

The Japanese can make flying cars, just like high-speed maglev trains

A group of Japanese researchers from the Quantum Machine Unit laboratory at the Okinawa Institute of Science and Technology have just created a 'flying car' that operates based on the same rules as a high-speed maglev train, without the need for an internal combustion engine. or electric motor to operate.



The high-speed maglev train has no wheels, and it also does not touch the rails, thereby almost completely eliminating rolling friction, leaving only friction between the ship's body and the air, so it can reach very high speeds. . The record for a maglev train operating commercially at the highest speed is the Shanghai line, China, which takes only 8 minutes to travel a distance of 30.5 km.

The Japanese 'flying car' is created from diamagnetic materials. Extremely powerful magnets are placed on the paved road below, creating a very strong magnetic field that pushes the car suspended in the air. Because there is no friction between the wheels and the road surface, only a very light push is needed for the car to run at high speed.

A power source is always needed to keep the magnetic field lifting the giant maglev train off the track surface. If there is no electricity, the train will hit the tracks.

Scientists from the Okinawa Institute of Science and Technology have improved the design of a maglev train that helps the car float off the road with an initial power source. They used a material called crushed graphite mixed with wax to create frames, with a magnet mesh underneath to create a magnetic field.

This magnetic field is strong enough to help the car float in the air to run at high speed, while keeping the car from veering off the road.

This car can run without an electric motor or gasoline engine to create torque to help the wheels roll on the road.

Currently, the flying car model and the experimental maglev track are much smaller in size than the real thing. At actual size, to create a magnetic field strong enough to help the vehicle float in the air, surface kinetic energy must be reduced by cooling the space. Without reducing the temperature of the quantum domain, it will be extremely difficult for the car to float in the air.

In addition, real-size floating cars also encounter a phenomenon called vortex damping. An oscillating system tends to lose its state due to external factors and over time. Japanese scientists had to find a way for graphite to retain energy when in a strong magnetic field.

Thus, flying cars identical to Japan's high-speed maglev train are just initial studies. The future of cars not needing to refuel their batteries or even pump their tires is still very far away.

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