Gps Essay, Research Paper

When cars were first invented, something like an electronic map that “pin-points” you on the globe and could find the shortest route for you to take to get to your destination in your car would be rediculous, and would only be dreamed about

by the people with the greatest imaginations. But today, this concept is reality, in fact, is being used by millions of people around the world right now. It’s all done with something called the Global Positioning System, (GPS). Today it is very simple

to use this. In cars like Mercedes, Lincoln, BMW, and a few others, computers are installed directly into your car before you even buy it. But not everyone can afford cars like those, so you can buy computers to install into your car, these are also very

expensive, but probably more preferred for those who just want the computer inside their car. But there’s also another option, however, less convenient; laptops are being used by millions of people everyday, so with a CD-ROM drive and a GPS antenna, you can hook up your laptop to your car with an antenna and have the same results as the ones that come with cars.

Just because we have these in our cars however, doesn’t mean that we won’t get lost, but it is more difficult to get lost, and it’s definetly easier to find your way around if you do get lost. When get in your car, all you have to do is type in your destination and the computer will show you where your destination is, aswell as how to get there and the easiest and fastest way to get there. These systems are being used to make everything more convenient, easier, safer, and quicker for not only the user of the navigation system but everyone else too; for example, if someone is hurt, or even if a house is on fire, 911 will dispatch vehicles containing computers hooked up to the GPS, this will make finding the accident, quicker easier and can save people from death or excessive injury.

The GPS is an all purpose system, meaning that it can be used for other things than cars, in fact, it wasn’t even made originally for cars; back in the 80’s the first GPS was used to navigate boats and airplanes, but the GPS became such a great tool that they decided to make them compact, and put them in cars. And you don’t even need to use it with cars, planes or boats, you can easily at any time hook

the antenna up to a laptop, and put the CD in if you’re ever lost, anywhere, any time and for any reason. It’s a new age compass that does more than it needs to.

Since the GPS is being used so much it will soon be used by everyone. It is such a useful tool and you must know how it works. The GPS “pin-points” you by doing something that we call “triangulation”, here’s what it does; only 3 of the 24 orbiting satellites are used. Each of the three satellites measure the distance between it and you. Say the first satellite measures that you are 19 000 km away, so you are definetly somewhere around the sphere (radio feild with a radius of 19 000km). That narrows it down a bit, but not enough to find out where you are, so we have a second satellite measure how far away from it you are. So, say this one measures that you’re 20 000km away from it, so you’re now somewhere inside the space where the two spheres meet. This narrows it down alot, but still not enough to tell you where you are, so a third one will do the job. Say the third satellite measures that you are 21 000 km away from it, this means that you have to be on one of the two points where the three spheres meet. We do not need a forth satellite because one of the two places where the three spheres meet are ridiculous because you would be either somewhere out in space, or travelling at an impossible speed, the chance of that point being you is 0 unless you are out in space, which you usually aren’t, so that point can be easily eliminated by the computer.

But with cars, scientists and mechanics are working together to try and find an even easier way to get around, they’re called “Smart Cars”. Smart cars are basically regular looking cars that have something like the navigation system but also works like a cruise control, alot like what many of us would call “auto-pilot”. Smart cars will work like this; you type in your destination into a computer alot like you would in the GPS navigating system, then, the car would begin to drive itself around using the same easy routes that the GPS navigating system gives. The roads, they say, would have pegs beneath the pavement containing information on when to turn, when to slow down, etc. This would save lots of patients and could put an end traffic jams, accidents and other transportation problems. However, this system isn’t figured out perfectly for there would be many problems with the car knowing where other cars are. Plus we would have to tear up the roads to stick in the pegs and there are lots of other problems. So, for now computers in our cars telling us where to go and how to get there is enough, “Smart Cars” are still a thing of the future and I think that they will be for a little while longer, but the idea is still there.

There is also another suggested that a smart car works; instead of being driven by pegs in the road, it has ten small cameras with sensors. The sensors would detect when to turn what speed to go and other needed functions. There would also be a switch on the dash board which would set it either to “manual” or “automatic” there are a few reasons for this; the driver could either want to drive him/herself or he/she would want to park the car. This smart car would be alot safer to padestrians than the first smart car; if someone was walking across the street and

the first smart car was driving quickly, than the padestian would get seriously injured, but with this car, it would either slow down or change lanes.

Technology is progressing quickly and not everybody always has enough money to go with it, especially with these expensive devices in your car that give you directions that are always good, quick, and easy. Finding out how to get somewhere on your own is becoming a thing of the past. Paper maps aren’t being used as much as they used to. Tours of cities are no longer needed as much. But since all this is so expensive, our memories, paper maps, globes won’t become extinct, in fact they will be here forever. Technology is getting more complicated every day, and our lives are getting easier every day, creating less stress and more time. Navigation systems in cars, planes, boats etc. are a good way to prove it, and its all done by science.