

## Materials / Parts

4 - wheels 10" pneumatic swivel from harbor freight

[https://www.harborfreight.com/10-in-pneumatic-swivel-caster-63799.html?ccid=eyJjb2RlIjoiNDk3MDQyOTAiLCJza3UiOiI2Mzc5OSIsImVzIjoiMTcuMDkwOTk5OTk5OTk5OTk4In0%3D&utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=15487895713&campaignid=15487895713&utm\\_content=132359051644&adsetid=132359051644&product=63799&store=63&gclid=CjwKCAiAksyNBhAPEiwAIDBeLG9WRB5UfxqIjqPLt-IYEu9V1xMUOW0YuEAlqWk6im1hPEpsP3vA7xoC7FMQAvD\\_BwE](https://www.harborfreight.com/10-in-pneumatic-swivel-caster-63799.html?ccid=eyJjb2RlIjoiNDk3MDQyOTAiLCJza3UiOiI2Mzc5OSIsImVzIjoiMTcuMDkwOTk5OTk5OTk5OTk4In0%3D&utm_source=google&utm_medium=cpc&utm_campaign=15487895713&campaignid=15487895713&utm_content=132359051644&adsetid=132359051644&product=63799&store=63&gclid=CjwKCAiAksyNBhAPEiwAIDBeLG9WRB5UfxqIjqPLt-IYEu9V1xMUOW0YuEAlqWk6im1hPEpsP3vA7xoC7FMQAvD_BwE)

6 – 2x4x92" from Home Depot

<https://www.homedepot.com/p/2-in-x-4-in-x-92-5-8-in-Prime-Whitewood-Stud-058448/312528780>

3 – gate hinges from Home Depot

<https://www.homedepot.com/p/Everbilt-4-in-Satin-Nickel-5-8-in-Radius-Door-Hinge-15002/202558089>

2 – L brackets superstruts 1/2" holes

<https://www.homedepot.com/p/Superstrut-4-Hole-90-Degree-Angle-Strut-Bracket-Silver-Galvanized-ZAB205EG-10/202077397>

4 – lag screws (1/2" x 1-3/4") ... or whatever L bracket holes you get (either 1/2" or 3/8" diameter) to mount L brackets. (picture below is for a box, you need only 4)

<https://www.homedepot.com/p/1-2-in-x-2-in-A307-Grade-A-Hot-Dip-Galvanized-Steel-Hex-Lag-Screws-25-Pack-9056788/310668893>

2 – hex bolts (1/2" x 2"), 2 washers, 1 nut .... Again, holes are depending on L-bracket. These are for 2 pivot points on top.

<https://www.homedepot.com/p/Everbilt-1-2-in-13-x-8-in-Galvanized-Hex-Bolt-805756/204633237>

2 – hex bolts (1/2" x 5"), 2 washer, 1 nut ... these are for 2 pivot points at bottom (similar to previous 2 hex bolts) just a longer

Some wood screws (3") to build base and some lag screws to mount wheels.



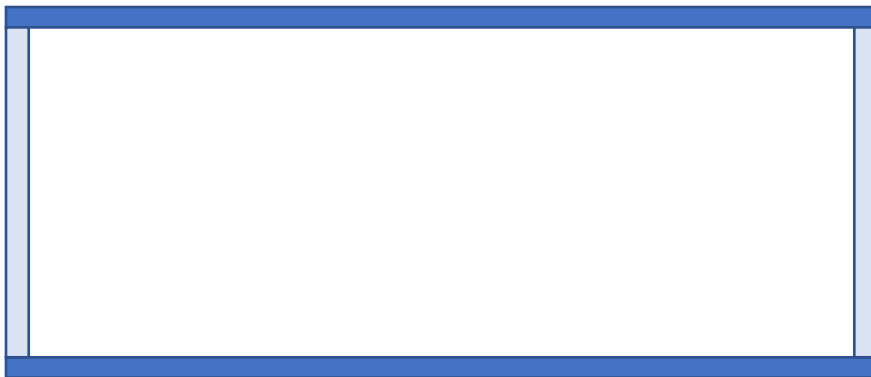
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Instruction (it is all depends on your panel size. Since I have various size, so I am more unfortunate):

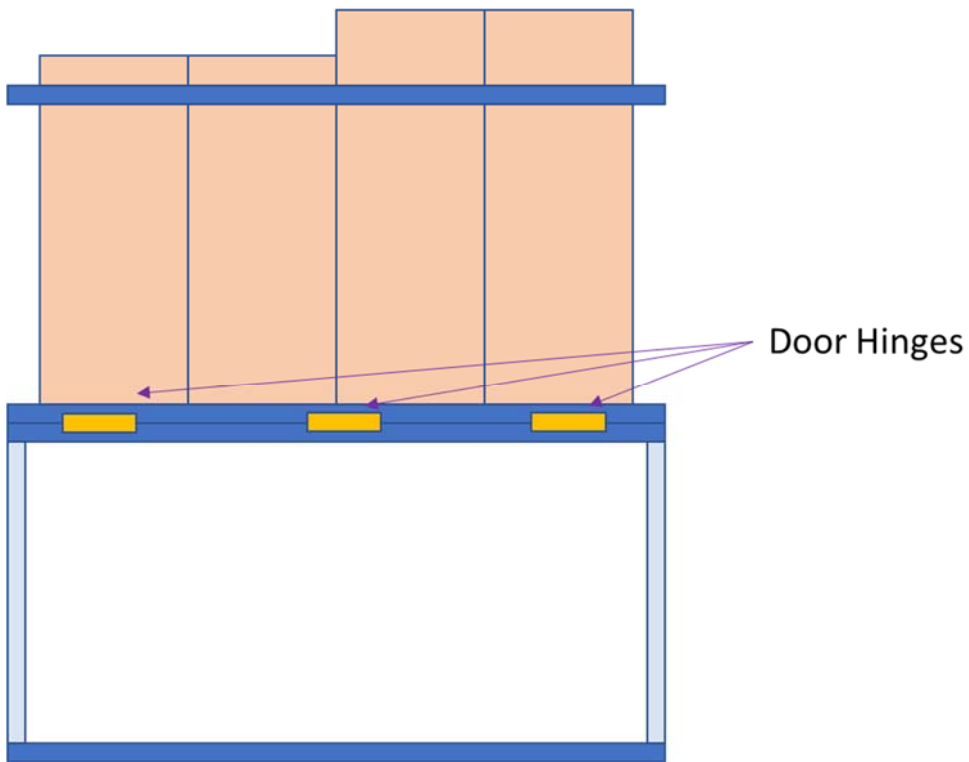
- 1) Mount solar panels to 2 of 2x4x92 (flush at bottom). I just drill through solar mounting wall and screw from the back.



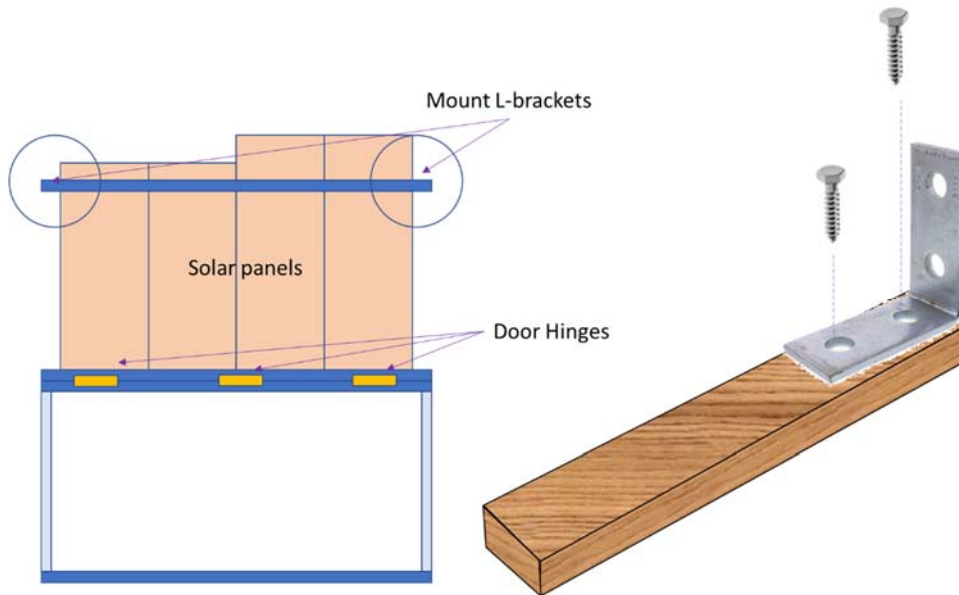
- 2) Next is to build a base. You need 3 2x4 ... cut 1 into 2 even parts and assemble (as below). Pay attention to the length (because it is same length as studs mounted on the panel)



3) Mount the 3 door hinges to base and the solar panel (sorry I don't didn't take picture)



4) Mount 2 L bracket (using 4 lag screws) to top stud



- 5) This step (best with 2 people). Unfortunate. I did by myself. Cut the last 2x4 to “design” length. This design length is “angle”. So if you have 2 people, one hold the solar panels and other measure the length and cut. I struggled but manage to find the approximate length 39” ... So I cut the 2x4 to 39” ... then drills 2 holes at 2 ends.



- 6) If you do by yourself, just mount 2 short bolts to the top 2 l-brackets (use outermost holes). Use them to support the panel. Then continue to drill to 2 hole to side of base.
- 7) Once done, remove the 2 long bolts at bottom and lay the panel face down, and flip the bottom of base up... and mounting the 4 wheels
- 8) Once the wheels are mounted, lift the base up and mount the 2 long bolts back.
- 9) Once every is mounted.... Just flip the solar panel up ... done.