Light-O-Rama

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Plug-n-Show

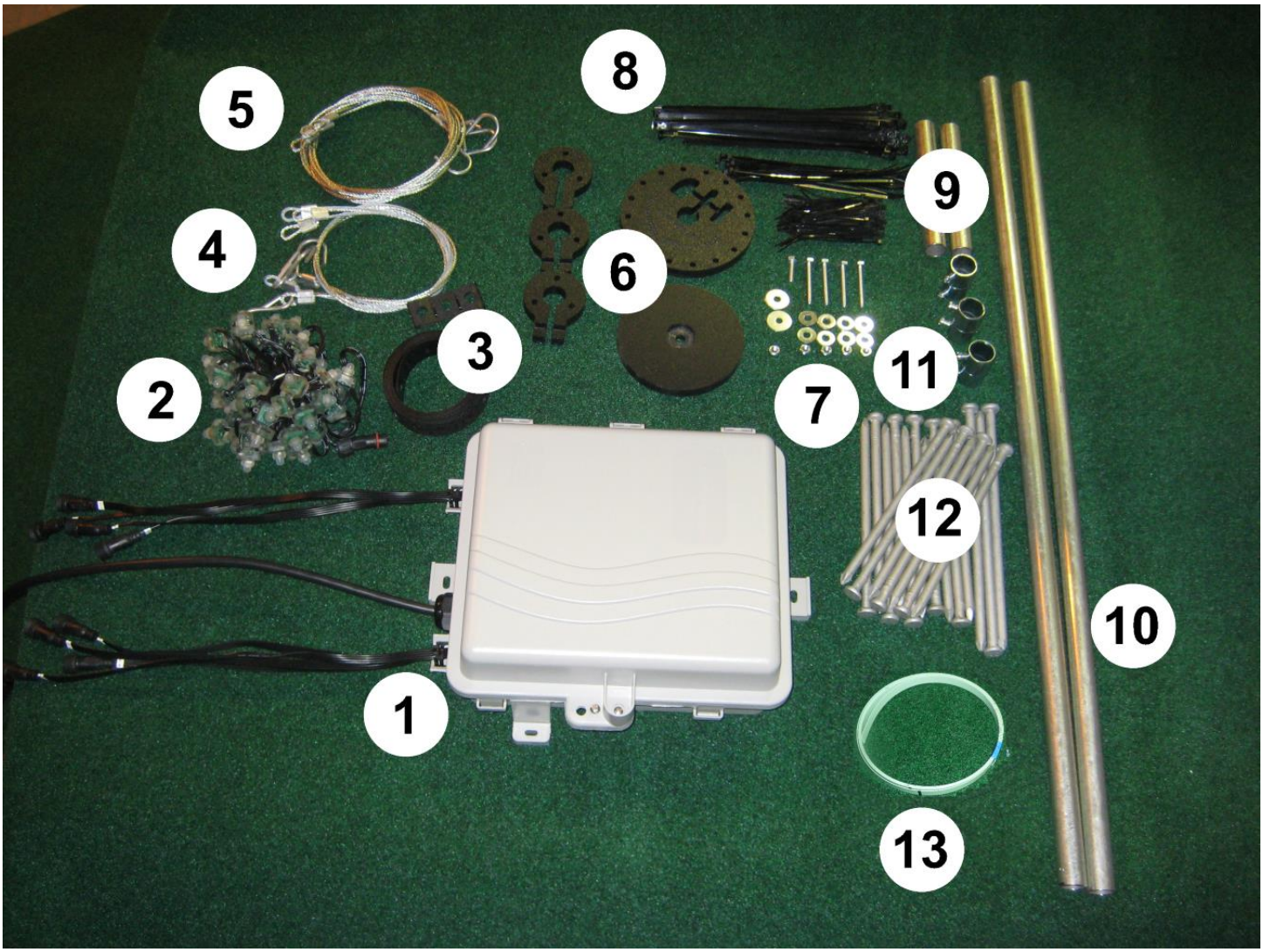
Stake Down Pixel Tree Kit

16 strips of 25 pixels

Assembly Instructions

Read all instructions before you start Kit assembly!

STEP 1. Check that all parts are included



Parts included with this kit:

1) **Pixel Controller**
2) **Pixel Strings (8 strings of 50 pixels)****
3) **Plastic Pixel Mounting Strips (16 strips)****
4) **Short Guy Cables (3 cables with hooks)**
5) **Long Guy Cables (3 cables with hooks)**
6) **Plastic tree parts (1 Topper, 1 Base, 3 Pole Supports)****
7) **Hardware (4 Long Screws, 1 Short Screw, 8 Small Washers, 2 Large Washers, 5 Nuts)****
8) **Cable Ties (25 – 10” Adjustable, 25 – 8” Ties, 75 – 4” Ties)****
9) **Short Pipes (2 pieces)****
10) **Long Pipes (2 pieces)**
11) **Pipe Connectors (3 pieces)****
12) **Galvanized Stakes (17 – 8” Stakes, 3 – 10” Stakes)**
13) **Pixel Spacing Template (Includes small screw and nut)**

****Note: When the “*Strip Assembly Done at Factory*” option is selected, some of the parts listed above will be included in the assembled strips and not counted as loose parts.**

STEP 2. Preparing the Pixel Strips

Note: Skip this step if “Strip Assembly Done at Factory”

Tools Required: Scissors (optionally a ½” Nut Driver)

Overview: During this step, Top of strip is folded and secured with 4” cable tie, the pixels will be inserted into the strips, the strips will be trimmed to length. Strip ends are folded and secured with a 4” cable tie.

STEP 2A. Fold bottom of strip. Pick one end of each strip (only one end). With the rough side facing away from you, fold the strip backwards so the first and second pixel holes are aligned. The fold will end up being directly in line with three small holes between the first and second large pixel holes. Secure with a 4” cable tie. Repeat on all 16 strips.

Back of strip (smooth side) Fold and secure with 4" cable tie.

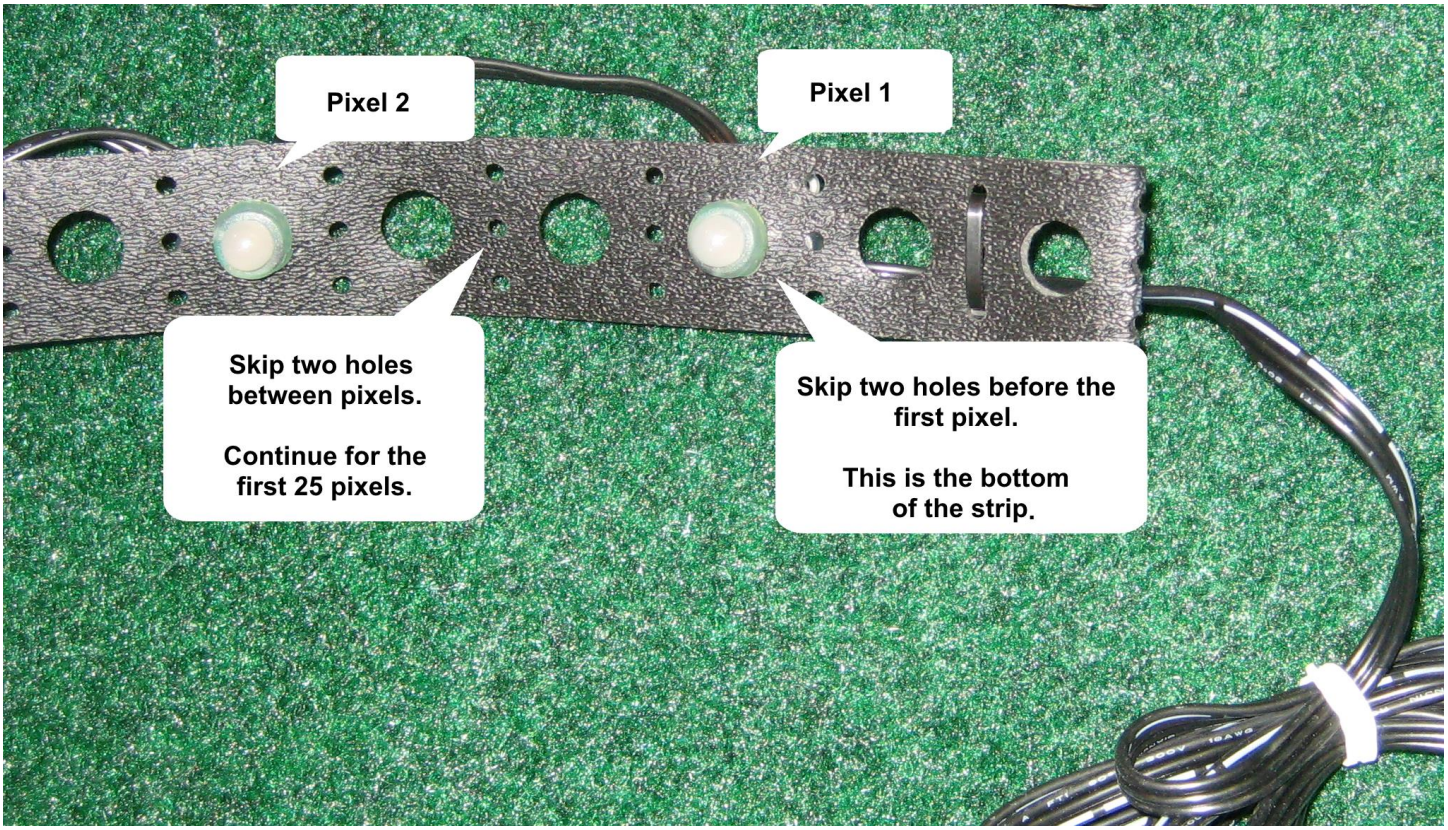
Trim tab from the cable tie.

STEP 2B. Insert Pixels into strip. **Important: Strips have 1 hole at top and two holes at bottom (you will see below).** One string of 50 pixels will be used to make two strips with 25 pixels each. The back side of the strip is smooth so you will pop the pixels in from the back.

TIP: A 1/2” nut driver is a good tool to help push the pixels into the strip from the top side.

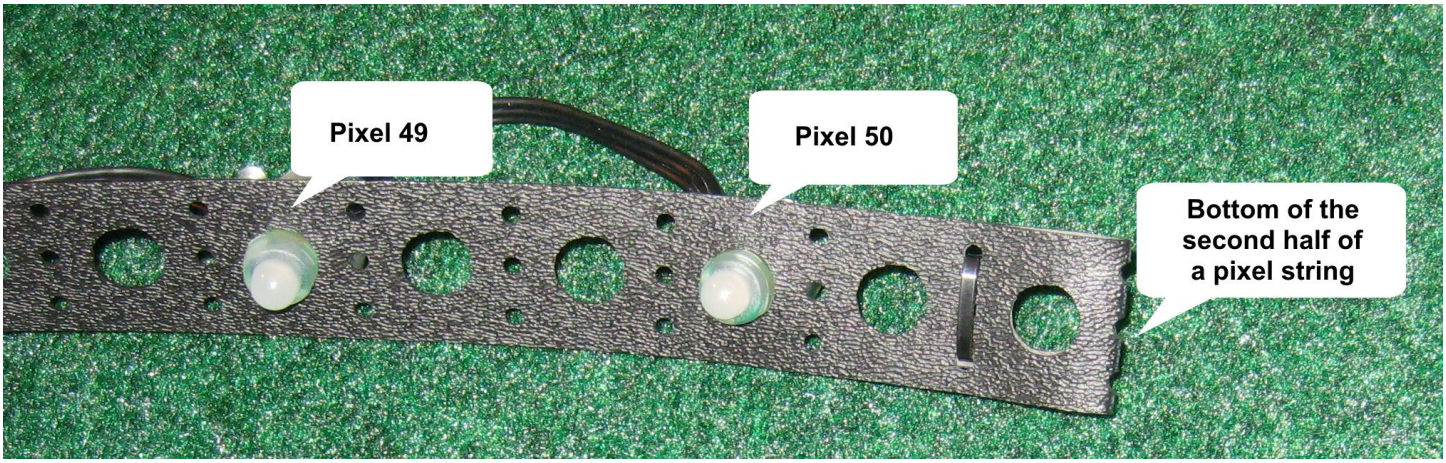
IMPORTANT: DO NOT put pressure on the wires when popping the pixels into the strip. When popping pixels into the strip, use your finger or some other item to support the back of the pixel. Center the support between the wires.

Start with the end of the pixel string with the connector. This will be the bottom of the strip. Pop the first pixel into the **THIRD hole** starting at the **folded end** of the strip.



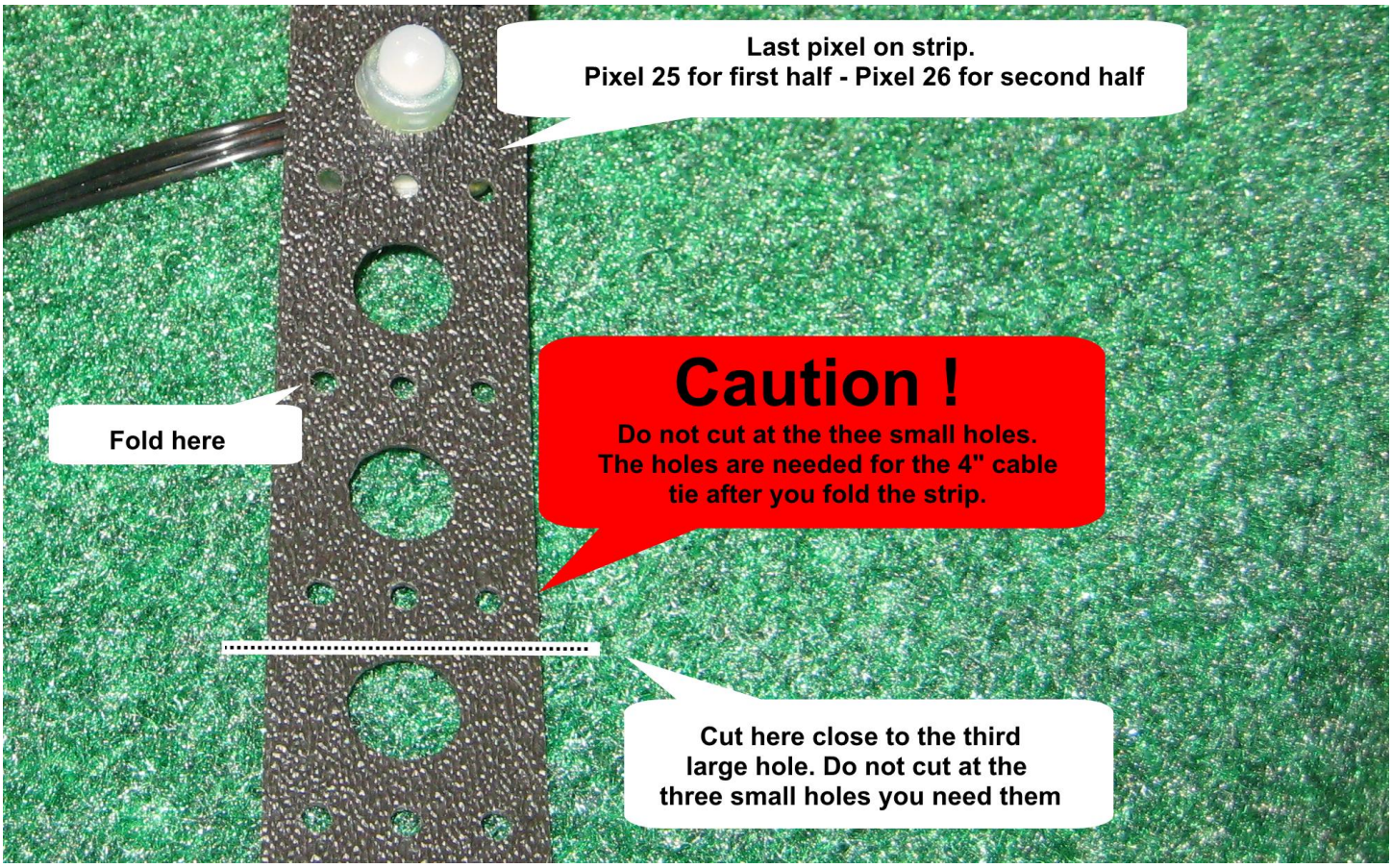
Make sure you have skipped two holes between pixels. In the next step you will be cutting the strip. If you have counted wrong the strip may end up too short! **DOUBLE CHECK PIXEL PLACEMENT.**

After you have inserted the first 25 pixels, get another plastic mounting strip for the second half of the pixel string. Start with the last pixel on the string. Pop the fiftieth pixel into the THIRD hole starting at the folded end of the strip.

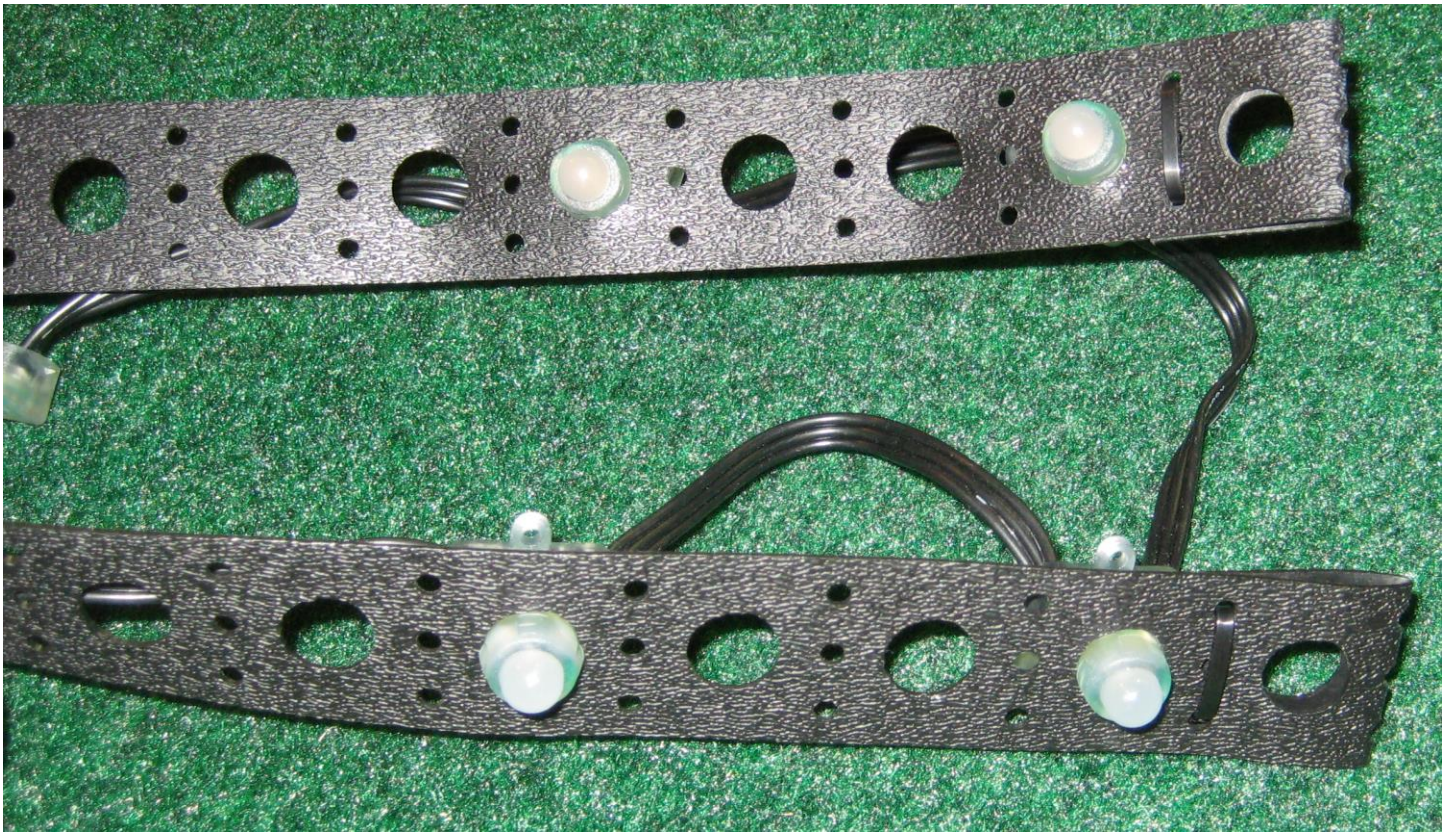


These are the bottoms of the two strips that are made with one string of 50 Pixels. Each strip has 25 pixels on them. Lay the two strips next to one another and make sure that the pixels line up. This is a good way to triple check the pixel placement. It is very easy to miss count the placement.

STEP 2C. Cut and fold tops of pixel strings. DOUBLE CHECK PIXEL PLACEMENT! Save leftovers!



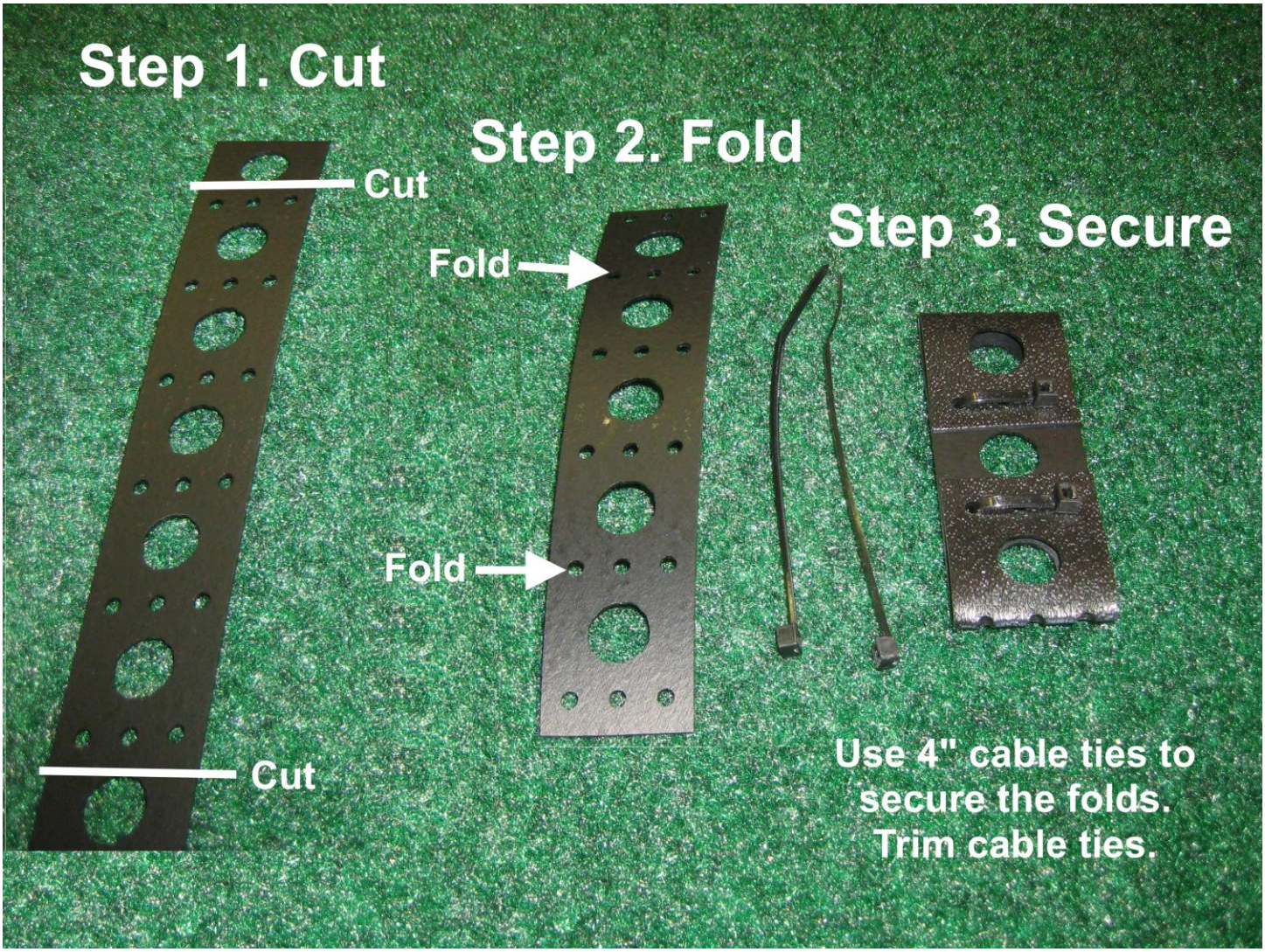
This is the completed top of one the the two strips that are made with one string of 50 pixels.



STEP 2D. Prepare the Stake Stub Straps. The 19 Stake Stub Straps are staked to the ground using the supplied stakes. The Pixel Strips are NOT directly staked to the ground. The Stub Straps allow for adjusting tension using the adjustable cable ties.

In addition. for those who live in cold weather, the Stake Stubs make it easier to take down the Pixel Tree. If the stakes are frozen into the ground you can keep them there until spring. The pixel tree will disconnect from the Stake Stubs and the Stakes and the Stake Stubs can remain in the ground.

The Stake Stubs are made using the leftover pieces of Pixel Mounting Strips used in the last step. Cut a section of the strip with 5 holes as shown below.



Fold and secure with 4” cable ties. **YOU NEED A TOTAL OF 19 Stake Stub Straps**. There are 16 for the pixel strips and 3 for the support cables.

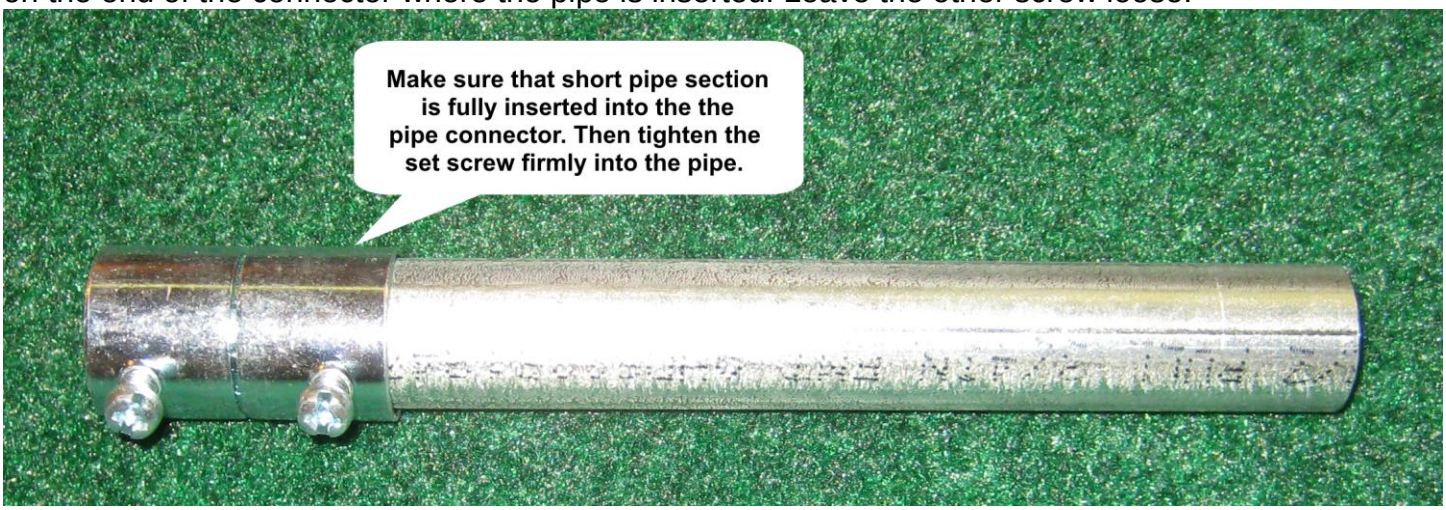
STEP 3. Assemble the tree topper.

Note: Skip this step if “Strip Assembly Done at Factory”

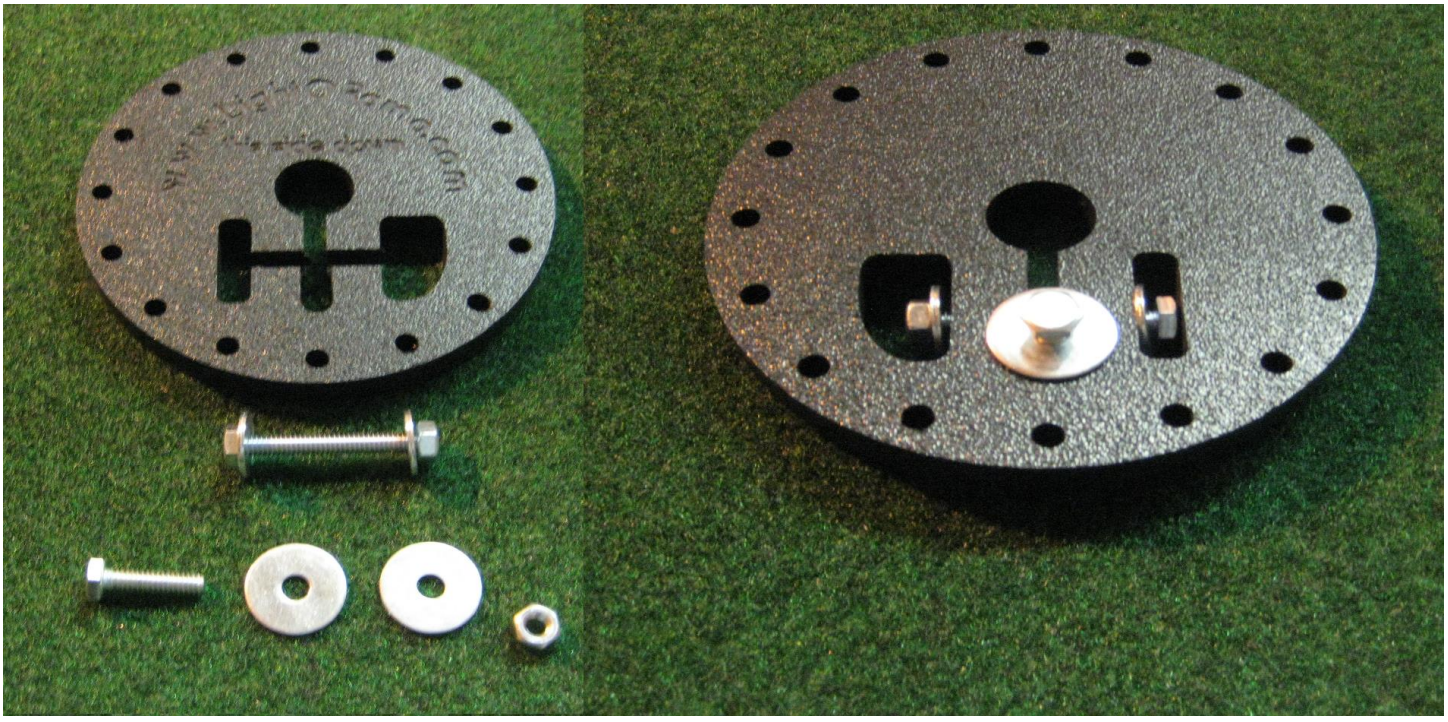
Tools required: #2 Philips Screwdriver and two wrenches.

The tree topper is assembled with all 16 strips attached and with a short pipe section inserted. It will be placed on top of the tree as one of the last steps in assembly of the tree.

STEP 3A. Place a pipe connector onto one of the short pipe sections. Only tighten the screw that is on the end of the connector where the pipe is inserted. Leave the other screw loose.

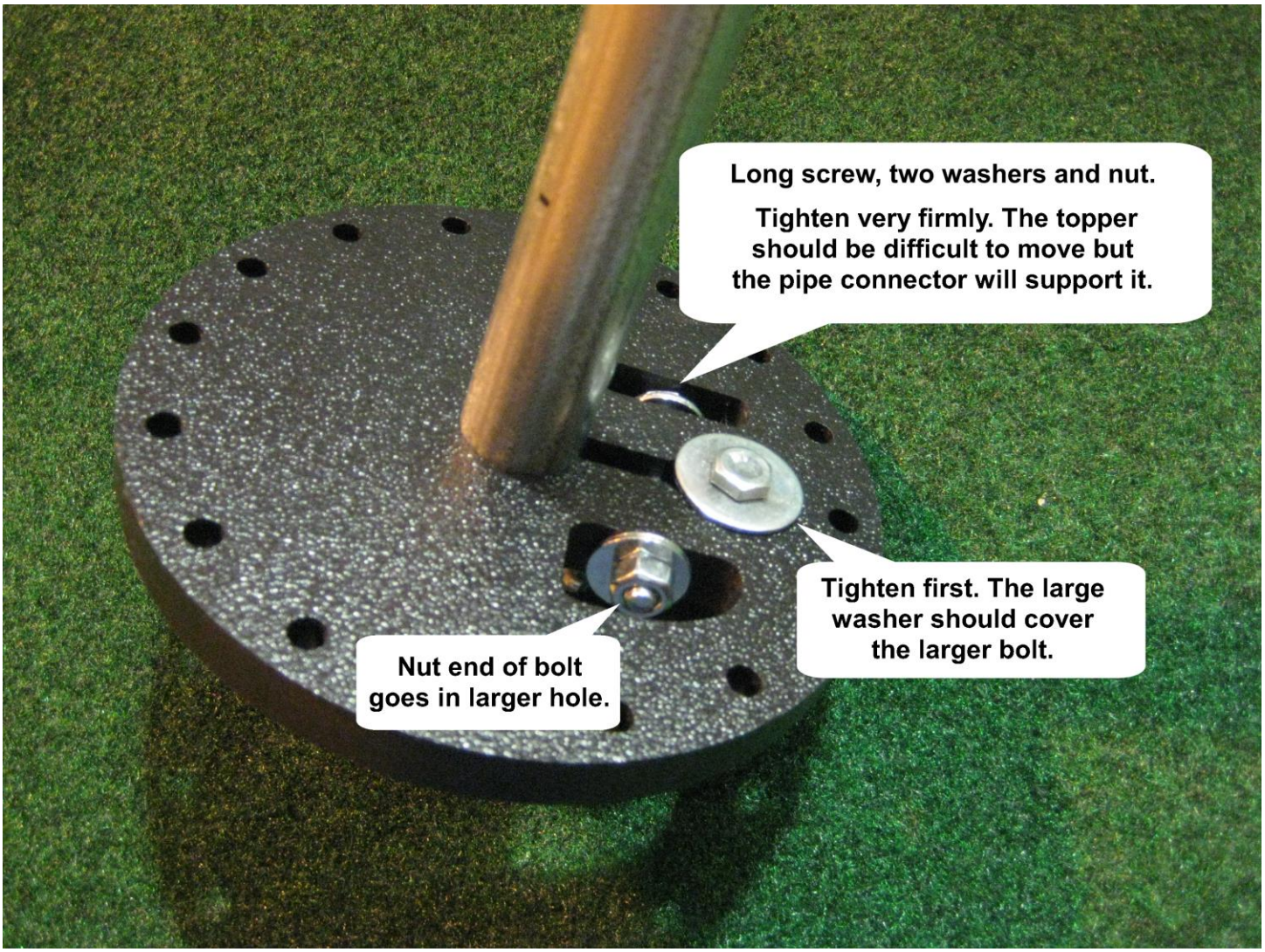


STEP 3B. Place screws washers and nuts on the topper. Do not tighen them

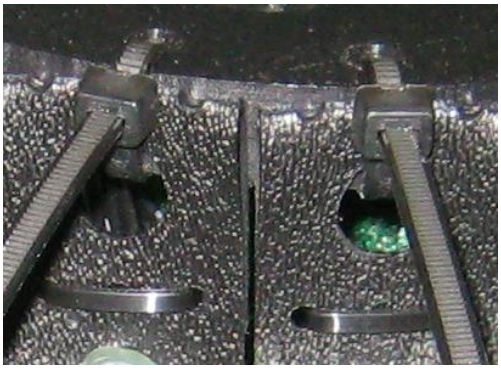


STEP 3C. Assemble small pipe and plastic topper. Make sure pipe connector is placed tightly against the plastic topper before screws are tightened. The short pipe will be sticking out of the top of the tree and can be used to mount an optional star or other ornament to the top of the tree.

The pipe connector is the bottom of the tree topper and the pipe extends out from the top of the tree topper.



STEP 3D. Connect pixel strips to the plastic topper. The pixel strips will be connected using 8” cable ties. It does not matter where you start when placing the strips on the topper.



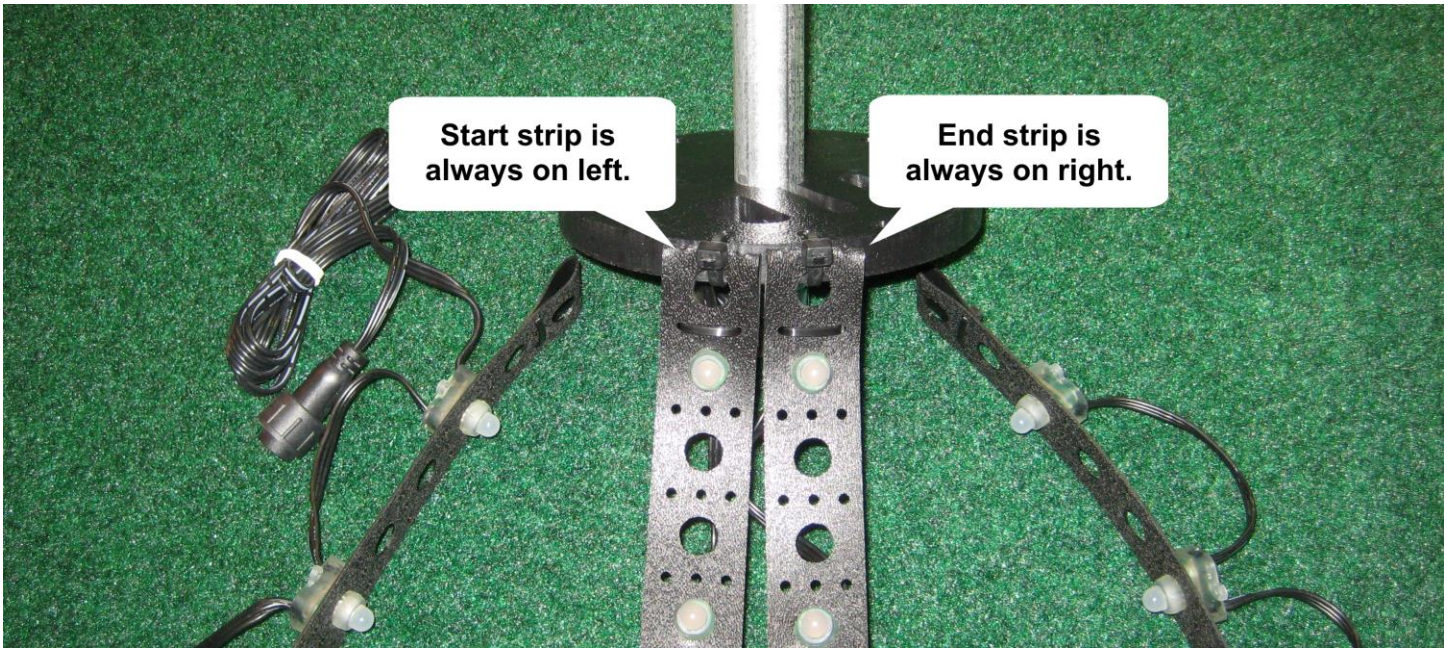
Before connecting see how to order the strips below.

When connecting the strip to the topper, insert the cable tie through the hole in the strip with the rough side down. Then through the bottom of the tree topper.

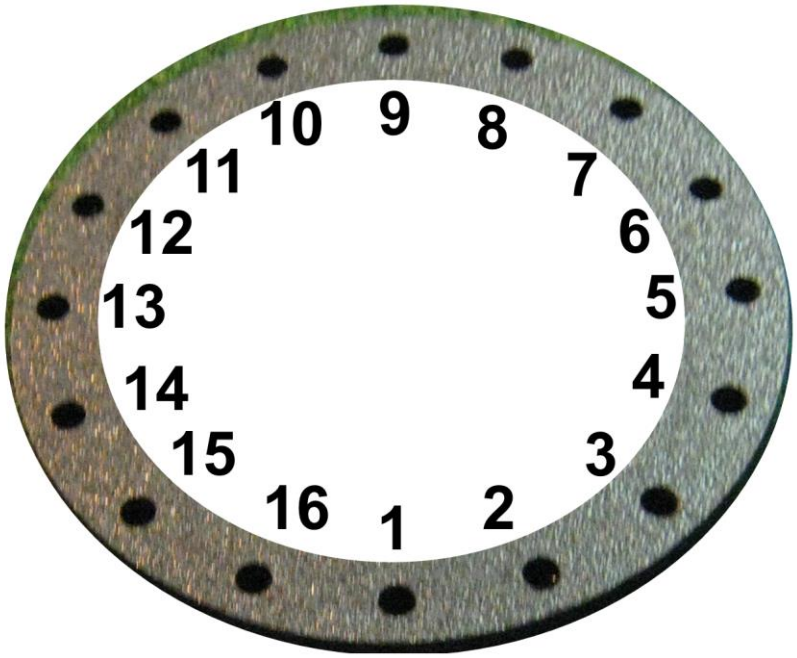
Pull very tight so all strips are held in same position as shown

Each pixel string has two mounting strips. One of the strips is the *start strip* and has the pixel extension cable and connector on it. This strip has pixels 1 thru 25. The *end strip* has pixels 26 thru 50 on it.

It is important to keep track of which strip is the start strip and which is the end strip. As you go around the tree topper counter **clockwise** as pictured above you would have string 1 start strip, string 1 end strip, string 2 start strip, string 2 end strip, etc…



Attach all 16 Pixel strips to the tree topper. We have numbered the Pixel Strings for convenience but any string can be used as string 1 or String 2, etc…



1 – String 1 Start Strip
2 – String 1 End Strip
3 – String 2 Start Strip
4 – String 2 End Strip
5 – String 3 Start Strip
6 – String 3 End Strip
7 – String 4 Start Strip
8 – String 4 End Strip
9 – String 5 Start Strip
10 – String 5 End Strip
11 – String 6 Start Strip
12 – String 6 End Strip
13 – String 7 Start Strip
14 – String 7 End Strip
15 – String 8 Start Strip
16 – String 8 End Strip

Once you have attached all 16 strips carefully place the assembly aside for use later in the pixel tree assembly.

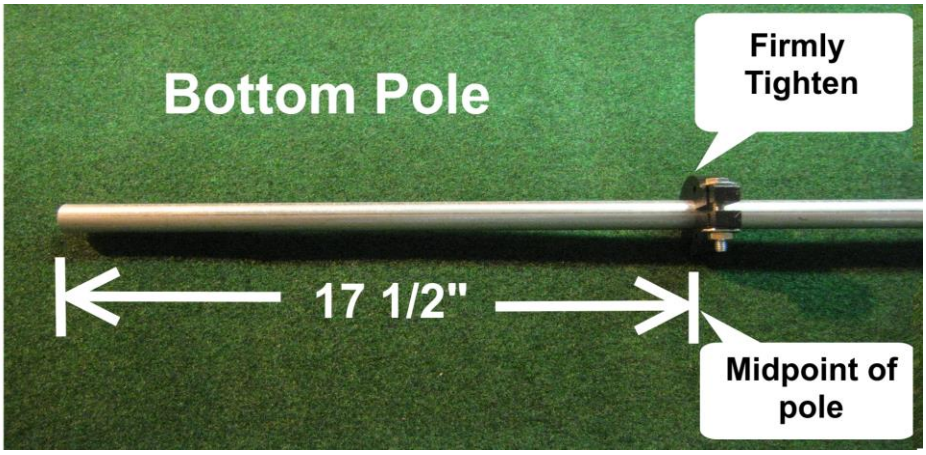
STEP 4. Assemble the tree pole.

Note: Skip to STEP 4D if “Strip Assembly Done at Factory”

Tools required: #2 Philips Screwdriver and two 7/16 wrenches and tape measure.

The Tree Poll will be assembled in sections and then those sections will be combined when setting up the tree.

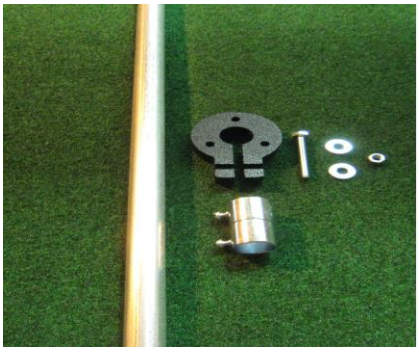
STEP4A. Assemble bottom pole. Place one of the plastic pole supports at the midpoint of one of the long metal pipes. This pole support will be used to help support the light controller

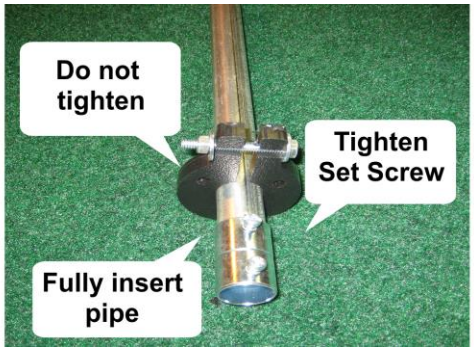


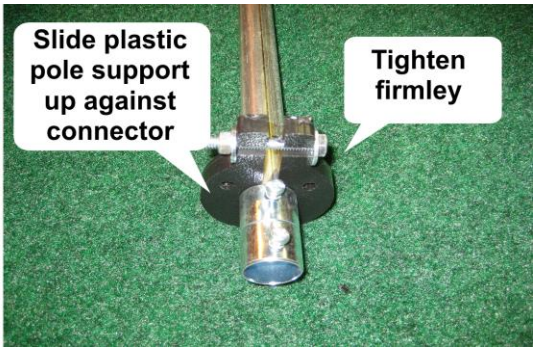
STEP4B. Assemble middle pole. First place a plastic pole support on one end of the unused long pole and slide it up the pole a few inches to get it away from the end. Place a pole connector on that end of a long pipe. Make sure that pole is fully inserted in the connector.

Tighen the set screw that holds the connector to the pipe. Do not tighten the other set screw.

Slide the plastic pole support up tightly against the pipe connector. Tighten the plastic pole support in place. Tighten just a little but do not overtighten. It takes just a little preasure to hold it in place. Plus the pipe connector will help maintain the position of the pole support.



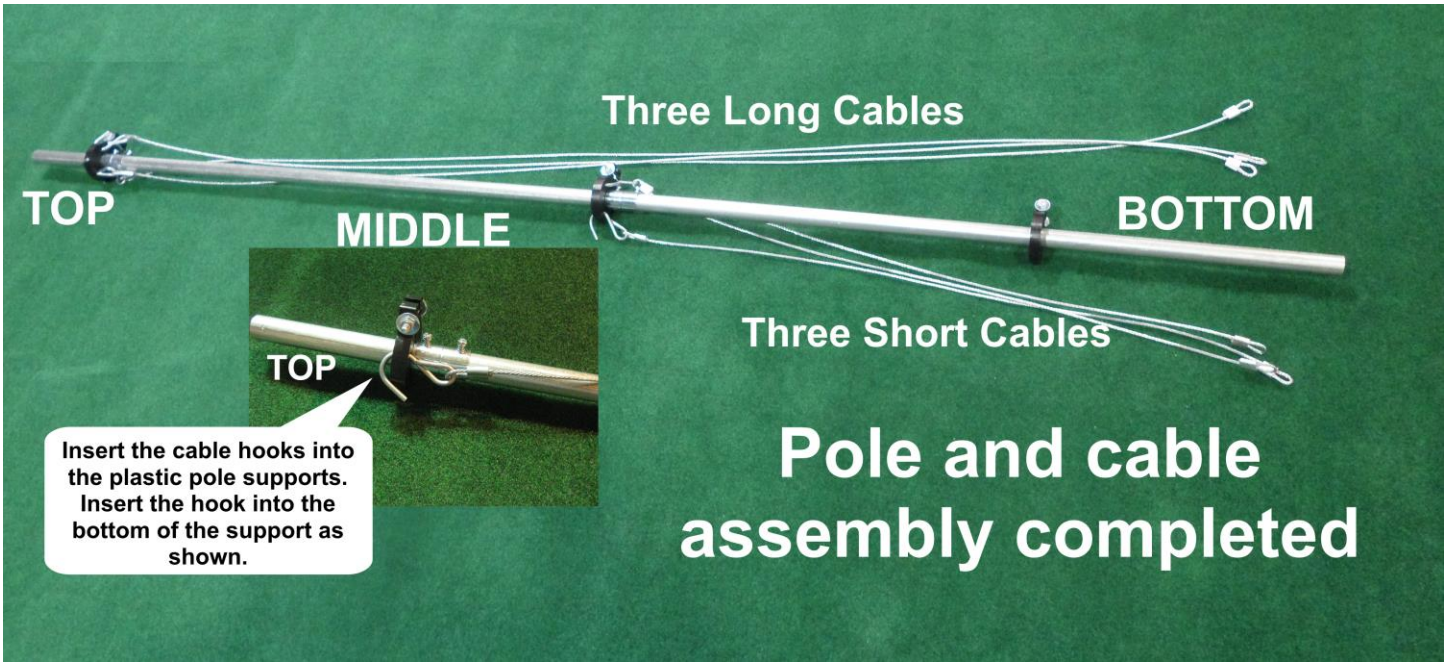




STEP4C. Assemle the top pole section. Repeat step 4B using the unused short pole, pole connector and plastic pole support.

STEP 4D. Assemble the three pole sections. Make sure that the poles are inserted fully into the pole connectors and then tighten the set screws on the pole connectors.

Insert the three short cable iinto the middle plastic pole support. Then insert the three long cables into the top plastic pole support.



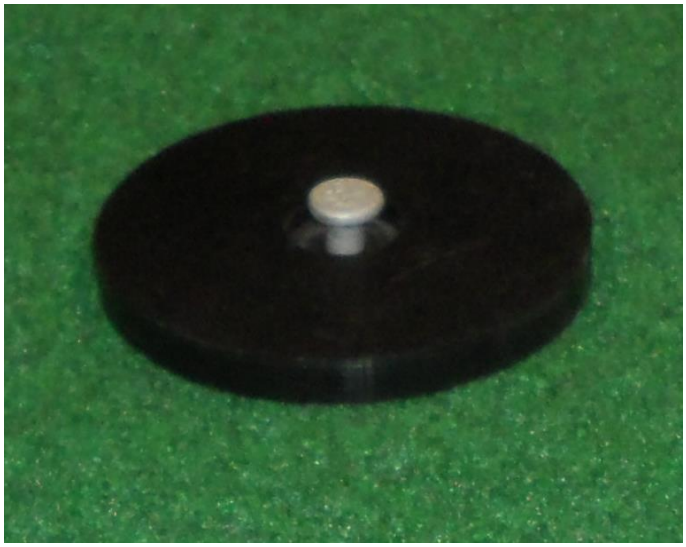
STEP 5. Setting up the tree.

Tools required: #2 Philips Screwdriver, hammer and tape measure.

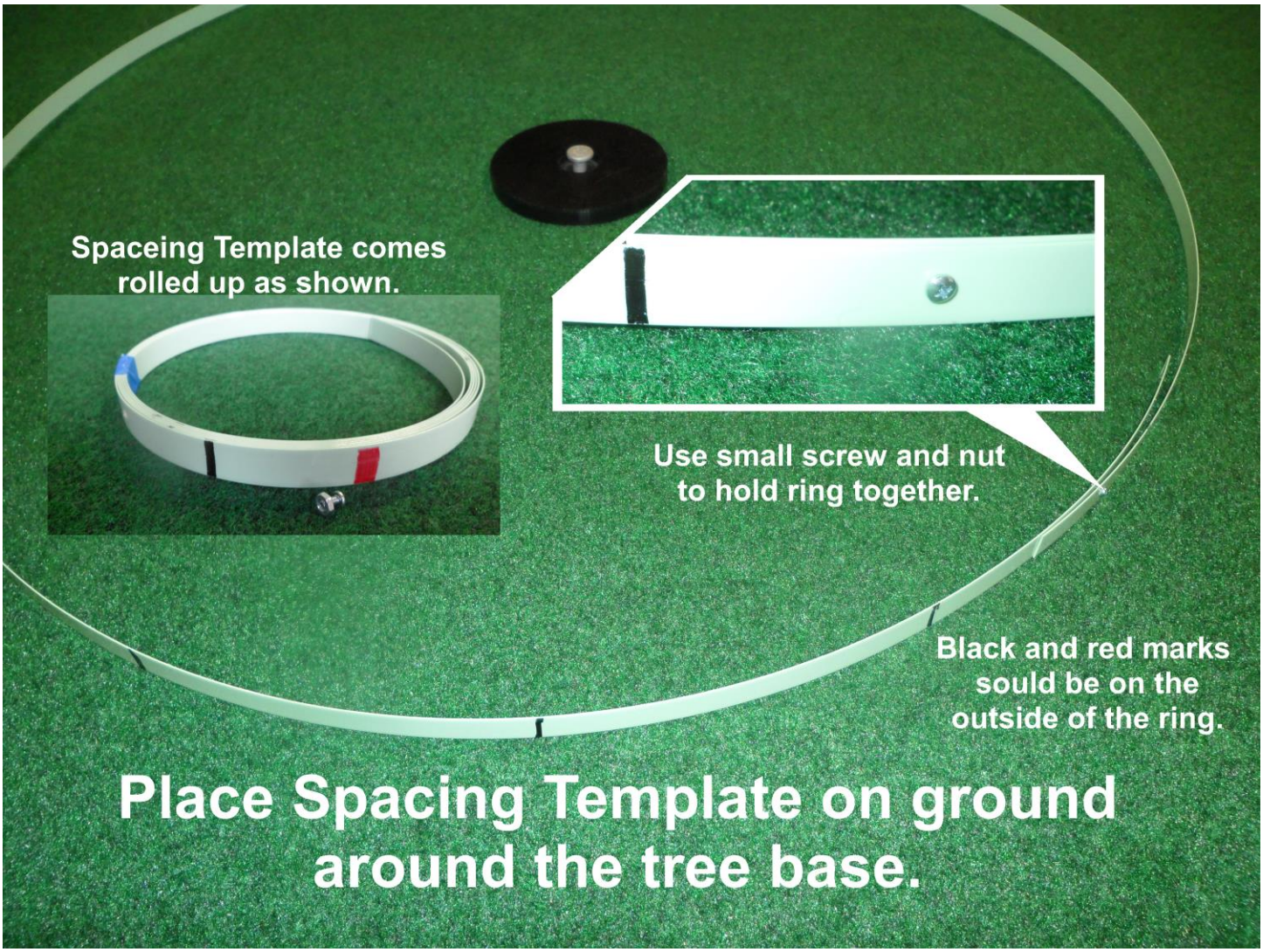
This tree is designed to be mounted on the ground. Locate a position that is fairly level and does not have obstructions that will block the stakes used to hold the tree in place. DO NOT place the tree over active sprinklers heads.

STEP 5A. Locate the center of the tree. Place the plastic tree base on the ground at the center point of the tree. Have the side with the pipe notch facing up. Secure the base by driving in one of the 8” stakes through the center hole of the base ring.

The spike can remain about ½ inch up which May make it easier to remove later.

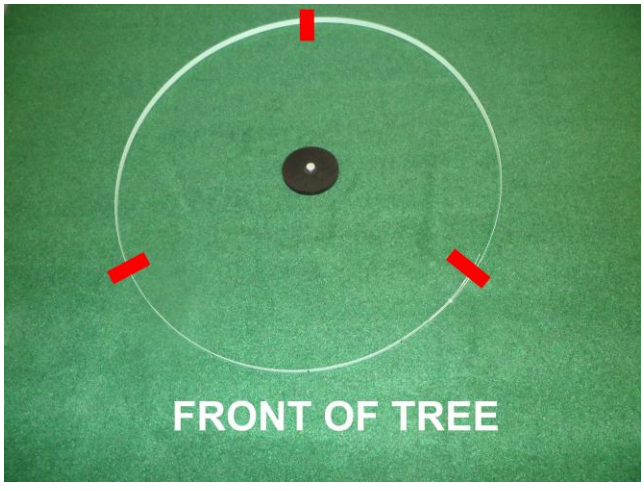


STEP 5B. Assemble the Stake Spacing Template and place around the tree base. Use the small screw and nut to secure the template using the two holes in the strap. **Make sure black and red markings are facing outwards.**



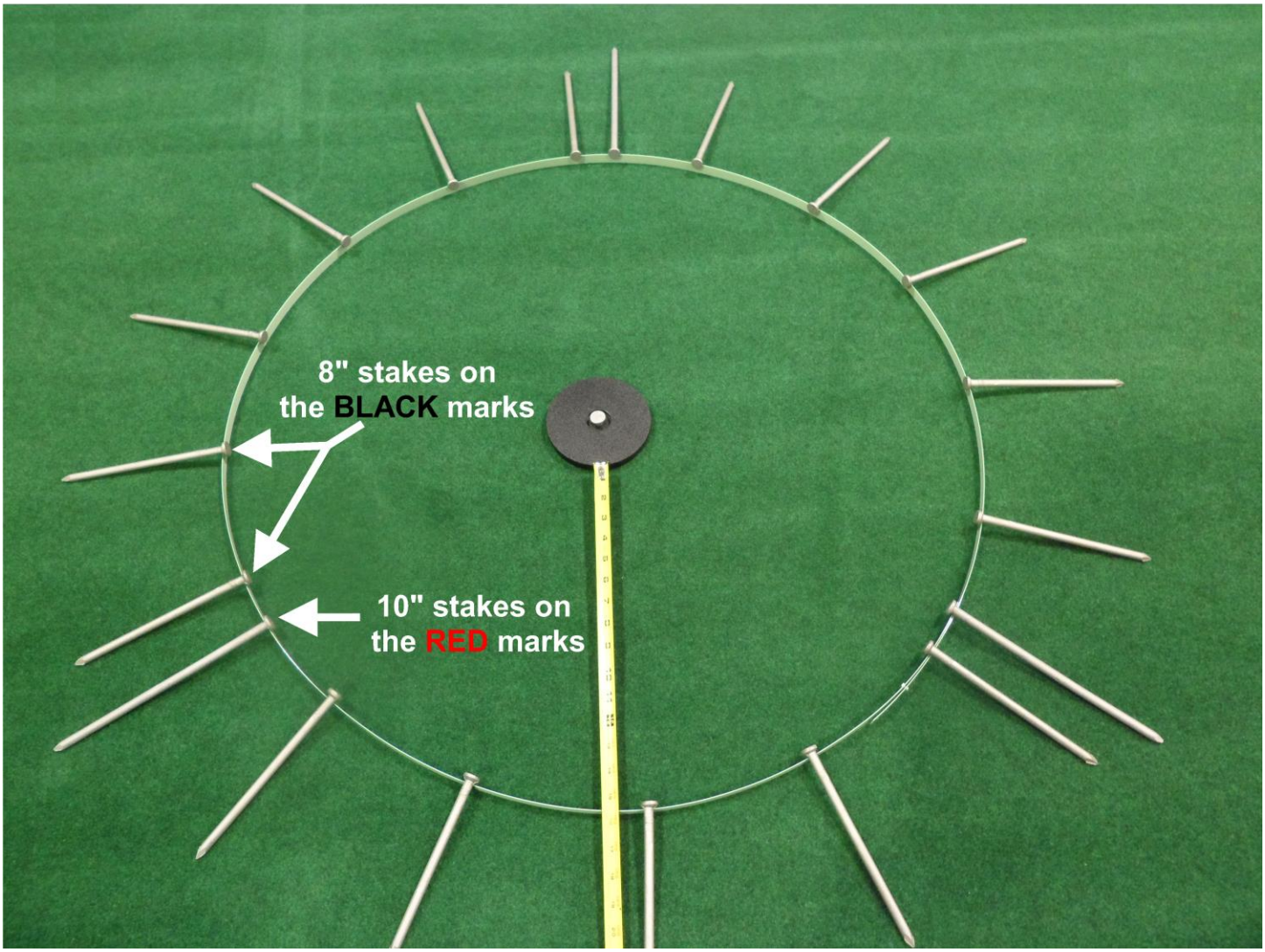
There are two color marks on the template. There are sixteen black marks for the sixteen pixel strips and three red marks (wide marks) which are used to mark the location of the three cable support stakes. The cable support stakes are 10 inches long while the pixle strip stakes are 8 inches long.

IMPORTANT: Position the template so that one of the red marks is directly in the back of the tree and that two red marks are towards the front of the tree as shown on the right!



STEP 5C. Center the Stake Spacing Template on the Tree Frame. From the outside edge of the Tree Base measure 15 ½ inches to the template. Place a stake on the template to hold it in place. Go to the opposite side and measure again and place another stake. Continue around the template.

Place sixteen, 8” stakes on black marks (narrow marks) and place the three 10” stakes on the red (wide marks). Adjust the the template to keep it an even distance (approxmently 15 ½ inches) from the outside edge of the plastic tree base. The stakes will keep the template in position until you get them into the ground.

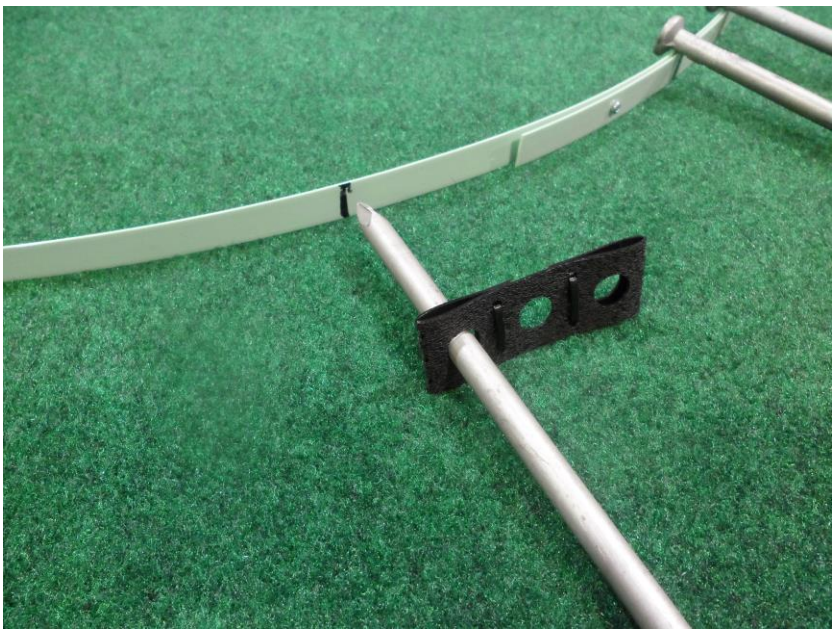


STEP 5D. Place the Stake Stubs Straps on the stakes and pound the stakes into the ground. Take one stake at a time, Place a stake stub on it then insert it into the ground tight to the Stake Template at a 15 degree angle away from the center of the tree.

Start all stakes about 3 inches into the ground DO NOT drive stakes all the way into the ground until all 19 stakes have been started!

MAKE SURE YOU PUT THE STAKE STUB STRAP ON THE STAKE!!!

Take one stake at a time. Place Stake Stub Strap on stake.



Place stake at a 15 degree angle Very close to the template at the proper mark.

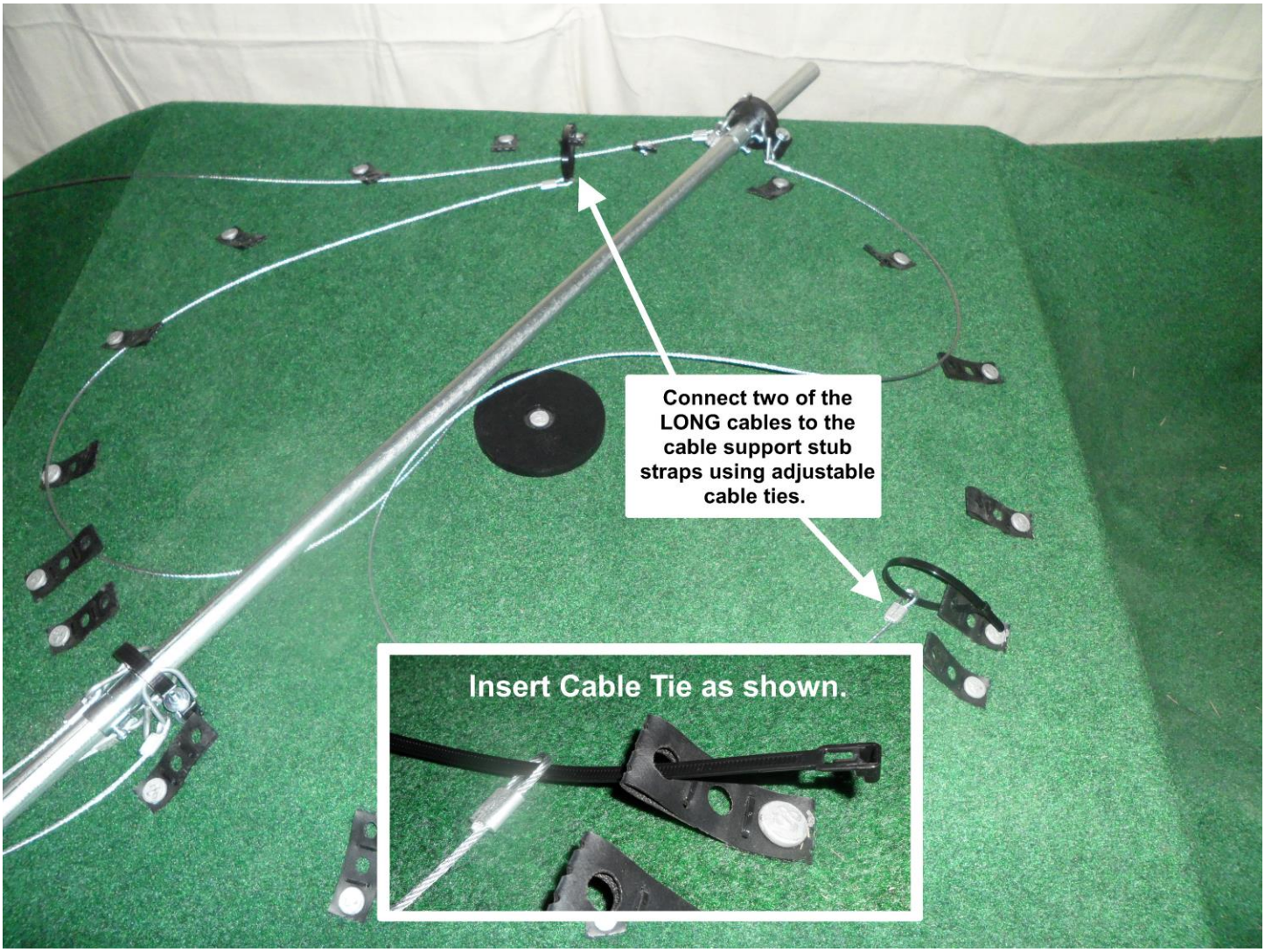
Pound the stake about 3 inches Into the ground.

Go to the stake directly across and repeat the process.

Repeat for all stakes

Once all stakes are started, remove the template and pound the stakes the rest of the way into the ground, leaving stakes about ¼ inch up from the ground for easier removal.

STEP 5E. Mount and plumb the center pole. First lay the pole across the center of the pole base and stakes. Connect two of the long cables to two of the pole support Stub Straps using the 10” adjustable cable ties. Only slightly engage the cable ties so there is a lot of adjustment available.



Once you have the two cables connected to the Stake Stub Straps, you can take the pole, place it upright and stick it into the center of the tree base.

Note: When you stand the pole up, the long cables may be twisted. If that should happen, then while holding the pole up in place, unhook the cable hooks from the plastic cable support and move them to the correct position.

Take hold of the remaining long cable to hold the pole up in place. Using an adjustable cable tie, connect the third long cable to the third cable support stake stub strap.

Using a level or a “good eye” plumb the pole. Make minor adjustments to the adjustable cable ties as necessary.

Remember if you go too far in one direction you can lossen the adjustable cable tie to get the pole back into the correct position.

Once the pole is plumb you can connect the three short cables using the same Stake Stub Straps as the long cables.

Once all six cable ties are in place, snug them all up a little. They do not need to be overly tight. The tree is well supported when you consider there will be sixteen additional straps holding the tree in place.

Do not cut off the excess from the cable ties you can use them again next year.

STEP 5F. Place the Tree Topper with Pixel Strips on top of the tree. You may need a ladder for this step. If you do use a ladder make sure that it is on firm, level ground or is supported by some other means.

Separate the pixel strips into two bundles as shown.

When you place the topper on top of the tree you will straddle the two bundles of strips over one of the support cable pairs. This will help prevent getting the pixel strips tangled into the support cables.

EXTREAM CAUTION: Be very careful not to step on pixel strings or snag pixel strings during this step. Be gentle with them. The middle cable hooks can snag wires!

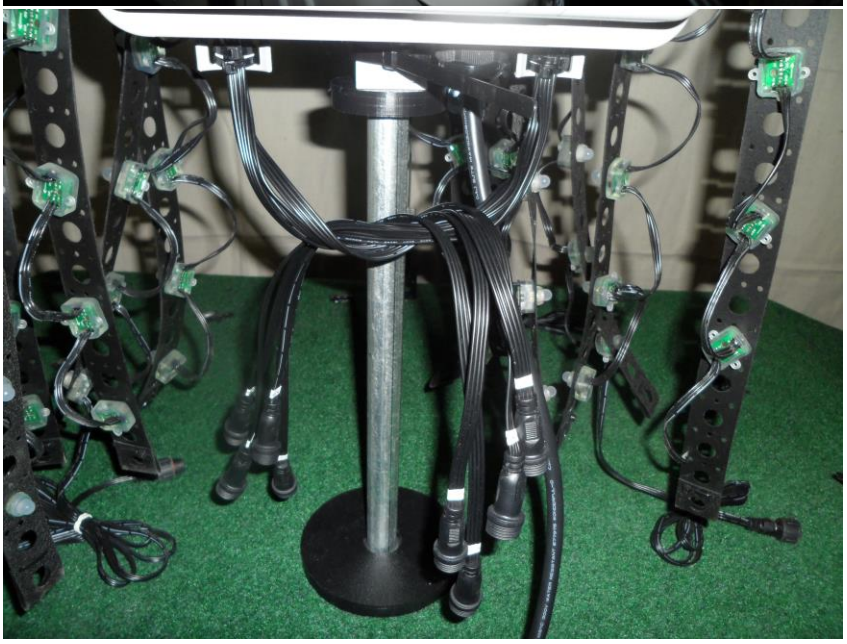
Tighten set screw at top of tree. Take all of the pixel straps and carefully place them towards the back of the tree.

The front portion of the tree should be fairly free of pixel strips which will be helpful when the controller box is mounted to the tree pole.

STEP 5G. Mount the controller box to the center pole. The Pixie8 control box is mounted to the center pole using two of the adjustable cable ties. The controller is set on top of the plastic pole support that is mounted near the center of the bottom pole. This plastic support prevents the control box from slipping down the pole.

Place an adjustable cable tie on the top and bottom pole mount flange on the control box. Remember the control box is set on the black plastic pole support.

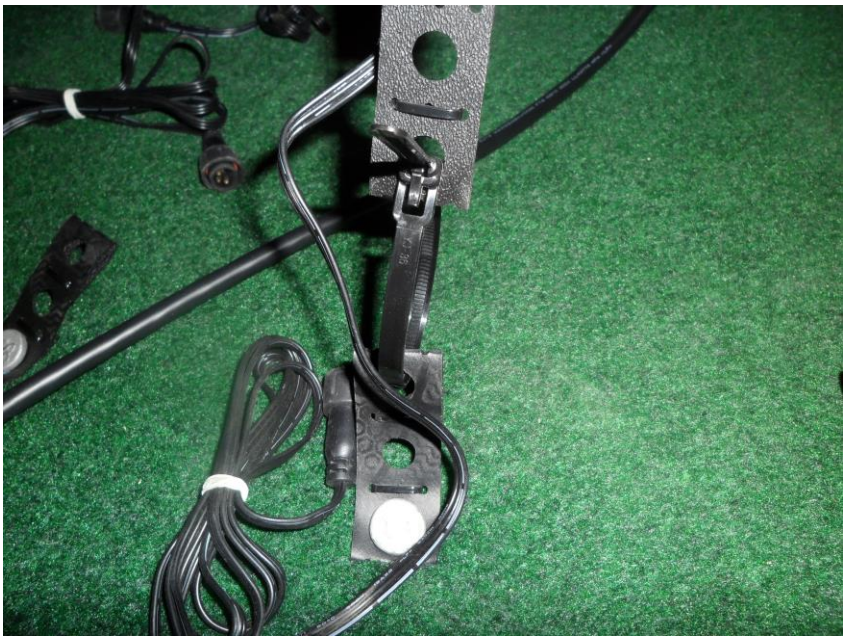
Notice how the control box is nestled tightly with the shorter cables. Those cables help prevent the controller box from twisting on the pole in high winds.



Once the box is mounted gently cross over the dangles hanging from the bottom of the controller. This helps lift the connectors away from the ground.

It is best to make sure that the connectors are off the ground to help prevent them from sitting in pools of water. Also in this position the connectors naturally shed water in the event they should ever leak.

STEP 5H. Connect the Pixel Strips to the Stake Stub Strips using adjustable Cable Ties. Connect all sixteen strips loosely to the Stake Stub Strips. You will tighten them later in a crisscross sequence.

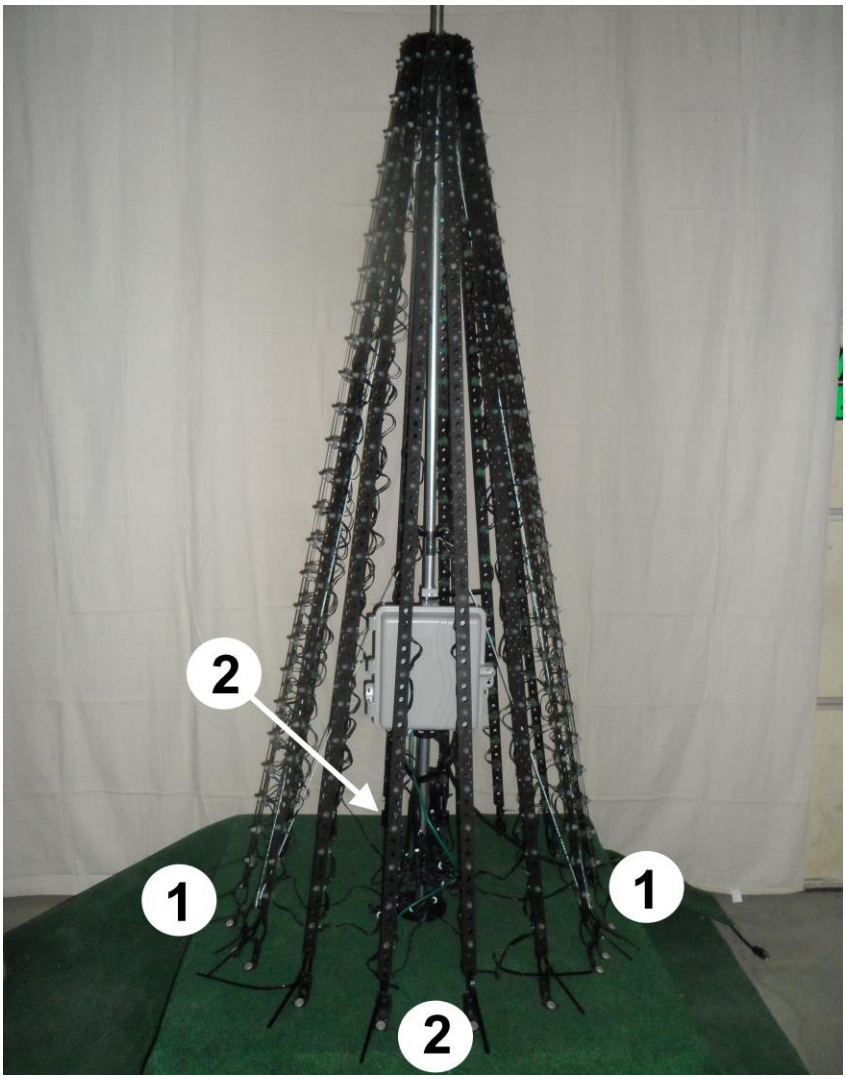


Insert Adjustable Cable Tie as shown. Very loosely engage the strips. They will be tightened later.

Make sure all pixels strips are in order and are not crossed over. Also make sure Pixel Strips have pixels facing out and are not twisted.

Remember if you make a mistake you can remove the cable tie and fix the problem.

STEP 5I. Tighten the Pixel Strips in a crisscross sequence.



DO NOT start on one side of the tree and tighten all pixel strips. This will cause the tree topper to get lopsided. The goal is to get the topper straight.

Start with two strips that are across the tree from one another (For example strings 1 and 1 on the left) Tighten them a little at a time watching the topper to see that it stays straight. Once those two strips are fairly tight go four strips over from those two strips and do the same thing with those opposite strips (strings 2 and 2 on the left). Once you have those four strips tight and the topper is straight you can crisscross around the tree tightening strips until they are all tight.

Do not over tighten strips. Just make them snug enough that they do not sag.

You can tighten them during the year if they should stretch a little. This is fairly common.

STEP 6. Setting up the Pixel Controller.

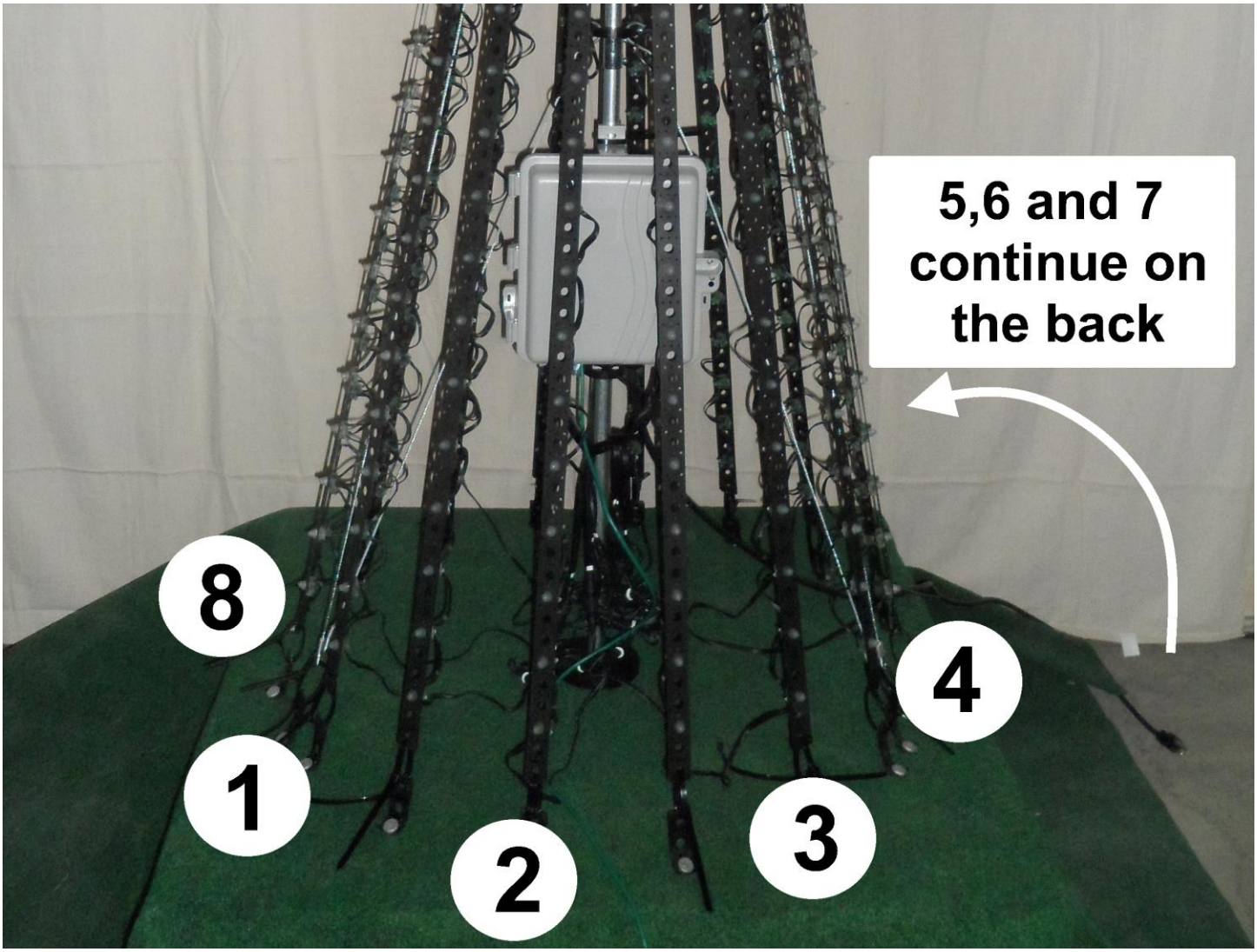
The Pixie8 Pixel controller will need to be connected to the pixel strings and to a computer or Light-O-Rama Show Director. The Pixel controller is configured and ready to go. It ships with a Unit ID of 01 so Strings 1 is Unit ID 01, String 2 is Unit ID 02 … String 8 is Unit ID 08… You can use the Light-O-Rama Hardware Utility to change the base unit ID of the controller to a value that fits your display.

Step 6A. Plug In the Pixel Strings.

Starting on the left of the tree connect the dangles from the controller to the pixel strings. The dangles are numbered 1 thru 8. Connect dangle 1 to the string on the left then dangle 2 to the next pixel string going counter clockwise.

Make sure all connectors are inserted with the correct orientation and that the screw caps are fully tightened.

Loosen the pixel string wires from the rubber band so that they lay on the ground are not suspended in the air. This will prevent stress on the wires and connections.

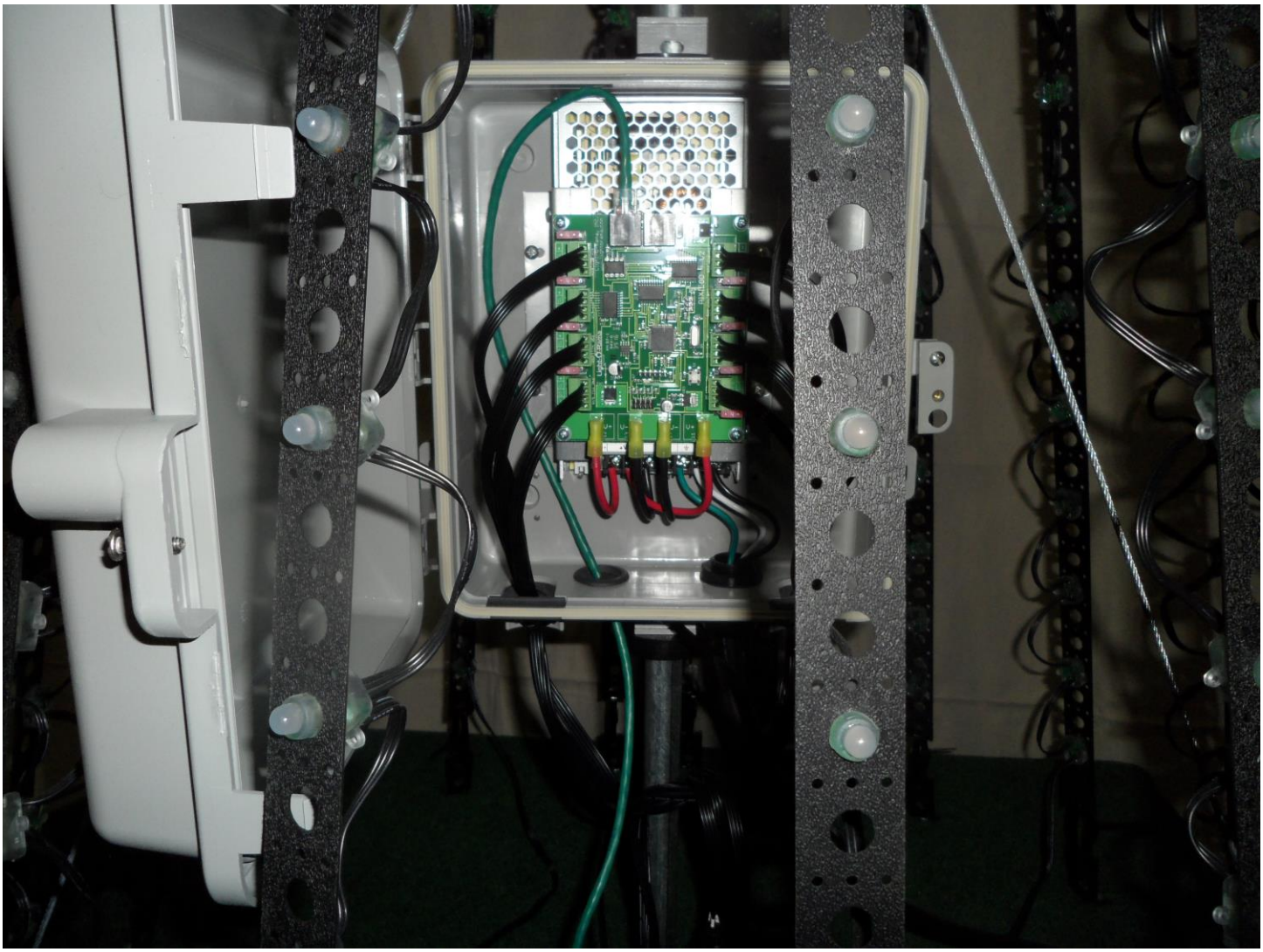


Step 6B. Connect the Cat5 cable.

The Pixie8 controller is designed to be part of a Light-O-Rama network. It will run in a standard network or an enhanced network. The Pixie8 controller is daisy chained into the network like any other Light-O-Rama Controller.

There is a grommet on the bottom of the controller that is used for egress of the Cat5 cable(s) connected to the controller. Leave slack on the cable to prevent tension to the Cat5 (RJ45) connectors on the card.

The tab on the Cat5 cable (RJ45 connector) faces out towards the cover.



UNPLUG CONTROLLER WHEN CONNECTING THE CAT5 CABLE.

Your Pixel Tree Is Ready to Go !