

## Flying Car

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**ABSTRACT:** *It has become appallingly obvious that our technology has exceeded our humanity. -Albert Einstein. The Above Word describe about the technology development. The transportation is mostly depend upon the use of roads. Traffic Jams is very serious factor which waste our time, fuel and also giving trouble to emergency services like fire services, Ambulance , Police vehicles etc. When vehicles are fully stopped for periods of times, this is colloquially known as a traffic snarl-up. Traffic congestion can lead to drivers becoming frustrated and engaging in road rage. Our project has the pros of using the Vehicle in emergency and urgency times. For this we design a small extra Changes in the car to fly. It use three electric rotor motor with the hydraulic actuator. This Motor Fly upward first and then to front, right, left and turnings. Use of Battery it can fly up to more than three hour.*

**Keywords:** *Actuators, Electric motor, Traffic control, flyable car*

### I. INTRODUCTION:

Today's cars has the following cons which affect our expectation. These are the some of cons the first and foremost factor is Traffic Jams is very serious factor which waste our time, fuel and also giving trouble to emergency services like fire services, Ambulance , Police vehicles etc. Accidents occur due to unskilled drives, over speed, drunk and drive etc. It also cannot used in Floods area, Natural disaster area, for crossing a river in non bridge constructed area. To over come this cons and give all cons into pros, our project will help. It doesn't have any traffic jam in air navigation and it can used in emergency situation, floods area and natural disaster area too. A company has announced of releasing flying car in 2015. But that car can accomplice maximum three members. Use a propeller for pull it and use lot of energy. Our project can capable of flying the entire car with whatever the maximum capability of the car and also provides the security to the passengers. We use a composite material to the weight of vehicle with same or more than the factor of safety of the actual vehicle.

### II. EXISTING SYSTEM

Lot of system has put forward by government to control traffic jam and avoid road accidents. Such as LASER guns, RADAR etc which are expensive. A company has going to launch which are similar to car. But it is accomplice on two to three members only. They are also having the following disadvantages, They are expensive. They suggest major changes in automobile architecture

### III. PROPOSED SYSTEM

Flying car encompasses the following modules:

#### **3.1 Actuator:**

Actuator is a device which is operated by either hydraulic or pneumatic fluids. It can do heavy work with a small applied force. Here the actuator is used to pullout the wing like shaft first and another actuator turn the motor set to 90degree upward.

#### **3.2 Composite Material:**

It is the combination of two or more material which give the similar property of the material to be replaced. It is used in car to reduce the weight with more strength.

#### **3.3 Electric Motor:**

It is small in size but capable of do a heavy work with very good accuracy. It is used to lift the car vertically and move it horizontally with lifted height.

#### **3.4 Microprocessor:**

It is programmed to control the speed of motor by input from the motion sensor to turn the car.

#### **3.5 Sensors:**

A motion sensor is used in the steering. On the basics of small steering the sensor give the input to the microprocessor.

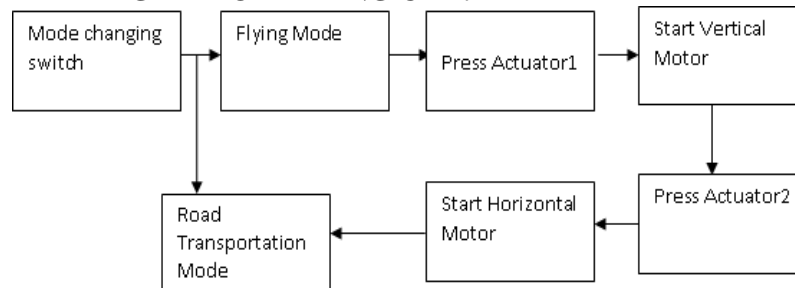
#### **3.6 Mode Changing Switches:**

It is used to change the mode either flying or road transportation modes.

### **3.7 Blades:**

It is made up of carbon fiber. Because it has a higher strength than steel with low weight.

### **ARCHITECTURAL DIAGRAM OF FLYING CAR:**



### **ESTABLISHING CONNECTION:**

We use three motors. Two for lift the car vertically and another one motor for horizontal movement of car. First of all when the flying mode is on and the actuator switch 1 is pressed. Then the actuator pull the wing like shaft and then another actuator inside that turn the motor set to 90 degree upward. After that Motor start switch is pressed. It achieve the enough RPM to lift the vehicle it lift it to 1-2km from ground surface. And then Actuator2 switch is pressed, it pull the horizontal motor set from the front side of car. Then press the Motor2 switch ON to move the vehicle for front and turning .

For turn the vehicle , just steer it to side to turn. The sensor give the input to Microprocessor it control speed of the motor on that side for turning or change the polarization of the motor for turn the vehicle in that side. For landing the vehicle first Off the Motor2 switch and then press the actuator2 switch for retraction of the actuator with the motor set.

Then press the Landing switch in the Switch panel. It slowdown the speed of the two Motor constantly. So, it come to landing slow as helicopter. After landing press the Motor1 switch OFF and then Press the actuator1 for retraction.

Now, it can change the mode to the Transportation by road for Roadways.

### **BATTERY:**

It is the power source for the Motor. It can supply the power to the motor for minimum three hour. There is a alarm which alert you when the battery backup is half an hour only. You can charge the battery by the use of solar panel in the top side of car.

### **APPLICATION:**

It is used in emergency conditions like accident case.

It is used in floods area for escape from that area, natural disaster area .

It can used for crossing the river where the bridge is unavailable.

It can used to reduce traffic jams.

It is used to travel to a place with a short period of time.

You can define your own path to reach your planned place.

### **LIMITATION:**

It can be used only upon the battery backup period.

When for take OFF and landing it require twice the track width of car.

The efficiency and for better speeding the vehicle must be in aerodynamic structure.

## **IV. CONCLUSION:**

Finally, I conclude that our project will be very efficient for future development of flying car systems. And also it is very helpful for the person who is in the emergence travelling. It is cheap as compared to other flying system. The battery can charge in flying mode. It provide us for traveling for a long distance too. The traffic is controlled and a lot of people life can be saved.

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