

DIY PVC Grow Light Stand

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This design's measurements will yield a grow light stand that supports a 4-foot (48") wide fluorescent shoplight fixture. You can certainly design it to fit a smaller one that carries a 3- or 2-foot fixture.

Materials Needed:

- 48" Fluorescent twin-bulb shoplight fixture with recommended bulbs (A-1)
- 10-foot length of 1 1/4" (1.25) PVC tubing (A-2)
- Two 2-foot (24") pieces of 1" PVC tubing (A-3)
- Two 1 1/4" (1.25) "Tee" PVC connectors (A-4)
- Two 1 1/4" (1.25) 90-degree "elbow" PVC connectors (A-5)
- Four 1 1/4" (1.25) PVC end caps (A-6)
- Two lag bolts or equivalent, and their accompanying nuts. I would recommend 1/4" diameter by 3" bolts
- Pack of two 1/4" x 4" "eye hooks" and their accompanying nuts.
- Pack of two 1" "S-hooks"

Tools Needed:

- Drill and assortment of drill bits
- Hacksaw or PVC cutting tool
- Tape measure
- PVC cement
- Pen or permanent marker
- Timer

Construction:

1. Gather all of the needed parts and tools (*Photo A*).
2. Cut a length of the 1 1/4" PVC tubing long enough to go beyond the length of your fluorescent light fixture. For the 4-foot fixture, I cut a piece about 55". Then glue one of the elbow connectors to each end. You now have the "top support bar" completed (*Photo B*).
3. Cut 4 equal lengths of the 1 1/4" PVC tubing to serve as support "legs". These can be whatever length you wish, but I wouldn't go any shorter than 8". I cut mine to 10" (*Photo C*).

4. Take two of those 4 equal length pieces and glue them to the Tee connector. Then glue two of the 4 end caps to that. You have now finished one of the "leg stands". Repeat this step for the second leg stand (*Photo D*).

5. Cut 2 more equal lengths of the 1 1/4" PVC tubing, and glue into the ends of the "top support bar" you finished in STEP #2. I made mine about 2 1/2" (2.5), but that length can be between 2-6" (*Photo E*).

6. Cut 2 more equal lengths (again) of the 1 1/4" PVC tubing to serve as the "risers" coming up from the leg stands. These can again be whatever length you wish. I made mine about 6". These pieces are one of the two pieces that will raise and lower the light fixture (*Photo F*).

Yep, that's right! This baby is adjustable. Not the fancy mechanism that the more expensive commercial ones have, but it will do the job. Here's how:

7. Insert one of the 1" PVC tubing pieces into the "leg stands" you finished in STEP 4. This is the other piece that will determine how tall your light fixture is raised. Drill a hole into BOTH the outer 1 1/4" AND the inner 1" pieces of PVC tubing. The hole diameter should be wide enough to allow the adjustment bolts to go in and out of the hole easily. Repeat this for the other side (*Photo G*).

This is the *lowest* point that the light fixture will be, so keep that in mind. Remember to compensate for the height of your seed trays. Yes, you can also adjust the chains on the light fixture, but this way is easier.

8. Take both of the 1" PVC pieces out, and mark 4-5 points, in 1" increments, to the LEFT of the hole that you previously drilled. These will be the different positions you can raise the light fixture (*Photo H*).

9. Use the pen marks as a guide to drill the other holes. If you put the 1" PVC piece with the holes back into the base, you can now see how the fixture will be raised and lowered (*Photo I*).

10. Put top support bar on the two leg pieces. You're almost finished (*Photo J*).

11. Drill two holes, at equal distance from each side, thru the top support bar. Put in the eye hooks, "hole" in bottom. These will connect to the chains provided by the light fixture (*Photo K*).

12. Unpack your light fixture and attach the support chains to the eye hooks on the PVC support. Adjust length of chains, as needed then install the bulbs in the fixture (*Photo L*).

At this point my friends, you're pretty much done. Plug it in, attach an optional (but highly recommended) timer to it, and you're ready to go. So go forth and let your seedlings "see the light".

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PHOTO-A



PHOTO-B



PHOTO-C



PHOTO-D



PHOTO-E



PHOTO-F

DIY PVC Grow Light Stand



PHOTO-G



PHOTO-H



PHOTO-I



PHOTO-J



PHOTO-K



PHOTO-L