

ABSTRACT

On this final project will be made the design and implementation of charging lead acid battery using solar cell with three steps charging method. Besides charging lead acid batteries also have the advantage that the charging of lead acid battery so that it will retain in full. Charging lead acid batteries will automatically charge voltage on the battery when the voltage of the battery is not full or reduced. The lead acid battery charging will be developed for battery-powered large enough that used to cover one house that uses solar cell input source. On this final project, the author expects to use the method of charging the three steps lead acid battery charging can result in battery charging will keep the battery in a state so full and can extend the life of the battery because it can avoid overcharging on the battery. If using constant voltage or constant current charging time is 12-16 hours, as in the method of charging three steps are topping charge so that charging can be as fast as other battery systems. Testing of the final project will be done by three state of the battery is less than 70%, between 70% and 90% and above 90%, in order to prove the method of three-step charging. The goal of this research is to make a control charging can charge the battery according to the capacity of the battery.

Keywords : *Solar Cell, Charging Battery , Lead Acid Battery, Three Steps Charging*