White Paper

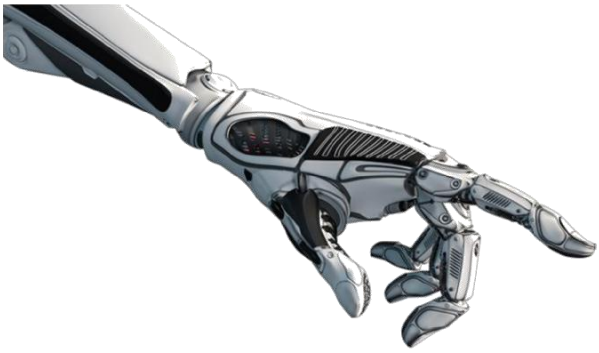
SMART CAR

A NEW INNOVATION FOR HUMANS

CONTENT

ABSTRACT

In this modern era people want more ease in their everyday life. Everything is moving fast. The world is moving towards AI, IOT, with the help of these technologies our aim is to design a car that will be the new innovation for disable people, for those who don't know driving, those people who don't want to go with driver, those who are afraid of driving. So our aim is to designing a **S**mart **C**ar that will be controlled by your voice, user just has to command it the destination and it'll not only monitor the route but also detect the shortest path to get you to your destination (your command)



PROBLEM

Disable People:

Public Transport: In all transportation wheelchair users can't travel through local transport. There is not a feasible way to travel by public vehicle.

Private Transport: If we talk about the private transport so these people always dependent on other people. If these people want to go somewhere so it's gonna be almost not possible for them.

Driver Issue:

Public Transport: In Muslim countries most of the women don't want to go with driver, they feel unsecure.

Fear of Driving:

Private Transport: Many people don't want to learn driving because of their fear, and afraid to drive on road but fond of travelling

Traffic Rules:

Public/Private Transport: Many time people don't follow the traffic rules, break the traffic signals for their benefit.

Path Problem:

Public/Private Transport: In development countries some drivers don't give way to the ambulance. This is really a big problem.

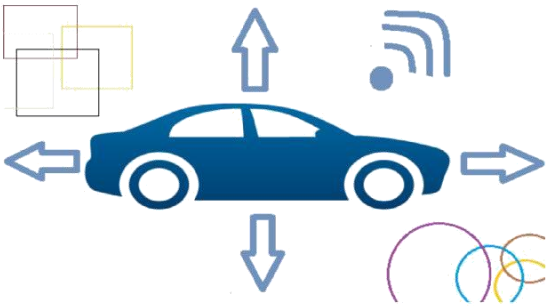
Can't Drive:

Private Transport: Most of the time user has a lot of office work, and it's time for your office and user have still some task left to complete, your driver is not on duty for some reason.

OVERVIEW

In the proposed design,

User control the movements of the car using voice commands from the user. These commands are conveyed to the robot(car) by using an Android Application. The goal of Smart Car is to listen and act according to the commands received from the user.



It is also controlled by telling the directions (forward, backward, left , right) and then the car will move according to the given directions.

It will also follow the traffic rules by sensing the traffic light colors. Also follow all traffic rules and signs of the traffic cop

It will detect the hurdles not only in front of the car but also its left or right hurdles whenever there is a hurdle around the car.

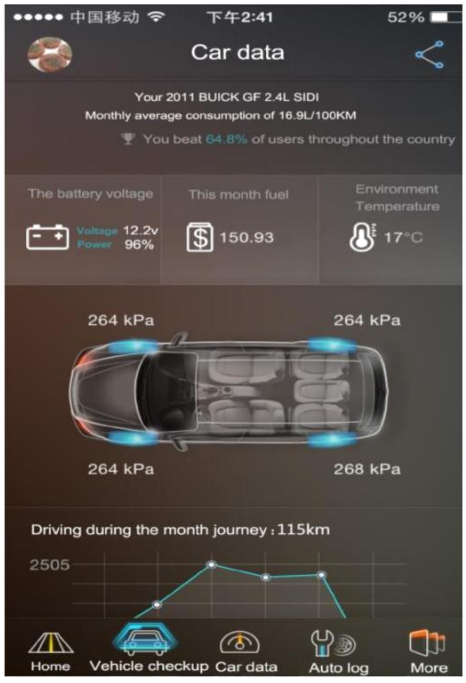
PARTICIPANTS & TARGETED AUDIENCE

The autonomous car platform target those people who are physically disable who can't drive, those who don't know about driving or afraid to drive so by this idea and innovation people get technological services.

EXAMPLE USER STORIES

Car Info:

Our application will show the car information about the fuel, environmental temperature, shows to current path through map. The system will show the previous destination, speed of the car.



Voice controller:

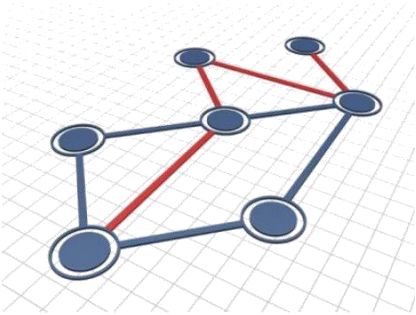
The car will be controlled through voice. So that whenever user wants to start car, user will say start the car and car will start.

Mobile controller:

If a user is dumb so he can start a car by using mobile application or user can give the command through mobile application.

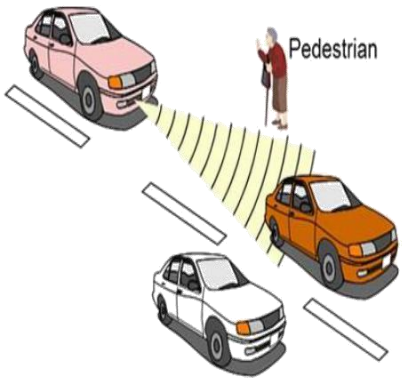
Shortest Path:

The car will move choose shortest path. Whenever a user want to go somewhere he will give the final destination to the car and it will calculate the shortest path to the destination and move on this path.



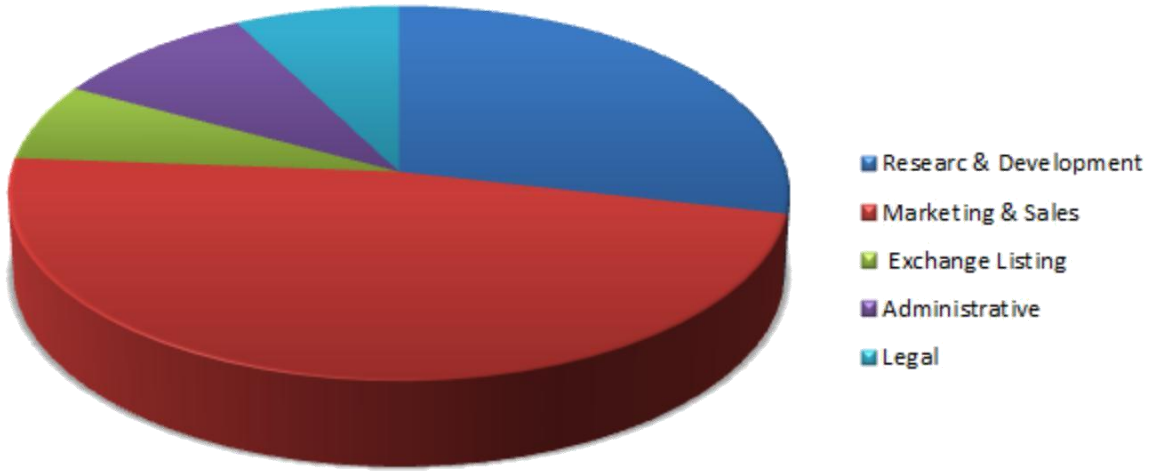
Detecting Hurdles & Follow Traffic Rule:

The car will detect hurdles by using the hurdle sensors and change its direction. If there is a hurdle in front of the car, car will detect it and change its path according to the code programmed in the system and follow the traffic rule by detecting the traffic lights.



FUNDING & BUDGET

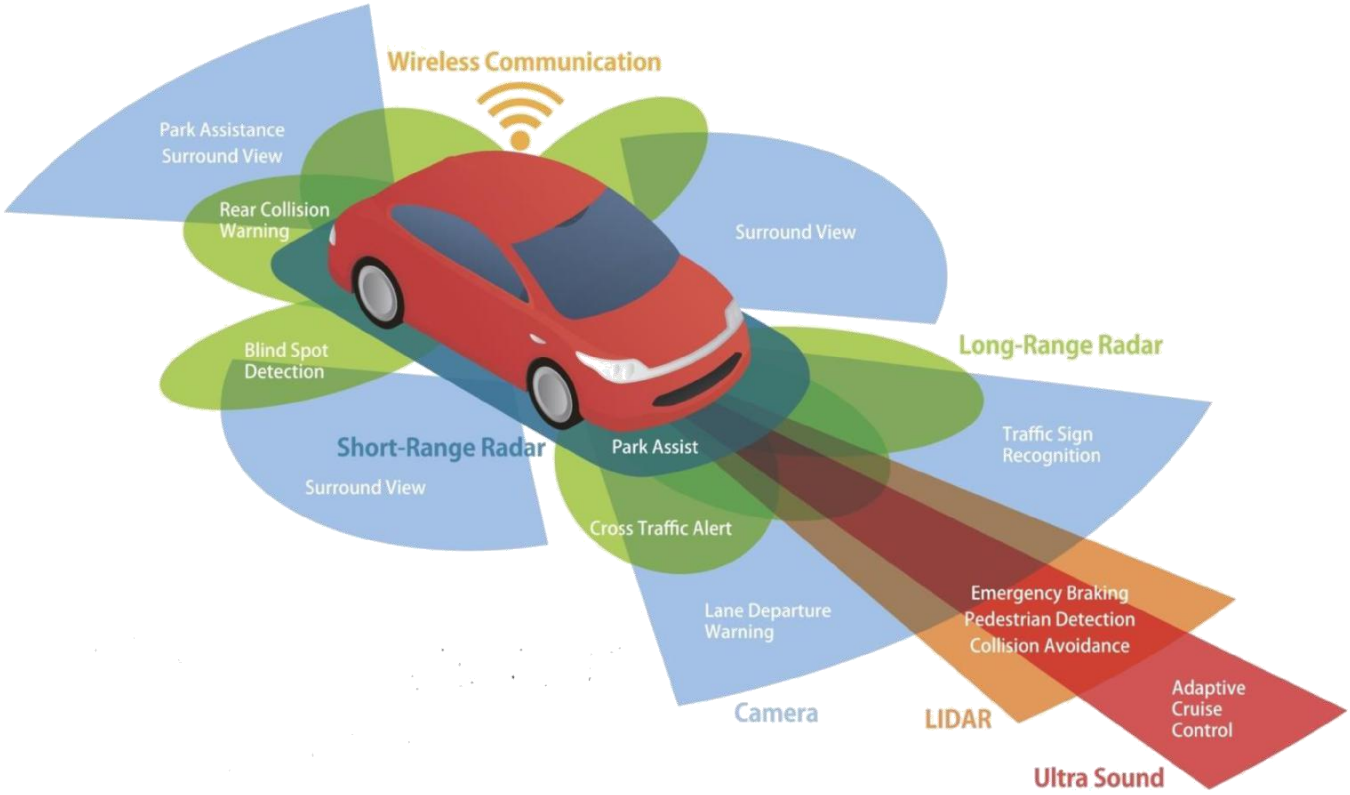
We are committed to spending our funding responsibly. Below are our plans for properly allocating the assets to deliver the best possible solutions



FUTURE DEVELOPMENT

In future,

we plan to deploy a built-in camera in our Smart Car. If this car is using as a public transport so the camera will capture the image of our passengers which will help in retrieving information in case of criminal activity, suppose a criminal activity has happened during a ride, so the information like passenger's face will be stored in our DataBase, then the system will be able to identify the passenger through image that will help in controlling criminal activities.



WHY YOU SHOULD BUY/HIRE?

Our Smart Car is solving the basic issues, that is satisfying the user to buy this product

Disable People: By using our Smart Car these people don't need driver to go anywhere. They just to sit in the car and command it the destination, Smart Car will leads user to his destination.

Driver Issue: Our Smart Car replace the drivers, there is no need of driver, so user can easily go in Smart Car without driver interference.

Fear of Driving: Smart Car is controlled by voice and no need of driver so anyone who doesn't know driving or afraid to drive can easily travel through our product.

Traffic Rules: We program our Smart Car to follow the traffic rules.

Path Problem: Our Smart Car not only detects the hurdles but also detect the ambulance horn to give the way to the ambulance.

.

Can't Drive: User can easily do work or any task of your office, just give the command to the Smart Car and it will automatically leads you to your destination.

PROJECT TEAM

Nehal Ayub – Coder, Designer, Developer

Salman Ayub – Hardware Specialist