

# BUILDING SOLAR PANELS

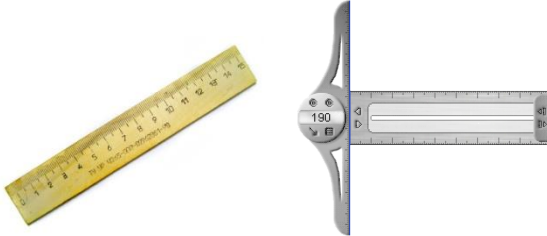
## LIST OF TOOLS



## Here are the tools necessary for the solar project:

(with informative prices)

1. **Ruler/ Yardstick/ T-Square** – provides straight edge to layout Solar Cell Template



Up to \$2.00/piece on [eBay](#)

2. **Gloves (latex or vinyl)** – protects the Solar Cell from finger prints, blemishes and chipping



Up to \$0.5/pair on [eBay](#)

3. **Measuring Tape** – measures the components and construction for the PV panel



Up to \$6.00/piece on [eBay](#)

4. **Protective eyewear** – protects your eyes while soldering, steel cuts etc.



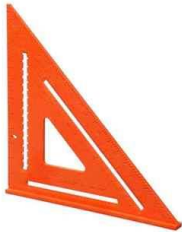
Up to \$4.00/pair on [Amazon.com](#)

5. **Pencils/ Markers** – mark and layout the PV panel and the Solar Cell Pattern



Up to \$2.00/set on [eBay](#)

6. **Speed Square (Carpenter Square)** – marks off crisp, sharp 90° corners and angles



\$5-10/piece on [Amazon.com](#)

7. **Soldering Iron/ Soldering Gun** – attaches the tabs to the individual Solar Cell and the stringers to the bus wires



Up to \$1.00/piece; Up to \$10.00/piece on [eBay](#)

8. **Battery Drill/ Drill Bits** – drills the holes in the Aluminum frame ( Drill Bit sizes: ¼", 9/32", 3/16")



Up to \$100.00/set on [eBay](#)

9. **Hack Saw/ Chop Saw** – cuts the aluminum frame for the PV panel



Up to \$10.00/piece on [eBay](#)

Up to \$50.00/piece on [eBay](#)

10. **Files/Reamers** – ream out the holes drilled in the Aluminum frame and smooth off the edges of it



Up to \$5.00/set on [eBay](#)

11. **Scissors/ Wire Cutters** – cut materials, tab and bus wires



Up to \$5.00/piece on [eBay](#)

12. **Tin Snips** – assist in assembly of the Aluminum frame



Up to \$5.00/piece on [eBay](#)

13. **Wrenches** – tighten and secure the nuts and bolts used for the project



Up to \$20.00/set on [eBay](#)

14. **Small Table Vise** – holds items that we need to cut or work with



Up to \$15.00/piece on [Amazon.com](#)

15. **Caulk Gun** – applies the Silicon to the Plexiglas to create waterproof seal around the edge of the Plexiglas and the Aluminum frame



Up to \$10.00/piece on [eBay](#)

16. **Slotted/ Phillips Screwdrivers** – attach the screws used in the project



Up to \$10.00/piece on [Amazon.com](https://www.amazon.com)

17. **Multi meter** – You can use it to see the voltage and amperage your panels is producing



Up to \$10.00/piece on [eBay](https://www.ebay.com)

**Where can you find all the tools that you need at LOW PRICES?**

**Here's a list:**

- [eBay](https://www.ebay.com)
- [Energy Bay](https://www.energybay.com)
- [Amazon](https://www.amazon.com)
- [Harbor Freight](https://www.harborfreight.com)
- [One tool a day](https://www.onetooladay.com)
- [My discount tools](https://www.mydiscounttools.com)
- [Home Depot](https://www.homedepot.com)