The Life of a Hybrid Car

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You’ve surely heard of a hybrid car before but have you ever thought about what really defines these shining vehicles? Is a hybrid car a flying device run by computers like you see in science fiction movies or is it a car only with an added electric motor? Any vehicle is a hybrid when it uses two different sources of energy. A common example found in our everyday lives would be a hybrid car that uses gasoline and electricity. Did you know that when you burn a 6 pound gallon of gasoline it combines with oxygen in the air to produce nearly twenty pounds of carbon dioxide (CO2)? By switching to a hybrid its amazing how much you can help our environment. In these next paragraphs, you will be able to learn how the hybrid hullabaloo got started, how these cars help on the road, information about double engines, and how much hybrid cars really help our world.

The first hybrid car was designed by a man named Kenny Kuras then manufactured and developed by the Toyota Motor Corporation. It first went on sale in 1977 in Japan, being the first mass-produced hybrid vehicle. There may have been hybrid cars before this one, but they had not been generally sold to the public. Later, this car was introduced worldwide in 2001 with its largest markets being in Japan and North America. The Toyota Prius is the most fuel efficient car sold in the U.S., as declared by the United States Environmental Protection Agency. The EPA and California Air Resources Board rate the Prius as among the cleanest vehicle sold in the United States. Did you know “prius” means “former or before” so hopefully cars like this one will be coming soon!
Accordingly, hybrid cars are much more advanced and difficult than normal cars because of the merging and the use of a double engine which uses two sources of power. There is a great question to which battery is the most efficient. The EVI, an electric car that General Motors created and released to a small number of California motorists was outfitted with lead-acid batteries. These could carry the car around 65 miles of typical driving but this battery was replaced with nickel-metal-hydride (NiMH) batteries that could go 100 miles of typical driving between charges. The Toyota Prius uses this battery which only has to contain 2 kilowatt-hours of energy. Another battery not yet chosen to be in a car is lithium-ion cells which are found in laptops as batteries. The reason they have not yet been introduced in a car is because they are still trying to be proven as low cost and safe. Laptop batteries have previously burst into flames and caused massive safety recalls.

Surely, you’ve heard the term “double engine” but what does it really mean? In a usual hybrid car there is a gasoline engine and an electric engine combined to be a “double engine”. First, an electrical engine is made up of a battery, some of which were in the previous paragraph. This double engine is controlled by a computer to work on the road. Different commands from the computer are given to the engine for types of maneuvers the hybrid can do. When starting a hybrid car, the motor converts gas to energy to store in the battery. Also, when it turns or accelerates the electric engine and motor are both used to propel the car? If you are cruising on a
highway the battery provides all the energy to move while the motor is off, or not creating energy. To stop the car, the brakes actually convert energy into electricity that is stored in the battery. All of these changes are controlled by a computer which makes hybrid cars a lot more confusing than regular cars. Today’s quick computer processing is making hybrid cars everywhere a reality.

The main reason why hybrid cars were created was to conserve our environment. With all the problems of pollution and global warming, our world could use this new invention. Hybrid cars reduce carbon dioxide entering our atmosphere and they also increase gas mileage which means it takes less gasoline to run a hybrid car than a normal car. Some hybrid cars can cut gas bills in half and drive up to 60 miles per gallon. A Ford Explorer gets only 25 miles per gallon so a hybrid car is a huge environment and money saver compared to a normal bulky car. Let’s say a hybrid car that drives 60 miles per gallon and an Explorer that drives 25 miles per gallon both drive 120 miles. When you do the math, an Explorer emits 96 pounds of carbon dioxide while our hybrid car emits only 40 pounds of carbon dioxide! What a difference!

As you can see, there are many factors that are used to develop new hybrid cars. There has to be efficient batteries, engines, and motors. But, without quick computer advancement it will be near impossible for hybrid cars to improve. Computers moderate the battery, control how much of the motor and engine work,
and also when these parts should be working. Definitely, all this technology is
greatly helping our environment and the hybrid car needs to be closely followed up
by more models. Its amazing what can come out of electrical energy, a motor, and
last but not least; a computer!
Pictures
Works Cited


