

# ***DESIGN AND CONSTRUCTION OF SOLAR PANELS AS ELECTRIC POWER RESOURCES BODY TEMPERATURE MEASUREMENTS***

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## ***ABSTRACT***

*Solar panels are an alternative power generation tool that is easily available. Utilization of solar panels as a new renewable source of electrical energy to replace fossil energy sources that are limited and have pollution that can pollute the environment. Solar panels as a producer of electrical energy from direct sunlight currently still provide relatively small power, which is influenced by the area of the solar panel itself as well as the temperature of the solar panel and the environmental temperature of the panel. A problem that exists in Indonesia today is covid-19. Therefore, this research is made a tool to detect body temperature as an indicator in determining whether a person is in good health or not. This body temperature measuring device is used in every place, especially places that are crowded with visitors. Nowadays people who visit a place have to check the temperature first. The body temperature measuring device is designed to use a 10WP Solar Panel as a supply of electrical energy. In this study, the panel used is capable of supplying the load. If there is no sunlight, the battery capacity at 80% is able to supply loads for up to 28.12 days. As for the battery charging time from 20% to 100% it takes 2.1 days.*

**Keywords:** *Batteries, Renewable energy, Solar Panels, Body temperature measurement.*