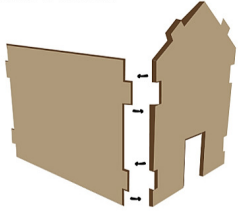


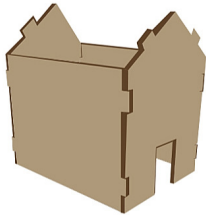
## HOW TO MAKE WOODEN HOUSE WITH SOLAR PANEL

### WOODEN HOUSE

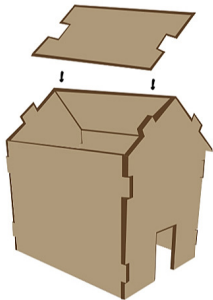
- 1 Press fit the wall of the house into the slots of the front side of the house.



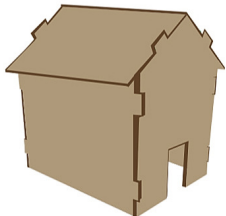
- 2 Use another wall and backside of the house & press fit in the same manner.



- 3 Cover the roof with roof blocks given.



- 4 Join all the blocks tightly to make a structure of wooden house.



### SOLAR PANEL

- 5 Join both terminals of 3 hole LED connector with solar panel using allen nuts & bolts.



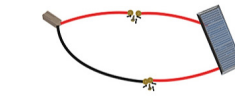
- 6 Insert bigger LED in LED connector.



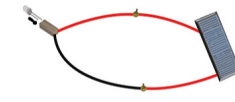
- 7 Keep panel in sunlight, LED will glow.



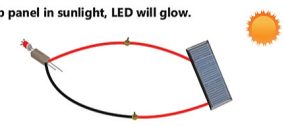
- 8 Join terminals of 2 hole LED connector with solar panel using allen nuts & bolts.



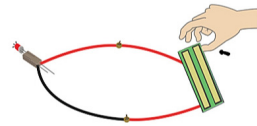
- 9 Insert smaller LED in LED connector.



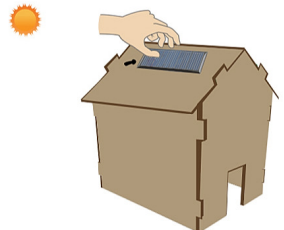
- 10 Keep panel in sunlight, LED will glow.



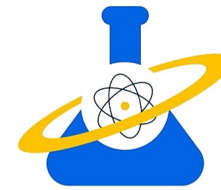
- 11 Remove the layer of double sided tape.



- 12 Now paste the solar panel on top of wooden house.

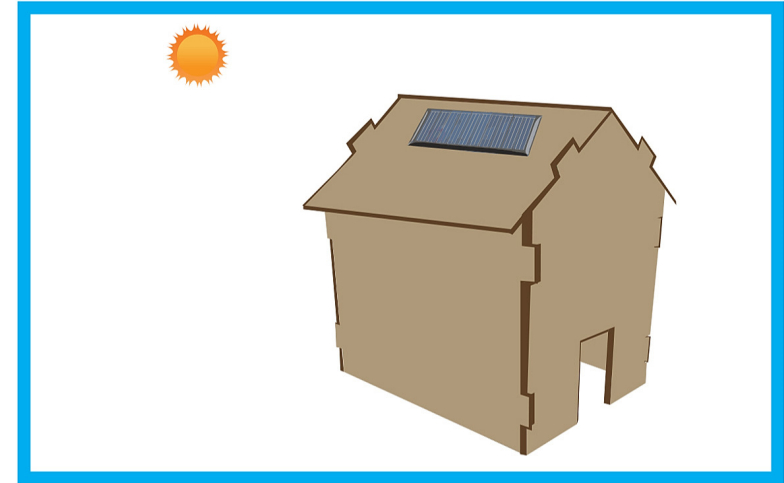


**Safety Measures**  
Perform the activity in the supervision of an adult only.



Future STEM Explorers

# Wooden House with Solar Panel



### Learning Outcomes:

Students will be able to

- Understand importance of wooden house
- Explain solar panel
- List applications of solar panel

### Wooden House:

People living in Assam or at a place where it rains heavily make their houses almost ten or twelve feet above the ground. They are made on strong bamboo pillars. The inside of their houses are also made of wood.

The purpose of doing so is to check the water entering the house at the time of heavy rainfall.

Also, the houses have sloped roof so that the water slides down easily.

### Advantages of wooden house :

- Energy efficient - Wood is a natural insulator and is very effective in isolating cold and heat . Being a good thermal insulator, wood is also an excellent noise absorber, making wooden houses warm, relaxing and peaceful.
- Time saving construction - Its construction is also clean and fast. The maximum time is two months for the most complex models.
- Environmental friendly - It requires less energy, less environmental impact and less carbon footprint than conventional ones .

### Solar Panel

Solar panels are devices that convert light into electricity.

A solar panel is a collection of solar *cells*. Lots of small solar cells spread over a large area can work together to provide enough power to be useful. The more light hits a cell, the more electricity it produces, so spacecraft are usually designed with solar panels that can always be pointed at the Sun.

### Solar Panel with LED

In the solar panel, LED is attached, so, on keeping it in sunlight, it generates current and LED will glow.

### Real Life Applications of Solar Panel

**Generation of electricity** - All solar electricity generation requires is the installation of solar panels composed of specialized photovoltaic cells that can convert energy from the radiations of the sun into electricity. This electricity can then be used to power homes and offices, depending upon the requirement.



1. What are the benefits of installing solar panel on roof of house?

2. What are the limitations of solar panel?