

Do-It-Yourself Grow Light

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If you run out of window sills in the spring when your seedlings need as much sun as they can get, you might like to consider building a grow light. Unless you are very fortunate, most houses don't have a window sill that gives enough consistent light to do the job.

It's easy to put some PVC pipe together to make a stand from which to hang shop lights. The diagram on the next page shows the dimensions of the stand. To construct it you will need:

Approximately 32 feet of PVC pipe, 3/4-inch i.d.	\$10.00
8 90° elbow PVC connectors, 3/4-inch	2.40
4 T-shaped PVC connectors, 3/4-inch	1.92
2 48-inch shop lights	20.00
4 lengths of chain for hanging fixture	
8 S-hooks for attaching chain to stand and fixture	
4 short pieces of wire to attach S-hooks to top bar of stand	
4 fluorescent tubes, 4 feet long	12.00

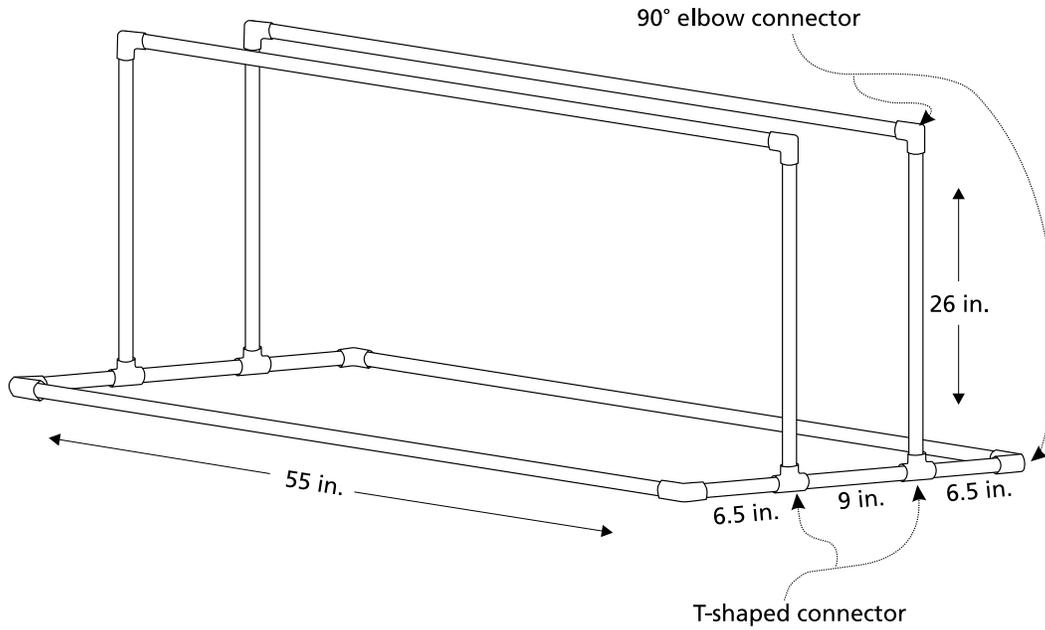
[Total ca. \$45; prices from Lowe's]

Regular fluorescent tubes do as well for growing-on seedlings as the fluorescent tubes marketed and sold as gro-lites. The regular fluorescent tubes will need to be replaced about every six months because some important wavelengths are lost as the tubes age. If you use a warm and a cool fluorescent tube in the lamps, it will give just the right combination of heat and light for most plants. The warm white 40-watt tubes are \$7 for two tubes, cool white tubes are \$5 for two.

In case you don't have an unused kitchen table on hand, this setup could also be supported on top of a discarded door placed on a pair of carpenter's horses. The footprint of the stand shown in the diagram and photograph is 22 x 55 inches.

Hanging the shoplights from chains will allow you to raise and lower the lights to keep them very close to the plants as they grow. Lights should be no more than 2 inches above the top leaves. Since the plants will "reach for the light," they will get tall and leggy if they don't get enough.

Connecting the lights to a timer will allow you to provide light for 12–14 hours per day, which is what the plants need as they grow. Once the seeds have germinated, the seedlings will do better if the growing-on temperature is lower than the germination temperature.



Chains are used to raise or lower the lights. Pots and flats can be positioned with wooden or plastic blocks.



Gardening fact sheets are distributed by Harris County Master Gardeners, community volunteers trained in basic horticulture by the Texas AgriLife Extension Service. For information about Master Gardener volunteer training classes, call Extension's Harris County office at 281.855.5600, or send an e-mail to harris@ag.tamu.edu.