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A Yardsharing Community
Because everyone loves a homegrown tomato!

DIY – LED Mini Greenhouse

You may not want or need as much insulation as I used. It's very cold where I live. It is not a thing of beauty and was build strictly to function as a place to start plants and extend our very short growing season. It hides in our garage.

So far it has been a constant 58 degrees inside the greenhouse. I have started only cold friendly plants. It likely gets a bit chillier when the lights go off.





Materials:

Many times you can find some of what you need for free on freecycle.org, reyooz.com or thinggo.com, or trusty craigslist.org.

A thrift store is another good place to check for some of these items.

Shelf with 5 shelves	\$50.00
8 LED grow light panels	\$240.00
Roll of sheet plastic	\$12.00
2 Power strips	\$10.00
2 Timers	\$14.00
1 Thermometer	\$ 2.50
Trays	\$3.00
	About 331.50 (plus tax)



Things I had on hand:

old blanket
cotton cord
zip ties
staple gun
blinder clips
bubble wrap
duct tape
some lattice panel to
keep the barn cats out

For LEDs I went to:

LEDWholesalers on ebay.com – 2 orders - 900 LED
Grow light 4 Red + Blue Hydroponic Lamp Panels
My shelf was a bargain apparently.
I can't find these very cheap online.
Make sure the timers are the grounded type
(three prong.) The power strips plug into the timers.
The LED panels go into the power strips.



Instructions:

1. Assemble shelf per directions that come with shelf.
2. Test all of your panels. You may need to send them back and it's easier to do when they are not attached.
3. Attach LED panels to undersides of each shelf. (I used cotton cord and staples because it will be easy to remove panels if they go bad.)
4. Use zip ties to attach power strips to the back braces of the shelf.
5. Set timers for the amount of "daylight" you want. People differ on this. I have mine set for 14 hours. We will see how this goes.
6. Plug all panels into the two strips.
7. Test switches.
8. Make panels of bubble wrap to cover 3 sides of the shelf. (I used 2 layers.)
9. Staple the bubble wrap panels from the top shelf.
10. Use duct tape to close gaps in panels – Do not seal the whole thing up – plants like air. Stay away from PVC plastic.
11. Make plastic sheets into panels that will cover three sides of the shelf
12. Staple them also from the top of the shelf.
13. Use duct tape to close gaps in plastic sheet panels.
14. Create 4th panel – door. Cut plastic the length of shelf. Use a layer or two of bubble wrap. Duct tape edges if you like.
15. Staple door to top of shelf. Use clips to keep door folded open when working with plants.
16. Cover top with blanket for insulation in colder areas.
17. Use string to attach thermometer to easily visible spot in greenhouse.
18. Fill with trays of seedlings.
19. Water and wait.

Check the site for more reports on how our starts are doing.
Happy digging!

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