

# Magnetic Reflection to Control the Moving Gear System – A Review

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## Abstract

The Magnet is the material which obtained from the material magnetized where it is to be made into strong magnets they are changed into the ferromagnetic substance that can has the strong attraction. Now in this paper magnetic reflection is taken and made the object to pull in a strong force so that more magnetic power is produced to pull the object of the system and the controller also kept to controls this effect to become a effective manner and also there is a challenging issues the magnets does not lost its property. This is the new approach on the magnetic scheme to develop an efficient system.

## I. INTRODUCTION

Magnets are the substance which has the ability to attract opposite poles and reflect same poles. There are many kinds of magnets are available in that the most powerful magnet is chosen for our system that is Neodymium magnets where this are the magnets which consists of more magnetic property and this magnets can list thousands of weight across its weight.



Nickel Plated Neodymium Magnet Cubes

Here in the figure 1 shows that the magnetic cubes of neodymium whereas these magnets are going too applied to our system to run the gearing system of wheel or any other type of motor which can be run by the magnetic force so it will be completely efficient while comparing other system.

## II. GEARING SYSTEM

The gearing system is described as the rotation energy that is to be combined with two gears with a mesh system it consists of tooth or cogwheel as well as the power of the gear can be increased by applying or changing the gear into neodymium and the sub gear also made by the same material where it should be placed in the opposite directions.



Neodymium Magnetic Gear

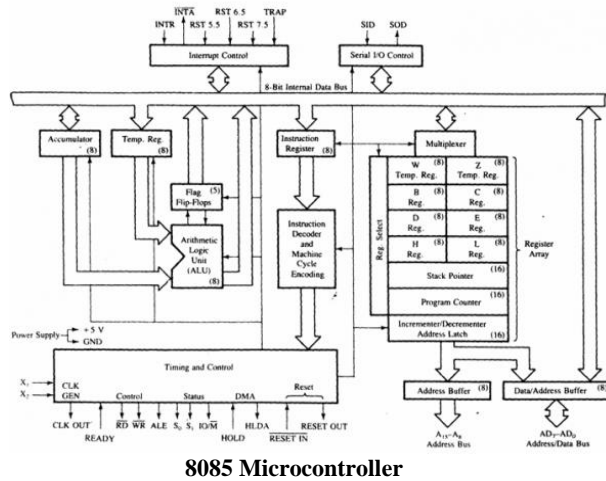
The figure 2 shows that the gear is made fully of neodymium magnets so there will be more power is produced and effective machine is created the outer layer of the magnet should consists of same north pole and inner side of the magnet should consists of south layer and the outer source is the initiate the system. And the controlling system is the main objective of the system where it is to be control both the source and gears which is made of neodymium magnets. By that the propose system would get better and more effective configuration.

## III. CONTROLLING SCHEME

Controlling scheme is one of the main parts of the system where this controls takes place in moving the object in a clockwise direction. In our system the spur type gear is chosen for demo performance as well as it will be more effective and the important factor of the controlling system is to control the movement of the object.

The controlling of neodymium gear is done by another opposite pole of the neodymium source where embed circuit also attached with system by

changing into the technology oriented. The challenge of the system is to control the two magnetic property is the difficult task so a microcontroller is to place in the system so that it would easy to control the made the movements.

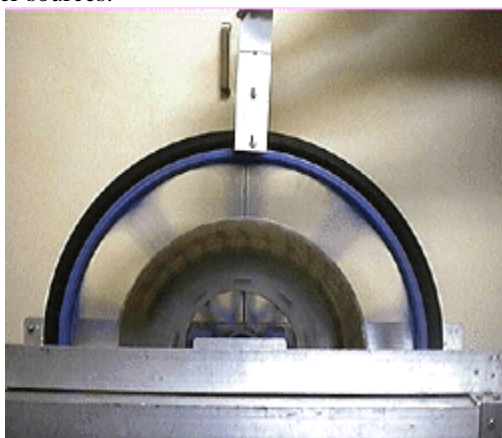


8085 Microcontroller

The 8085 Microcontroller is one of the best controlling systems where it would have a sub controller so it would does not have the failure worst case situation where it performs the operations with the separate tasks.

**IV. EXPERIMENTAL RESULTS**

The experimental results states that the magnet is placed inside a inner side of the vehicle so that the gear which is presented in the vehicle or any other machineries is attached with the source neodymium magnet and these two objects will act simultaneously and the gear movement is quicker than the ordinary rotation of the wheel. Thus it can be applied in various part of the system of vehicle or any other sources.

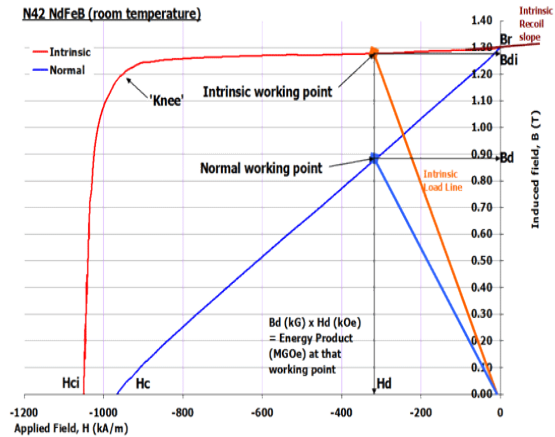


Wheel Rotated by Neodymium

The figure 4 shows that the neodymium magnet moves the wheel which is also made up of same neodymium source. The outer layer of the wheel is north pole is applied and the source of the layer is applied with the south pole direction of the magnet, such that by the action of repels the wheel or

gear which can be easily moved. Neodymium is used because it is also a rare earth magnet and it is most powerful magnet which able to carry thousands of weight than the magnet weight and possibly it would makes more magnetic strength to the opposite poles of the magnet and more efficient.

Example BH curve for N42 NdFeB



Neodymium Graph Strength

**V. FUTURE WORKS**

The future works of this gear running magnets which can be able to apply in both gears of vehicles and industrial gearing system. Also now the current paper discuss only with the spur gear system but the future is to arrange the magnetic source to all type of gearing system and to reduce cost.

This would move the wheels of the magnet very fast when compared to the other source operating so the fuel energy of the gear moving system is reduced so more fuel energy is not necessary to run the gears.

**VI. CONCLUSION**

Thus the magnetic reflexion is made by the neodymium magnets and this paper would discuss more about the source minimizing process so it is modelled in the more effective and efficient manner. The system is going to be applied in the vehicle and also in the process of industries automation system which are running by the gearing system.

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