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Electromagnetic Engine

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Abstract: ***Presently a days IC motor assumes a fundamental job in market of vehicles. The interest for fuel has expanded so need of other vitality has gotten vital. The principle idea of this undertaking is the zero-point fuel utilization. The attractive power guideline is the essential necessity to work for electromagnetic motor. The general property of magnet that is fascination and repugnance powers are changed over into mechanical vitality. The helpful yield is turning movements and the application depends on electromagnetic motor which different from various fuel. The electromagnetic motor ought to be in a perfect world perform precisely equivalent to that of inward burning motor. The motor, the quality of the field is constrained by the measure of windings. This plan applies the force each fourth stroke some as should be expected does now. It uses just shocking power that permits field to disperse totally, and have no prohibitive impacts on the rising cylinder. The principle points of interest of electromagnetic motor are that if is without contamination and inside part like valves and cam – devotees can be evaded.***
Likewise no manifolds are required since there is no fuel stream. The difficulties looked in structuring an electromagnetic motor is that is must be as proficient as an interior ignition.

I. INTRODUCTION

Attraction is the fundamental standard of working for an electromagnetic motor. The general property of magnet for example fascination and repugnance powers is changed over into mechanical work. A magnet has two shafts. A north post and a south shaft. At the point when like posts are brought close to one another they repulse and pull in when like shafts are united. This rule is being utilized in the electromagnetic motor. In this motor, the chamber head is an electromagnet and a changeless magnet is joined to the cylinder head.When the electromagnet is charged, it draws in or repulses the magnet, in this manner pushing then cylinder downwards or upwards in this manner turning the crankshaft. This is the way power is created in the electromagnetic motor. It uses just unpleasant power that permits the field to disperse totally, and have no prohibitive consequences for the rising cylinder. The electromagnetic motor ought to in a perfect world perform precisely equivalent to the interior ignition motor.

The intensity of the motor is constrained by the quality of the field and the quality of the field is constrained by the measure of windings and the present that is being gone through it. In the event that the current is expanded the force created by the motor likewise increments in like manner. The present that is utilized to charge the electromagnet is taken from a DC source like a lead corrosive battery. The fundamental points of interest of electromagnetic motor are that it is without contamination. Additionally it is anything but difficult to plan an electromagnetic motor on the grounds that there are no confounded parts. Since the motor doesn't have burning, valves, water cooling framework, fuel siphon, fuel lines, air and fuel channels and bay and fumes manifolds and so on can be disposed of from the motor. The primary test looked in planning an electromagnetic motor is that it must be as effective as an inward burning motor. Fuel isn't utilized in this Engine. This outcomes in no contamination which is entirely attractive in the current day circumstance.

II. METHODOLOGY

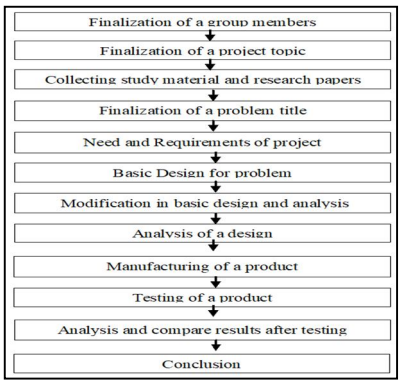


Figure 1. - Methodolog

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III. PROPOSED SYSTEM

This motor deals with the standard of attractive repugnance between same posts of the two distinct magnets. At the point when comparative shafts of two magnets interact with one another they will repulse each other with equivalent and inverse power. This marvel of repugnance is utilized in this motor to make movement. The Electromagnet which is put at the highest point of the chamber of the motor repulses the changeless magnet put at the spot of cylinder in IC Engine such a way, that the attractive power delivered by the electromagnet repulses perpetual magnet. Cylinder for example Changeless magnet is associated with the wrench shaft through interfacing bar.. This game plan changes over the responding movement of cylinder into the revolving movement of the wrench shaft. This is our helpful work. The electromagnetic cylinder motor as per the current development in one angle contains a chamber and a cylinder, each made of an attractive material, a chamber electromagnet having an internal mass of the chamber magnet sable to a one attractive post, and a cylinder polarization unit for charging a bit of the cylinder draw in capable with the chamber to a solitary attractive shaft in a fixed way, in which the cylinder is moved a one way

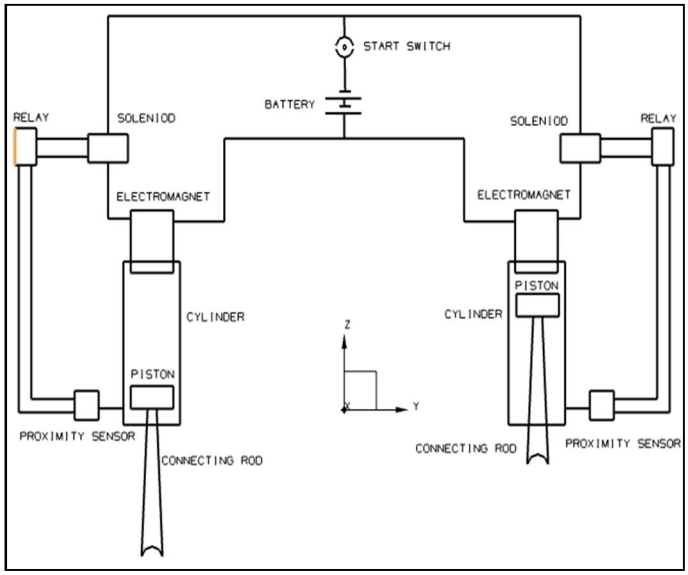


Figure 2. – Diagram Of Project

IV. HARDWARE

A. Finding the proper material selection for the Winding

1) It should be not a like electricity.
2) It should easily available in market.
3) It should be light in weight and economically Stable.
4) It should easily transfer magnetic flux.

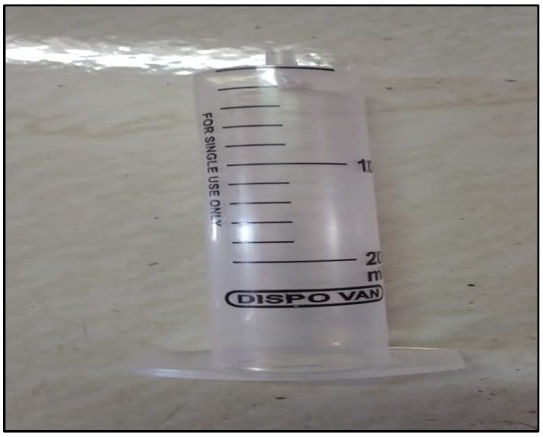


Figure 3. – Syringe for cylinder

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B. Winding of Cylinder

1) Firstly We had marking on the syringe as per the dimensions



Figure 4. - Procedure before Winding

2) Then according to the Dimension we had Winding on cylinder

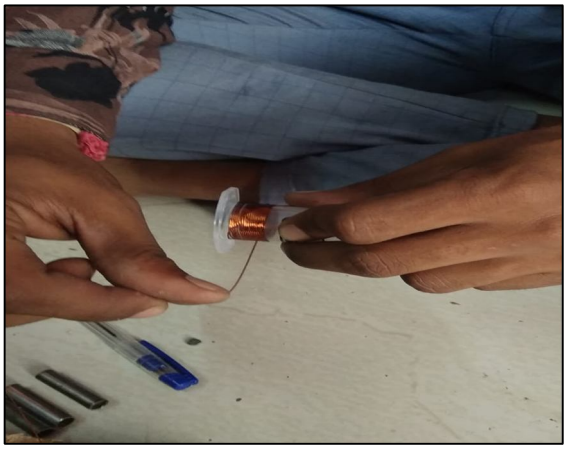


Figure 5. - Winding Procedure

3) Complete winding on Cylinder

No. of Turns - 350

Wire Material - Copper

Size of Wire – 25 gauge (0.503mm Dia.)



Figure 6. - Complete Winding

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C. Drilling on the Cylinder Mounting.

Cylinder mounting material - Wood
Size – 5cm × 25cm × 2cm
Drill size – 20mm

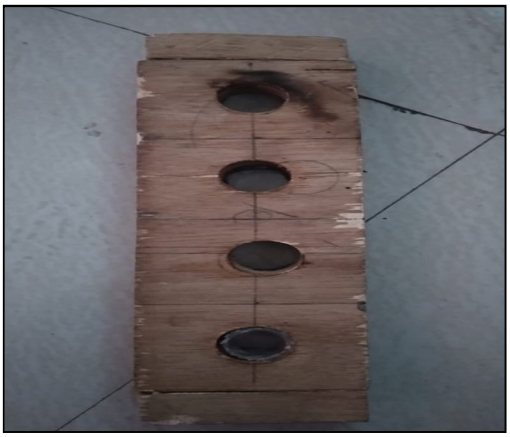


Figure 7. - Final cylinder mounting



Figure 8. - Drilling Procedure of mounting

D. Making The Crankshaft and Connecting Rod.

1) Materials – Plastic, wood, steel rod, magnet, sheet metal.
2) Selection of materials is on the basis of low cost, availability.

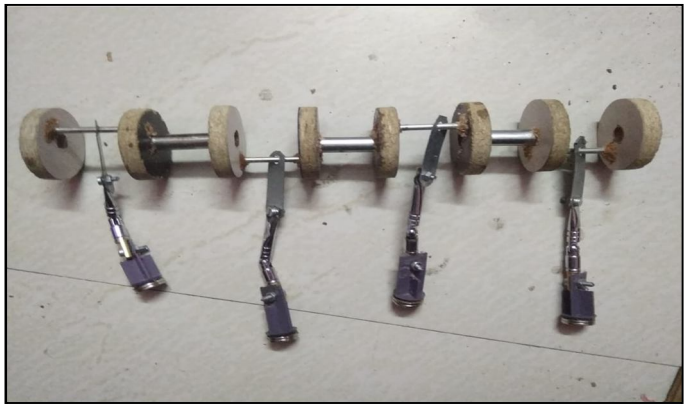


Figure 9. - Final Crankshaft And Connecting Rod with attached Piston assembly.

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Figure 10. - Drilling procedure of Crankshaft

E. Making the Final Model.



Figure 11 - Final Model of Electromagnetic Engine

V. EQUIPMENTS OR TOOL REQUIRED

A. Tool box.
1) Piler
2) Screw Driver
B. Drilling machine (To Drill The plates of diameter 25mm)
C. Hand Grinder (Model :H135)
D. Cutting machine
E. Punch
F. Hammer
G. Vernier
H. Measuring tape.
I. Hex saw
J. Punch
K. File
L. Bench vice

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VI. ADVANTAGES & DISADVANTAGES

A. Advantages

1) No Fossil Fuels
2) No effect on the climate – totally green
3) 97% more HP then the combustion engine
4) Low Operation Cost – 110,000 h or 12 years
5) Placed in any vehicle – cars to large trucks
6) Renewable Electricity 2Kw to 9 Mw per engine
7) Changes the understanding physics
8) Low running and maintenance cost.

B. Disadvantages

1) High Initial Cost
2) Electromagnet or Permanent magnet can be very costly
3) The engine is not flexible as internal combustion engine
4) The power source is a battery
5) No. of batteries will vary according the requirement.

VII. FEATURE SCOPE

As in current condition people are making a beeline for the utilization of wellsprings of vitality which are sans contamination and eco-accommodating. Hence the attractive cylinder motor can be utilized as a superior other options. It very well may be utilized to perform different assignments and capacity that include use of power or dislodging of items. This motor is exceptionally effective as it doesn't utilizes any info source and it chips away at its own capacity. It has the chance of arriving at solidarity over activity mode. It has the capacity to supplant the electric engines and any motor which requires fuel consuming to work. As these model comprises of just a single cylinder and just one post of magnet is utilized for running the engine,in future alteration can be made to it by utilizing two attractive cylinder on both side of the fixed magnet to utilize both the shafts of magnet and to accomplish high force and progressively powerful utilization of magnets.

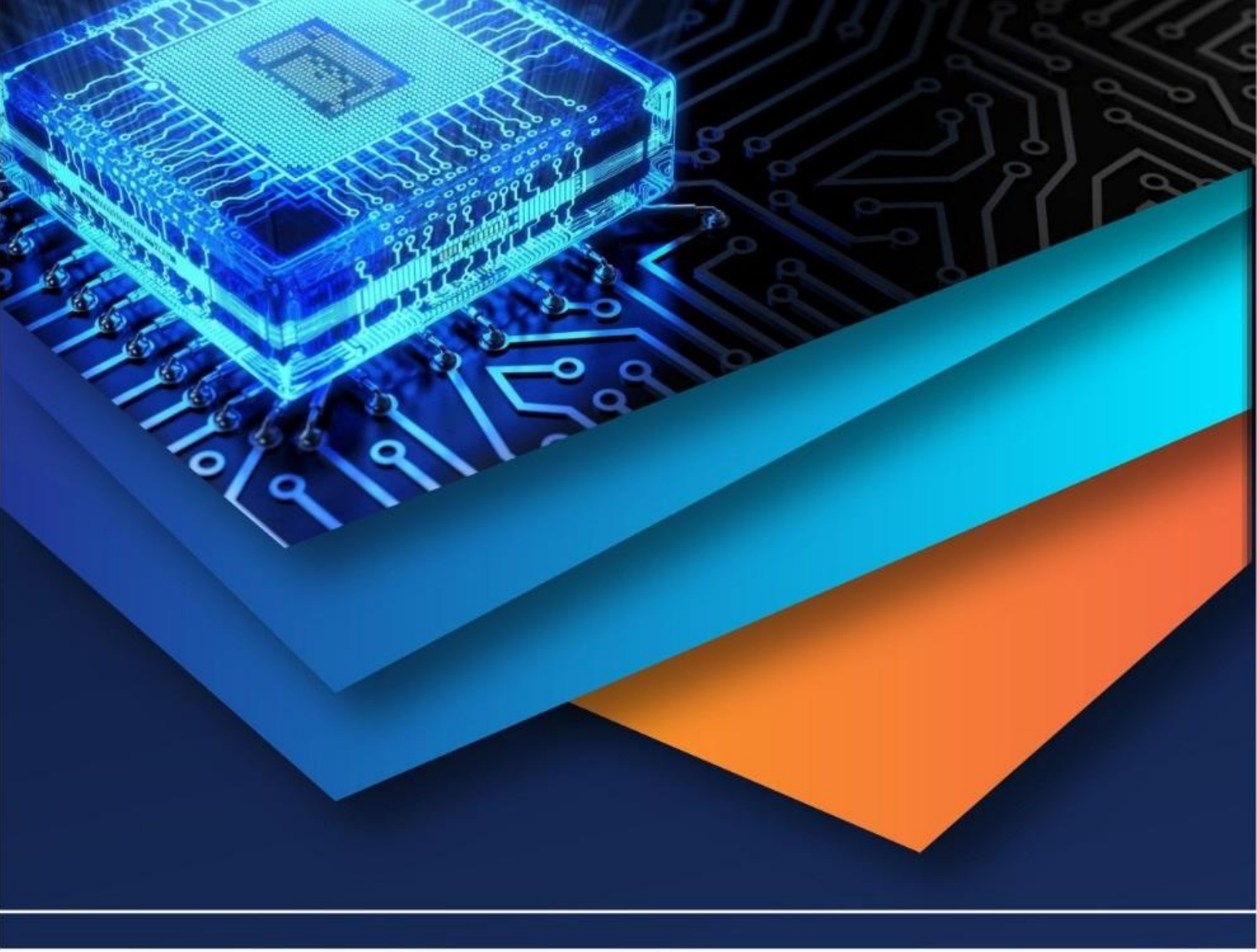
VIII. CONCLUSION

A. The electromagnetic motor is required to expend less force than regular motor.
B. As the information power provided increments, yet at a specific info power it will be most extreme and goes downfrom top estimation of productivity.
C. The proficiency acquired will be not exactly hypothetical productivity in light of attractive motion misfortunes.

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