

Animate LED Lighting Whole House System

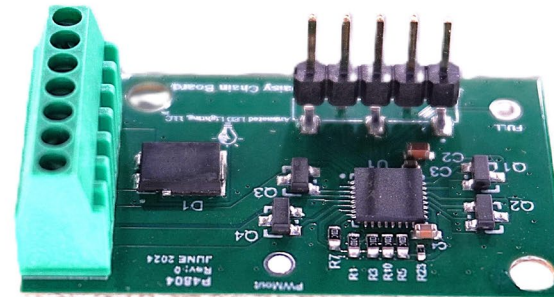
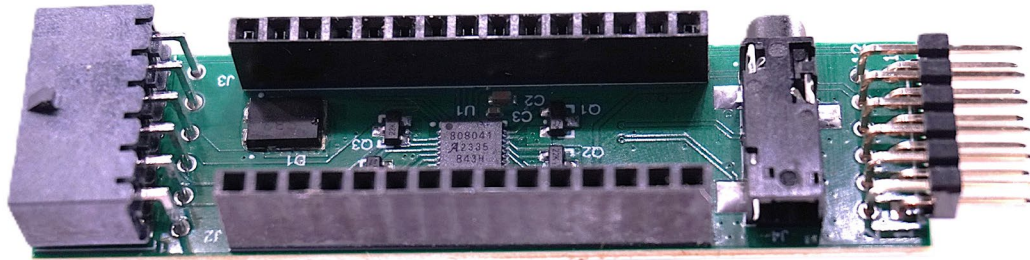
- This document gives a basic component list for the house you see in the background. Each house will be different and will require a variation of these components. Some components may not be needed at all. Assembly and installations instructions will be described in another document and with video from our Youtube channel. For more information, look on our website at www.animatedledlighting.com or e-mail info@animatedledlighting.com



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Controllers

1 of the A18804 Audio to LED converter boards (Left) and 4 of the P4804 boards daisy chain boards (Right).

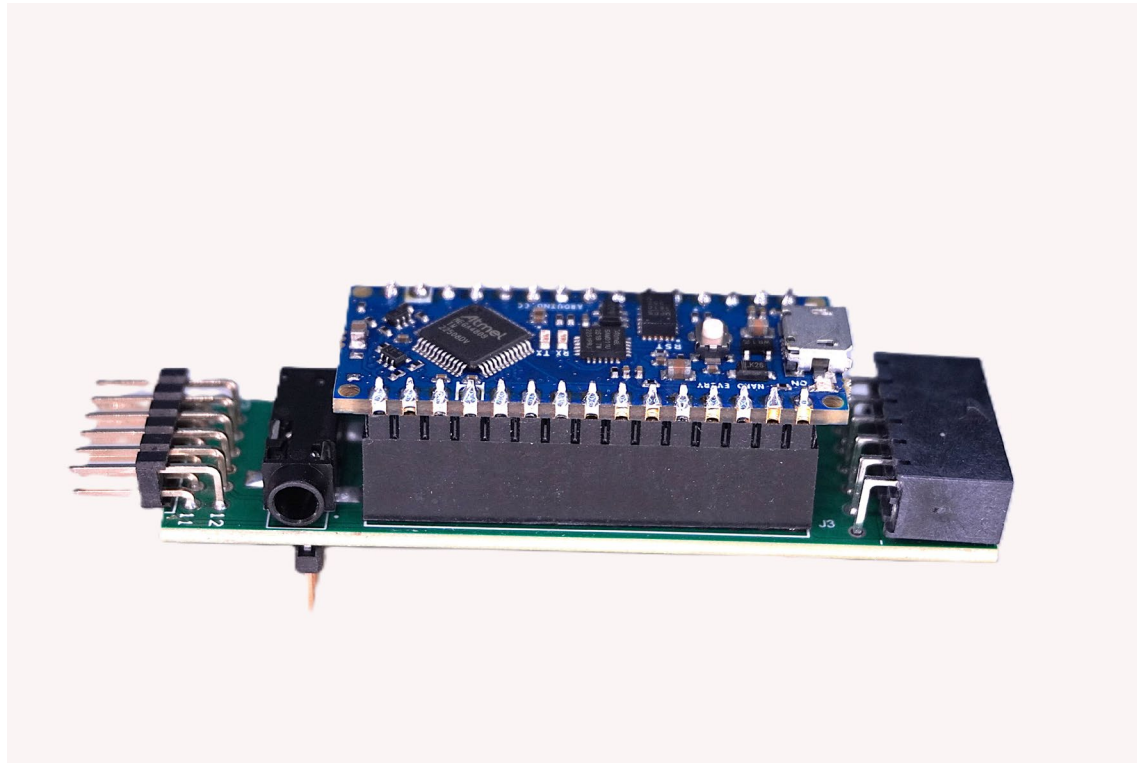


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Micro-controller

One micro-controller is used as the brains of the system. Chose the Arduino Nano Every due to its small design, large memory and its ease of programming. The photo below shows the completed assembly of the Arduino and the A18804 Audio to LED converter



Standard RGBW LEDs

Use the 5m RGB+W LED strip lights in 4000K, 12V, IP64
Weatherproof in 16.4ft lengths.



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Standard RGBW LED Connectors

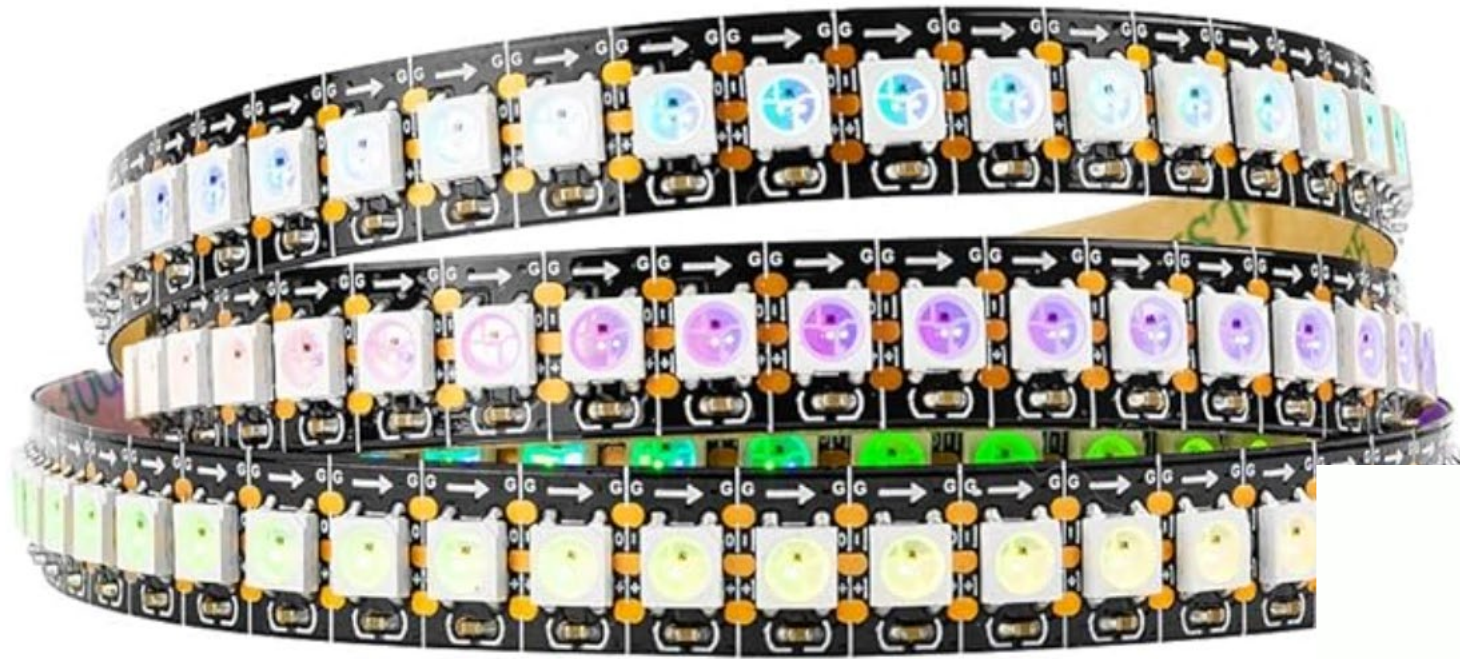
I chose to solder my strips together, but you can use these solderless connectors to make things easier.



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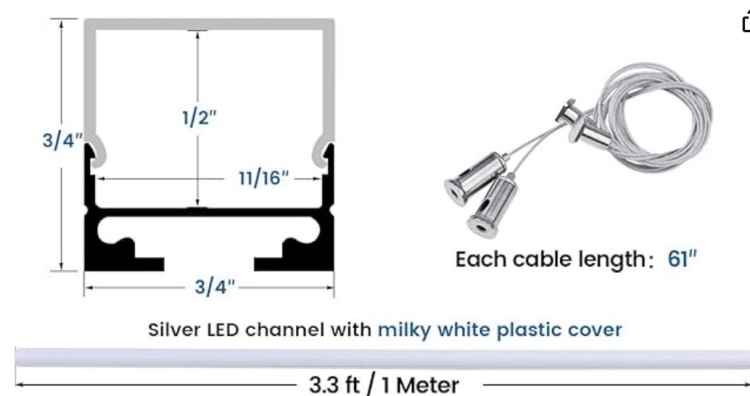
Individually addressable LEDs

I picked the 12V waterproof version (IP65) of the BTF WS2815 LEDs because I was already running 12V supplies. You can choose what ever fits your configuration.



LED Channels

These are not completely necessary. The LEDs are in waterproof strips. However, these channels make it easier to mount the LED strips, keep them straight, and the bezel blends in with white trim.



Items included		
 LED channel system	 End cap	 Mounting clip
 Hanging wire rope	 End cap with hole	 Screw

Junction Box

These junction boxes are waterproof and provide plenty of space. A grid is used to mount all the hardware.



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Wire

You'll need wire from the control box up to each of your connectors. I chose 18/5 multiconductor sprinkler wire for outdoor use.



Electrical Connectors, Waterproof

These were the connectors I used. Chose waterproof connectors.
You will need to determine how many are needed for your configuration.



Power Supply

This power supply company is in a squabble with Digikey and is no longer available on their site. A basic power supply can be purchased as long as you consider the supply voltage (12Vdc) and the power(72W)





Image shown is a representation only. Exact specifications should be obtained from the product data sheet.

LM75-23B12R2-C

DigiKey Part Number	2725-LM75-23B12R2-C-ND
Manufacturer	Mornsun America, LLC
Manufacturer Product Number	LM75-23B12R2-C
Description	AC/DC CONVERTER 12V 72W
Customer Reference	<input type="text"/>
Detailed Description	Enclosed AC DC Converters 1 Output 12V 80 ~ 305 VAC, 100 ~ 430 VDC Input
Datasheet	 Datasheet

Generic Parts List

This is the generic parts list used to create the LED lightshow shown on our website. This only includes what is needed for the LEDs. Each house will be different, and this does NOT include installation. This systems is simple, and most homeowners can install this themselves.

Animated LED Lighting, LLC Generic Parts list for a simple whole house display						
Line Item	Qty	Description	Cost/unit	Total Cost	Vendor	Vendor Part number
1	1	Arduino Nano Every	14	14		RDN-NN-VRY-WTH
2	1	A18804	39.99	39.99		188-MSC-LED-LGH
3	4	P4804	24.99	99.96		CMN-SN-P48-PWM
4	9	LED Strips RGBW	89.99	809.91	Super Bright LED	STW-E40K80-A6C-12B5M-12V
5	2	Solderless Conn.	1.49	2.98	Super Bright LED	SBL-MB5P-12
6	2	Ind. Addressable LED	43.99	87.98	BTF Lighting	WS2815 DC12V LED
7	9	LED Channel	35.99	323.91	Muzata	U116 WW LS2
8	2	ABS Junction Box	24.99	49.98	Qilipsu	7.9 x 7.9 x 5.1
9	2	18/5 Sprinkler wire 100ft	56.28	112.56	Woods Southwire	49275143
10	2	5 pairs elec. Conn. 5 pin	11.99	23.98	WESIRI	5x5pin-WP-B-B
11	2	Power Supply 12V 72W	14.12	28.24	Mornsun America	LM75-23B12R2-C
		Total Cost		1593.49		



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