**Vision statement**

Goals :

It is a matter of time before autonomous vehicles enter the routine life of human beings.

Today there are a number of issues that will be solved by an autonomous vehicle **:**

* Road Accidents - 94% of road accidents are due to human error.
* Efficiency - optimizing the driver's time by being able to perform his occupations while the car drives itself.
* People with disabilities - providing an opportunity for people with disabilities who are currently unable to drive, move around using an autonomous vehicle.
* Economic - cheaper insurance as a result of reduction in accidents, and reduction of reports and fines due to human error.

Autonomous cars will improve the quality of life and in particular the problems mentioned above.

The aim of the project is to deal with and explore the technology of autonomous vehicles, to impart autonomous capabilities on a small vehicle.

Scope :

In the project we will deal with image recognition algorithms.

In the project we will not deal with real vehicles but only with small vehicles.

High-level features :

* Real-time data analysis by the camera located on the vehicle
* Real-time image processing using a tensor flow library.
* Using the wifi antennas embedded in the vehicle.
* Ability to analyze the image in real time.

Milestones:

• Implementing tensor flow for the Android environment and creating an apk file

• Ability to control the vehicle by using the tensor flow library in Linux

• Work on a low-resolution person class (no success rate)

• Working on high-resolution class person and setting a success rate threshold of over 50% in identifying people at different distances

• Activation of the vehicle by Android operating system instead of Linux

• Development of the vehicle to the point of being able to identify people traveling and perform actions accordingly

• Qr code identification

• Identification of other vehicles, crossings, traffic lights and obstacles

• Create a log file with coordinates and output- of accuracy percentages on different objects

• Simulation of travel on the track without obstacles. Ability to drive the vehicle straight, right, left, and stop

• Simulation of a route trip with obstacles. (Humans, pits, sharp turns)

• Execute a route at the most optimal time

elevator statement:

For all users of all ages who interested in high tech that want to take the world to the next step, the autonomous car is a luxury product that allows costumers to buy High technology in cheap price , unlike other companies that share same results but more expensive , despite the fact that our product was created by high technology the product is accessible for anyone who desires it .