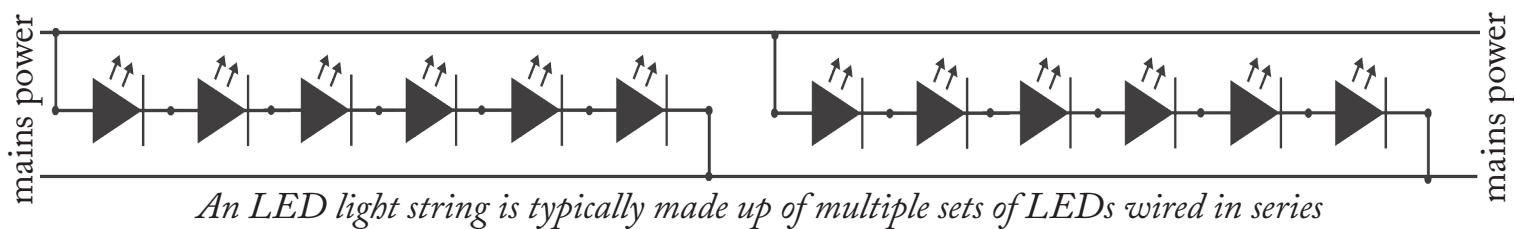
She started experimenting with different power sources and realized an AC based transformer used by the telephone company was perfect for our needs. Since it has an AC output, you can think of electricity as flowing in both directions so the lights will work no matter how you attach the test connections. She realized the lights might not be as bright, but for testing, that's fine. No more batteries but you do have to make sure you don't short the test clips together. You'll soon be able to fry an egg on the transformer right before things start melting.

The real magic to testing the LED strings is the type of test clip used. You can always cut the wire and splice into the circuit but it's very destructive. Roger used a special test clip with a bed of nails connection. Quite clever. Attach the clip to the wire on the bed of nails and at least one of those nails will pierce the insulation and make contact with the conductor to establish a circuit. Remove the test clip and the insulation heals itself. Perfect for what we're trying to do.



*The magic is the bed-of-nails test clip*





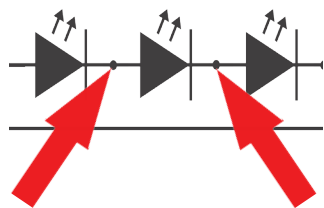
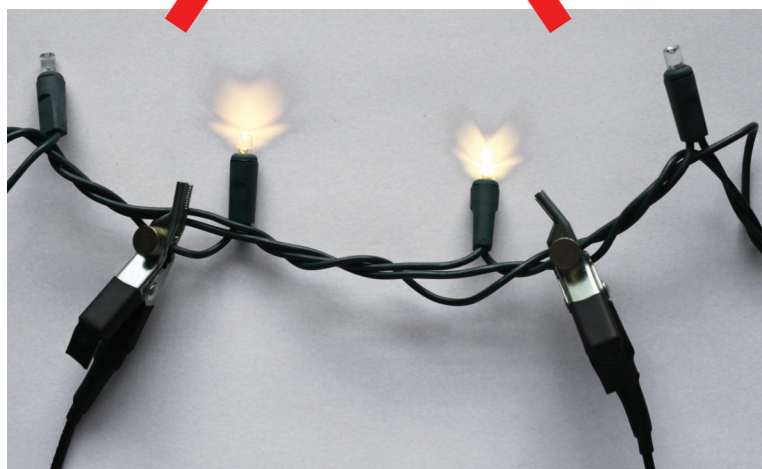
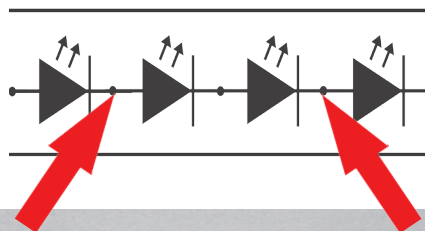
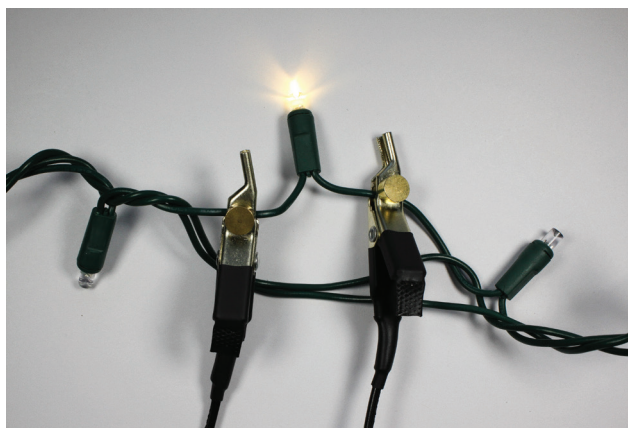
Look closely at a light string. The blue box in the schematic shows one set of LEDs in series. The yellow oval shows a cross-section where you see three wires. The red oval shows the cross-section where you see two wires. Understand this simple principle and you understand how LED strings are configured.

## How to find that bad LED

LED light strings are typically wired the same as incandescents. Each light can handle a low voltage so if you connect enough of them together in series they will work at the high voltage coming out of the wall outlet. Incandescents don't care about voltage polarity and work fine on the AC coming out of a wall outlet. LEDs much prefer DC voltage (like in your car) but luckily for testing purposes, AC voltage will work fine.

If you look at a cross section of the wires of a typical light string, there are two wires going to the plug at each end but three wires almost everywhere else along the string. Look at the schematic and you'll understand why. Most light strings handle multiple groups of lights wired in series. When an LED goes bad, that explains why a portion of the string goes out. The series of lights where the bad LED exists has a broken circuit so they all go out while the other circuits stay on.

For testing we focus on the part of the string that's dark and specifically just the wires entering and exiting the light sockets. From here on out it's all about developing your own testing technique.



Using the test clips to check one, then two LEDs

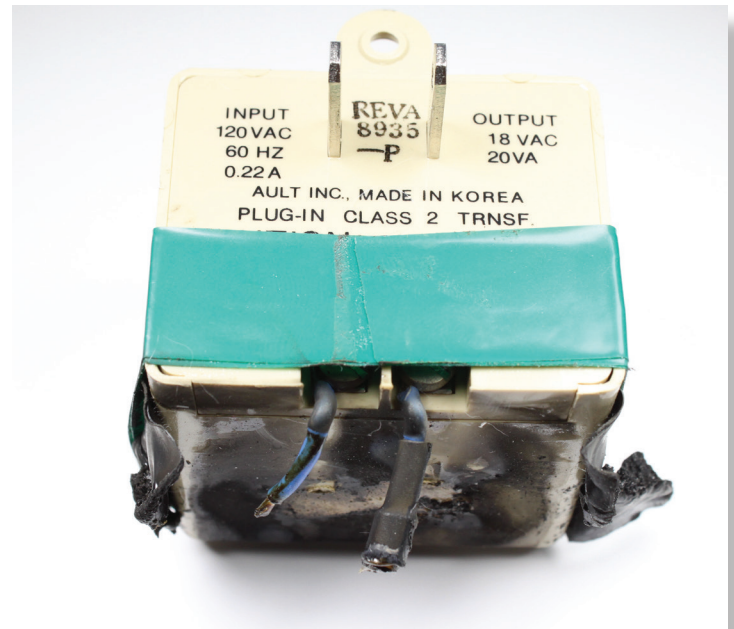
To find the bad LED, make sure the light string is unplugged from the power source and now power up your LED string tester. Attach the first test clip at one end of the dark section of lights at the wire entering the first LED. Attach the second test clip to the wire exiting that LED. With any luck the light will come on and you've proven the tester is working. Since the voltage of the tester is AC (alternating current) we don't have to worry about polarity. Now disconnect the second clip, go out about five lights in the series and reconnect the clip to the wire leaving the fifth LED. If all five lights come on, move to the next section. If the lights don't come on, move the second light clip to the wire leaving the fourth light. If the lights come on, you know the fifth light is bad. See how the process works? Light several bulbs in a series, if they work, move on to the next. If the bunch doesn't light, work backwards to isolate the bad LED.

Your LED string tester will power 8-10 LEDs just fine. As you develop your own technique, you'll figure out how many lights make sense in the initial test. We've found five lights are pretty easy to work with but we know others that will initially try testing 15 and work back if there's a problem.

***We said this was an LED  
string tester.  
Not an LED string fixer.***

### **Find a bad LED? Now what?**

We said this was an LED string tester. Not an LED string fixer. If you have a sacrificial light string to use as spare parts, you can cut out the bad LED and splice in a new one from the sacrificial string (making sure the polarity is correct) but this is a timely process. Most people cut out the bad LED, solder the exposed wires together, add a little heat shrink tubing to make the connection weatherproof and declare the string functional again. This works because



*What happens when you short the test clips together? Bad things. **Don't short the clips.***

the lights are in series and you've wired around the break. Doing this means all the other lights in the series receive a little more voltage but they'll work fine.

### **Portable LED String Tester**

If you need a field tester, you can replace the transformer with two nine volt batteries wired in series. The testing technique is the same but now you need to worry about polarity. Attach the test clips to each side of the first light and if it doesn't come on, reverse the clips, meaning you're reversing the polarity to the LED. When the light comes on, start moving out that second clip and test just like before. You can get really clever and add a DPDT (double pole double throw) toggle switch to the unit to easily reverse the polarity of the clips to speed the initial testing.

### **Final Tips?**

Most bad strings can be brought back to life in five to ten minutes and is well worth the effort. You'll come to a point when you realize if a string isn't working after 15 minutes, it's time to scrap it and move on. Now is the perfect time of year to tackle that pile of bad strings. ❄️

# Tree Toppers

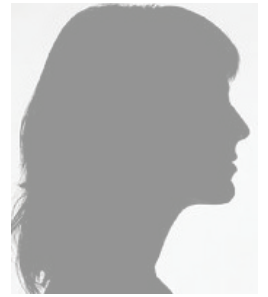
Liven up what's close to the ceiling.

By Sarah Pulaski

**L**ike having the perfect shoes to match your dress, your Christmas tree needs the right accessories to make it look completely stunning.

One of the Christmas tree accessories that we simply cannot do without is a tree topper. Whether handed down from one generation to the next or bought from a local store on clearance, tree toppers make a big difference on the appearance of your Christmas tree.

Here are some Christmas tree topper ideas that you can do on your own.



*Heavenly Angel*



*Pearl Tree Topper*



*Poinsettia Bouquet*

The Heavenly Angel (on the previous page) is a classic favorite tree topper and brings a touch of grace to your holiday décor. With a craft cone as topper base, wrap white or jewel-toned fabric around the base and secure the ends with hot glue to form the angel's dress. Attach a porcelain head or a small round Styrofoam ball to the base with a toothpick. Using hot glue, attach a gold plastic ring to the head to serve as the halo.

### **Pearl Tree Topper**

Pearls not only look elegant when worn; they also look fantastic on top of a Christmas tree! To make a pearl tree topper, you will need pearl beads of different sizes. String the beads to eight four-inch head pins, from smallest to biggest. Make sure there is equal number of beads on each pin. Fasten the beads to the back of two cabochons using double-sided tape, forming a sunray figure. Press the cabochons firmly to ensure that the pins will not fall off. Use a craft wire to attach the pearl tree topper to your tree.

### **Poinsettia Bouquet**

Poinsettia flowers add a splash of color to Christmas trees. Using faux Poinsettia blooms, tie the flowers using a ribbon or floral wire to form a bouquet. Secure the bouquet on top of the tree using the excess floral wire or ribbon. To add shimmer to the blooms, mix ordinary

glue and silver glitter. Use a small paintbrush to apply the mixture to the edges of the flowers. Let the flowers dry before attaching them to the tree.

### **Elegant Feathers**

Faux feathers lend a glamorous look to your Christmas tree. Colorful peacock feathers arranged to form a "V" make for a sassy Christmas tree décor. You can also choose other plumes, dye them in festive colors of your choice, and wire the bottom of the feathers together using a craft wire. Extend a few inches of the wire downwards so that you can secure your fanciful décor on top of your tree. Another option is to use individual faux pheasant feathers into the top of your tree. Add a few bird ornaments and red berry branches for woodland-themed holiday décor.



*Elegant Feathers*

### **Flowing Ribbons**

Cascading ribbons look impressive on any Christmas tree. This very easy-to-do tree topper only takes minutes to create. A satin ribbon tied into a bow, with the ends hanging down the Christmas tree, look dainty on any evergreen. Choose a colorful ribbon that is at least one-inch wide. You can also use wired ribbons to make shaping a lot easier. ❄️



# Christmas Car

Be different and make a difference.

By Tim Smith

**T**im Smith takes lighting his car to an entire new level. We asked him why? “This is the 9th year I did it. Basically, it just makes everyone happier. When I take it downtown or in neighborhoods, you can see the atmosphere of the place just get lifted and I figure with the chaos that’s going on all over the place, if I can make someone forget about it for a few seconds and have them step out of reality and just smile then it is worth the time and effort put in. That is what makes it addicting. That’s why I do it every year.” ❄



# Presidential Politics

Everything you need to know for Christmas.

By the PlanetChristmas Staff



That about sums it up. The bottom line is politics and Christmas don't mix. ❄️

# Waterproofing Those Connectors

Water, water everywhere... but here.

By Wayne Gateman



**W**ater, water, everywhere, but I can't seem to keep it outta here!

Here, being my light show, the water loves the electrical connections like I love Christmas displays, the difference being I like them turned on and bright and the water likes them shorted out and dark!

How to stop the evil water infiltration? Giant sponges? No, too hard to wring out each day. Umbrellas? Nope, blocks the lights. Hmmmmmm, who will stop the rain, do'h, that's a line from a song!

OK, so here are the standard ways to protect the lights: electrical tape and duct tape. They work, however, not always, i.e. water gets into the ends or slowly gets under the tape for ground connections.

So, what is a light deprived person to do? Indoor displays! Naw, they are nice but not what I do. I like to share the joy of the lights with others, and the outdoors works best.

Now what? Got it! Commercial waterproof devices. They work, they keep the lights on but they can be expensive. The one pictured here is \$5.50, that adds up very quickly and does not cover three or four way connections.

The goal is low cost, effective waterproofing for two to four connections, and they need to be easy to make and deploy. This is like trying to teach a pig to sing. It just annoys the pig and wastes your time. So what is a crazy tech, light obsessed, tacky gone wild guy going to do?



*Official (and expensive) watertight connector enclosures*

What all of us do on an occasion, have a drink and think, think, think. Now picture a dream sequence, the lights are all on, the rain is falling and "look ma!" no shorts or black outs, but how to do it? Now I picture a small but beautiful island and a severely vertically challenged man comes running out and pointing at the sky and says "look, it's the plane, the plane" and another voice rings out "welcome to Fantasy Island."

I now it's crazy, but even as I think it can't be done the beginnings of a light bulb come on, slowing fading up to a clear, LED bright idea. Eureka I know how to do it, I know how to provide all of the above, now to see if it works.

So, with the idea bright in my mind I spring to my sleigh and eight tiny reindeer make ready to carry me away... oops, that's another story.

Off to the store I go in with an idea in hand. The first stop is the local super discount store, around here one of them is known as Odd Lots, they have overstock items, and my first requirement to make many waterproof covers is it **MUST** be inexpensive, aka **CHEAP**. Once in the store I find what I seek. It calls to me with the bright shining hope of holding back the dampness, it's, it's, wait for it, here it comes, are you ready??? It's a cheap copy of **TUPPERWARE!**

Yes, that wonderful container idea, it can go from the refrigerator or freezer to microwave; it keeps stuff in and other stuff out, like **WATER**. Now we're talking.

But wait I hear you cry it will suffer from condensation build up and water will attack the connections. **WRONG**, I have yet another idea on preventing it so just sit back and keep reading while I explain my journey into madness and what it revealed to me.

So, I have the completed my first quest, I have the inexpensive containers, around \$1.75 for four small ones, and \$3.00 for the larger ones I need.

Quick, back to the bat mobile and a fast return to the bat cave, but that's another story, so back to my house / garage so I can complete the second quest, find where I put my Dremel tool.



*The non-official and much cheaper alternative*

Fast forward through frantic search mode, and at least the second quest is completed, and now the requirements are met, I have the following:

- An LED bright idea on keeping water out of my connections
- Inexpensive plastic containers with lids that fit
- My Dremel tool and some plastic cutting wheels for it
- Electrical outlet so I don't have to make a Dremel sound while I am cutting the plastic containers.

And now the moment of truth. Can my idea work? Can I really hold back the water? Will it work? Can it stand the test??? The suspense is killing me. Well, not really, I already know it works since I had my crazy break with reality last November and already tried this out. But I want you to feel the suspense, the agony, the triumph of success, and I don't want you to be bored by dry facts. Get it? Dry, as in there was no water hurt in the making of this great idea! I can hear the groans from here, but hey you get what you pay for and the *PlanetChristmas Magazine* is free!

So, here is how you do it, first you decide if you need to protect two cords that are connecting or three or more, and then you chose which size container to use.

We will start with the two connection one, first take one of the small containers and check that the matching lid fits.

Now, remove lid and put aside, take your Dremel and start it, increasing the speed to about midway. You want a speed that will cut, but not burn the plastic and that allows you the most control.

I recommended holding the container from the side not being cut to give your fingers safety room.

OK, bring the Dremel to the lip of the container and cut down just until the lip itself is cut, then do the same thing again, about a quarter inch apart. The reason for this is the lip



*Dremmel tool can cut a slice in the side of the container*

protrudes out and you need to cut it before the body of the container.

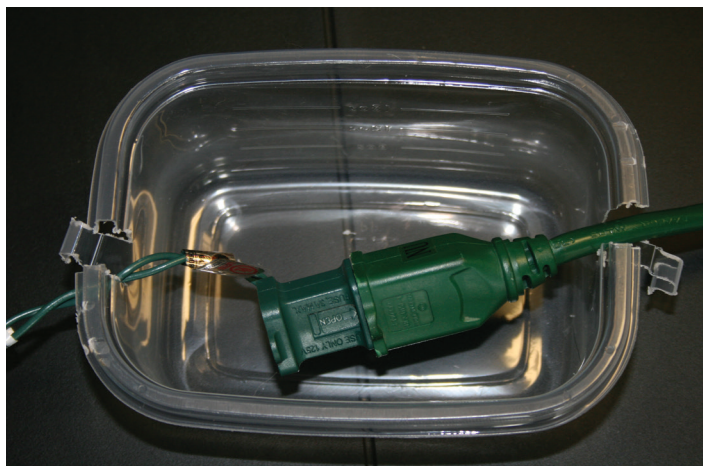
Now, turn the container so you are looking at its side where you just cut the lip, and slowly lower the Dremel down until it cuts into the container, the motion of the Dremel blade making contact will quickly pull down and cut the slot you need.

Don't make one bigger than about  $\frac{1}{2}$  inch, I will explain why later, then cut the other slot and repeat on the opposite side. Take your time, if you rush or use too high a speed on the Dremel it can crack the container.

Note: there most likely will be a small bit of plastic that did not get cut between the lip and body, you simply need to wiggle the piece carefully and break the little piece to complete the slot.

So, you have the two slots cut, now what? Well first off, note you do not want to remove the tab completely; it still provides container integrity and serves to stop snow from getting in even if bent down by the cords.

Ok, so now you take the two cords you want to connect and lay them in the slots and connect them.



Now you simply place the cover back on, (note: if you want extra protection you can still wrap a piece of electrical tape around the area where the two plugs meet.

The lid is a critical part of the waterproofing, as it overhangs the container on all sides and helps keep the water away from the body. Even if in a heavy rain this works, i.e. the lid fills up and the water runs off the side. The tight fit of the lid insures water won't go around the lip and into the container from the top.

Here's the part you have been waiting for. Why is condensation not an issue? Simple, the two slots allow for air flow so even in high moisture you won't get internal condensation in any amount that causes issues.

And now for this critical point. Why don't you want to not make the slot too deep? If you live in a snow state you can, and most likely will, get several inches of snow or more, which will cover the container. As the snow melts some water can enter via the slots, by only cutting them down a  $\frac{1}{4}$  to  $\frac{1}{4}$  inch you don't end up with the cords on the bottom of the container, but in fact end up suspending them in the air as shown in the picture below.

Neat isn't it? By hanging the cords in the middle you don't have to worry about the little bit of water that can get in during snow or heavy rain.

Ok, so what if I have more than two cords to connect, say three or four? Easy, you do the same exact thing with a larger container, cutting either three or four of the sides.

Just make sure you get the lid's on tight, don't leave them up anywhere around the lip or water may get in from the top.

**One final word:** I tend to be a worrier, i.e. no matter how much I waterproof connections you can never have too much, so I do use the electrical tape on the connections before putting them in the container. However, as I noted earlier, there were no cords that were found to be wet.

I hope this works for you as well as it has for me, here's to a great 2012 season of lights with waterproof connections. ❄️

# Shadrack's Christmas Wonderland

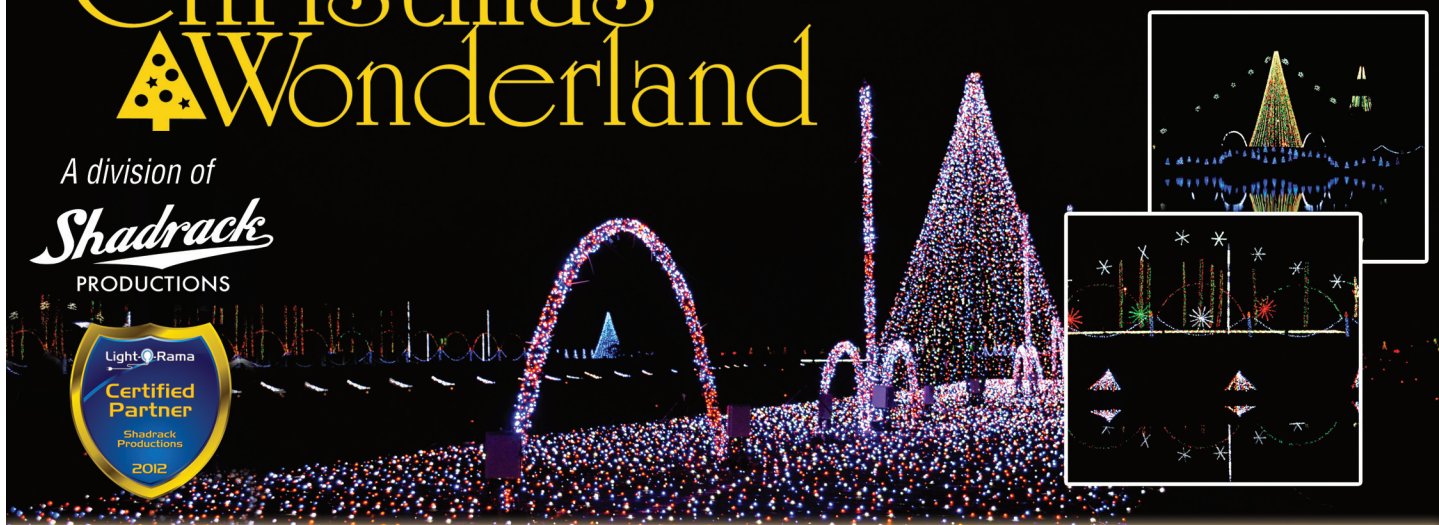
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# RGB Colors

More than red, green and blue.

By Jeffrey Holmes



**P**ick a holiday. Now name the first three colors you associate with that holiday. If you are like most people, those who thought of Christmas were reminded of red and green, Hanukkah goes thought of white and blue, and Halloween enthusiasts came up with orange and purple. (Valentines = red/pink, St. Patty's = green, etc. etc.)

There was a time when picking colors for your holiday decor was easy. Why? Society had already done it for you. With few exceptions, we covered our houses in layers of red, green, white, and sometimes blue lights before spending hours at our computer mixing and matching to create fantastical musical routines.

But now RGB (Red Green Blue) has taken center-stage. No longer are we restricted. Now we can put up one string of lights, one strip, one flood, and have over four million color options at our finger tips. Off the top of my head I can only think of a dozen colors, let alone four million!

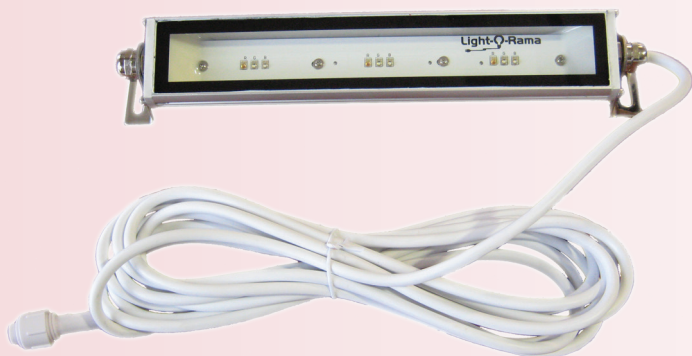
While RGB is a fantastic technology, I have discovered in my endeavors, "with great color, comes great responsibility." Colors have meaning and innate psychological effects on the human psyche. By discerning how color affects us, you, as a holiday decorators, can literally evoke any emotion you wish from your audience.

Before actually getting into programming, let's talk a bit about some common colors:

Red is spicy. This color has actually been proven to physically increase blood pressure and breathing rates. It is a color that evokes strong emotions and is associated with both Cupid and the devil, love and war. While the context can influence how this color affects us, the color remains one of the most powerful there is. This is probably why the color is often associated with power; hence red-carpet, red-power ties, and red dresses.

Green is both the color of life and renewal, as well as envy and jealousy. However, when combined with red, you get Christmas. This color is very context heavy as it often plays off of other colors to achieve its mood. Historically, green is said to have calming/stress-relieving affects, which is why the waiting room for on-stage personalities is often called a "Green Room." In a strange and twisted turn of events, green M & M's are said to send sensual messages, due to the fact that the color has long been a symbol of fertility. I recently began experimenting with green lasers and found they lend themselves well to a synthetic "firefly" or "faerie" look.

Blue, while equally as emotional, does not share the limelight in the way red does. Various shades of blue can be found all over our daily



*Light-O-Rama Cosmic Color Flood RGB fixture*

lives, from seawater to the sky. Blue is a very tranquil color, often giving the feeling of calmness. However, this color is considered the least appetizing. What do I mean? Try this experiment: When having dinner tonight, take a serving of food and put it on a blue plate. Then take a serving of the same food and put it on a red plate. Ask your partner/dinner guest to pick a plate. Because blue is often the sign for poison or spoiled food, chances are your dinner guest will choose the red plate. One warning about blue, too much blue can often lead to one feeling... well, blue. But the right shade and right touch of blue in a working environment (I personally love aqua) can actually make someone more productive.

Yellow is sunshine, and all the loveliness that comes with it. Think warmth, happiness, breezy days on the beach. Yet yellow can also represent sickness. When combined with orange, this color is very warm and inviting. However, too much yellow can turn people off.

Pink is a fun color to play with. Some sports teams will actually paint the guest locker room pink because it is said to have lethargic affects. While pink is merely a subset of red, it deserves a little recognition because it is often associated with a more romantic and charming emotion while red is focused on "fiery passion." I personally like pink when combined with yellow as it reminds me of Easter and all the feelings associated with it.

Purple is regal in every sense of the word. Just look at the vibrancy of it! But seriously, for years purple has been the color of wealth and royalty.

It is an exotic color because it does not appear in nature often. Purple adds a nice level of variety to nearly any color.

White is my favorite color. It represents purity, freshness, cleanliness. In Christmas decor, there is much debate between "cool white, pure white, and warm white." Each has its own feeling, mostly because each is actually a shade of yellow or blue, or sometimes it is just "pure" white. White has a certain brilliance that cannot be ignored. There is majesty in white that I find stirs the core of humanity in a passionate yet calming and enthralling emotional journey. Considering white is the combination of all colors on the spectrum, perhaps I should not be as surprised.

Now let's put these theories into practice:

The key to colors is finding combinations that remind you of other things. People have certain emotions attached to certain color combinations that you can tap into. Sometimes your theme or the music you have chosen will make this very easy.

When sequencing a musical number to RGB lights, it is always best to listen to the song multiple times to see what colors come to mind. For example, if you are programming the opening song from *The Lion King*, it would make sense to use yellow. Why? Yellow often symbolizes life, morning, happiness, joyfulness, etc. However, it can also symbolize danger and warning so don't overdo it (though this is more closely associated to orange). In addition, *Lion King* already established this color to a world-audience with its opening scene of the sun rising (notice the morning tint on that entire opening scene?) and it would be an incredibly difficult



*Soothing blue*



*An RGB color washed wall using most of the colors in the light spectrum*

task to retrain your audience's brain during the time that they are viewing your display.

This is a side-note takeaway that is very important and will often make difficult color choices easy. Large corporations, society, brands, etc., have all established certain color combinations to mean “something” in specific scenarios. If you are following a well-established idea/theme (such as “The Cat and the Hat”), your audiences will appreciate your display more if you don’t make the Cat and the Hat’s signature hat blue and purple (when it is supposed to be red and white). The same can be said for the lyric in “Frosty the Snowman” that reads, “Heard him holler STOP!” What color are you going to flash? Red of course.

Having said that, you can establish a color-connection by constantly combining one musical feeling with one specific color or color-set. For example, when I programmed “Night Enchanted” by TSO (<http://lightsmusicmagic.com/portfolio.html>) I established green as a frightening color. Combined with red and yellow (typical fiery colors), I trained the audience's brain to associate these three colors with the image of Hades I was trying to paint. Yet, red and green are the most festive and cheerful colors in the holiday season. You can train your audiences quickly; just don't go against the grain too hard.

Listening to the lyrics of Night Enchanted, a section of the song speaks of “God saving us.” At this point I chose to bring in the color purple, both because it complimented green well and purple has been historically associated with royalty. It’s close enough on the color spectrum to blue to give the audience a more calming sensation but far enough to evoke total peace.

I finally did close the musical number with a plethora of more peaceful colors, leading the audience out of their wild emotional journey to the underworld.

One of the most important tips I can give is to mimic nature to get the feel you want. Clouds are very “whimsical and full of fantasy,” thereby if you are looking for a whimsical and fantastic feeling, you might try white and pink with a dash of yellow.

Nature is very green and blue. Combine those two colors to acquire a peaceful and natural feeling. Add some yellow to give it more of a rustic or safari-like aura.

RGB also offers the unique ability to choose your backdrop color. In traditional lighting, the only background option is black. With RGB, sometimes I will wash an entire set of floods or pixels with one color (such as purple) and then do my specific programming with a complimentary color. You can see an example of this in my sample of “Firework” by Katy Perry (<http://lightsmusicmagic.com/portfolio.html>).

You have four million colors available to you, but you don't need to use them all. While creating a flurry of colors may look cool for a few magical moments, audiences will appreciate the time you take to pick your colors in a very specific and intentional manner.

Now for the shameless plug: Jeff Holmes is the President of Lights, Music, Magic! which offers lighting consulting, design, programming, and installation services across the USA and is most well known for their work on the largest artificial dancing tree in the world. Visit [LightsMusicMagic.com](http://LightsMusicMagic.com) or email [Jeff@LightsMusicMagic.com](mailto:Jeff@LightsMusicMagic.com) for details or if you just want to talk. ✨



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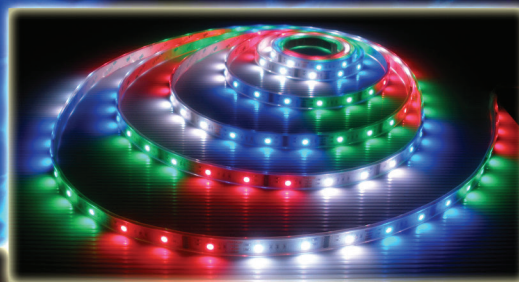
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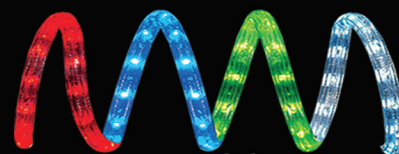
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# Custom Light Strings

50 lights too many?

By Steve Jones



After reading James Toliver's article, "Leaping Arches," in the November 2011 issue of the *PlanetChristmas Magazine*, I visited many garage sales over several months and accumulated dozens of strings of lights for very little money. Some worked, and some didn't. After repairing the strings that didn't work, I was left with several strings of 150 lights each. As those who read James' article know, each segment of the arch has a 100 light string. I looked up an article on the PlanetChristmas.com web site titled, "Incandescent Mini-lights," about how mini-lights work; that contained a reference to a web page by Marc Kummel. There I found a very useful simple schematic and used it to split two 150 light strings into three 100 light strings using the method outlined below.

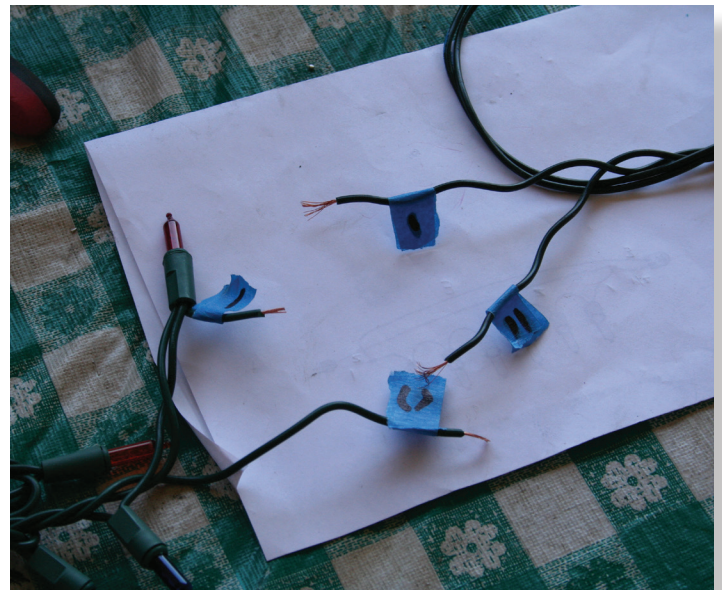
When splitting two 150 light strings into three 100 light strings proceed as follows:

Each 150 light string is actually three strings of 50 lights each. Start with one 150 light string;

Starting at the end with the male plug, find where the string goes from three wires to 2 wires between light #50 and light #51. Label each wire as follows:

- The wire that leaves light 50 is wire #1
- The wire that by-passes light 50 is wire #2
- The wire that terminates at light 50 but by-passes light 49 is wire #3

Cut the wires in the center of the space between light 50 and light 51, ensuring there is enough wire to make a splice on all the wires



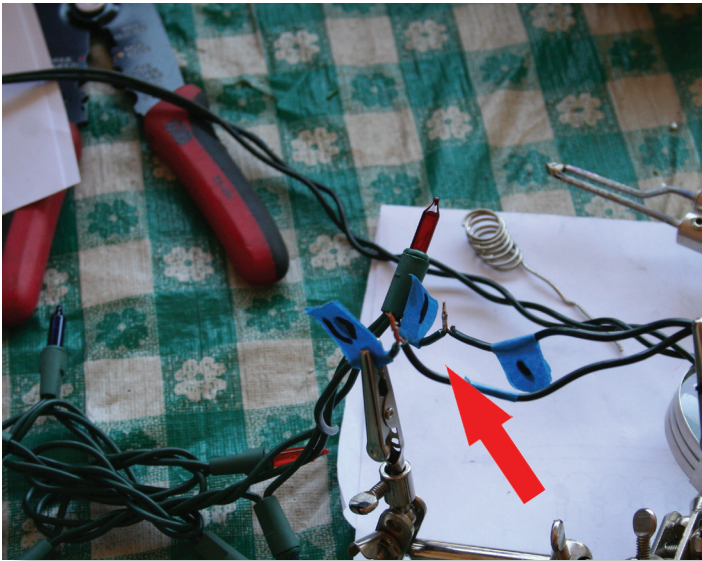
*Be sure to label the wires correctly*

and that both sides of the wire are labeled appropriately. Set aside the string of 50 lights with the male plug.

On the 100 lights remaining do the following:

There should be a female plug at the end of this string: attach a male plug to the two wires cut, in the step noted previously, as follows:

- Wire #1 attaches to the left prong on the plug
  - Wire #2 attaches to the right prong on the plug
  - Wire #3 leaves light #51 and continues down the string by-passing the other lights
- Test the string, all 100 lights should work.



*Connect the wires before soldering*

Go to the second 150 light string and do the following:

Starting from the female plug, find where the wire goes from three wires to 2 wires between light #101 and light #100. Label each wire as follows:

- The wire that leaves light 100 is wire #1
- The wire that by-passes light 100 is wire #2
- The wire that terminates at light 100 but by-passes light 99 is wire #3

Cut the two wires in the center of the space between light 100 and light 101, ensuring there is enough wire to make a splice on all the wires and that both sides of the wire are labeled appropriately. Set aside the string of 50 lights with the female plug.

On the 100 lights remaining do the following:

There should be a male plug at one end of this string. Attach a female plug to the two wires, cut in the step above, at the opposite end as follows:

- Attach one of the wires from the female plug to the wire that by-passes the last bulb on the string;
- Attach the other wire from the female plug to the wire that leads to the last bulb on the light string.

When the two remaining 50 light strings are being joined to make the third 100 light string proceed as follows:

- Both sides will have two wires
- From the string with the male plug, attach the wire that leaves the last bulb on this string to the wire that leads to the first bulb on the string with the female connector
- Attach the wire that bypasses the last bulb on the string with the male plug to the wire that bypasses the first bulb on the string with the female plug

Test the three strings, all 100 lights on all the strings should now light;

Solder all the connections made in the previous steps and when cool apply liquid tape to the bare connections ensure all the bare wires are coated;

When the liquid tape dries, wrap each connection with electrical tape to strengthen the connections;

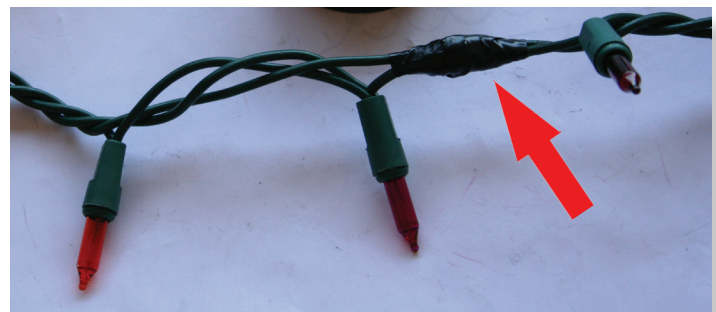
Retest the strings of lights to ensure all the bulbs on all the strings light.

This same process can be employed to combine two 50 light strings into a single 100 light string. I hope this helps those of you who enjoy purchasing used light strings at garage sales and make strings that work for you. ❄️



*The soldered splice*

*The end result*





# Tips and Tricks

Pro's and balls of lights.

By Sara Kasey

*Nothing is worse than having to untangle a string of Christmas lights when you're trying to decorate and in a hurry. We checked with a pro and he had the obvious solution.*



*Wind each string into a ball before you put them away. Grab a ball when it's time to decorate and you'll discover they're easy to unwind as you need them.*



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# Building Mini-Trees

Easy to build and always a crowd favorite.

By Fred Garvin



*Editors note: rumors are rampant that Light-O-Rama will soon introduce off-the-shelf sequences designed for 4 color minitrees. We've run this DIY in the past and we thought you could use it again.*

Looking for a super-easy project to add some dimension to your display? Think mini-trees. Chances are you've heard about and might have even wandered what they were. I went digging for some history and will share the tricks of one way to build them.

Best as I can tell, there was a pretty bad winter in 1992 and Chuck Smith ended up losing a bunch of shrubs in front of his house. Since he put lights on them for Christmas and wasn't in the mood to wait five years for new bushes to grow to the right size he was perplexed. His display with lights on the bushes looked like a smile with missing teeth. Desperate for an answer he decided to build his own light bushes to fill in the gaps. After several years of experimentation the mini-tree slowly came into existence. Mini-trees are easy to build, simple to store (since they're stackable) and incredibly versatile with animated displays. At one point Chuck said he had more than 200 snaking through his yard.



Most people call them zip ties. They also go by cable ties or tie wraps. We recommend 4 inches in length. Pick your favorite color. Most home stores have them.



Zip ties are made of nylon and you need something to cut them. Fingernail clippers are a cheap way to go.

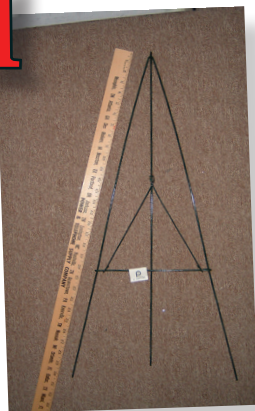


Electrician's pliers are good for cutting easel supports and pulling zip ties tight.



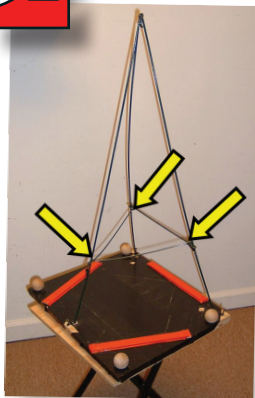
A zip tie tension gun pulls the tie tight and cuts it just by pulling the handle. A great time saver if you are doing a lot of trees.

1



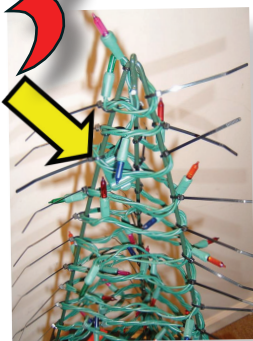
**Start with the easel.** Look in the craft store floral section. This is a 30" easel. Purchase for less than \$3 (USD). When new, one leg is shorter than the rest. Measure the shortest leg. Cut the two long legs to length of short leg. Electrician's pliers work fine or use bolt cutters.

2



**Anchor the braces.** A bit crude looking, but I use a lazy susan to spin the trees, though you don't need to. Use zip ties to anchor the horizontal braces (see yellow arrows.) Make sure the braces are level.

3



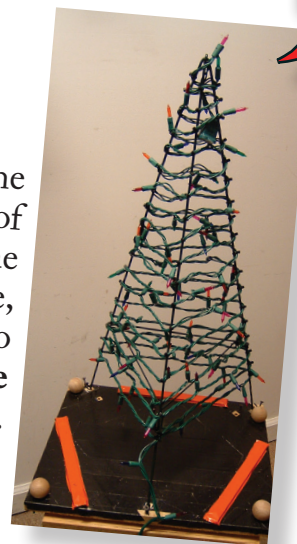
**Start adding lights.** Use standard mini-lights. 4 strings, each string a different color. With the female end of the light string, anchor it near the top and start wrapping the frame. It's important to anchor every point where the wire crosses the wireframe. Don't cut the zip ties yet.

4



**Finish the first layer of lights.** Most of the first string of lights will be used for the first layer on the tree. Why all the zip ties??? They serve as anchors for the rest of the lights. Zip ties are cheap!

5



With the first layer of lights on the wireframe, it's time to cut the zip tie tails.

6



**Add more lights!** Keep wrapping. Use four 100 count mini-light strings. Make sure each light string pigtail exits at bottom and put the color on a label near the plug. When all strings are on the frame use more zip ties to anchor everything you can.

7



**You're done!** The more mini-trees you make the more creative you can become. Your imagination becomes the only limitation.



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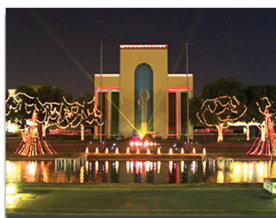


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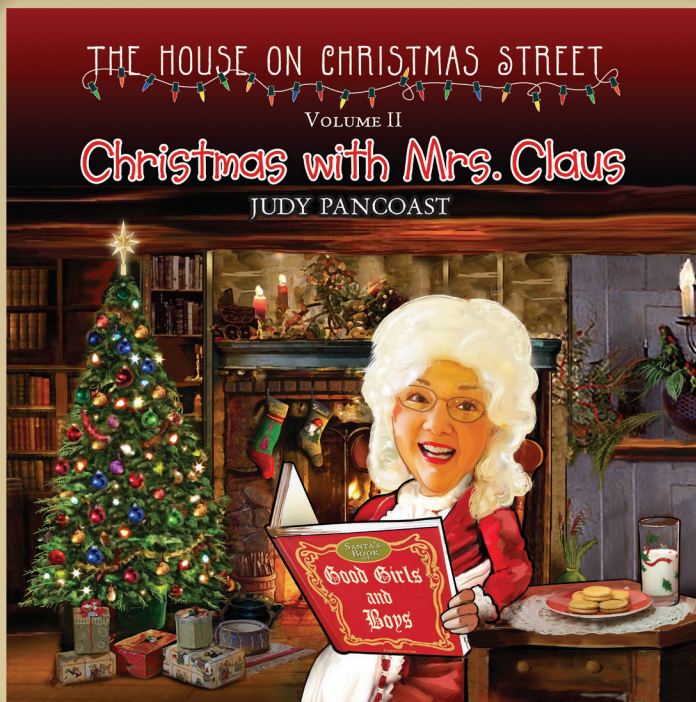
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Judy Pancoast, the composer and artist behind the Extreme Decorating anthem, "The House on Christmas Street," will release her long-awaited second Christmas album on October 27th, but you can preview it now by pre-ordering it on her website.

When you order, you'll get exclusive mp3 files of the songs on the CD BEFORE they are released to the general public. And you'll be among the first to receive the CD upon its release in October.

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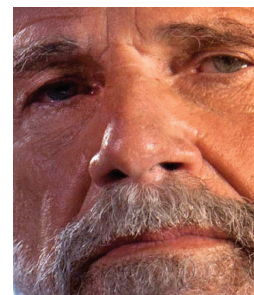
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# Leaping Arches

Cool effect, even for newbies!

By James Toliver

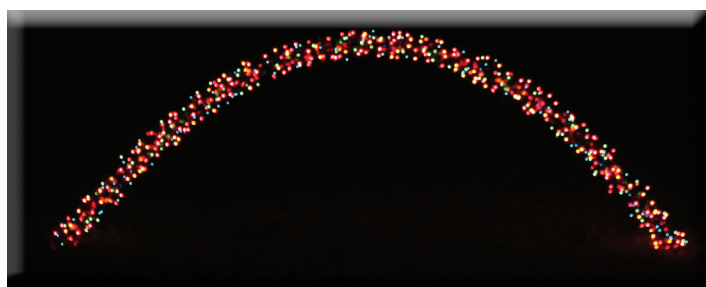


*Editors note: rumors are rampant that Light-O-Rama will soon introduce off-the-shelf sequences designed for 8 channel leaping arches. We've run this DIY in the past and we thought you could use it again.*

On Monday Chuck Smith stood at my desk and “suggested” the magazine needed a how-to article on building leaping arches. My immediate response was “What’s a leaping arch?” Have you ever experienced the dreaded “dolt” look? I now have. Chuck said “Go to YouTube.com and search for Christmas Leaping Arches.” I did and went wow! Leaping arches look like streams of water jumping around in the yard and are a really cool effect. Even better, they looked like a simple project to build.

I started checking various websites on how to build leaping arches. Yikes! There are certainly a lot of different techniques. I was soon overwhelmed with way-too-many details about plastic pipe thickness, potato peeler motors, using seven, eight or nine electrical circuits to power the leaping arch sections and how much one should bend a straight piece of pipe to create the perfect arch.

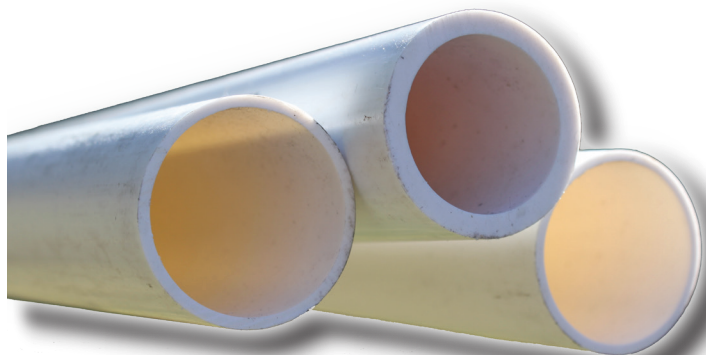
I went to the home center and bought a bunch of components, took everything to the house and started playing around with different techniques. On Wednesday I went back to Chuck and pleaded “Please help me focus. There are just too many possibilities building these things.” According to others on the staff I’m the first to get the dreaded “dolt” look twice in the same week. Chuck reminded me we’re here to teach the fundamentals. PlanetChristmas readers are smart and quite



gifted at improving a design once they understand the basics. Create a small arch for the typical front yard that’s easy to build, light, program and store during the off-season.” Since I had no desire to ever get another “dolt” look, that’s all I needed to move forward.

This article is a guide to building a simple ten foot leaping arch. Use it to create something special for your display knowing you can easily customize it for your unique venue.

Let’s start with the basic pipe that makes up the arch. Think 10 foot, white, rigid water pipe. 1” diameter pipe will work fine. You’ll find two thicknesses at the home center. Since our arch



*Schedule 40 is the thicker pipe in the center*

is only 10 feet long, the thinner pipe is fine because it bends easier. If you are thinking 20', 30' or 40' arch, go with the thicker pipe (called schedule 40 PVC) and a larger diameter. Your home center should have the 10' pipe for less than \$3.

## *I kept thinking of Chuck saying to focus on the fundamentals*

I watched enough leaping arch videos to know the “leaping” is accomplished by lighting small sections of the pipe in a sequence. Each lit section is a dedicated electrical channel of an animation controller. Purists think of the arches as streams of water so they make a splash at the end. Since a leaping arch should be able to sequence the lights in either direction, you need a “splash” of water at each end and means two more dedicated electrical channels. I kept thinking of Chuck saying to focus on the fundamentals and then watched about an hour of display videos with leaping arches. The “splashes” were nice but it took me awhile to even notice them. Why worry about the splashes? No one said you had to. In the beginning, don't worry about them. In other words: no splash is required. We're keeping this really simple.

How many electrical sections of lights do you need for this 10' piece of pipe? That's easy. Animation controllers tend to come in eight and 16 channel configurations. Divide your pipe into eight sections.

Here come the important hints I've gleaned from now building a dozen of these ten foot arches.

Divide each pipe into eight sections, 15 inches apart ( $15 \times 8 = 120$ " or exactly 10'.) Every 15 inches use electrical tape to mark the pipe by wrapping a stripe all the way around. Why such a bold line? When you're wrapping the pipe it's much easier to know where to stop working on a section.



*Light channels 2-4-6-8 turned on*

Use standard 18 gauge lamp cord (SPT-1 or SPT-2) to power each section of pipe and run all the male plugs to the same end of the pipe. There's a temptation to tape the lamp cord to each section to the outside of the pipe because it's easier. I found out the hard way when you arch the pipe in the wrong direction there won't be enough slack in the wires if they're taped so forget about bending anything. For the pipe to easily arch in any direction, you need to run the power to each section inside the pipe.

*Stand at one end of your pipe and notice the manufacturers writing running the full length. Use that as a straight line down the pipe.*

Stand at one end of your pipe and notice the manufacturers writing running the full length. Use that as a straight line down the pipe. Drill a 1/2" hole in the center of each 15 inch section along the manufacturer's writing, use a Sharpie or other permanent marker to number each section (1-8) and snake your electrical wires inside the pipe. The lamp cord and vampire plugs work fine. If you don't have a fish tape, 12 gauge rigid copper wire will do the trick. Be sure to label your plugs (1-8) as you go. Running the wires inside the pipe is the most tedious part of the build. It's all downhill from here.



Finally it's time to wrap lights around each section. Use any type of lights you want but let me suggest using the same lights for all of your leaping arches. Chuck gave me a bunch of incandescent 100 count mini-lights he bought at Home Depot the week after Christmas for \$0.62 each. Ends up each pipe section needs one string of 100 lights. Connect the light string to the vampire plug, wrap the section of pipe uniformly and use an 8" tie wrap to secure the end of the light string around the pipe. Keep repeating until all eight sections are covered with lights.

*Everything became so much easier, at least until the third pipe when I noticed smoke pouring from the motor.*

I'll admit in the beginning to wrapping the pipe by hand but that became incredibly boring. I had seen the video where a potato peeler motor was used to spin the pipe to make wrapping the lights much easier. My wife didn't have a motorized potato peeler so I went looking for a solution at my local big box store. While walking the kitchen aisle I saw an electric hand mixer for less than \$7. It had multiple speeds and one of the mixing paddles looked like it would easily connect to the end of my 10' pipe. Mine! At home I hooked up a little foot switch to the mixer and started wrapping pipe. Everything became so much easier, at least until I saw some really dark looking smoke

pouring from the motor. Seems mixers are designed to mix cake batter and not turn 10' water pipes. I ended up trashing the mixer and using a standard battery operated drill by attaching it to the mixing paddle already inserted in the plastic pipe. Wrapping a pipe by hand takes a little over an hour. Wrapping a pipe spun by a motor can be done in about 20 minutes. It's worth the effort to motorize.

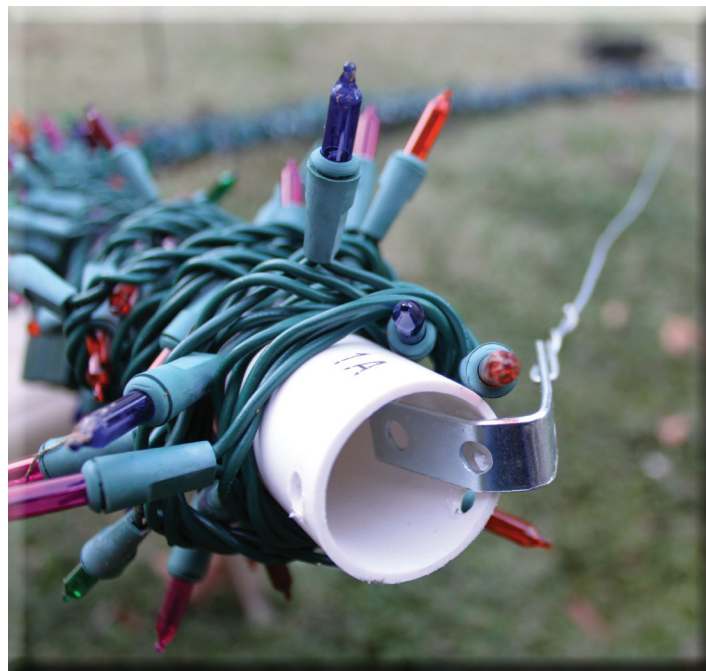
Now you have a straight 10' piece of pipe wrapped in lights. It should be easy to bend it into an arch. I wish! I tried all kinds of ways anchoring each end in the ground to create the arch. Let's just say that thin water pipe prefers to be straight and constantly fights being bent. At one point I bent the pipe a little too much and crimped it. Word to the wise: don't bend the pipe too much.

In the perfect world the top of the leaping arch is 32 inches off the ground. You can shoot for 36 inches but you'll probably suffer "crimped pipe syndrome." I used a couple of right angle brackets and electric fence wire to make up a cheater wire exactly 96 inches long. I insert one end of a right angle bracket into each end of the pipe (flexing it a bit of course) and you end up with a perfectly curved leaping arch you can actually carry around. When done, flex the pipe a bit, remove the cheater wire, the pipe becomes straight and you can easily store it.

How do you mount the leaping arches in your display? I use a 4' piece of rebar, pound it in the ground and lean the arch against it. Use a big tie wrap to secure everything together and you're good to go.

The leaping arch is built but what about the animation part? It's beyond the scope of this article to teach the sequencing but it's easy. You have eight circuits that simply chase one after the other. Light-O-Rama sees the potential and even includes leaping arches in their Master Controller Layout concept at <http://lightorama.com/SequencesStandards.html>

How much does a leaping arch cost? \$3 for the pipe. \$10 for lamp cord. \$16 for plugs. \$25 for lights. Grand total for parts: \$54. You can



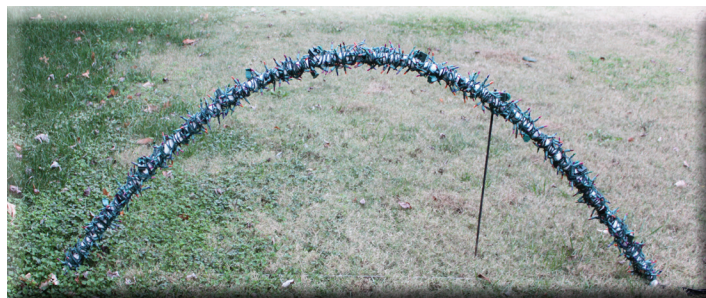
*Cheater wire in place to arch the pipe*

probably beat the pricing with minimal effort. It took me about two hours to build an arch so value your time accordingly.

Are there leaping arch alternatives? Winterland (<http://winterlandinc.com/PC>) has metal arch frames (instead of plastic pipe) and will even put the lights on for you. Wow Lights ([www.wowlights.com](http://www.wowlights.com)) has complete packages of larger arches. Check around and you might get lucky.

Already tired of leaping arches? There's a new trend of using "leapers" in displays. Instead of bending the water pipe into an arch, the straight pipe is mounted vertically so lights shoot up and down. Put a strobe light at the top to add a real pop. Cooooooooo! Now that's a versatile design piece for any display.

Can you build your own leaping arch? Sure! ❄️

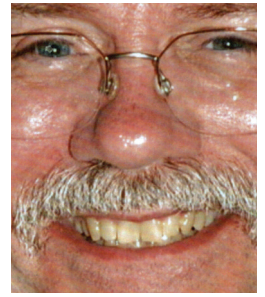


*An ugly duckling during the day but this finished leaping arch adds drama to your display!*

# Christmas Expo 2013

Want to help our community? I'm worn out.

By Chuck Smith



**I**t started the last day of Christmas Expo 2011. When and where is the next one? I want to sign up now. Let's start planning ASAP. What can I do to help?

As the producer of what started as PLUS and evolved into Christmas Expo, all I wanted to do was close out the 2011 show and take a well-deserved rest before giving any thought to the next event. It's hard for people to imagine how much work goes into creating a successful Christmas show.

**Here's the deal for 2013. I'm looking for someone to take over producing and financing the event. I've done five of them and I'm tired.**

In reality, I long to go to a Christmas Expo, attend the classes, visit the vendors and enjoy talking with other passionate decorators without having to worry about everything being in the right place at the right time.

But... my standards are very high and I insist Christmas Expo stay a first class event anyone attending would be proud of.

Interested? Keep reading.

A small group of us started this event back in 2003. We realized there were no Christmas tradeshow in the USA so who better to put one on than over-the-top decorators. PlanetChristmas provided \$1,000 of seed money to get things going and before I knew it, I was also in charge. The event ended up in Nashville, Tennessee in a fancy hotel conference center next door to my office. I called in every favor I could think of to keep costs low and 125 decorating fanatics had a great weekend. I

was pleased because we produced a top quality event that proved we were real.

The trick to the success of Christmas Expo is balancing the needs of the attendees, their families and the vendors. The event must be in a location easy for people to get to which tends to limit our focus to major cities or at least be close to them. Seems must people arrange their family vacation around the Christmas show so the area must provide entertainment for family members not interested in our passion. Finally, enough people must attend to justify the vendors coming and showing their wares. Where many have the belief of 'sticking it to the vendors to pay for everything,' what they don't realize is vendors need to make a profit or they won't be back for the next event. We need them as much as they need us.

I've talked to professional meeting planners and they can get incredibly clever with financing our event in such a way where you could think everything is free. Move enough hotel rooms and you might get free meeting space. Get enough meeting space and you might qualify for significant banquet discounts. Buy enough banquet meals and you might get a free banquet hall. They lead you to the impression if you sign a thick contract today then everything will pay for itself tomorrow. The key to success is everyone must stay in the same hotel and pay a premium price for their rooms. When I'd suggest I was a Christmas guy so why should I be fretting about moving hotel rooms the response was always 'because that's how you produce a show.' I don't think so.

Over the years I've come to the conclusion there are three independent components to a successful Christmas Expo. Education, vendors and socializing. Each is stand-alone meaning it can't help finance another component of the show. This sure makes things easier to understand but stymies the professional meeting planners.

For the education component we determine the number and types of classes to offer, rent the necessary space, add in the required learning materials, rent audio/video equipment, provide some sort of stipend for the instructors and divide it all by the number of people we think will be attending. It boils down to the people in the classes pay for what they learn.

For the vendor area we rent the space, know half of it will be for aisles/common areas and come up with a square foot cost for the vendors. A booth is typically 100 square feet with discounts for multiple blocks. We must make available electricity, data connectivity, curtains and furniture. The bottom line is the vendors are paying for that little plot of land plus the aisle ways. Our goal is to charge just enough to break even so they can make a profit and return in the future.

For lodging we get out of the way. We might recommend a host hotel but no longer reserve room blocks. To get those group discounts we have to guarantee moving so many room nights at a fixed price. The challenge is with minimal effort, you can do a quick Internet search and usually beat the group discount. Save money and book your own room. We're not in the hospitality business.

Socializing is also key to the success of Christmas Expo. You might think you learn everything in the classroom or from vendors but many learn even more by talking with others of like mind.

We've been known to have a fancy banquet at previous Christmas Expos. They're fun but expensive and it's hard to hide the price in your Christmas Expo ticket. Most banquet meals are now costing \$25-\$55 and in return you get marginal food. Now that I think back over the



## ChristmasExpo

years, no one has ever said that was the best chicken dinner they've ever had. For that kind of money you can go to a really nice restaurant and have excellent food. Banquets in the future... I dunno.

We've tried all sorts of socializing ideas in the past. My favorite was the ice cream social and the blink-off. You might think many of these activities are spontaneous, but rest assured a lot of work has occurred behind the scenes to make them happen.

Then there's the advertising, registration system, volunteers, instructors, insurance, deposits and the list that never seems to end. If you're into logistics, putting on Christmas Expo is a real rush.

What about financing the event? You need a stash of cash to cover venue deposits and advanced advertising but in the end everything breaks even with the chance of a little left over to seed the next event. There's only been one major exception and that was 2009 in Louisville. Let's just say the economy had cratered, no one knew how bad things were and I'm still paying for it. No more years like that, please.

Where am I going in these ramblings? Our community needs a Christmas Expo that caters to everyone from the newbies to the professional decorator. **We have all the tools at our disposal to create another first class event. It takes a leader with vision, attention for detail and a sincere desire to do whatever it takes for others to be successful. Interested? I hope so. Let's talk!** [chuck@planetchristmas.com](mailto:chuck@planetchristmas.com) or call 615-301-1671. Make a difference and create lifelong memories for others. ❄️

# Light Up Ohio

What a great meeting!

By Bill Hoffman and Jeff Phillips



**L**ight Up Ohio was started in 2007, by myself (Bill Hoffman) and Scott Lindsey. I was looking for a way to give back to the Christmas community that had taught me so much over the years. Years back, I discovered PlanetChristmas, and my passion for holiday lighting has been going strong ever since. I attended the very first PLUS (now called Christmas Expo) back in 2003, and was thrilled to meet some of the people who taught me so many things over the Internet, and also made some new friends. I was so inspired by the event that I decided to try to gather some people together and have a “mini”, formerly known as a “PLUS mini”, of my own.

I was discovering I wasn't alone with my passion of holiday lighting, so I started to talk with people about interest. I realized early on, it would be hard to invite just a few people to my home. So I started to talk to people about ideas of where to hold such an event. There were plenty of ideas, and plenty of places, but the problem was that the larger areas cost money, and they wanted deposits. Since I didn't want to get stuck with a deposit to pay, and find out at the last minute nobody was going to register, I started asking around about free places. I was talking to Scott one night on the PlanetChristmas forums, and he said he would like to do the same thing and thought his company might go along with letting us use their conference rooms in Columbus, Ohio. He checked with them, and they agreed. So we were off and running,

or so we thought. First off we needed a name for this event. We thought of a few different things, and Scott came up with Light Up Ohio. Since Ohio just passed laws against smoking in public places right around the same time, my wife said it sounded like a smoking ban protest group. Well, I disagreed so the name stuck.

The next thing we thought about was how to draw people into the event. We needed some experienced decorators to teach their art to the attendees. We had to cover all the interesting topics being discussed in PlanetChristmas at the time, but also cover topics for new people just coming into the hobby. Since I knew a lot of the people that frequented PlanetChristmas at the time, I went ahead and started contacting some of them for their help. The response was fantastic, so we had some top-notch presenters for the event. Luckily, the conference rooms were all set up with seating and all the equipment needed to do complete PowerPoint presentations.

Then there was the food problem. Since people were going to be there all day, we had to feed them. We have gotten a lot better at





planning food now, but back in 2007 we were new at it. Scott had some experience because of his girls being in sports and helping plan sporting events, so he basically took that responsibility on.

Then we started thinking about asking vendors to our event. At first we didn't think any would be interested in sponsoring a small event like ours, but we were very surprised. Most of the vendors you see here on PlanetChristmas have supported us in one way or another over the years, and some have supported us since the beginning. I would be reluctant to name them, simply because I wouldn't want to take the chance on missing someone. We really appreciate everything they do for us, and we hope that our event has helped them, also. We believe in supporting vendors that support us and we stress that a lot at our events.

So we set the date, advertised the event and just waited for what we knew would be 100's of people signing up. Well, it wasn't quite 100's, but it was 23. Everybody had a great time, and they seemed to have learned a lot. It was so small that everybody got to know each other one-on-one. We shared ideas, we listened to the presenters, we joked around, we had wonderful food, but most of all it was 23 people gathering together to talk about their passion, holiday lighting. Yes, it was a success.

In 2008, I met Jeff Phillips, who was an attendee at Light Up Ohio 2008. Over the years I have seen, and talked to, many holiday lighting enthusiasts. I can usually spot the ones that are truly passionate about the hobby, and Jeff was one of those people. After Light Up Ohio 2008 was over, Scott told me that he was getting real busy with his kid's sports and coaching through

the Summers, so he didn't know how much help he would be with planning future events. So I took a shot in the dark, and contacted Jeff to see if he would be interested in helping plan Light Up Ohio. Jeff readily accepted and he has become the backbone of Light Up Ohio, plus he has become a good friend.

Light Up Ohio is the premier holiday lighting gathering in the entire state. Back in May, we just had our 6th Annual event, in Columbus, Ohio. Scott had to bow out of being involved because of other commitments, so we asked Joe Erdeljac and Joe and Laura Davis to help us out in securing a place to hold our event. They found the perfect location, and everybody really had a great time. Light Up Ohio has grown by leaps and bounds since that first year, and our attendance keeps getting better and better. We try to keep the attendance down between 50-75 people, simply because we feel that it creates a much more personal experience than a bigger group event.

We have introduced lots of firsts at our events, like when Walter and Jackie Monkhouse first developed the JUMP (Jack Up Mega Pole) system, and introduced it at Light Up Ohio. Also, when they came out with the new and improved version, Jeremy Brown actually showed how to set it up, and we raised it to 20' in the parking lot. Valerie and Gary from Christmas-LED's surprised everybody one year with Gunther (he was scary). This year we had the Buckeye Santa's, which is a nationwide group of professional Santa's. There are many other things like Elf-Ormation Stations, real time chat on our website, mobile app for our website, and the list goes on and on. We have had 14 states represented at Light Up Ohio, with people coming from as far away as California and Canada. We have had celebrities attend, like Carson Williams. But the best thing of all is that we are helping people make their displays the best they can be. Light Up Ohio's motto is "Making Memories," and Jeff and I truly hope that we are helping you achieve that goal.

Merry Christmas from Light Up Ohio. Can't wait to see what 2013 brings. ❄️



# Behind the Scenes

Chicagoland Christmas Conference (aka: C3)

By Carrie Polales Sansing

**I**n 2005, Carrie Sansing thought about holding a small gathering of Christmas decorators to be held at her suburban Chicago home. The event was originally intended to draw Midwesterners for a relaxed meet-up of hobbyists. The goal was to learn from each other, eat, socialize and have fun. Labor Day weekend 2006, a “throw away” holiday, seemed perfect. Enthusiasts from the Midwest would travel a short distance by car, returning home in plenty of time for Monday’s grilling activities. Thinking perhaps 20 to 25 people would attend, planning started. As it turned out, the first C3 was attended by over 50 people – from as far as California!

C3, the bi-annual event was born. And it has grown. In 2010 almost 100 hobbyists from 22 states attended. One couple made the trek all the way from Great Britain.

C3 2012 planning is currently underway. What goes into it? How do you organize, feed, house, provide education and fun to over 100 people, many of them strangers, in your backyard?

Getting the word out is job one. Our registration website went live in early March. But we don’t stop there. PlanetChristmas.com and Facebook.com are also used and frequently “bumped” to let hobbyists know what’s happening and provide updates.

Conventional educational symposiums often lean toward lectures in a conference room or convention center. C3 is a different animal. It’s an outdoor event that combines a symposium, a non-stop Christmas party, and a “family reunion” rolled into one. Simultaneous

discussions, roundtables and demonstrations go on throughout the day. Hobbyists are free to move around, sit and chat with each other, fall asleep in a chair, or listen, learn, and interact with the experts.

As our hobby has grown in terms of technology generally, i.e. DMX, RGB, and pixels, the most knowledgeable volunteers are relied on to help select the curriculum; assist in rounding up the experts to come to Chicago to moderate discussions, present demonstrations or simply to teach. 2012 will be no exception although finalization of the “plan” is still being tweaked.

The Courtyard by Marriott will once again be our host hotel. In February, the best possible group rate was negotiated including a free full hot breakfast. To cover inclement weather, two large conference rooms and the hotel lobby are reserved. They will be set and ready to go if C3 needs to be moved indoors, at no charge of course, at the last minute.

Speaking of charges, budgeting proves “tricky” at best. Arriving at a registration fee to cover meals, beverages, rentals, t-shirts, other goodies and the host of supplies needed is never easy. C3 strives to keep the cost low enough for any hobbyist to attend. To help offset some of the costs, we started contacting vendors in February to purchase logo space on the C3 official t-shirt. Sponsoring vendors this year include [www.HolidayTechnologies.com](http://www.HolidayTechnologies.com), [www.SeasonalEntertainment.com](http://www.SeasonalEntertainment.com), [www.CreativeDisplays.com](http://www.CreativeDisplays.com), [www.Reinders.com](http://www.Reinders.com), [Ultra Lit Technologies/LightKeeper/LEDKeeper](http://UltraLitTechnologies.com), [www.Chistmas-LEDs.com](http://www.Chistmas-LEDs.com), [Winklebottoms Wireframes](http://WinklebottomsWireframes.com), [www.WinklebottomsWireframes.com](http://www.WinklebottomsWireframes.com)

LightORama.com, LOR Partner - Displays in Motion, [www.TheDementedElf.com](http://www.TheDementedElf.com), and [www.ChristmasLightShow.com](http://www.ChristmasLightShow.com)... so far.

Feeding almost 100 people is a joy. It's also a challenge. Croissants, donuts, pastries, coffee, tea, Chicago deep pan pizzas, burgers, hot dogs, chicken kabobs, pulled pork, ABTs, 6.5 foot long subs, gallons of potato salad, pasta salad, green salads, chips, cookies and home-made cakes are supplied. Washing it all down requires cases of soda, water, and beer. And it all must be kept ice cold. Coolers that hold 150 quarts each are filled with ice and kept covered. The Sansings' kitchen refrigerator is used for much of the food storage; they eat a lot of take out the week of the event. All non-perishable supplies, plates, knives, forks, spoons, napkins etc. are purchased two weeks out from the event. The hard part is buying the food the week of the event as it's based on registered head count. To be sure, there's lots of last minute running around to feed everyone but there are always volunteers willing to help.

Large tents, tables, chairs, coolers, and other necessities are rented and generally delivered two days before the gathering starts. Fortunately, there has never been a shortage of volunteers who arrive in Chicago early to help with physical set-up, run errands, create goodie bags, decorate, and organize the White Elephant Gift Exchange.

Although the bulk of attendees fly in for C3, parking all those rental cars has to be dealt with. There is no on street parking whatsoever at the site. That problem is solved by filling out a battery of forms, obtaining a Certificate of Liability Insurance, and reserving the school parking lot that's right up the street.

Coordinating all the promotion, educational topics, registrations, facilitators/instructors, vendors, t-shirt creation, menu, food and supply acquisitions, and a million little details can be exhausting. Probably explains why Carrie has said during each C3 "this is the last one!"

For further C3-2012 information just goto: <http://chicago2012.constantlychristmas.com> ❄️



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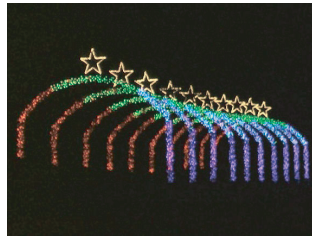
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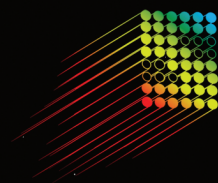
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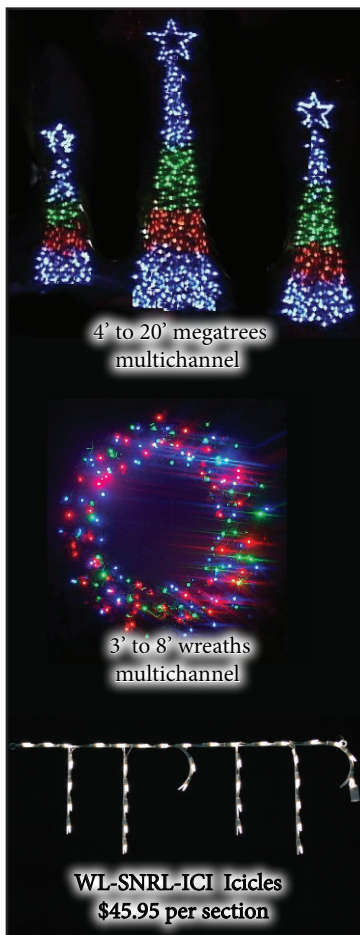
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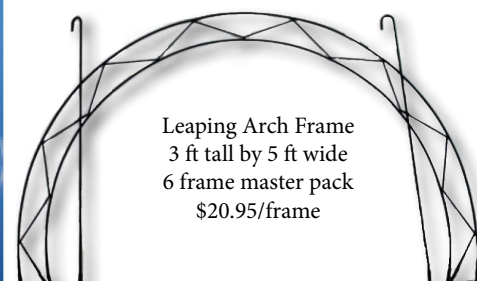
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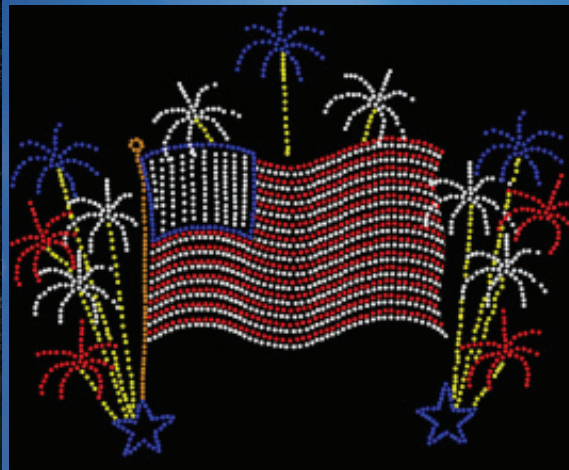
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# The Rumor Mill

Half fact, half rumor and half wild speculation.

By Master Elf N. B. Scuttlebutt

**T**he big man in red gave us a night off. We aimed the satellite dish toward Europe and the TV picked up the grand concert in front of Buckingham Palace celebrating the Queen's Diamond Jubilee. Wow. The Brits sure know how to have a good time. Elton John, Stevie Wonder, Tom Jones, Paul McCartney and plenty of others were on stage and singing the oldies-but-goodies. We were mesmerized by the lights and pyrotechnics on the stage. Every now and then they would show the front of the palace that had become a giant movie screen. Pretty amazing watching the palace fall apart... at least that's what was being projected. A few elves said all the special effects seemed pretty anemic compared to some of the Christmas displays they had seen in 2011. I dunno. I'm hoping some of you aren't getting too carried away with how the holiday season is celebrated. As Chuck says, 'decorators want to make lifelong memories,' but subjecting your neighbors to 'light abuse' might be making the wrong kind of memories. In this old elf's humble opinion, over-the-top decorators need to be careful of not becoming too-over-the-top and alienating the folks you live next to the rest of the year.

One would think this issue of PlanetChristmas magazine was a salute to that little company in upstate New York called Light-O-Rama. I've watched the company grow from nothing. It's pretty good at breaking the rules. Where most companies seem to focus on sales and marketing hoping the products live up to expectations, Light-O-Rama focuses on engineering solid products and knows the sales will follow. Obviously the paradigm works. Great products carry the day. This North Pole elf salutes all of those LOR elves making for some very special Christmas displays.

Got a call from a sleep deprived elf last week saying Light-O-Rama was finally going to expand its really short list of ten off-the-shelf sequences. It's about time. Word has it they combined several of the 'World's Best' Christmas tune lists to decide what to add to their repertoire. I'm hoping 'Grandma Got Run Over by a Reindeer' doesn't make it. I'm also hoping 'Wizards in Winter' misses the line-up. No offense to TSO, but WiW isn't the only great holiday tune that lends itself to lights dancing to the music.

I'm hearing too many reports that Christmas vendors are getting strong-armed to attend 2013 events after losing money at those same 2012 events. I'm no capitalist, but I do know companies that keep losing money don't stay around long. Seems word is out Christmas Expo never treated vendors like dirt, which must explain why there are always so many. I remember a big election in the USA years ago where the mantra was "it's the economy, stupid." Gotcha.

The same vendors longing for Christmas Expo reminded this elf they hate American presidential election years. Seems people resist buying until the election is settled. Doesn't matter who wins. I sense opportunity. With the election on track for November 6, you better order now or you'll be waiting in a really long line to get your stuff for this holiday season. ❄️

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