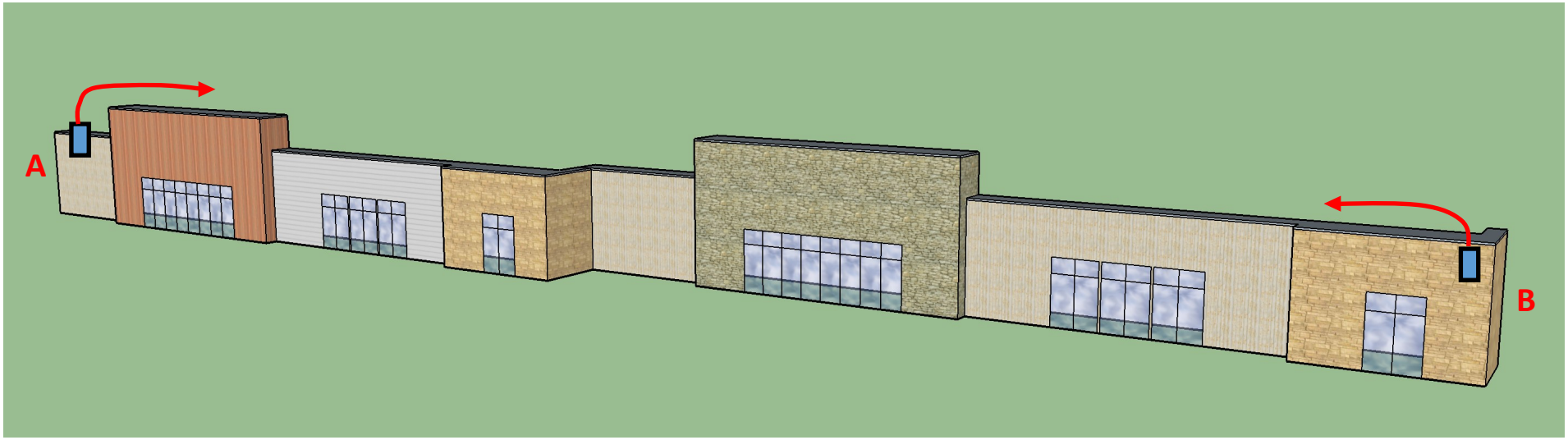
COMMERCIAL INSTALL STEPS

STEP #1—Determine Best Place for Main Control Box

A starting position on either end works but locations near accessible power, maintenance locations, ideal locations for users, or proximity to strong wifi signal points, etc. should be the first criteria.

You could choose A or B in this example



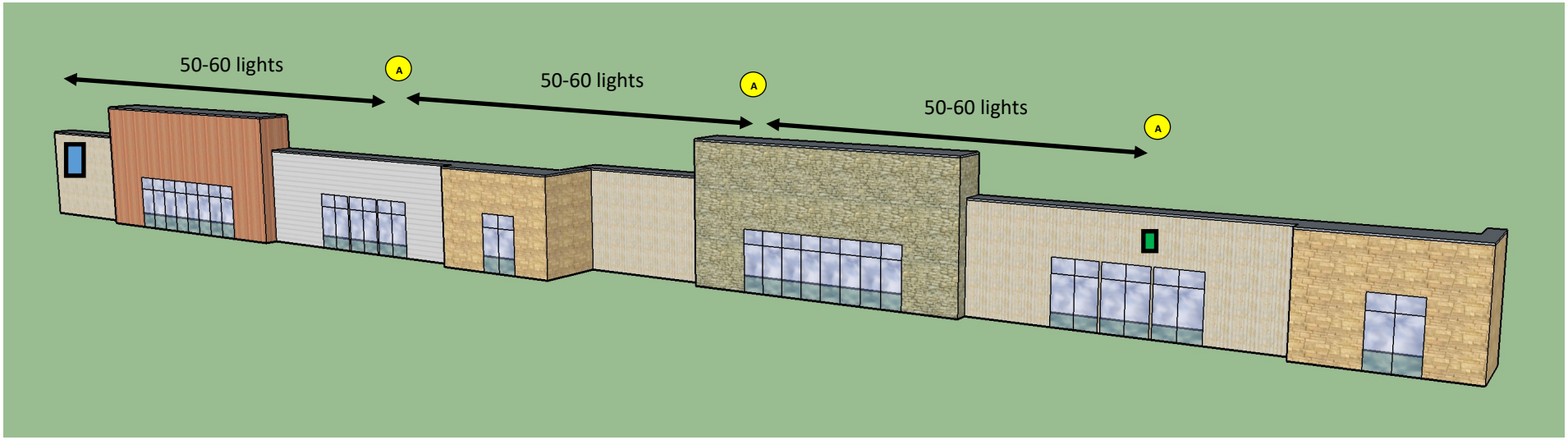
STEP #2—Determine any secondary power locations

(If Needed)

Determining locations for secondary power supplies is dependent on the amount of lights within the distance from the primary control box. The following Guide can help:

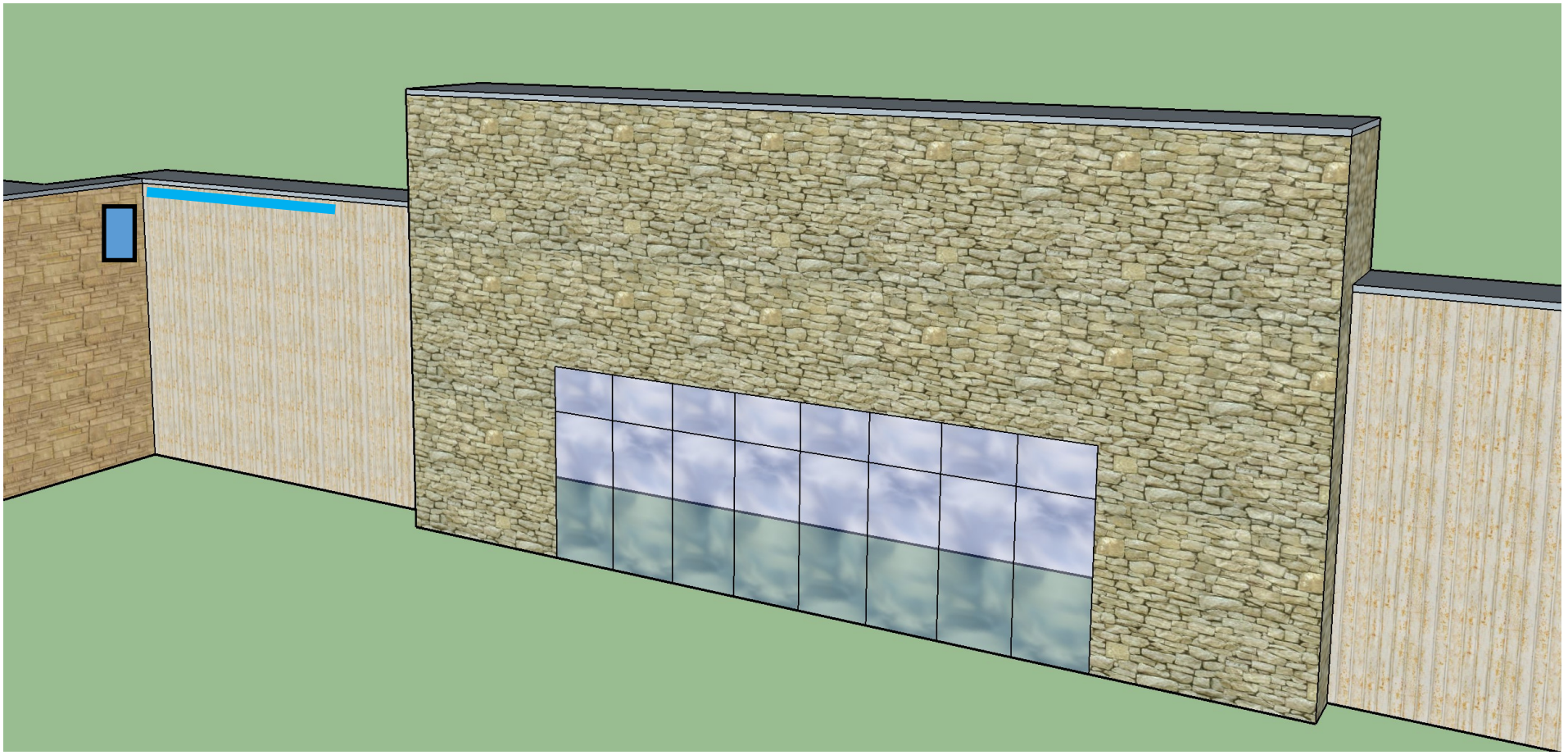
12” spaced lights 30 mm lights - 150-180 feet between master controller and 2nd power supply

A = an amplification point required



STEP #3—Start Hanging Channel/Base at a Start Point

Working in one direction from the main control box location. Start hanging channel in the appropriate installation method for the type of channel.



STEP #3A—Start Hanging Channel/Base at a Start Point

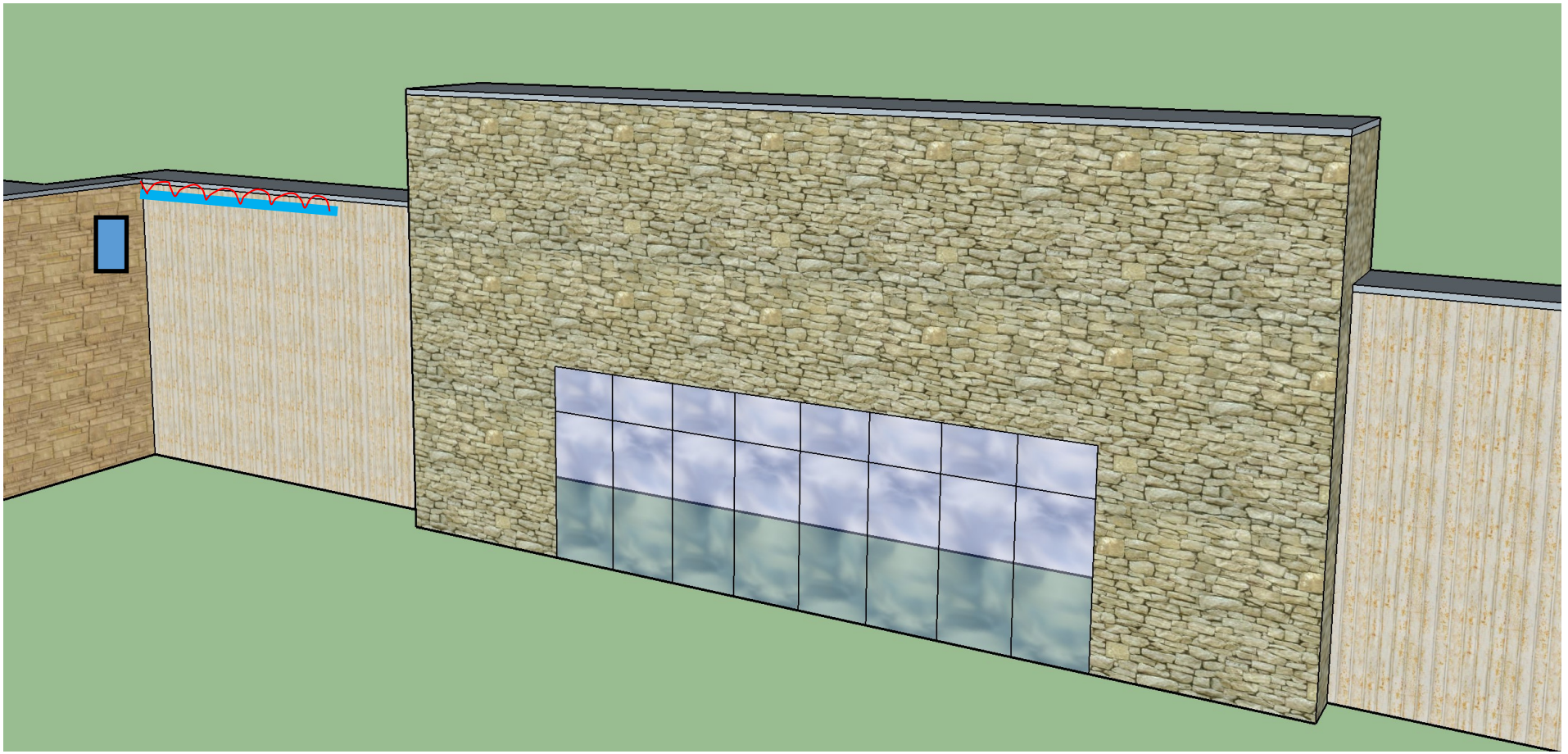
Depending on your chosen TYPE of system, you will hang one of the following items:

DRIP COMMERCIAL—You will install the channel (Pic on the left)

SNAP IN COMMERCIAL—You will install the Snap In Base (Pic on the right)

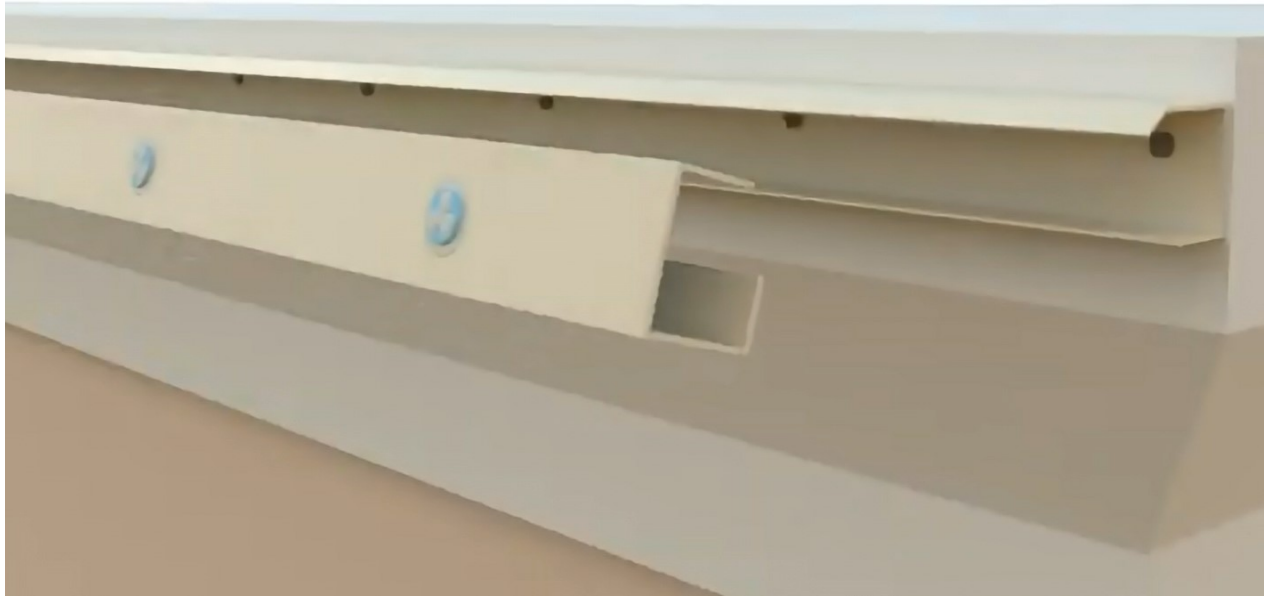
STEP #4—Input Light Strings into Channel

With as few as one or multiple sticks of channel installed. Install light string in the channel. If using the SNAP IN System. Please refer to the next page.



STEP #4A—Install lights in channel (SNAP IN VERSION)

If installing SNAP IN Channel, At this stage, you will start to install all light and necessary wires in the channel on each piece before you install the channel into the base.

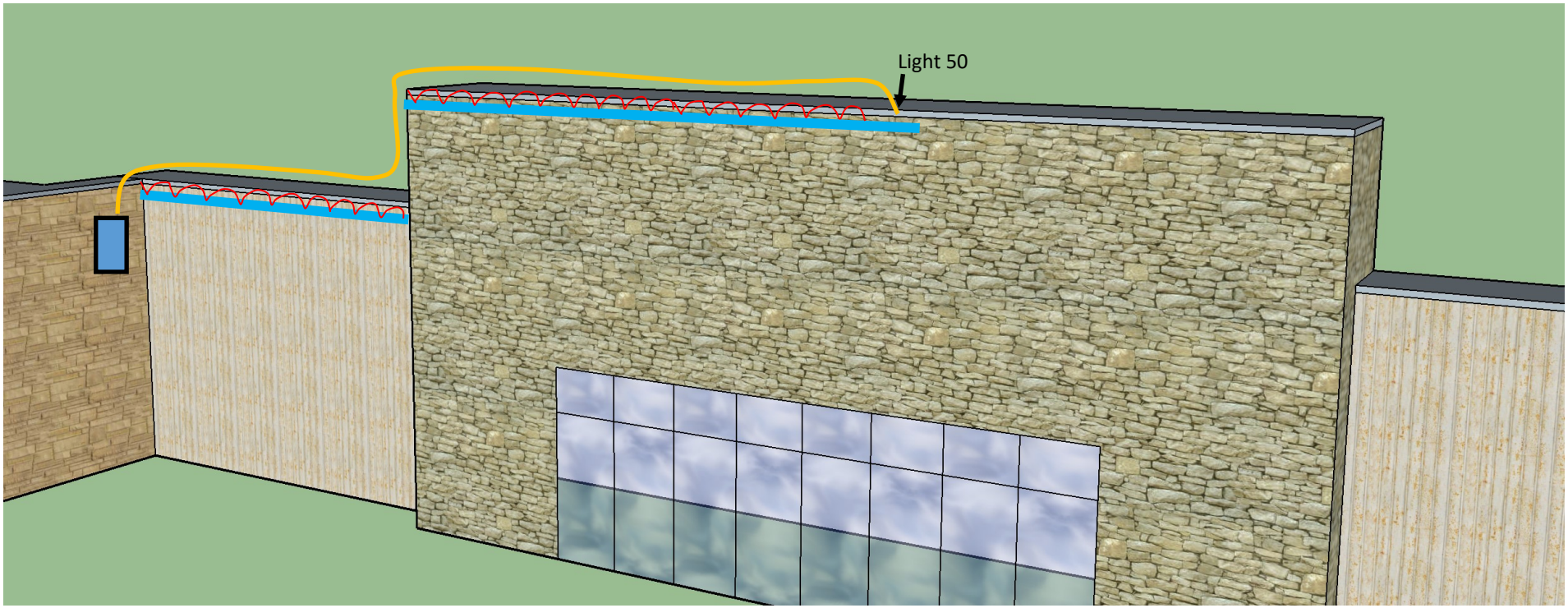


STEP #5—Input Amp Wire into Channel

While installing the light strings into the channel, take the time to also run your pair of amplifier wires inside the channel.

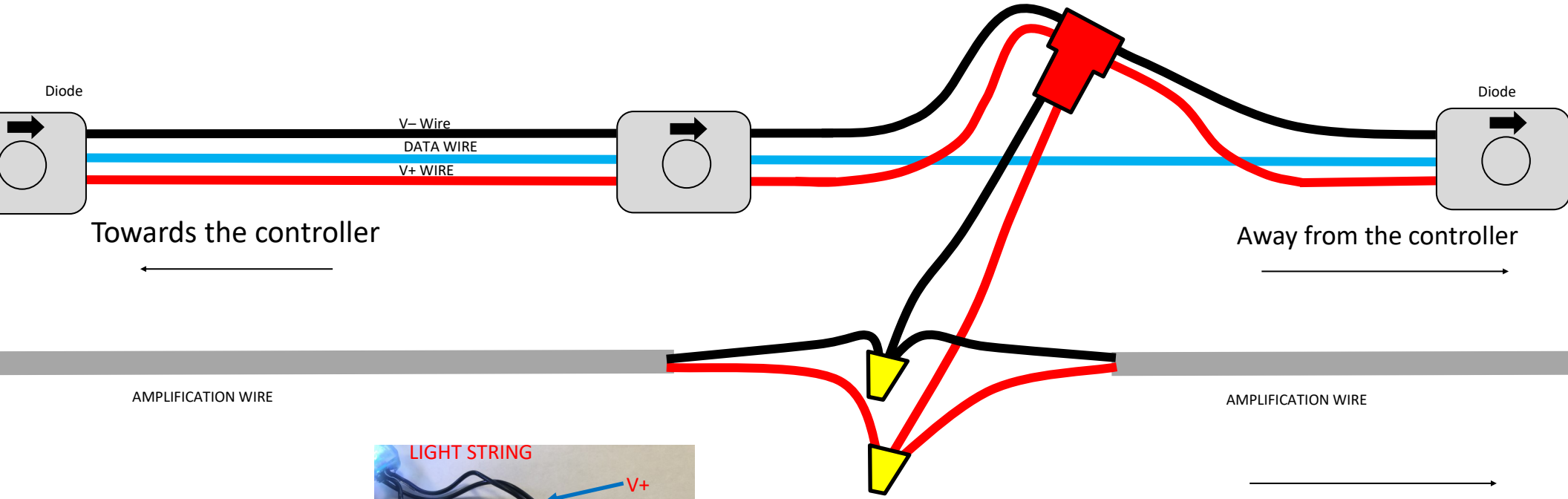
With the limitations of low voltage lighting. The system needs to receive added voltage power every so often to counteract voltage drop and usage from each light. Using 16/2 stranded wire or larger wire like 12/2 into the channel laying alongside the light strings that were placed in step #4.

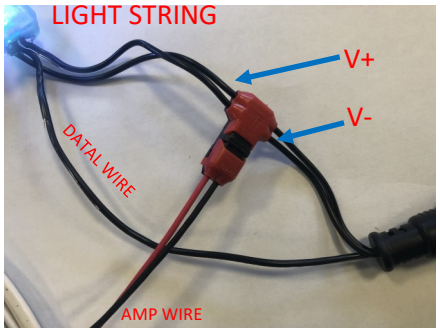
This wire will be needed to inject needed power at every 50-60 lights. For simplicity, we will use the factor of every 50 lights in this example.



STEP #6—Connect Amp Wire into Light String Wire

In the current hypothetical design layout. The amp wire needs to continue in the channel to arrive at the next Tee connection (the 2nd amp point). The signal DATA wire (on the light string) continues uninterrupted and only the V+ and V– are being amplified.

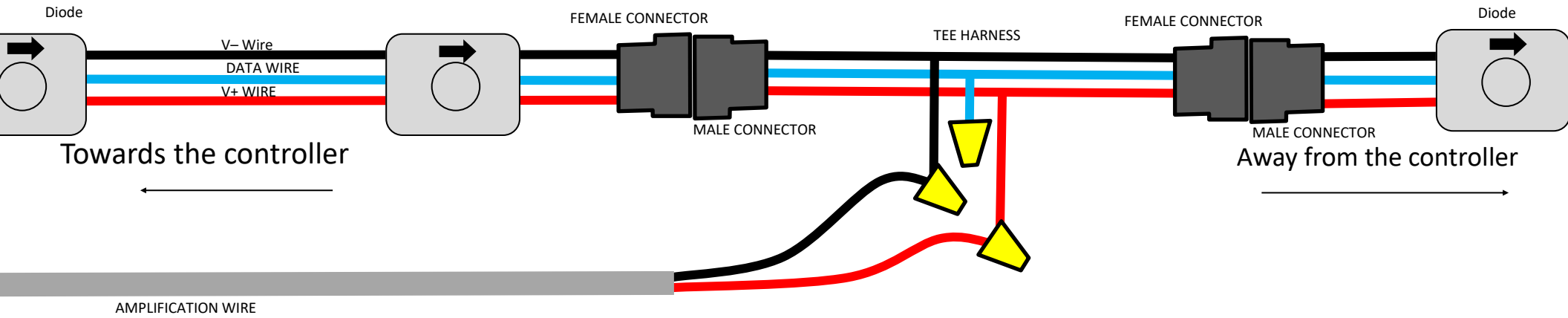


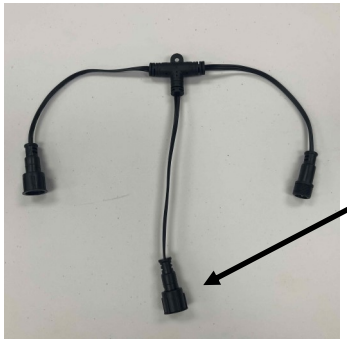


Sample of a “TEE” Connection into the diode wire on V+ and V-.

STEP #6 OPTIONAL—Connect Amp Wire into Light String with Harness

In the current hypothetical design layout. The signal DATA wire (on the light string) continues uninterrupted and only the V+ and V– are being amplified. This method uses a TEE HARNESS compared to an individual connector. Please protect and isolate the data wire in the harness with a connector or liquid tape.





Bottom Connector REMOVED to allow for a wire connection to amp wire

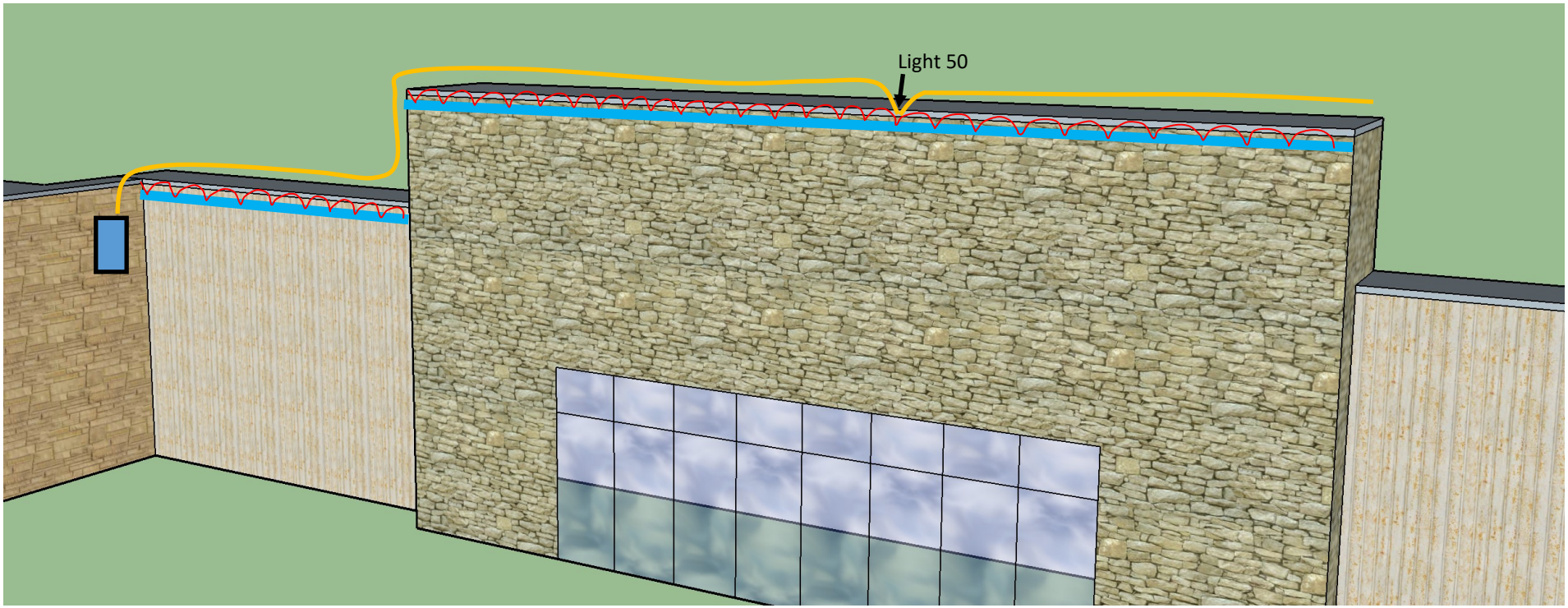
Sample of a “TEE Harness” Connection into the diode strings

STEP #7—Continue Channel and Lights after 1st amp point

While continuing to install the light strings into the channel after the first amp point, take the time to also run more amplifier wire inside the channel alongside the light strings.

With the limitations of low voltage lighting. The system needs to receive added voltage power every so often to counteract voltage drop. Using 16/2 stranded wire or larger wire like 12/2 into the channel laying alongside the light strings that were placed in step #4.

This wire will be needed to inject needed power at every 50 lights.

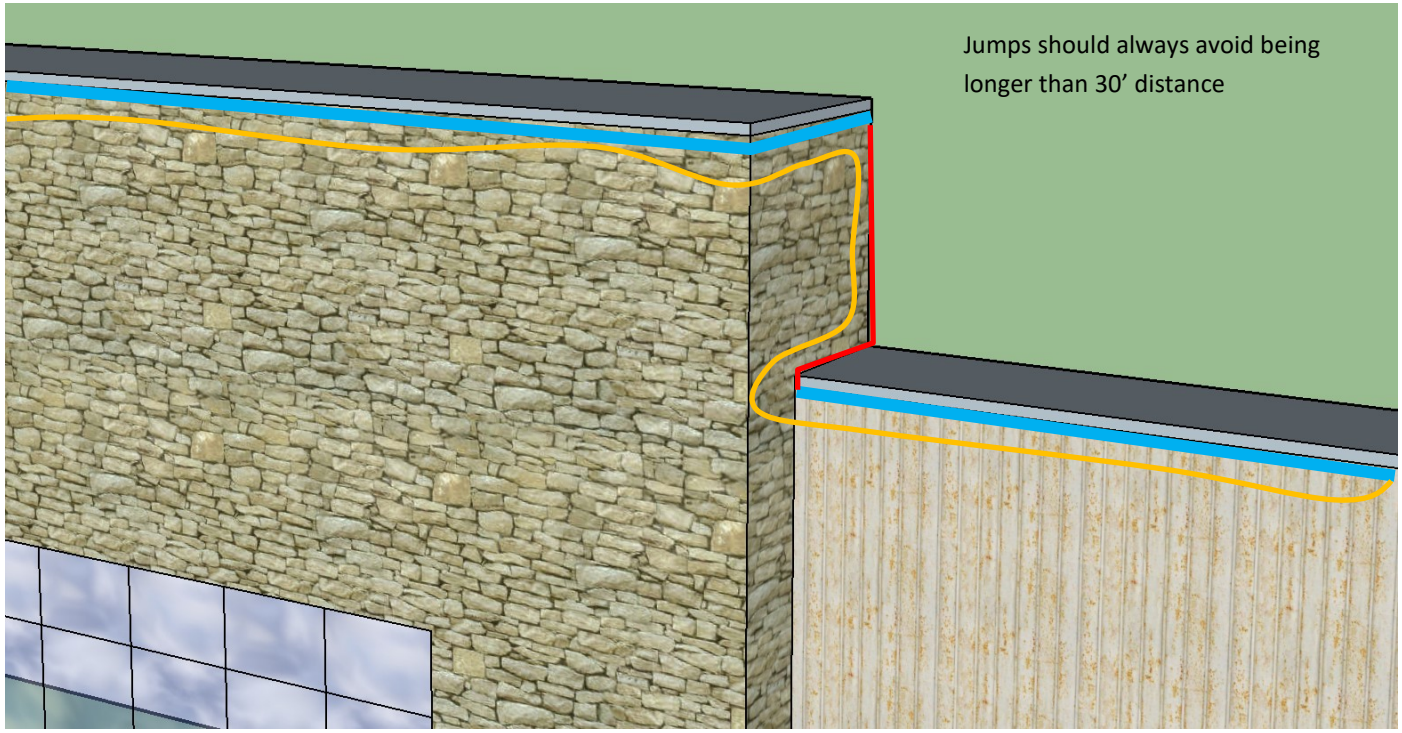


STEP #8—Jumps

When an obstacle shows itself and requires the lights to stop and start on the other side of this obstacle, a **JUMP** is required. These obstacles could be an elevation change, a beam, a corbel, etc.

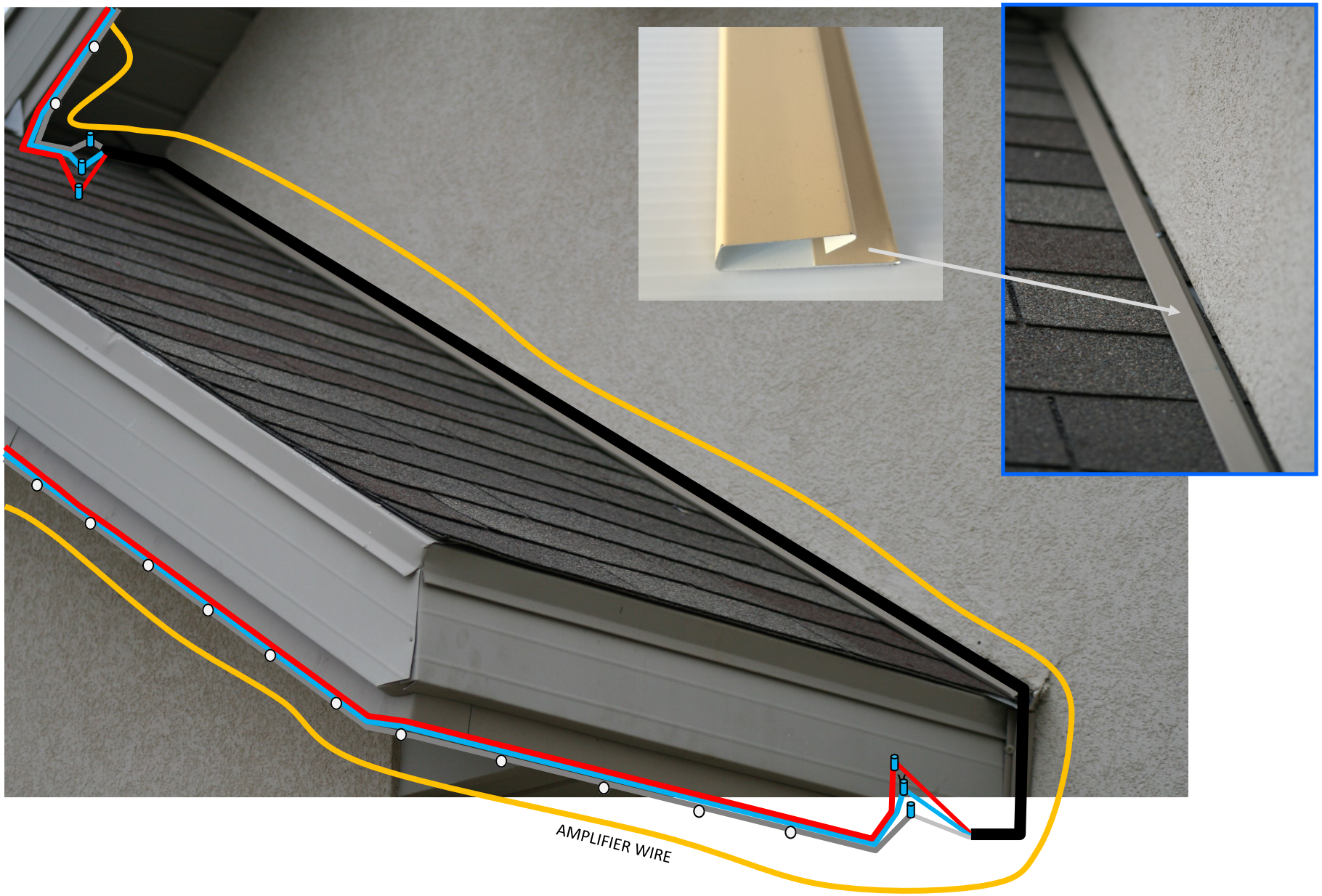
When installing a jump. Using Wire Cover Channel to hide the wire. Make sure to use appropriately colored wire cover that blends into the surface in which it is being mounted. Wire cover can hold approximately 4-6 wires.

In this diagram, the blue line represents lights and channel. The installer will cut the light strings at this point and using splice connectors and then will connect a run of signal wire (In RED) from the last light near the cut to the first light on the lower level and connect into the light string below. The Wire Cover Channel will hold the jump wire and any amp wires. The orange line on this diagram represents an AMP wire.



TRIMLIGHT

Jumper Wire Example on a IC chipped system



STEP #9—Secondary Amp Point

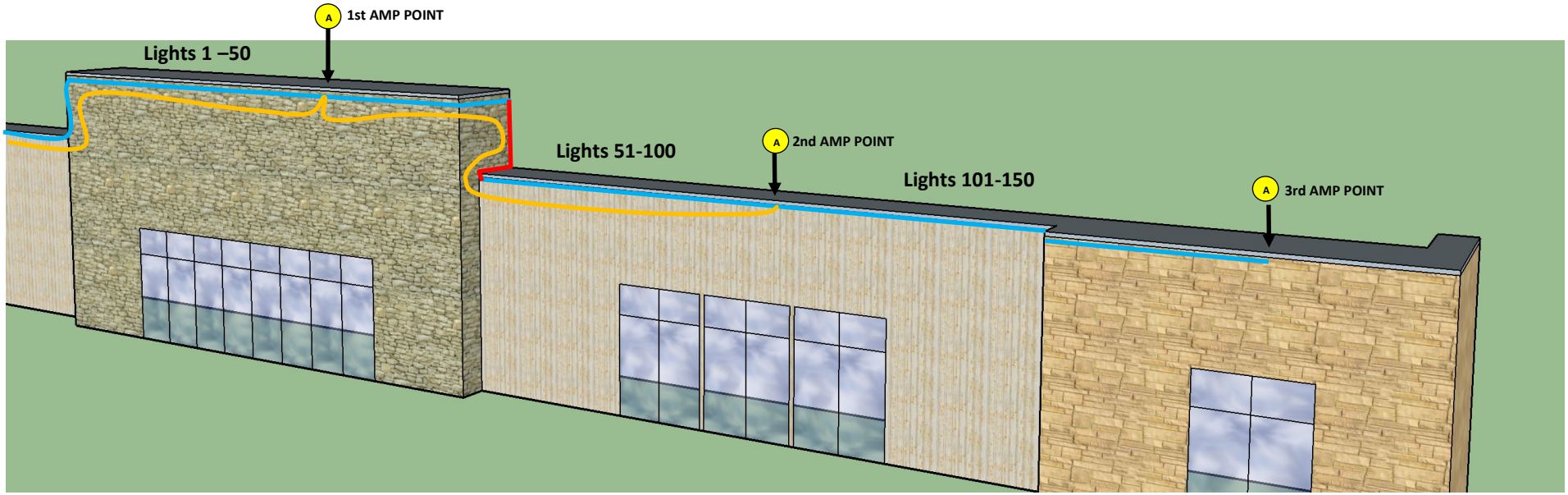
The first 50 lights *(1-50)* are powered from the initial signal wire.

The 1st amp connection (Detailed in Step #5) is powering the next 50 lights *(51-100).*

The 2nd amp point is powering the next 50 lights *(101-150).*

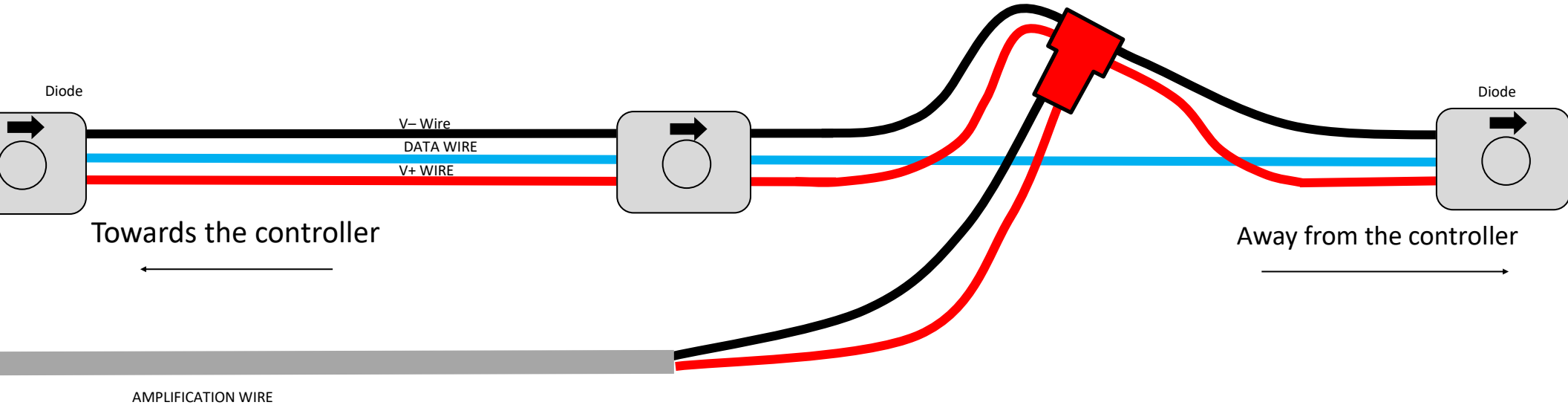
If using 16/2 wire, this will be the last connection point allowed on this amp wire. Because this is the last connection from the amp wire, the connection should look like the next page diagram.

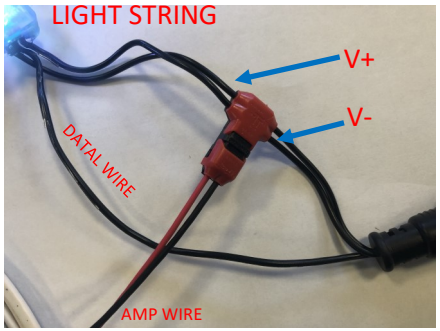
If more amp points are needed, you will need to run a 2nd amp wire in the channel from the previous power supply **OR** add a secondary power supply on the system as shown in Step #11.



STEP #9—Connect Amp Wire End into Light String Wire

In the current hypothetical design layout. The last of the amp wire run needs to continue in the channel to arrive at the last Tee connection point for this amp wire. The signal DATA wire (on the light string) continues uninterrupted and only the V+ and V– are being amplified.





Sample of a “TEE” Connection into the diode wire on V+ and V-.

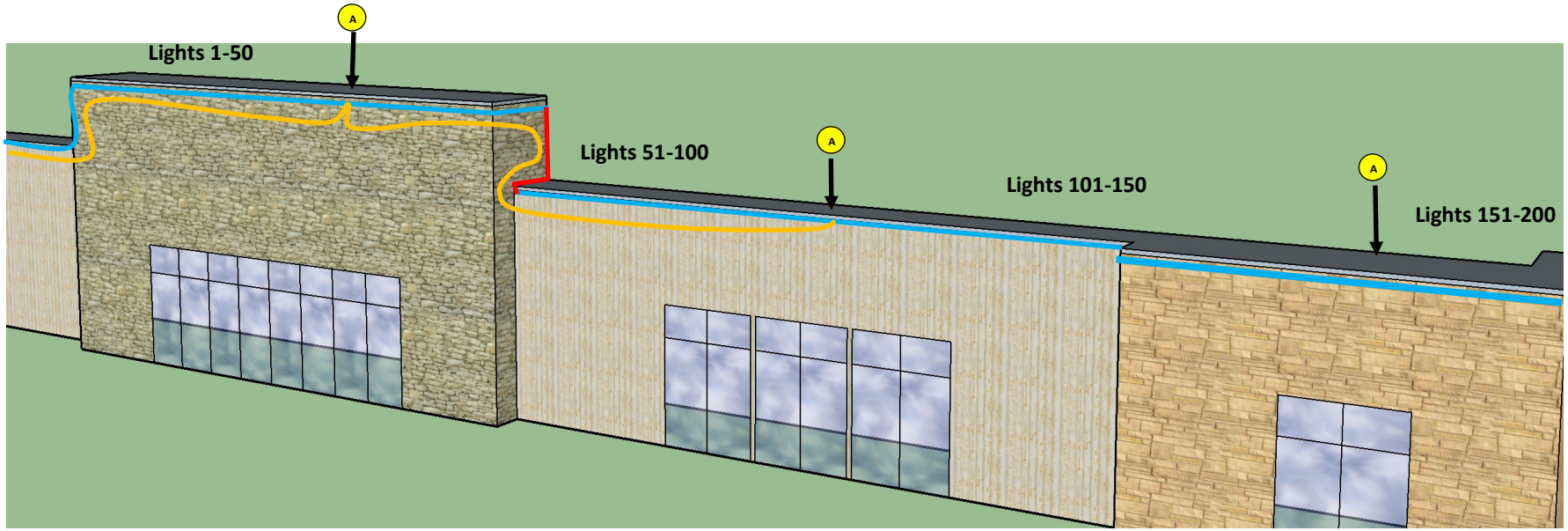
STEP #10—Continue Running the Channel and Lights

The first 50-60 lights is powered from the initial signal wire (Lights 1-50)

The first amp connection (Shown in Step #5) is powering the next 50 lights (Lights 51 through 100).

The 2nd amp point is powering the next 50 lights (Lights 101 through 150)

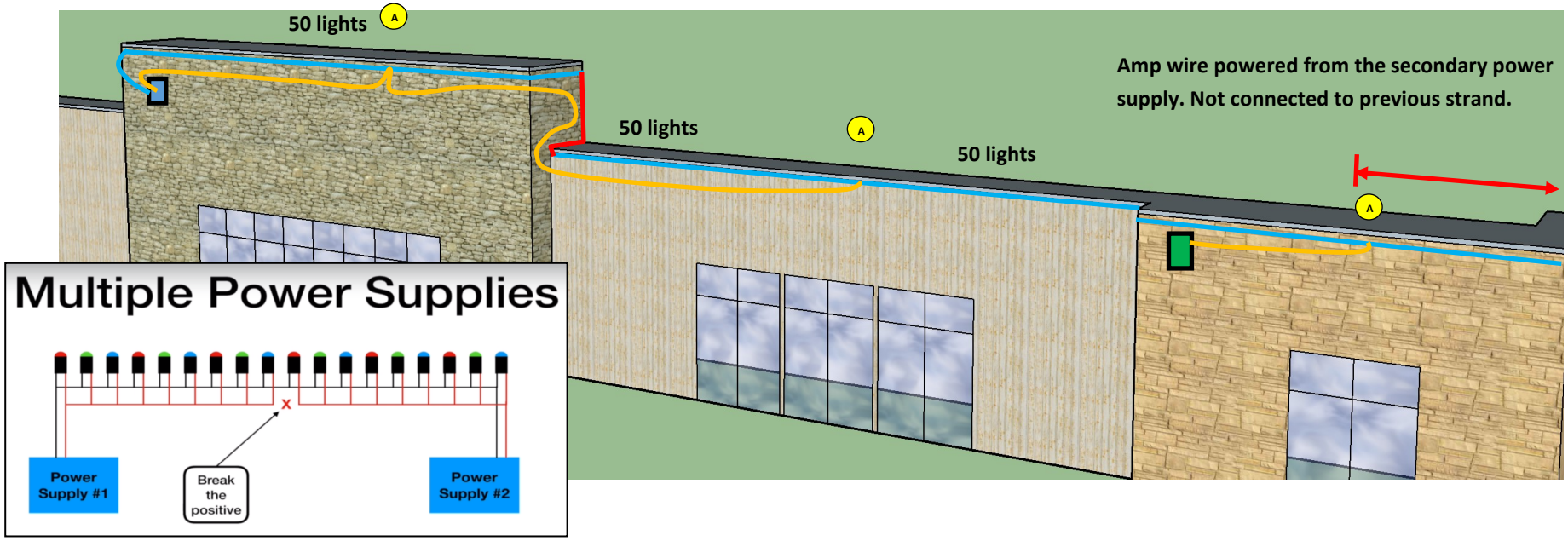
But the next 50 lights (Shown as lights 151-200) need power added but the original amp wire has already been used to the maximum ability. This is where adding a 2nd power supply near this point is ideal.



STEP #11—Secondary Power Point

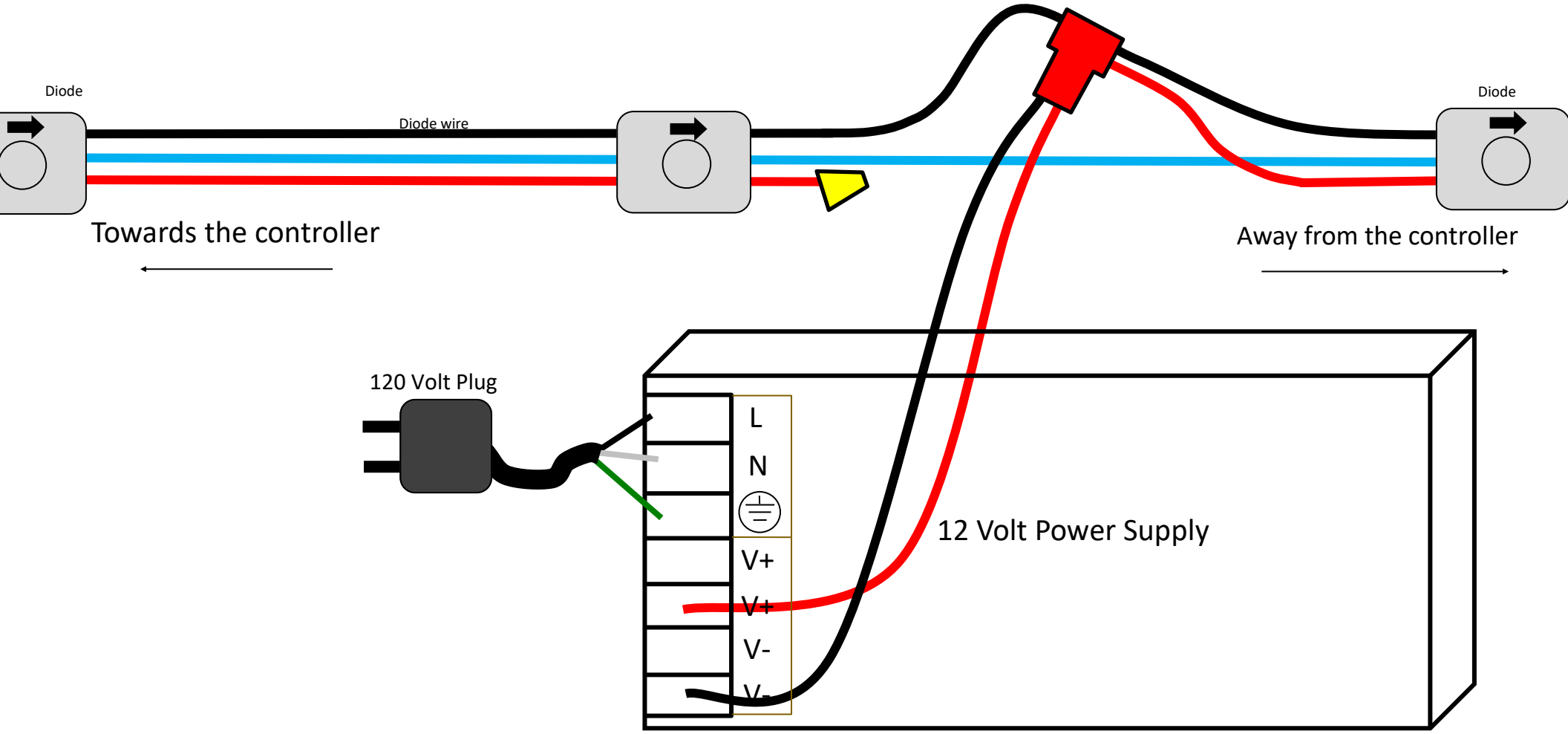
Eventually, the available power that is carried in the amp wire will be depleted and needs to be boosted from another power source. In this diagram, The green box indicates a potential location for another power supply that will then be connected to another 120 volt outlet. Wiring diagram for the secondary power supply on the next page.

THE SIGNAL CAN SUPPORT UP TO 2048 PIXELS FROM THE CONTROLLER. If the project requires more than 2048 pixels, refer to the next page for guidance or break the system into smaller zones with Signal Splitters shown in (Step #13).

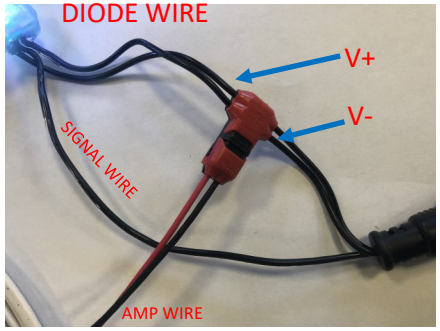


STEP #11—Wiring Diagram if using a secondary power supply.

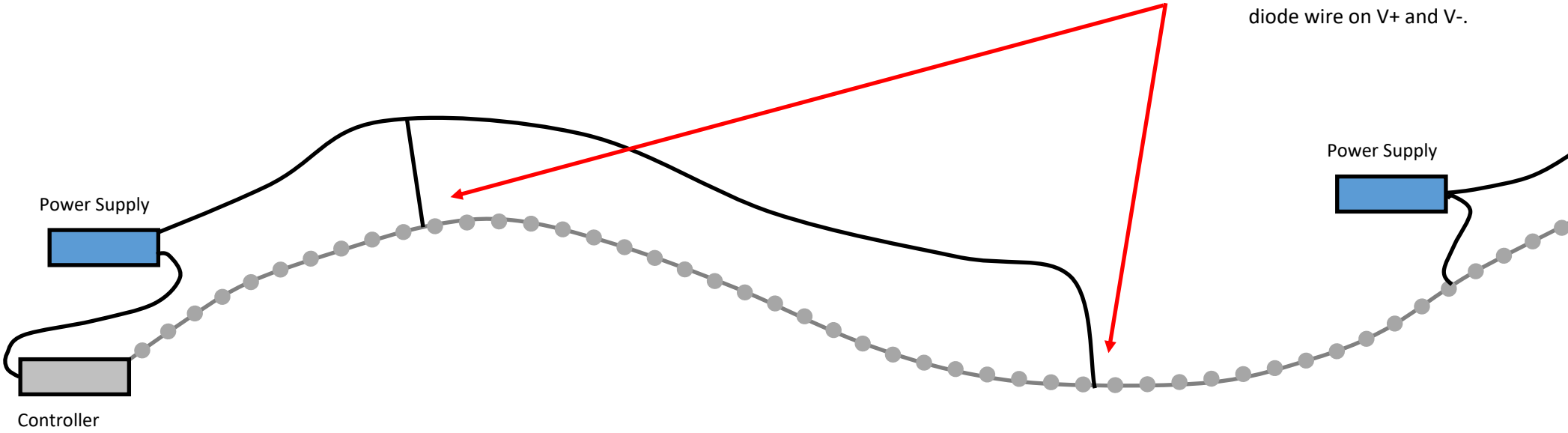
In the current hypothetical design layout. The lights need to continue further along the project and need added power but the original power supply is too far away to be connected. Wiring the secondary power supply like the following method will allow more lights to get appropriate power with minimal voltage drop. The signal DATA wire (on the light string) continues uninterrupted and only the V+ from the previous section is terminated. The new V+ from the power supply continues to the new lights and V– are all connected together.



Correct Wiring for long runs



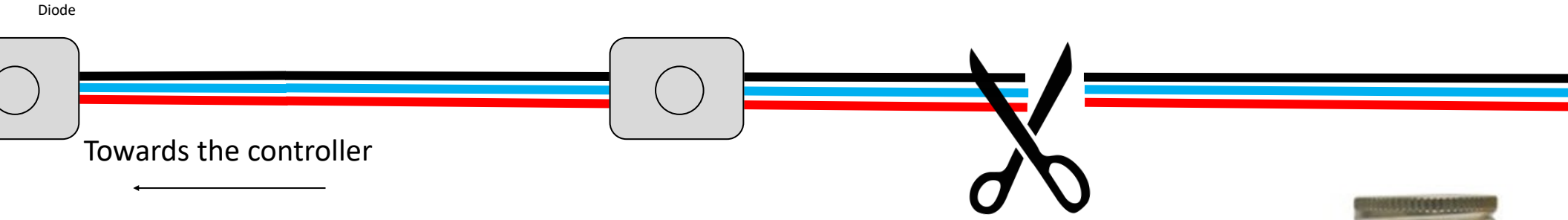
Sample of a “TEE” Connection into the diode wire on V+ and V-.



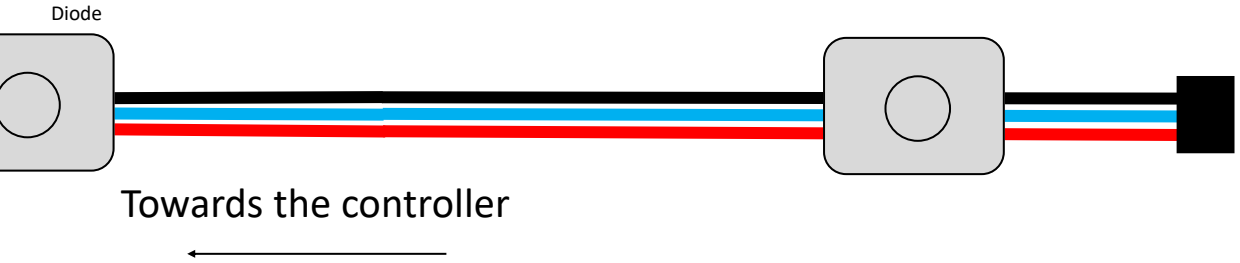
STEP #12—ENDING A STRAND

When finishing a run. Cut the diodes that are not needed from the end and seal the end with liquid tape. Any exposed end should be sealed properly.

STEP #1



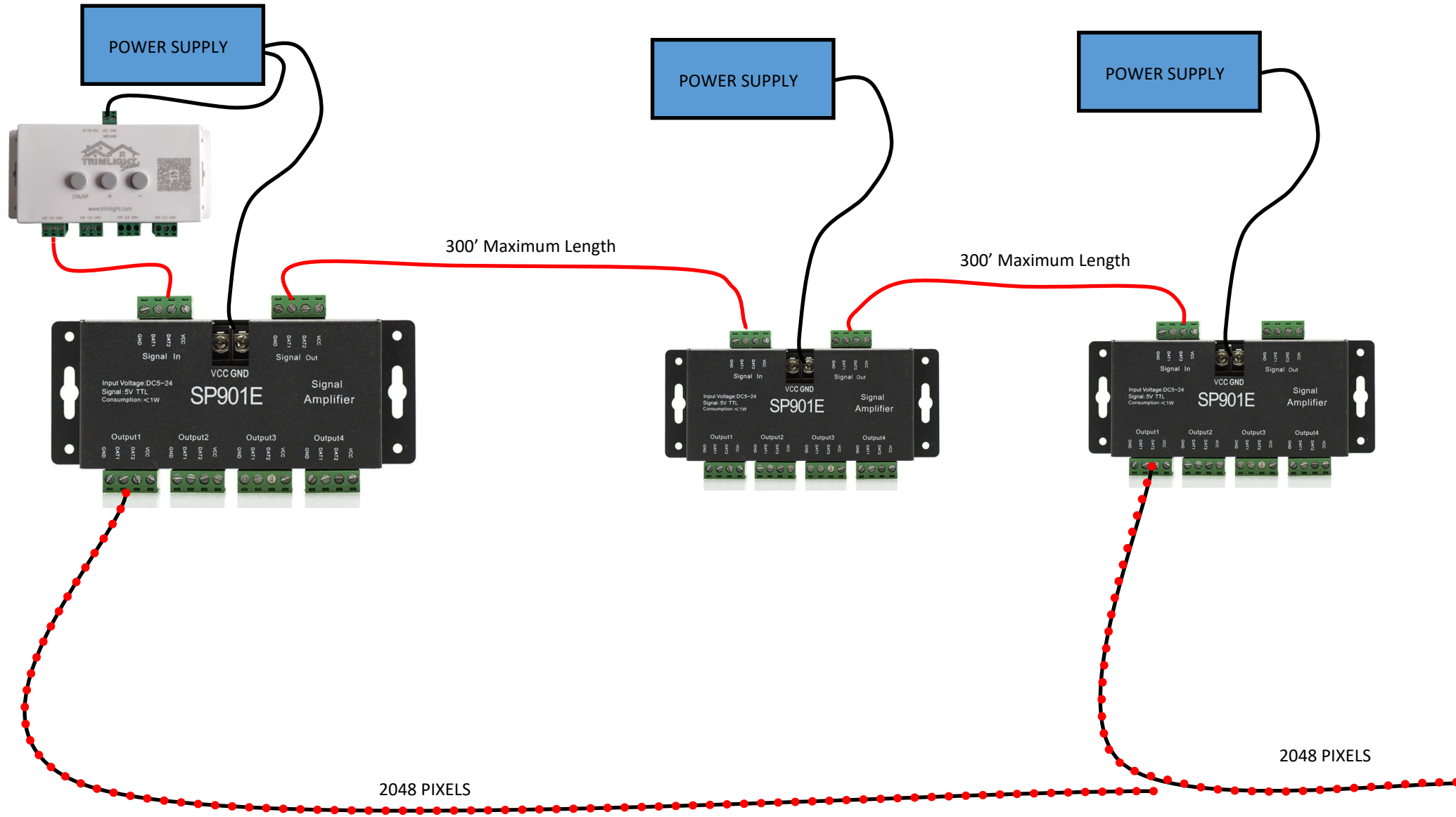
STEP #2



Coat the ends with Liquid Tape for proper sealing around all wires and conductors

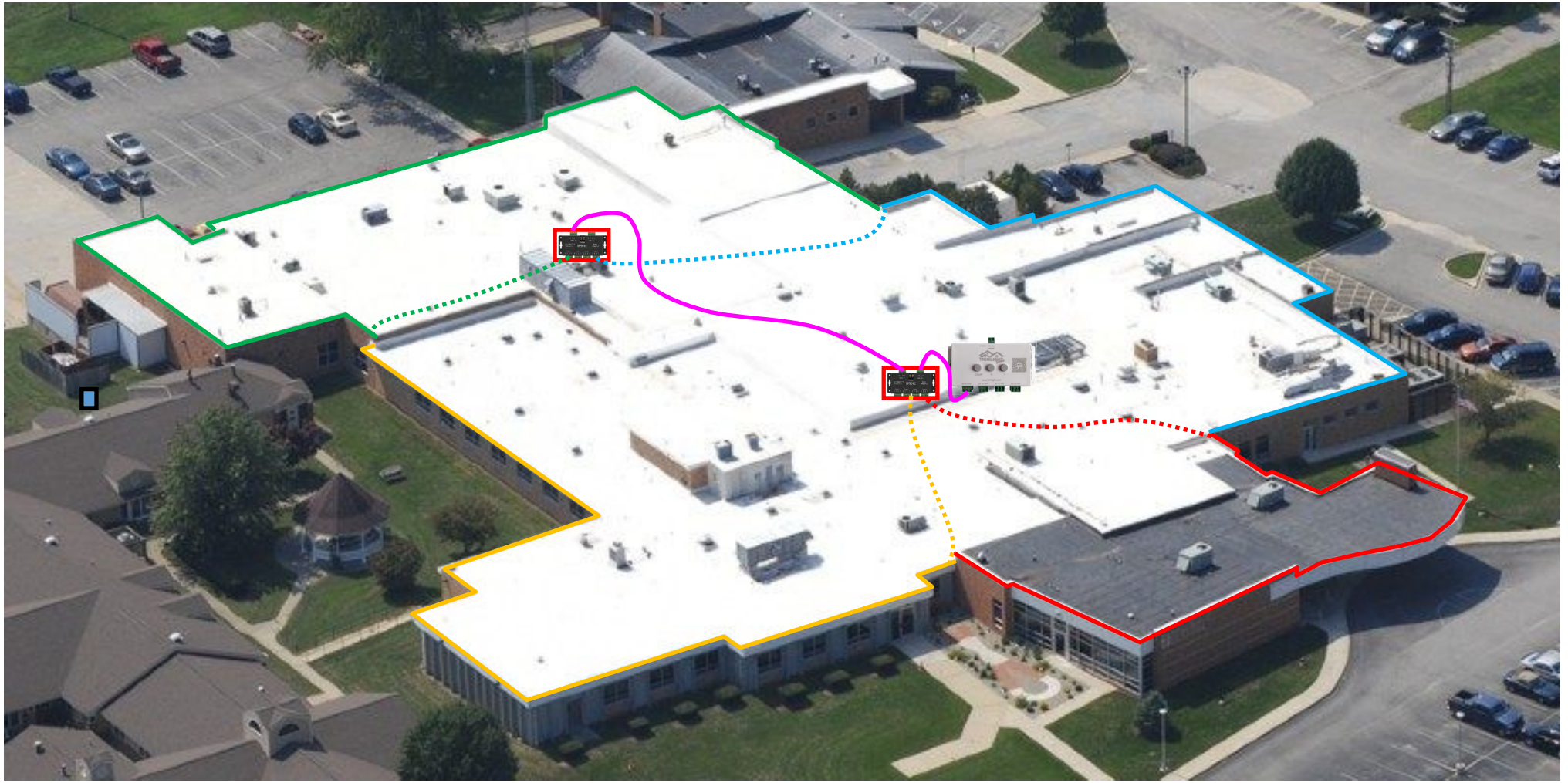
STEP #13 OPTION—Secondary Power Points XTRA large jobs

For larger systems that need more than 2048 pixels from the same controller



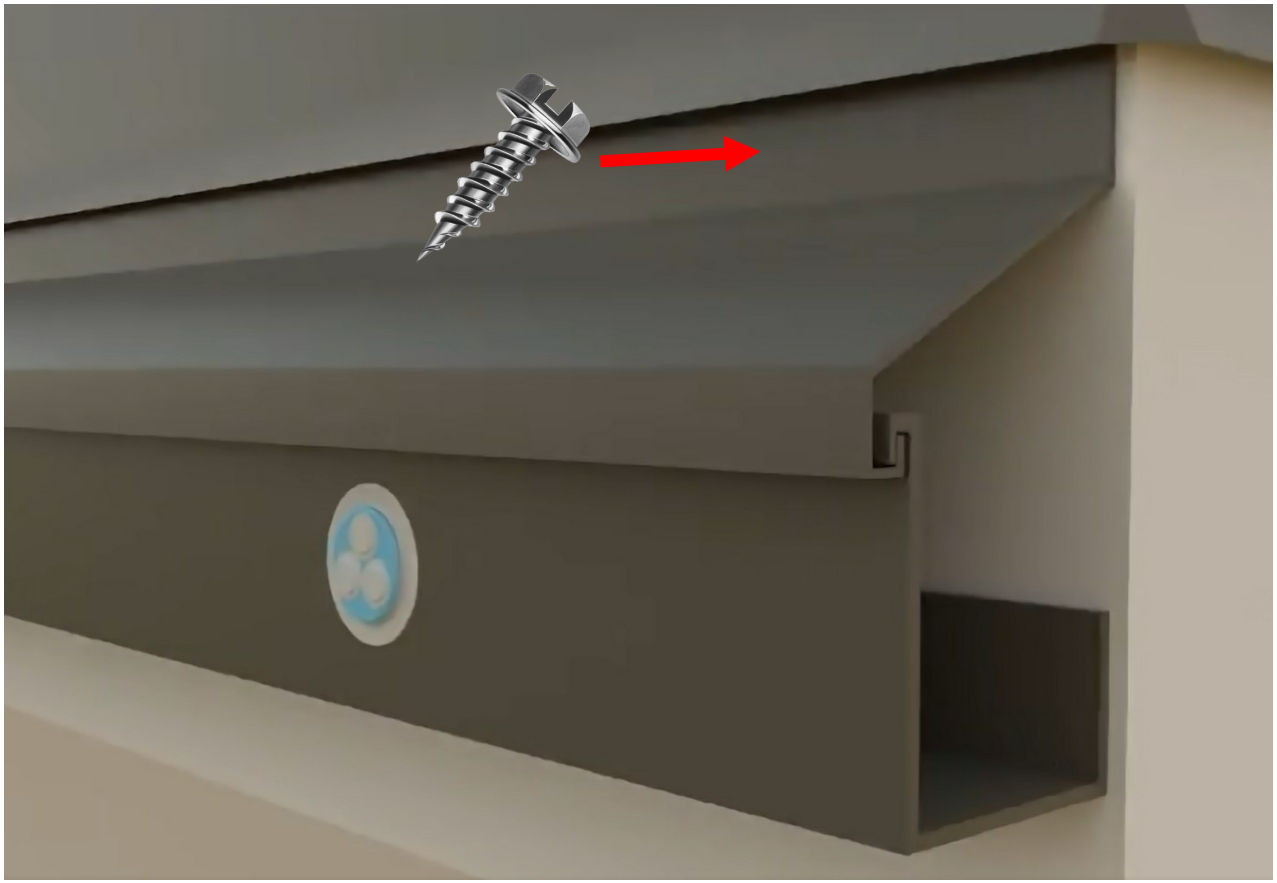
STEP #13 OPTION—Sectional Design for large jobs

For larger systems that need more than 2048 pixels from the same controller. Creating sectioned off zones or isolation sections is the ideal method to handle the scope of the project. In this scenario, different colors represent sections controlled from Signal Splitters.



For DRIP COMMERCIAL installation method —Install Cover

During all steps and throughout the entire process, if the DRIP COMMERCIAL cover is required on the job. Install the cover after full system testing. Be careful to not penetrate any wires with the screws that are holding the cover to the channel. Use sufficient length screws to fully attach to the building structure.

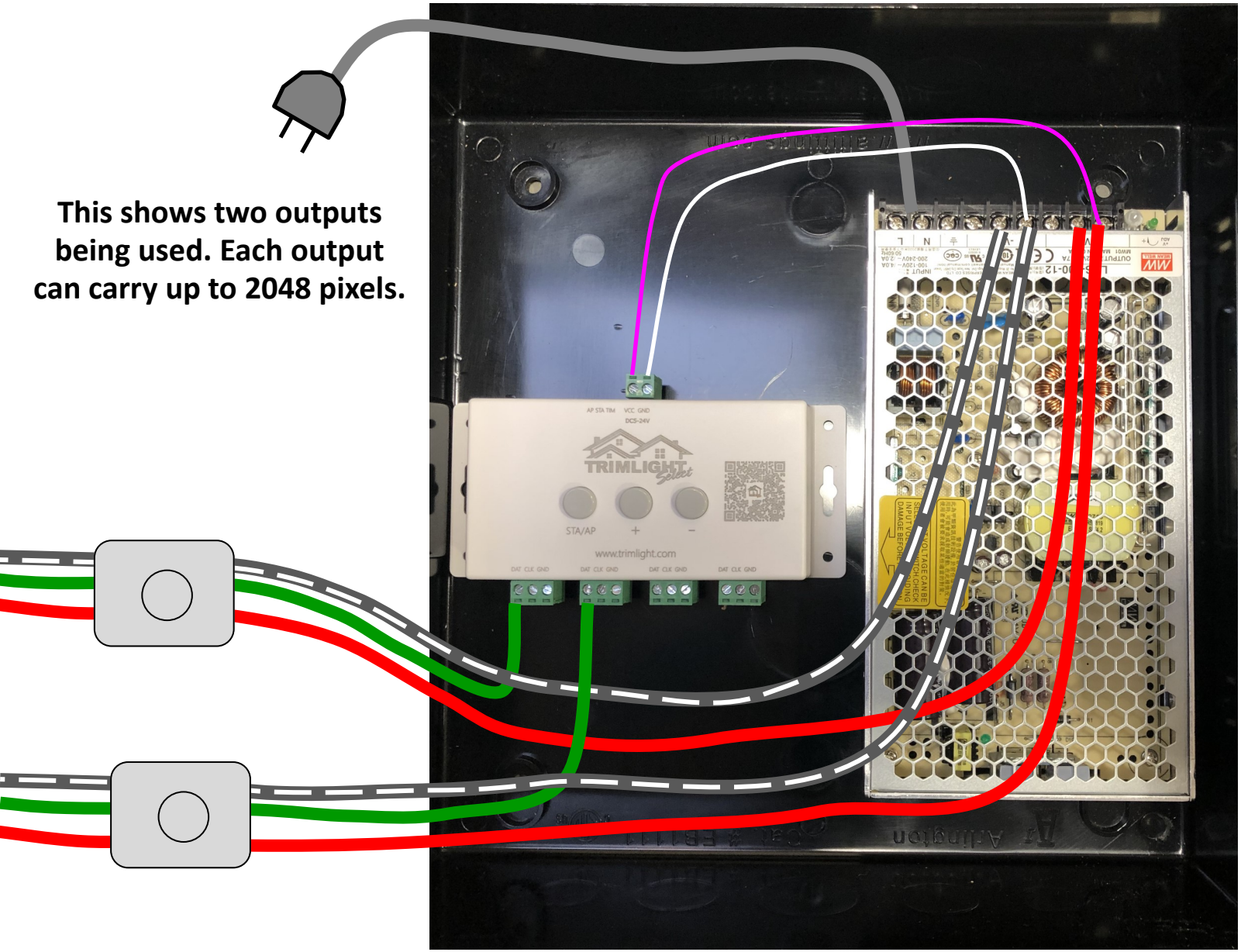


STEP #14—Repeat Steps 1-13

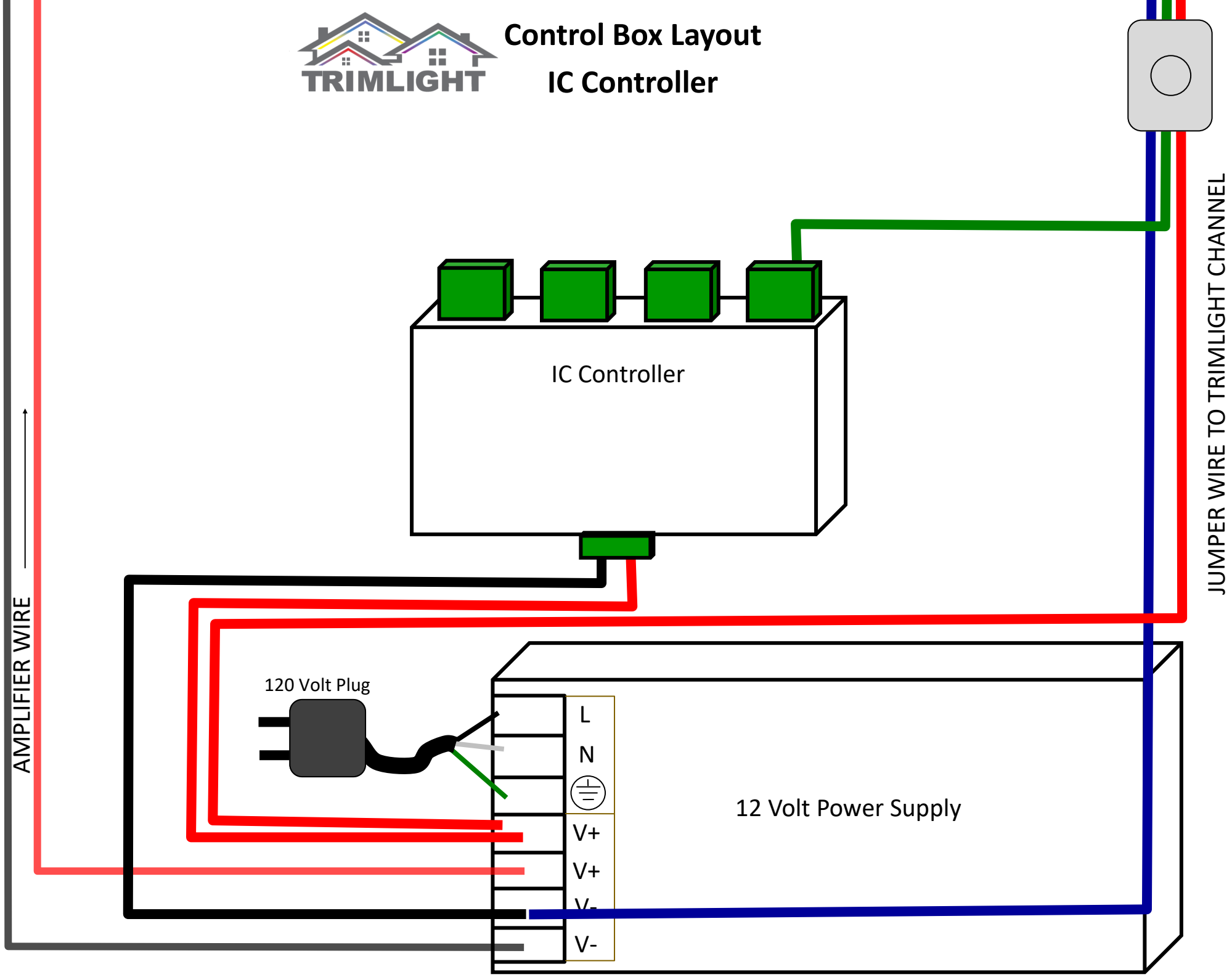
Continue steps #1- #13 on the remaining sections or outputs. Repeat pattern of secondary control boxes until system is finished.

Wiring the Master Control Panel

This shows two outputs being used. Each output can carry up to 2048 pixels.



Control Box Layout
IC Controller



STEP #15—Power on and use the controller

Now that you have the system finished or a portion of the system finished and you want to test the system to ensure all bulbs are working properly. You will need to control the lights. You can use the + or - button on the controller to cycle through a few preset programs to test the lights OR you can log into the back end

1. Download the app.
2. FOR TESTING—Ensure the Blue light is highlighted on the Trimlight controller
3. Connect to the TRIMLIGHT signal via the wifi settings in your phone.
4. Turn on the app and connect to the controller.
5. Make sure the diode count on the pixel addresses is sufficient for the amount of lights on the system. <u>As the app comes out of the package ready to control 600 lights per output.</u>
6. Test system and check all the lights to ensure they are all working properly before leaving the site.

For more visual help. Go to TRIMLIGHT.COM for more help