

## ABSTRACT

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*In modern times, electrical energy is very much needed and the growth of electrical energy is always increasing from time to time. Tools that are successfully made by scientists mostly use electrical energy in their use. Lack of electrical energy supply in rural areas, where people generally still need electrical energy to carry out activities, such as turning on lights, cooking and turning on electronic equipment. They sometimes cook using firewood, iron using a charcoal iron, and light using a torch or candle. Due to the lack of electricity supply in rural areas, a system will be created that can meet the supply of electrical energy in every deficient area. In this system, monitoring will also be made so that the electrical energy produced can be found out easily. Therefore, a magnetic turbine was made with the use of a magnetic pole as a source of producing electrical energy with electrical energy produced 12.20 Volts with a current of 0.89 A and max power 42 Watt. the kenggulan of this tool is in the presence of a permanent magnet so that energy can be permanent not affected by other weather disturbances. and the electricity generated will be used to help rural communities to obtain electrical energy.*

*Keywords: Free Energy, Magnet, Embedded System*