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| University English II (11000322)  English for Engineering  Dr.Tasneem Shaer |
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The project Name:

*Sensors in cars*

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***Group Number: 6***

***The lectures time: 1-2***

***Sensors in cars:***

A vehicle sensor is an electronic device that monitors various aspects of a vehicle and sends information to the driver or to the electronic control unit (ECU). In certain cases, the electronic control unit automatically makes adjustments to the selected component based on the information received from the sensor.

Uses of sensors in cars:

Sensors made life easier for drivers, it helped to detect defective components easily, automatic control is common in cars that have sensors such as windshield wipers and headlights, and the engine is properly maintained with the devices, every adjustment is made precisely with the information received from the sensors, the driver receives warning information about bad components.

In the 135-year history of cars, safety and security have evolved dramatically to make cars one of the safest transportation.

It started when the first car was invented in 1885, then in the 20th century a lot of companies started auto industry and cars became quickly available to the public, as a result the number of human deaths has increased rapidly

The first safety device invented was the seatbelt in 1800 by the British engineer George Kylie to connect pilots inside their gliders. It hasn't been developed until 1958 by Edward Clagorn to keep taxi passengers safe

Then airbags were first invented in 1951 by Walter Linder but it was manually released by the driver.

It was developed after 17 years in 1968 by Allen Breed to an automatic airbag

The two ideas revolve around the safety of the people in the car due to the seriousness of what a person may be exposed to in the car, whether it is the driver himself or the passengers.

We are now in the era of technology, so we thought of a way to develop sensors to serve people in preserving their lives

# Nowadays, people spend most of their time in the car, as it is the most common tool for transportation, with the same rate of car prevalence, the percentage of people with chronic diseases has increased, there was a need to link medicine and the car, so the most appropriate option was the sensor

# The idea is to help people with chronic diseases monitor their heart rate and blood pressure through a sensor distributed around the steering wheel and connected to an alarm inside.

# This sensor connects to the fingers of the hand around the steering wheel and measures and gives readings on demand, but when blood pressure or heart rate rises, it gives a warning to the driver that the measurements have exceeded the normal limit where this information is displayed on the top of the car's center display.

The importance of this idea

Reducing some of the accidents that occur due to these diseases

Ease of knowing blood pressure and heart rate and dispensing with a pressure device

Act faster when exposed to a state of high blood pressure, thus preserving the life of the person who drives and maintaining those who drive other cars around him

Future development:

It is also possible to work on developing this sensor so that when the blood pressure rises to a dangerous level, it gives a warning to the driver to stop and then sends a message to the nearest hospital so that this alarm is connected to the hospital and the hospital is automatically connected to the location service (GPS), so a message is sent to the nearest hospital Where this driver stopped and went to him in the shortest time and helped him

As for the second idea is

A sensor to safeguard children's lives in enclosed vehicles.

Some parents may forget their children in the car, sometimes they forget to drop them off at daycare or at home.

Generally, they forget to check the backseats of the car, where the babies are usually kept.

or a child may climb into a vehicle, get stuck and unable to get out.

Being locked in the car might cause the children to experience seizures, heatstroke in summer, or suffocate from lack of oxygen, which could result in death.

According to the recent studies, every year an average of 40 children die from being accidentally left in vehicles.

Solving a problem like this is absolutely necessary. Sensors can be such a good solution for this problem.

A sensor that detects when the vehicle has stopped and the child is still inside, then it will alert the driver, if the driver didn’t respond, the vehicle will make noise to attract nearby attention, if still no response is received, the vehicle will then call emergency services to come check on the vehicle and rescue the child.

The importance of this idea