

# Sample essay on use of electricity and magnetism in our future transportation

[Environment](#), [Electricity](#)



## Physics

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Essay

Technological advancements changed the face of the universe. If a man who died before ten decades ago comes back to life, he will be wonder struck on seeing the present scenario of the world. Latest advancements in today's world pave a better way of living. The first and foremost is the discovery of electricity and its application in almost all the fields.

The technological revolution witnesses some great establishments that changed the way of living and life of the people around the world.

Technology is greatly influencing the working of all the aspects of humanity. It cannot be wrong to say that technology is future. It implies that people depend more on the technology now. Almost every individual is either directly or indirectly influenced by the present technology. From laboratories to industries and offices to roads, technology is present. It enhances the working of the systems very accurately, effectively and efficiently. However, electricity is an important aspect on which almost all the technologies depend on. Electricity plays a very important role to run the industrial sector of any nation. It facilitates the economic standard of the world in general. It is now being employed into the transportation and that is perhaps proving very effective. Its dynamic nature enables the enhanced working of big industries. Strictly speaking, electricity and magnetism will boost the future transportation of the world.

One of the important benefits of using electricity in transportation is the reduction of harmful gases that cause severe air and water pollution. Most of

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the present transportation system depends on the petrol or diesel. The burning of such material causes emission of harmful gases that have negative effects towards the environment and human health. The main reason to introduce electrical transportation is to reduce such emissions from the individual vehicles. Utilization of fossil fuels is a major concern as they are non-renewable sources of energy.

Electricity can be generated by employing the use of resources like water. The potential energy of water can be converted into electrical energy. In hydropower projects, the same principle is employed to get the desired results i. e., electricity. The electricity can then be used according to the needs and usage.

According to various researchers, societies advance and they need more intense form of energy like rocket fuel as a replacement for of gasoline. Such steps will can enhance the transportation system. It will be pollution free. In other words, it will be environment friendly. Now-a-days, ultra-capacitors are being developed to replace the batteries in cars. The ultra-capacitors are much lighter and more energy efficient than the lead-acid batteries. Also, another technological revolution is knocking at our doors. The permanent powered magnet in motors is an emerging tendency that already hit the market. These developments featured the environment friendly aspects of the technology. Such trends in the latest technology fulfil the need of being cautious about the alternative energy supplements. Spiral Wankel Magnetic Motor and other different designs are some of the new developments that will revolutionise the transportation system of the world.

The introduction of electricity and magnetism in the transportation system

has been a real challenge. But, the engineers from around the world work for the sustainable engineering that can produce better results. Electrical and mechanical engineering is a very broad specialised field and the main thirst for these engineers is to enhance the present transportation system. New vehicles are being created that can fulfil the present needs from a human and environment perspective. Introduction of green technology fulfil some better hopes to handle the ecological needs.

Strictly speaking, these advanced technologies will boost the efficiency of the transportation system of the world. It will be fast and well monitored, fulfilling all the aspects of dependable transportation.

Traffic jams and congested traffic has been a very irritating concern in the world today. It is present everywhere as the human population is growing at a fast pace. Development induces an urge for the individuals to have a better life and everyone needs a vehicle. This results in jams and traffic congestion. However, there is a solution for this and that is not very far from its application. Magnetic levitation or Maglev is a latest technology that improves mass transportation. This type of transportation becomes increasingly popular in the few decades. Such technology is facilitated by using and magnetic fields electromagnets. The basic principle of Maglev is that magnets on the train are either attracted or repelled by the train's track, called a guideway, initiating the train to levitate. In other words, these trains use magnetism to "float" without any friction on a special track. It results in the creation of a faster and effective method of transportation. Magnetic propulsion is used by the Maglev to accelerate and decelerate the train. Such trains are very efficient and can reach up to the speed of three hundred

miles per hour. Transrapid in Shanghai (China) is currently one Maglev system open and running commercially. The Transrapid uses electromagnets in the train car and track to provide the lift and propulsion energy essential to move the train. Transrapid is a German design.

The Central Japan Railway Company's JR-MLX01 train in Japan uses superconducting magnetic coils in the train, not the regular electromagnetic coils. This type of system is known as an electrodynamic system. The JR-Maglev design can increase the Maglev speed record at 361mph. Another type of levitation is being developed in USA, called Inductrack. Such engineering is very sustainable and have proved the better results so far. The design is being developed by the Lawrence Livermore National Laboratory in California. This design aims to lift and propel the train without continuous electrical energy used in the track or the train. These technologies are surely boosting the demanding needs of the transportation system in the world.

The implementation of such technologies can benefit the people of the world in many ways. The arrival of the rail system can benefit the rural areas of the country and decrease the rate of fossil fuel usage. The commencements of transportation in many countries initiated with the rail system, before the mass use of vehicles. Many cities in the United States and other countries have already implemented the foundation stages of using the rail system as it was intended to be used when it all began.

Scientific inventions and innovations facilitate the supportable survival of the human population. The technological and industrial revolutions are the driving forces for better persistence of the mankind. The sustainable

innovations in the transportation sector are proving to be a better option for future. The technology is efficient enough to support the better existence of the people. For example, the ultra-capacitors are highly efficient in every aspect. Its introduction is less harmful to environment and its efficiency is far much better the normal lead-acid batteries. Such technology is categorically a sustainable one and such technologies need to be extended and appreciated. The utilization of ultra-capacitor can highly boost the transportation sector.

Strictly speaking, the utilization of electricity and magnetism in transport system will prove a boon to the mankind. Green technology and sustainable engineering are the aspects of the present technology. Everything has to be green; means that whatever the technology is, it has to be environmental friendly. Also, such technology is efficient in presenting itself to the general human population who uses the technology. Employing such technology is unquestionably a step to reduce the issues associated with the present day transportation and all. Sustainable technology makes the world sustainable and makes the world a better place to live. Such technology uses fewer resources but gives more results without harming the environment.

Electricity and magnetism technology is sure a sustainable technology and its use is proving a better possibility for the future transportation.

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