



Thank you for your purchase! Please read the following instructions before proceeding with the installation of your Glowbe™! The materials you will need are:

1. 2x 12-spoke Glowbe™ hubs (duh!). Optionally, you may add an upper 2-spoke "Hoop Hub" sold separately.
2. To build a full-sized glowbe (approximately 5' in diameter) you will need 100' length 1" **solid white** PEX-A or PEX-B tubing. It is recommend to use **COILED PEX**, not the straight sections you would use for the iglow. Home Depot carries this product, and can be shipped to your door if you do not have a location that carries it.
3. A ratcheting tube cutter, to cut your coiled PEX into 12x 8' lengths. A hacksaw will also work.
4. 12x 2.5M IP68 LED strips (HD strips @ 60 LED/m are preferred, but 30 LED/m will work). DO NOT use IP67 "hollow jacket" strips. IP67 strips do not contain the solid silicon-filled jacket that allows the IP68 strips to excel in ruggedness and weather resistance. PiXeL Paradise USA carries the upgraded WS2815 strips which allow each LED to be counted as a single pixel, as opposed to WS2811, which is a less accurate 1-to-3 ratio.
5. 2x 1/2" steel floor flanges (4-hole). Also 1" flat head bolts & nuts OR zip ties to secure the flanges to hubs.
6. 5' length of 1/2" galvanized threaded pipe (sphere) or a 4' length for a flattened sphere (pumpkin).
7. A 5' length of 1/2" rebar to provide a secure mounting post/base for the glowbe.
8. If you are adding a hoop hub to the top you will need two additional 1/2" flanges, an 8" long 1/2" nipple, an extra 2.5M LED strip (to be cut to size in your hoop). The optional 4-row matrix ring is a Boscoyo product.

- Assembly -

As with any 3D print, **care must be taken to support the hub to avoid overstressing the joints**, causing failure. It is recommended to have 2 people install your Glowbe (it's also more fun and goes a lot faster!)

You will first need to cut your PEX tubes. Since it is difficult to measure a curved tube, you may want to measure a string to 99" (8'3") and lay it on the inner curve of the pex roll. With the help of another- cut your first tube at 8'3". Once you have your first tube cut, use it as a template to cut your remaining 11 pieces. *****Keeping your PEX in a warm environment during or until just before install will make assembly much easier.**

Assemble your floor flanges to the outside bottom of your hubs. You can use short bolts, or just use some meaty zip ties to secure the flanges to each hub. **It is important to note that each hub should be assembled with the flat sides facing each other, as there is a 5 degree neck angle to assist with inserting your pex tubing into the hub openings.** Now thread your pipe into each flange until each end is VERY snug. If you are planning on doing a "twisted" PEX installation, you will need make sure these hubs do not unscrew from your center pipe, or it will lose the twist. If you want the ability to change the height/appearance of your glowbe without having to disassemble the glowbe entirely, you may want to consider using a 1/2" pipe **union** and several smaller threaded nipples. Now slide your hub assembly over a 1/2" piece of rebar or have someone hold the center pipe to begin the PEX assembly process. Also, we recommend spray-painting your center pipe black to make it invisible at night.



Attach flanges to outside bottom of each hub

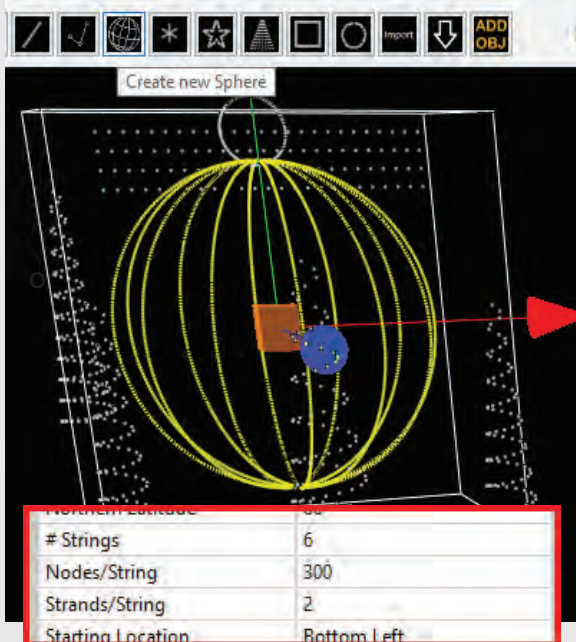
Turn for page 2!



Now unroll all LED strips and **TEST** them with a pixel tester before installing them into your PEX. We recommend labeling each pigtail 1-6 (twice), as once you insert your strips through, it is easy to lose track of which is which when they all get pulled in and out of each hub. With a marker, write 1-6 in a clockwise direction (twice!) on the bottom hub. This will help you connect your controller to the prop correctly later on. Now begin feeding the male xConnect end of your LED strips through each 8' section. Once all of your strips are inserted into each PEX tube, begin inserting each one in a clockwise fashion (**don't skip around!**) starting at the lower hub each time. Ensure the female xConnect pigtail is pulled through enough to have the strip in the proper placement inside the PEX arches and **BE SURE THAT THE PEX TUBE IS FULLY SEATED (UNTIL YOU FEEL A STOP)**. You will need to cut and remove the xConnect collar from your first 6 female strand ends, otherwise the PEX tube will not fully seat properly into the bottom hub. As your 2.5M strip enters the upper hub, connect another strip to it and continue down the opposite side. *For a perfect "twist" use a hole in the upper hub that is two holes further clockwise (or counterclockwise) than the lower hub position. Continue that pattern.

- START AT THE BOTTOM - CONNECT AT THE TOP - END AT THE BOTTOM -

Once you have inserted all of your PEX and strips through, have one person lift up the Glowbe enough so that the other can pull all 6 male pigtails out from under the hub. If you labeled you pigtails, this will make connecting your strands correctly a breeze. It is best to use the SPHERE object in xlights to model your glowbe.



For the optional Hoop Hub, you will need to use an additional 4 ft section of PEX. Bending it into the hub is challenging, so warming it up in the oven 200 degrees for 5 minutes, removing with gloves, will make bending it into the hub easily. You will need to cut approximately 80 (HD)/40 (SD) LED's to fit inside the hoop. Be sure you use the Male end to count your pixels, and remove the end with the female.



Additional installation photos and videos can be found on our facebook page.

@PixelParadiseUSA

