

PROBLEM STATEMENT: PREVENTION OF ROAD ACCIDENTS

WHAT IS THE PROBLEM I'M FOCUSING ON?

The problem that is chosen is targeted towards the prevention of crashing of vehicles in roads due to rough travelling.

ELABORATION ON THE PROBLEM CHOSEN

Say for example, a driver is driving the car at a very high speed (knowingly or unknowingly), when his car comes close to a stationary/moving car, it can crash. Due to rash driving, car crashing occurs and this leads to fatal accidents on highways and main roads. So, the cars get damaged and even the passengers meet with the accident.

WHAT AM I GONNA DO TO SOLVE THIS PROBLEM?

Installation of an (a thin) electromagnetic lining around the body of the car! We all know that like poles repel and unlike poles attract for magnets. Having an electromagnet line that covers the surrounding of the car can help solve this issue. One of the poles of the electromagnet can be made to face outwards while the other pole faces inwards. The strength of this electromagnetic lining can be made a constant and then varied automatically. Where does the electricity come from to make get these EM lining to work? Well, the border (in case of open roof or the whole roof top) of the cars can contain solar cells which absorb solar energy and provide electricity to run the electromagnetic lining. When all the cars have been installed with same polarity of the electromagnet facing outwards, repulsion takes place when they come close to each other. There exists a magnetic field around every car which makes the repulsion happen between the cars. This greatly prevents the direct contact and thus the crashing of the cars. An automatic sensor can be installed which sense the level of repulsion which equalizes the effect.

HOW IS MY IDEA DIFFERENT?

It uses solar cells to power the EM linings so external batteries are not required. Even when the car is switched off(parked), the solar energy enables the EM lining to be active and protects the car from not getting crashed. Also, the car doesn't move if the speed of the other passing car is not too high. The sensors enable this. So, if a normal car is passing by, it won't repel away all the cars around it. The repulsion happens at high speed that is detected by the sensor because the magnetic field will slightly increase when the car speeds, this is caught by the sensors in the other cars thus enabling it to become alert.