理想實驗之電磁慣性輸胎

Idea experiment-electromagnetic inertia tires and braking parking concept



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Abstract

A. magnetic tires: electromagnets, through the magnetic field generated by each other, exerting force on each other.

The use of homosexual repulsion, opposites attraction principle of the force will make the tires rotate.

- B, the braking principle: the first use of disc brake device to force the car to stop, and then all the electromagnets disconnected. The force will disappear, in order to achieve the purpose of stopping.
- C. Starting and driving principle.
- (A) clockwise: the W magnet is energized, and the tires on the semicircular distance of the farthest from the opposite pole to produce a phase of suction, to the location closest to the W for the same pole and W role. So that the tires keep pushing and pulling to achieve the effect of moving.
- (B) counterclockwise: the W magnet is energized, and the tires are the farthest distance from the lower semicircle of the opposite pole to produce phase attraction, to the location closest to the W with the same pole and W role. So that the tires keep pushing and pulling to achieve the effect of moving.

Research Motivation

Despite the rapid development in recent times, the earth's environment is deteriorating rapidly as a price. I believe we all know this, which is why the concept of environmental protection was introduced. We would like to do our part for the environment.

Since we use magnetism and electricity, we do not emit as much greenhouse gas as cars do, and our concept is in line with SDG7: affordable and clean energy.

Purpose

- A. Make the electromagnet tires start normally.
- B. Make the electromagnet tire can drive.
- C. Make the electromagnet tire can stop.

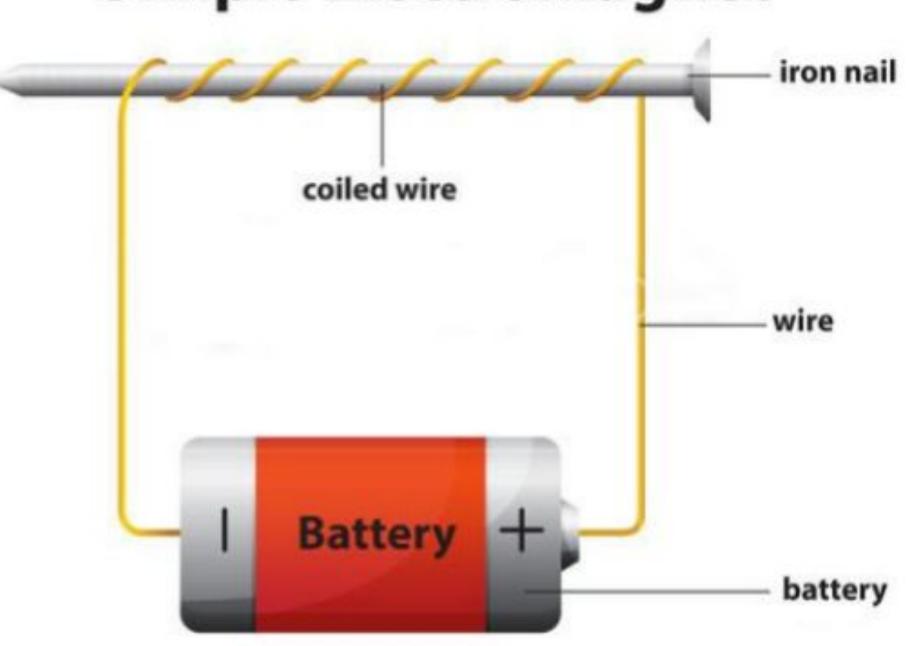
Research equipment and devices

- A. Tire
- B. Screw
- C. Iron core
 D. Battery
- E. Wire

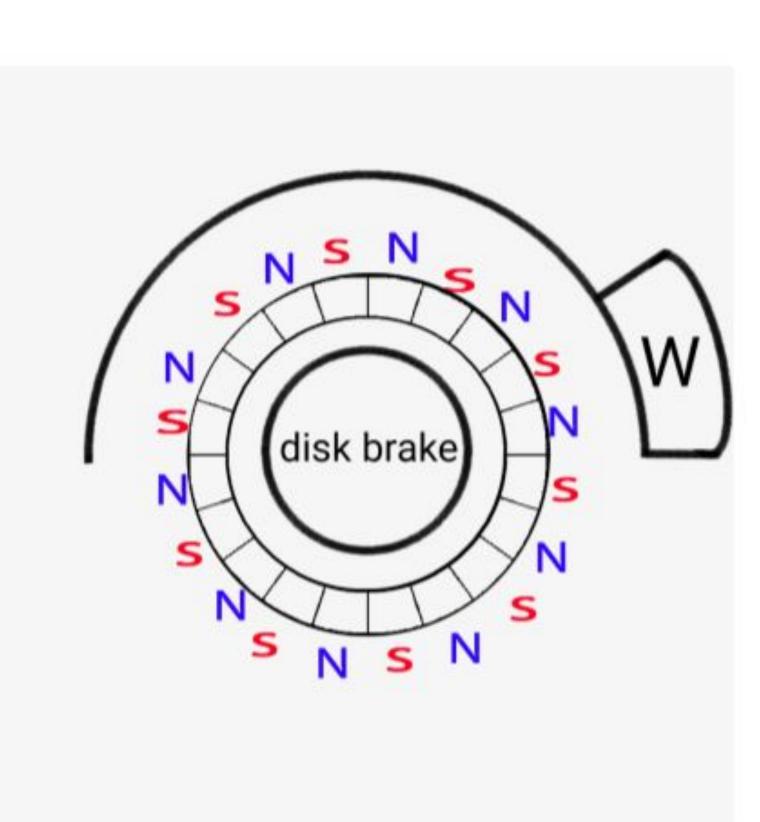
F. Disc brake device

- A. Experimental method.
- (a), assembly of electromagnets
 - 1. Put the iron core in the middle of the spiral tube.
 - 2. Connect the battery and wire.

Simple Electromagnet



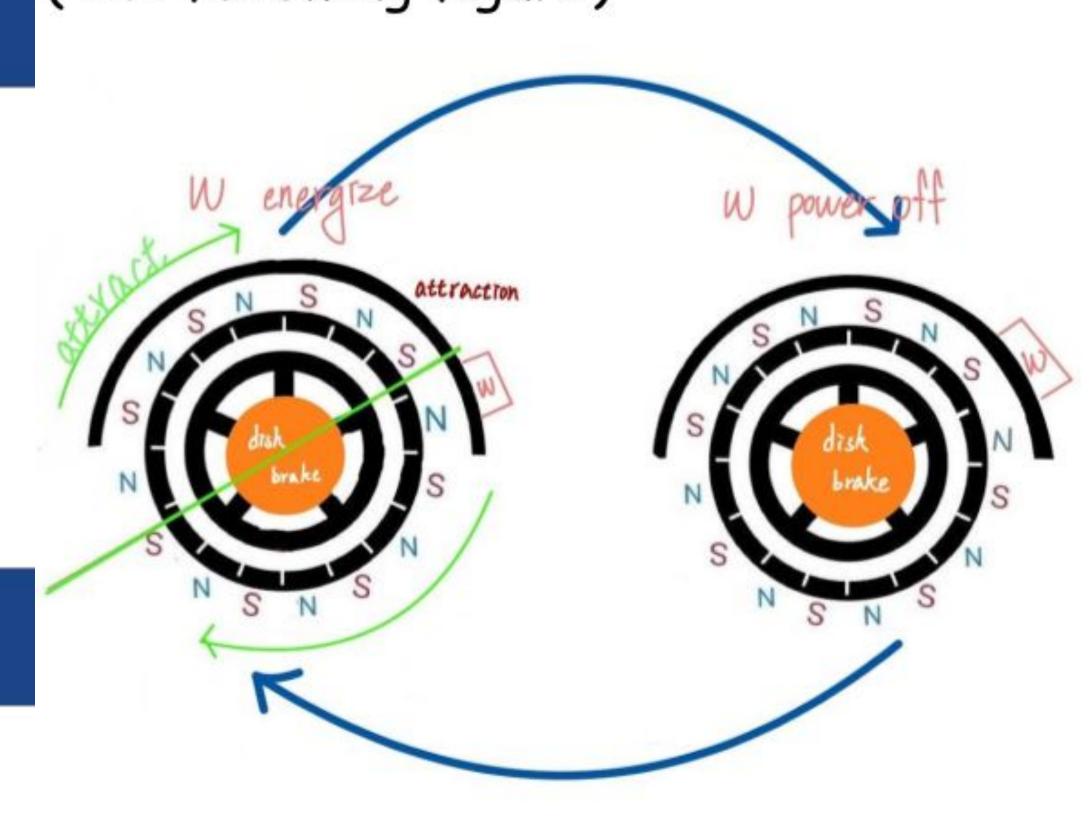
(b), the electromagnet is installed on the tire as shown below.



(c), the W electromagnet and the farthest away from its anisotropic pole to see the need to choose a direction for energization. (Clockwise: choose the upper half-circle anode; counterclockwise: choose the lower half-circle anode.) The principle of opposites attracting each other starts to drive the tires. Wait for the magnet to reach the nearest point with W, disconnect it, and replace it with a magnet that is repulsive to W, and start driving the tire by the principle of same-sex repulsion.

And so on, keep changing the magnetic pole with W.

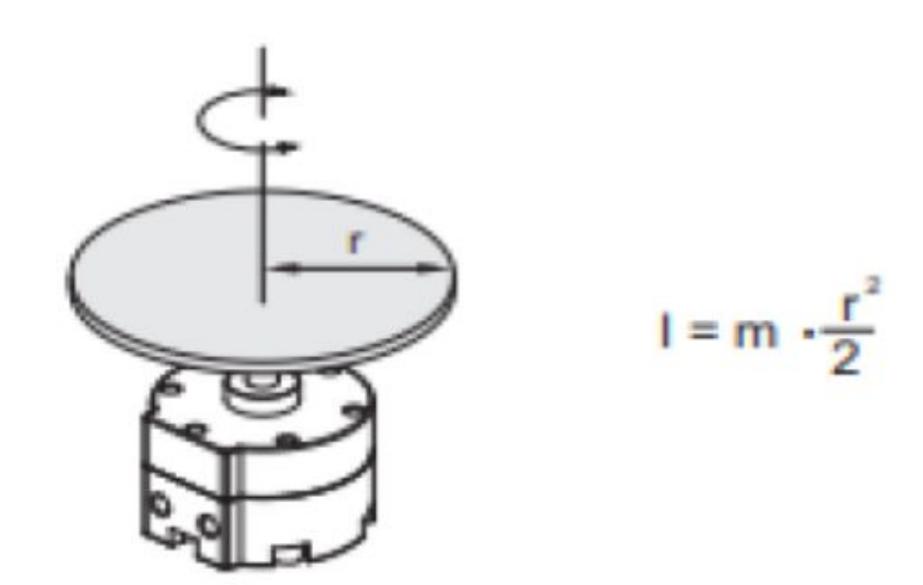
(The following figure)



Because of the existence of inertia, so the speed of the tire will get faster and faster, we have to figure out the time to turn the electromagnet on and off according to the inertia effect.

E=0.5·I·ω²

I=m·r2·0.5

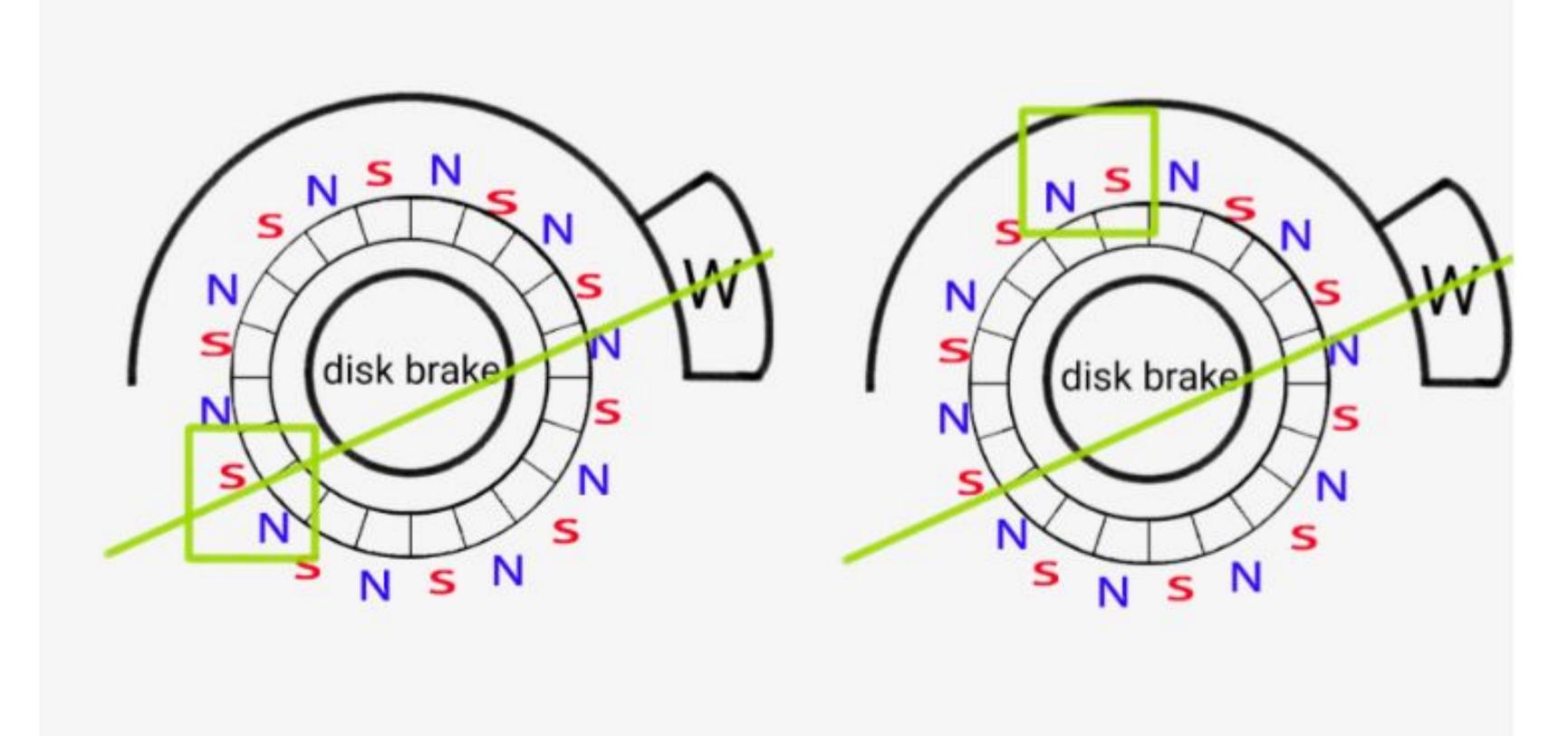


Study results

Suppose that, as expected, after energizing W and the diagonal opposite-pole electromagnet inside the tire, the electromagnet inside the tire and W opposite-pole can be phase-absorbed with W electromagnet to the closest point and then its electromagnet will be disconnected. The electromagnet next to it with the same pole as W is energized and repulsed with W electromagnet, repulsed to the farthest point and then its magnet with the same pole is de-energized and replaced by the opposite pole magnet is energized, and so on, to achieve the effect of rotation.

If you want to change the direction of rotation, change the magnetic poles in the diagonal semicircle and the W electromagnet. (Example: Assume that the N pole is acting with W, then disconnect N and energize S to act with W)

The following diagram



Because there will be inertia during the period of disconnection of one pole and energization of the other pole, it will not reach the phenomenon of linear attraction or repulsion. Then the brake will use the disc brake, and then all the electromagnets will be de-energized, and the tire will stop.

Discussion

After discussion, we found that the total number of electromagnets can be reduced by three, which can also achieve the same effect. However, it is necessary to consider whether the electromagnets in the tires will be displaced and whether there will be problems with clockwise/counterclockwise movement.

Conclusion

Our slogan is "Sustainable Energy Runs Forward".

Sustainable energy is a sustainable supply of energy to meet current needs without compromising the ability of future generations to meet their needs.

We are using magnetic power, which has several benefits.

- (a) It meets SDG7: Affordable and Clean Energy
- (b), can partially replace consumptive energy.
- (c), can expand the production field, to promote economic development. It has multiple social effects.
- (d), with "recyclability" and "environmental protection". Meet the requirements of advanced production model.
- (e), to suppress the price of fossil energy.

References

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[3]磁通關係企業(磁通、儷通、大通).[Q&A].未知/2022-11-9.

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Future Plan

We hope that in the future, after our models are more complete and refined, we can go to car manufacturers to promote them——so that the cars of the future can reduce more pollution and do our part to help the earth, so that the earth can still see the beautiful scenery in our lifetime!