

# ChristmasExpo

## DMX; Practical Application For Your Mega Display

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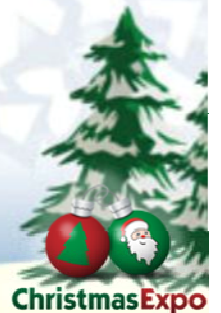


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# DMX – Let the Quest Continue!!!

You have **DMX** all figured out.  
You realize it's not **Black Magic** and pretty simple, so  
what can **YOU** do with it in your display? Let's take a  
practical tour of:

## **DMX Options for your:** ***Christmas*** **or** ***Halloween*** ***Displays***

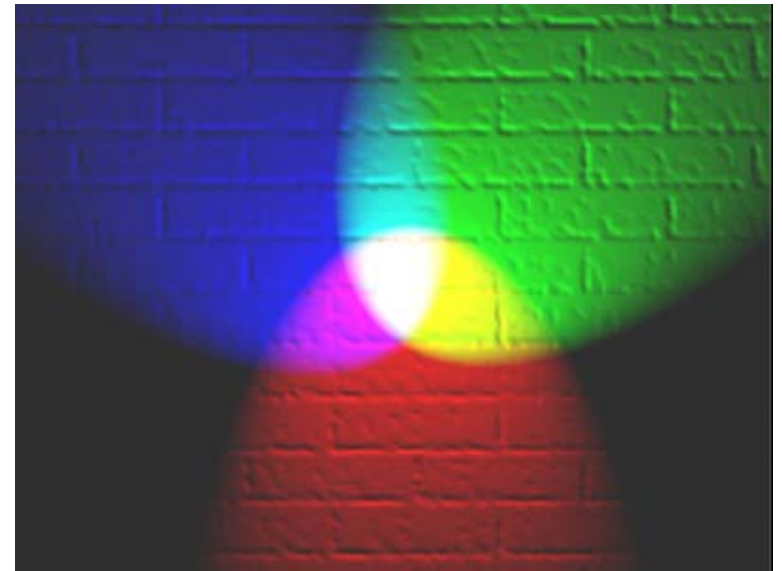


# DMX Pratical - Agenda

- **Lighting**
- **RGB “Basics”**
- **RGB Elements**
- **Special Effects**
- **Miscellaneous**
- **Implementation**
- **Resources**

# DMX – Lighting

- **Floods**
  - Color Wash for walls
- **Spots**
  - Focused Highlighting Effect
    - Blowmold, Tree or Object
- **Panels**
  - Large Area Color Wash
- “16 Million Colors” - Single Fixture
- Many types and sizes in each category
- Commercial and DIY products
- Pricing varies depending on:
  - Size, LED count, Feature Set



# DMX – Lighting

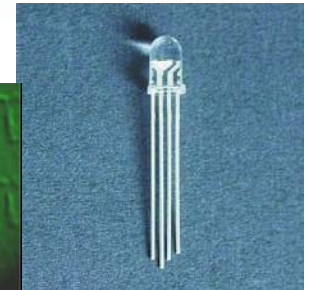


# DMX – Lighting



# DMX – RGB “Basics”

- 3 color - **Red-Green-Blue** - LED “elements”
  - Individual colors, or by mixing, “up” to 16 Million
- Sizes/types of LEDs
  - T1 = Traditional LEDs
  - Superflux/Piranha = 4 pin
  - 5050 = surface mount device
- Communications Chips
  - 6803 – 2801 – 1804 – “et al”
  - Manage data and communication
  - Influence color depth
  - Voltage
- Power Requirements – 12V, 5V
- May require DMX Module to provide Base Address



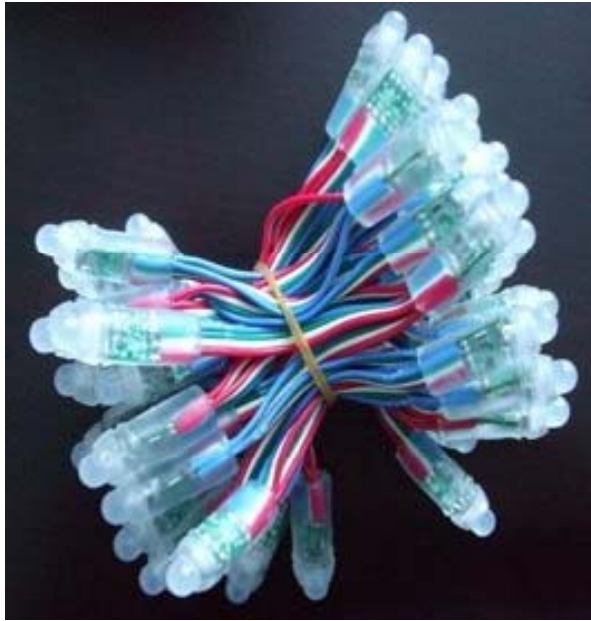
# DMX – RGB Elements

- **Pixels/Modules/Nodes** *(as defined by presenter, your opinion may vary)*
  - Pixel
    - Any single light source with individual **RGB** control
    - Can use discrete **RGB** LEDs
  - Module
    - A unit with one or more pixels grouped together
    - Square, round, rectangular
  - Node *(Some call this a pixel)*
    - **RGB** light source with a “brain”
    - Smart Strings/Intelligent Mini Lights
  - North Pole Globes
  - Mega Trees / Mega Decoration Balls
  - Coro Elements (ex. Stars, Snowflakes)





# DMX – RGB Elements



Coro and Mega Balls courtesy of Holliday Coro

# DMX – RGB Elements

- **Ribbon/Rope/Strip**

- Flexible
- Cut to length
  - Configurable with 90's and "T"s
- Outlines (ex. Windows/Roof Ridges)
- Arches
- Mega Trees
- Message/Picture Matrix



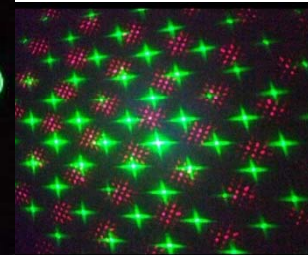
Courtesy of Superstar Lights



# DMX – Special Effects

- **Bubble**
  - Fun mystical effect
- **Lasers**
  - Range of effects
    - Brilliance beams, pictures, words, patterns
    - FDA and FAA permitting may be required
- **Fog/Co2**
  - Screens
  - Graveyard effects
    - How-To's on Internet for Fog Coolers to keep fog at ground level
    - Affect movement with small fans
  - Smoke Stacks for plastic/wireframe trains
- **Fire**
  - Fire and brimstone effect for Halloween
  - Check with your local Fire Department for permitting
  - ***Use with extreme caution and care! Not for amateurs***

# DMX – Special Effects



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# DMX – Special Effects

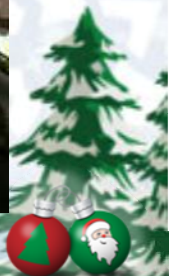
- **Matrix**
  - Video
    - Fixed modules assembled to specific size
    - Flexible fabric bought to specific size
      - Available in various resolutions
      - Finer resolutions = higher cost
- **Scanners**
  - Gobo and Beam effects
  - No special permits, or concerns like Lasers
- **Snow**
  - Simulate the real thing
- **Yokes**
  - Gobo and roving spot light effects
- **Zap Strobes**
  - Takes Curtain Strobes to a WHOLE new level
  - “Wow!” Effect
- **Dozens of different types of fixtures to leverage in a display**
  - Search the web and forums for examples, use your creativity

# DMX – Special Effects



*Merry  
Christmas*

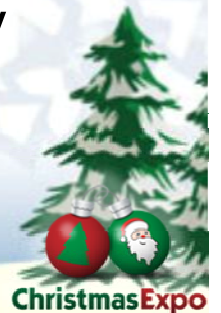
HAPPY  
HALLOWEEN



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# DMX – Miscellaneous

- **AC Dimming Packs**
  - Used to control AC power, on/off/fade
- **Animatronics**
  - Motors and Servos
    - Fixed movement (in/out, side/side), rotation
    - Used in conjunction with arms, linkages, gears, pulleys
      - 2D & 3D Characters
      - Merry-go-Rounds
      - Ferris Wheels
      - Goblins from graves
    - Various power requirements 120V, 12V, 6V, 5V, 4.8V
- **Wireless Universes**
  - Flexibility in remote Universe/splits/branches



# DMX – Miscellaneous



Animation photos courtesy of Mike Ziemkowski

Lynx Wireless Tx



# DMX - Implementation

- Provides display creativity beyond blinky/flashy
- Will set you apart from other displays
- Will increase your sequenceable Channels
  - **RGB** Elements can add hundreds to thousands of channels
- Add a level of complexity and needs to have a plan
- Most DMX fixtures will require weatherproofing
- Fixtures requiring liquid needs extra consideration
  - Keep from freezing
  - Requires to be filled on a regular basis

# DMX - Resources

- Internet for fixture vendors
- **RGB** specific forums:



Thank You! For attending  
**Christmas Expo**  
and the DMX Practical Session

Copies of this Presentation can  
be downloaded from  
[www. WoodinvilleWonderland .com](http://www.WoodinvilleWonderland.com)  
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