

MAGNETIC PERPETUAL MOTION MACHINE

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Abstract—Electrical energy demand is increasing in accordance with rapid growth of the human population. Since fossil fuels is the most widely used energy source, thus it is depleting very fast. Alternative energy source is urgently needed to replace the use of conventional energy sources.

Perpetual Motion Machine (PMM) which can be applied to produce electricity, may be an alternative solution for the problem the world is facing today. The machine is designed to generate power from repulsive forces of permanent magnet without utilizing external sources. Some researches had conducted experiments and Neodymium magnet is most used in the project due to its strong magnetic field. The device is mainly built using a permanent magnet, a rotating wheel and a generator.

This paper reviews some aspects on how A Perpetual Motion Machine (PMM) generates electrical power. The aim of the paper is to provide a summary of the topic and its opportunities in further enhancements for better results. The study found that the concept is very effective, ecofriendly and less space needed. However, a larger scale development of the machine along with proper magnet and gear arrangement is currently needed for a better performance and application.

Keywords : Perpetual motion machine, Electricity , Mechanical energy , Magnet , Rotor , Efficient , Clean Energy

- **Introduction** ---- Clean energy sources are urgently needed. [Carbon finance](#) has helped to support hydropower, which remains as one of the most scalable short-medium term [clean energy technologies](#) available to many countries.
- The 2021–2022 global energy crisis began in the aftermath of the [COVID-19 pandemic](#) in 2021, with much of the globe facing shortages and increased prices in oil, gas and [electricity](#) markets. The crisis was caused by a variety of economic factors, labour shortages, disputes, climate change, and was later compounded by the 2022 Russian invasion of Ukraine.

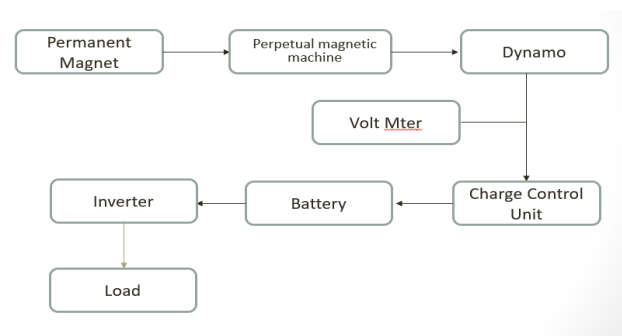
Gas shortages in particular have resulted in an increase in food prices and an increase in the use of coal.

The response by governments worldwide to the energy crisis have so far been piecemeal and largely ineffectual.

PROBLEM IDENTIFICATION

Many lands are submerged underwater while setting up a hydroelectric power plant and building a dam. It drastically affects aquatic life and wildlife. Methane gas is released when this submerged vegetation rots under anaerobic condition. There are limited sites for setting up geothermal energy and tidal energy power plants. Nuclear power plants produce radioactive wastes and radiation that can be a dangerous hazard leaked accidentally. The efficiency of renewable sources of energy like solar energy is low on a cloudy day. Clean Energy is essential for coming generation as it is our responsibility to maintain climate catastrophe at its bay. We all need energy for our daily activities. We obtain energy from natural resources like fossil fuels. Some of these natural resources are non-renewable and cannot replenish faster as we need them. The burning of fossil fuels causes many environmental issues like global warming and pollution.

BLOCK DIAGRAM



HARDWARE REQUIREMENT

PERMANENT MAGNETS:

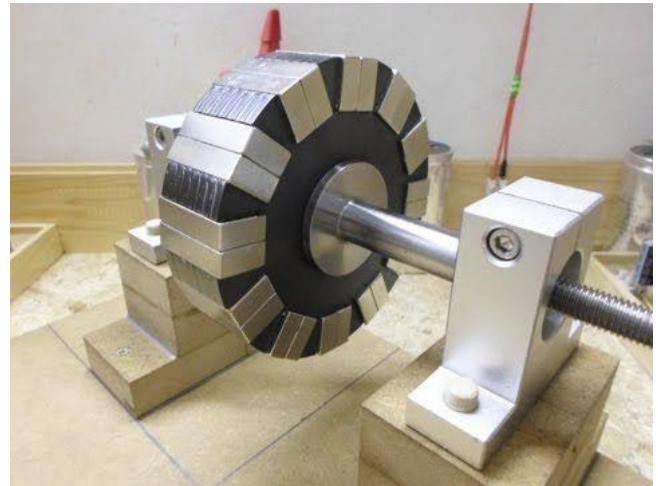
Magnets that can maintain their magnetism for a long time are called permanent magnets, such as natural magnets (magnetite) and artificial magnets (aluminum–nickel–cobalt alloy), etc. Permanent magnets are not easily demagnetized or magnetized and the polarity of them will not change. However, if the permanent magnet is heated above the Curie temperature or in an environment with high reverse magnetic field strength, its magnetism will also decrease or disappear. Some permanent magnets are brittle and may break at high temperatures.

For example, the maximum working temperature of Alnico magnets is over 540 °C (1,000 °F), the maximum working temperature of SmCo magnets and ferrites are about 300 °C (570 °F), and the maximum working temperature of **neodymium magnets** and soft magnets are about 140 °C (280 °F).



PERPETUAL MAGNETIC ROLLER:

A perpetual magnetic roller is provided, which includes a centering element, a rotating body connected with the centering element by a hinge joint, an inner magnetic element group mounted on the border of the rotating body, and several outer magnetic element groups separated from each other by gaps and mounted nearby the circumference of the rotating body respectively. A coil group is mounted nearby one side of the rotating body. The outer magnetic element groups connected with location elements respectively by hinge joints are capable to rotate on the location elements. The inner magnetic element group further includes several first magnetic elements and several second magnetic elements. These first and second magnetic elements are alternately installed, and the outside magnetism of the first magnetic elements is opposite to that of the second magnetic elements. The perpetual magnetic generator is capable to rotate the rotating body perpetually without external driving force, and capable to realize the purpose of producing more electric energy with less magnetic energy.



DYNAMO:

A **dynamo** is an electrical generator that creates direct current using a commutator. Dynamos were the first electrical generators capable of delivering power for industry, and the foundation upon which many other later electric-power conversion devices were based, including the electric motor, the alternating-current alternator, and the rotary converter. Today, the simpler alternator dominates large scale power generation, for efficiency, reliability and cost reasons. A dynamo has the disadvantages of a mechanical commutator. Also, converting alternating to direct current using rectifiers (such as vacuum tubes or more recently via solid state technology) is effective and usually economical.



CHARGE CONTROL UNIT:

A charge controller, charge regulator or battery regulator limits the rate at which electric current is added to or drawn from electric batteries to protect against electrical overload, overcharging, and may protect against overvoltage. This prevents conditions that reduce battery performance or lifespan and may pose a safety risk. It may also prevent completely draining ("deep discharging") a battery, or perform controlled discharges, depending on the battery technology, to protect battery life. The terms "charge controller" or "charge regulator" may refer to either a stand-alone device, or to control circuitry integrated within a battery pack, battery-powered device, or battery charger.

PROTOTYPE:



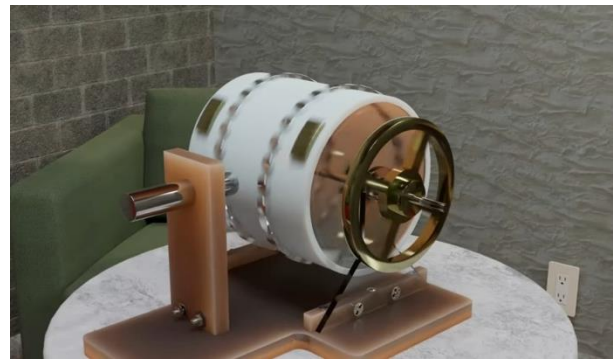
BATTERY:

It is composed of one or more electrochemical cells. The term "accumulator" is used as it accumulates and stores energy through a reversible electrochemical reaction. Rechargeable batteries are produced in many different shapes and sizes, ranging from button cells to megawatt systems connected to stabilize an electrical distribution network.



INVERTER:

A power inverter, inverter or invertor is a power electronic device or circuitry that changes direct current (DC) to alternating current (AC). The resulting AC frequency obtained depends on the particular device employed. Inverters do the opposite of rectifiers which were originally large electromechanical devices converting AC to DC. The input voltage, output voltage and frequency, and overall power handling depend on the design of the specific device or circuitry. The inverter does not produce any power; the power is provided by the DC source.



CONCLUSION:

The world's environmental pollution of fossil fuel can no longer be tolerated. The concept of perpetual motion machine is a better way to fulfill the world's electricity needs. It can be built in various schemes such as flywheel, pendulum, etc. Perpetual motion based energy generator has proven to be cheap and not depending on any environmental conditions, although proper calculation and arrangement of the component must be done carefully and accurately to get a better performance of the project. There are still greater opportunities of the machine to be enhanced further for more efficiency and better results.

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