**Aim:**

Flying cars have always been the focus of development and trade throughout the history of automotive and aviation. In this article, the history of flying vehicles is explained, including some ongoing development projects. Technical challenges, particularly those related to elevation and strength, as well as problems related to broader acceptance are presented. Increasingly, people are interested in flying automobiles and the additional electrical infrastructure they require. This article also looks at the challenges and needs of developing a hybrid or pure flying electric car, explosion automotive and aviation strategies, and direct departure and arrival (VTOL)

A good flying automobile will drive like any other car on the road and fly like any other VTOL aircraft. However, numerous firms are actively striving to attain this aim. Transportation will be considerably improved by flying vehicles. They will also revolutionize the transportation sector and enhance living standards in many regions of the globe. Determine whether it can replace helicopters and provide flexible performance at a lower cost to the taxpayer with reduced air consumption, fuel consumption, and financial costs. In order to reduce congestion, a flying automobile would be an excellent choice of transportation. Rapid recovery or quick action is also beneficial to the police and military. To assist protect the environment, flying vehicles will slow down infrastructure development (i.e., building roads and bridges). To reduce the amount of air traffic control difficulties, they will build as many airports as we have. Electrical, mechanical, technical, signals, controls, communications, and many more related areas will be added to the list of aerospace-related industries. The flying automobiles weren't given much of a chance to shine. There have been, however, many independent studies related to land vehicles and aircraft. Since a flying car can be considered a powerful helicopter, much of the work done on the road and in the air can be used on flying cars. With the advancement of technology in the field of electrical power, control, electric engines, signals, and communications, the flying car industry could soon become a reality. Technologies related to electric and hybrid vehicles, electric aircraft, and other electric vehicles can be integrated to improve the efficiency of electric vehicles / hybrid power and low output. Following a brief history, this document outlines the problems with flying car construction, as well as the underlying infrastructure required. Also happening in the construction of aerospace development work and future strategies. In addition, this document deals with the construction of power and hybrid propulsion for land, aviation and VTOL

**Design Choice and justification:**

Flying cars are significantly more complex to develop than regular cars or tiny planes. The criteria for building a ground vehicle are so different from those for building an airplane that combining the two into a single system is a difficult endeavor. In addition, there must be a seamless switch from airplane mode to global vehicle mode and vice versa for the car to operate properly. An analysis of past designs reveals a compromise in road traffic mode to provide aircraft to fly. These vehicles usually have an unusual shape and size, making them inconsistent with other road vehicles. Many of these vehicles had unsafe design concepts such as proven control areas and avionics sensors. Several other designs endanger the flight mode. This has led to the development of an inefficient flying machine that cannot meet the desired or acceptable flying characteristics. The most common problem was not enough wing space. There have been several attempts to achieve VTOL power by using a powerful elevator. With the apparent increase in the complexity and power required for VTOL vehicles, it is not surprising that all attempts of this type have failed. For safety reasons only, VTOL airlines may be required to operate outside airports as other airlines as well,

Diagram

Description automatically generated Diagram

Description automatically generated

Figure 2: Power is backed up by a flying car during travel.

Figure 1: The power is supported by the flying car during lifting.

therefore, they are left with the same problem as conventional airlines. Adequate air traffic control required to manage hundreds or thousands of vehicles in the air is a major challenge. To keep a flying car safe, many advanced technologies are needed, such as automation control systems, hearing obstacles and avoidance, pilot auto-eject function, lightweight materials, reliable electrical power, and high-capacity batteries. Costs, regulations, airlines, air space management, licenses, and other major issues must also be addressed. Challenges include the following:

* Provides the maximum strength required from the vertical position
* Aerodynamic problems as an integrated system: file the challenges are different from a flying car in that of road car
* Basic power sources: engine, battery, or a combination of both for maximum power as well electrical energy
* The advanced properties of a given vehicle
* Control algorithms for stable performance across aircraft and integration with propulsion controllers
* Departure, arrival, and cruise profiles should be optimized for optimal performance
* Altitude: pressure may be required at altitudes higher than 12,500-14,000 ft above sea level, resulting in additional weight, volume, and additional electrical power
* Performance due to extreme weather conditions
* Active motors and control systems to manage stability during flight
* Signal and communication issues
* Meet all road levels as well air travel
* Safety and reliability

**Requirements:**

As a result, fuel usage or force must be reduced. Promoting flying automobiles requires strong engines or electric motors. Flying cars (UTD) have the following operational criteria, which help determine their energy needs:

* Velocity at sea: 150 mi / h (67.06 m / s)
* Walking: 10,000 ft (3,048 m)
* Vertical elevation time: 10 minutes (3,600 s)
* Motor range: 3,000 lb (1,360.78 kg)
* Width:> 300 mi (482.8 km)
* Maximum ground speed: 80 mi / h
* Operation of electric or hybrid car mode
* 40-mi range in pure electric car mode.

Flying provides power from the direct. For a vehicle with a maximum weight of 1, the entire value of the total note must be higher than 1. An absolute minimum vertical acceleration of at least 0.1g is required. This equation must be met if Newton's second law of motion is followed.

The acceleration and mass of the automobile are directly proportional. In order to meet the official classification of grade H, the VC climb must be at least 8 meters (assuming the initial vertical speed is zero)

According to the required description, the full-time required elevation to feet ( meters) > seconds, therefore, the should be the same

Taking the as, the required acceleration is the same

As you go, from , the speed is , the increasing velocity is adjusted at . Total time required by

This amount of climbing time meets the need for design purposes. In this case, lifting force (explosive power of the engine) is required

The energy produced is the energy needed to produce height. Assuming efficiency () ,

When the flying car is in walking mode, the power supported by the flying car, where,

From the Flift =W, the CL coefficient of height can be obtained. The elevator is always larger than the drag in the normal flight mode, thus creating the necessary pressure to overcome the drag. Then the produced elevator. In this category of vehicles, the average coefficient of gravity to drag the coefficient is in the range of 10-15.

Assuming we get

\* S

where S is the reference area which is the wing area and air density. The strength of a parasite is the force required to move an airframe into the air. With the strength needed to overcome the drag of germs. The power of HIV

In the example of the selected design, we find = 134 kW. The power of the rotor profile is the force required to convert the rotors. With the power needed to overcome the power of the rotor aerodynamic pull. Taking the power of the rotor profile is the same as the advertised power, the total power required

**Block Diagram:**

**A: Easy construction of a flying car (the only engine without VTOL power).**

Fuel

Engine

Clutch

Clutch

Transmission

Gear

Wheel

Propeller

**B: Electric flying and ground motors and lift engine only**

Fuel

Engine

Electrical Machine

Active Rectifier

Inverter

Inverter

Motor

Motor

Battery

Clutch

Gear Box

Vertical Takeoff Fan

Propeller

Wheels

Starter/ Generator

**C: An all-electric flying car driving system.**

Fuel

Engine

Electrical Machine

Power Electronics

Battery

Inverter

Motor

Wheels

Inverter

Inverter

Motor

Motor

Tilt Motor

Tilt Motor

**Safety Concerns:**

The most critical part of flying operations will be land / air change (departure / arrival), which will require NAS / FAA regulation, as well as proper management of the combined airport (rather than segregated). Another critical factor would be to deal with operational challenges and ensure safety in bad weather (e.g., heavy rain, high winds, snowstorms, etc.). The most important challenges facing trade the operation of FCTS is a security issue, arising from various features such as flying safety (including passenger weather-related protection), system-level safety (including collision avoidance / obstruction, search and rescue, intrusion and attacks on control networks), and the environment safety

**PROTECTION OF TRAVELERS**

Unlike traditional land travel programs, flying cars often operate at heights tens of up to hundreds of feet above ground. Therefore, if you look at the additional threat of Descending from a high point, potential disasters should be avoided, and passengers must be protected from accidents. Flying vehicle malfunctions (such as short circuits or fires) that occur above the bustling city, causing the car to crash again which can affect low-income people, is a real threat. Therefore, specific survival equipment and emergency procedures for FCTS are required. Flying cars should also be upgraded it is subject to certain security procedures to ensure safety to passengers, and to ensure the safety of people and places below the world level. This is necessary FCTS safety requirements pose many engineering challenges to manufacturers and producers of flying cars. Designers of flying cars should also pay attention the following items related to passenger safety issues:

1. Precautionary measures should be taken immediately and as effectively as possible.
2. Working during an emergency arrival, which is a cloud are made from a variety of species, in aquatic environments, in snow, trees, on buildings, etc.
3. Measures to combat aircraft fires (e.g., engine fires, electric fires, cabinet fires) and vehicle failure / vehicle control (wing rotation / flap failure, driver failure system, asymmetric or split flap, and loss of engine control);
4. Quantity and performance relative to passenger variants, e.g., Children, adults, and the elderly.

**HUMILITY OF CLIMATE CONDITIONS**

Because flying cars operate on NGS at various heights, they are sensitive to adverse weather conditions in their workplace. The strength of flying vehicles resistance to certain extreme weather conditions, such as thunderstorms and strong winds and rain, for example, must considered during the design phase. In addition, weather forecasting is also an important factor that must be accurately reported to the driver of flying cars. After that, the flexibility of the editing arrangement and replacing traffic in such extreme weather conditions are required from the entire promising process strength and durability of FCTS.

**PROTECTION / PREVENTION**

For other flying vehicles (such as UAVs, helicopters, etc.) share air space with flying vehicles, collisions are possible between flying cars and other flying cars. Therefore, in the case of traditional aircraft (helicopters and planes), flying vehicles should be equipped with devices that provide in advance warnings and detection of roadblocks, such as detection and avoidance technology developed for UAM with Honeywell. On the other hand, the world is helping monitoring network should be used to monitor file FCTS large operating space to provide traffic time control and organized services, especially in cities places. Like traditional navigation systems, FCTS will also face pressure from passengers during the race, and then other flying cars required for it to work. Under such circumstances, it is accurate monitoring, control, and discipline being essential avoid any collisions between flying vehicles.

**Collision Avoidance**

Using data collected from 180 countries, the World Health Organization said the death toll was high roads annually have flooded 1.25 million plains per year (WHO, 2015). Vehicles, and human factors are responsible for road accidents; Now, personal characteristics, can be with itself, or in combination with other factors, causes more than 90% of car accidents. Modern development in technology has brought a much bigger humanity to a province where independent regulators can help reduce it adverse effects caused by restrictions from human resources on driving performance. Although very important so that humanity can adopt advanced technology that will help reduce the number of road accidents, and emerging injuries, injuries, deaths, and other consequences, are also important to that personality big don't make the mistake of adopting new ways of air travel, if this transportation system doesn't come with reliable, automated collision avoidance systems.

**SEE AND FIND OUT**

When emergencies such as a crash occur, FCTS should be the same I was able to respond quickly through an emergency treatment plan. Specifically, search and rescue operations can design to help injured, disturbed passengers' car if the alarm is raised. Suitable emergency Response resources must be well-organized, allocated, and distributed in advance to FCTS workplaces. The Related search and rescue features should make it important components of system-level construction and construction of FCTS. In addition, a necessary foundation for effective search & Recovery raises the alarm in real time the shape of a colliding flying car. So, smart the monitoring system should be equipped with flying vehicles and not automatic recording of scene but also turn off the alarm immediately when unusual behavior / events occur they happen.

**INSTALLATION AND ATTACK OF MANAGEMENT NETWORKS**

In this age of information technology, isolation FCTS from information networks is not possible, so the FCTS control network will be at risk of re-entry attacks. Other defense schemes like those adopted in other travel programs they can also be used in FCTS to protect flying vehicles and prevent hijackings and used. In addition to the usual security threats, e.g., FCTS is also at risk of electromagnetic accidents attacks and intrusions, as they operate in a large open space from tens to hundreds of miles. Therefore, it is important steps should be developed and enabled by FCTS in order protect it from intruders and potential attacks threats.

**THE CONTINUATION OF SOUND**

Flying cars are expected to operate in urban areas that it will have regulations that regulate noise levels pollution. Designing flying cars to be quiet differently it is difficult, especially when used in large quantities commercial activities that could make hundreds of TOL every hour. Alternatives are suggested press the sound, not only from the flying car but also from CTS. For example, low-noise propellers / electric motors can be made with flying cars, and the sound index can be considered in the deployment and design of TOL sites.

In general, there are four types of TOL flight modes cars:

1) VTOL (VERTICAL TAKE-OFF landing mode) mode Aerial vehicles are moving up and down. Below this mode, no open roads required for departure or descent, other manufacturers they are at the forefront of the sale of flying cars. For example, Uber is working with its Elevate Network partners to launch troops small, electric VTOL aircraft and accelerating technological advances as well the investment could create a $ 1.5 trillion market by 2040

2) VTHL (ACTUALLY TAKING HORIZONTAL RESIDENCE) MODE: Aerial vehicles may turn upside down and return to the ground by installing taxis on the side of the road. Therefore, runways are required the descent process, but its departure is not limited to the road limit.

3) HTVL (HORIZONTAL TER-OFF VERTICAL LANDING) MODE: Vehicles by taxi along the road before take-off, too the earth is upright in its place. Therefore, escape routes are needed with the departure process, but there is a fluctuation in the descent process.

4) HTOL (HORIZONTAL TAKE-OFF LANDING) MODE: Aerial vehicles require a two-way traffic flow to arrive. This mode is the most common modified wing mode aircraft, and runways or ground foundations are always required. VTOL mode is obviously the best option flying cars operating in urban areas, where space to building runways is seldom found. HTOL mode says a good choice for rural areas, where there is enough space building runways.

**Aerial Vehicle Path Planning and Trajectory.**

Road / trajectory planning is an important issue in the field of FCTS. Indeed, flying cars are designed to work in urban areas to ultimately achieve short-term transport times and reduce traffic congestion. Still, high performance speed in the air can cause collisions and have an effect chaos between flying cars and buildings; therefore, in excess scientifically oriented approach and trajectory planning they are important. However, so far, there are no offers for planning the FCTS route now, especially dedicated VTOL routes. Therefore, some care should be provided to produce possible flight paths / trajectories he was killed in the air above the city, while it was being done at the same time efficient and safe transportation, in terms of avoidance any risk of unnecessary flight and potential safety

**1) LOCATION AND TRAVEL**

During the flight process, the most important thing for a flying car following a predetermined direction is accurate standing and roaming. Therefore, it reaches accurately Location and navigation details are important. Various methods have been developed to obtain the status information of an object, such as global positioning system (GPS) and mobile / wireless network (Wi-Fi). This technology exists used in many landslides. However, because flying aircraft often operate at high altitudes from tens to hundreds of meters, accurate to three stop details are required for FCTS accuracy find out where the flying car is and what the flight height is the car is working.

Radar is an effective tool for earth control centers. Accurate placement can be achieved by applying the new position and navigation algorithms that accept other reference nodes, as basic channels on the roofs of buildings / hills as well low-level platforms, for example, function as aerial 5th or next generation wireless access points communication

**2) OBJECTIVES OF PREPARATION PLANNING**

The purpose of the FCTS route plan trajectory is to perform produce 3D geometric patterns, from start to finish destination, passing through predefined points, either in limited areas designated by governments or in wildlife sanctuaries. Algorithms for route planning trajectory frequency categorized according to prepared activities in terms of travel time energy use (e.g., from acceleration, related to passenger experience), dedicated to satisfaction requirements in flight application settings cars. In addition, planning FCTS track with the traditional public transport system should enter the passenger experience while traveling in the air that can also be affected by weather conditions near trajectory.

**3) PLANNING A GREAT WAY**

Public transportation in urban areas where passenger the flow is relatively stable, commercially viable to provide structured modes for flying vehicles, such as ground-based vehicles. a public transportation system. There is something more common construction methods and significant problems that arise over a period road planning is like traditional bus routes (similar to traffic load), but some distinct features of FCTS it should be treated with care. For example, when you select TOL flying car sites, TOL process safety, noise pollution generated during the TOL process, also Unauthorized gaps defined by governments must be replaced considered. In addition, planned roads should be maintained and vigorously revitalized in terms of city development and regulations defined by government and local authorities.

**4) PLANNING THE ROUTE**

In addition to the public transportation systems discussed above, they exist and other conditions of application for flying vehicles in what are the strongest travel requirements, e.g., short walks and sightseeing, as well as customized services. Flying carriers should be able to quickly provide customers with an easy and effective way planning services according to their desired requirements

**COMMUNICATION SYSTEMS**

Communication systems are important for FCTS, which acts as the central nervous system that collects, delivers, transforms, and distributes information between flying vehicles, controls institutions, and data providers. There are two the types of communication systems needed to deliver FCTS and riders with control details and data communication services, respectively, as discussed below.

a) Signal control system: Signal control system for FCTS ensures good air traffic control, allowing flying vehicles from all participating companies to provide quality service, as well as profits from service. With route management, TOL sites can be supplied by flying vehicles in the event of accidents or a roadblock, or a road redesign service can be made available on the cancellation. Plus, flying cars can sent to the service immediately to avoid congestion, or even to they are often corrupt. Monitoring data collected through the control system can also be used to upgrade timetables as well and increasing the use of flying vehicles. The main objectives of the FCTS control signal system can be abbreviated as-

1. effective and efficient management of public / private transport.
2. good vehicle performance flow leading to a better passenger experience and reduction in the use of power.
3. integration with another community travel plans.
4. promotion of the use of FCTS by making them more attractive.

b) Data communication system: The purpose of the data FCTS communication system to provide standard voice and communicative multimedia data communications, viz is an important part of FCTS to improve the passenger experience during the travel process. Essential requirement of the FCTS data communication system is that be honest, seamless, sturdy, and provide the fastest details delivery. Given the fact that flying cars are expected walking hundreds of feet above the ground, cover rare earth wireless communication functionality systems in the workplace of flying vehicles will not be as good as that on the ground. So, new communication network design and system must be provided. For example, high / low platforms and LEO 5G satellite communications systems for future generations wireless communication, intended to provide seamless access worldwide communication, can be used to enhance FCTS data communication system.

**Control and Architecture:**

For large vehicles such as the U.S. Advanced Defense Vehicle Transformer Agency (DARPA) Transformer (http://mashable.com/2014/02/11/darpa-transformerdrones/), a different power transmission system can be used lift, plane crash, and ground movement. However, for smaller cars, using a different electric / hybrid system will add extra weight, volume, and cost. In addition, installing individual systems in the car can be great challenge. Also, if the thrust needs to be vertical the elevator is provided by the same engine (or vehicle) used by boat, this engine will be much bigger and harder to do have good performance during sailing. Inconsistencies will create high energy demand and, therefore, more fuel consumption, which leads to more restrictions flight list. So, it depends on the performance once distance requirements, different engines may be required Boating and VTOL performance. The engine is used to provide explosions and piloting. It will not be enabled VTOL. Through land tenure, the propeller is disconnected using a clutch, where it is not it works the same way as a car. During takeoff and landing, the engine drives only the propeller. With this VTOL and the force of flight, motor hybrid propulsion may be extended to flying automobiles. To charge the battery that powers the car's wheels, the APU must be connected to the vehicle's ground. A hybrid vehicle series is being built. For VTOL and aircraft operation, the turbine engine / internal fire engine is employed. When the engine and gearbox are in VTOL mode, the engine and gearbox are moving vertically. Engine drives horizontal propeller when sailboat is attained. Controlling the vertical inclination of the fan allows for a seamless transition from vertical to horizontal plane. When coupled with starter / generator for engine performance, the APU may operate the propeller electrically. Batteries are used to start the engine and the active repair unit converts dc electricity into variable voltage and variable frequency in order to give the engine with the necessary starting power. Motor works as generator when engine is revved up, providing electricity to charge batteries. the battery voltage is converted to ac by the inverter unit, which then powers the power transmission motor explosion. Using an electric automobile and an inverter, the propeller may be driven using the same dc power from the active output as is utilized in plane operation. Engine-driven vertical follower (or fans) for VTOL. With tilt-rotor fans, you may combine the functions of vertical fans with refugee functions. Powered rotors (also termed proprotors) are installed atop a tilt-rotor in order to produce lift and gravity. On a rotating engine pods or nacelles, usually at the edges of a limited wing or engine installed in the fuselage, with Rotor transmissions meetings are held on the sides of the wings ”[http: //en.wikipedia.org / wiki / Tiltrotor]. Unlike helicopters, tilt-rotor cars can move and sit down. Rotors are equipped with wings to function as conductors, giving them the appearance of helicopters. The rotor-rotated rotors may be tilted 90 ° forward to act as propellers, allowing it to take off and land like a helicopter and fly like an airplane with fixed wings. An engine and battery power a generator that drives tilt-rotor electric motors. Using the APU, you may simulate Earth's explosive force. The APU and the tilt-rotor generator can be integrated into a single system. When the engine is started, an active repair unit generates electrical power. Generating power generator is used to power ground power motor and motors drive tilt-rotors. The clean electrical design of the aircraft. The battery is a power source for ground, airplane, and VTOL. Divide electric motors are used to achieve the performance of VTOL, aircraft, and ground operations. Replace the battery enables the propeller and vertical fan, the system can also be configured to power the battery motors drive two tilt-rotors for VTOL and aircraft and a ground motion engine. In the formulation of the 15th diagram, for ground operation, instead of a generator powered engine such as an APU, a polymer electrolyte membrane fuel cell can be used to power motors on the ground. The hydrogen input to the fuel cell can be stored in a small cylinder. If there is not enough hydrogen by continuing to drive until the hydrogen filling station achieved, dc power in earth-transforming power can be found in the power output to change the tiltrotor path by closing the button. Another possibility that two electric motors running tilt may be connected to the drive shafts in a standard central gearbox so that one car can use both tilt-rotors in the event failure of any of these vehicles.

**Hardware Requirements:**

A system's needs must be defined before a system model can be created. According to the prior experience with AVs in disaster planning, this part explains the program's objectives from the standpoint of its development.

The current study is listed below:

* Building a multi-AV collaborative system for post disaster mapping.
* Selection of various types of AVs.
* Proper adjustment to reduce flight time.
* Testing the performance of AVs in the simulator.

To evaluate the performance of AVs, a variety of hardware simulators on the loop (HITL) are available. Although some simulators offer various AV choices, most test only a single model, making it impossible to evaluate different types of AVs. Objectives include aeroplane straps and altitude as well as stepping and vehicle speed. In the HITL simulator, a controller on the AV board is linked to numerous sensors. Data from sensors and the environment were fully incorporated into HITL, resulting in an AV reaction rather than the sensor data from a real aircraft during the tragedy Following mission design, waypoints are loaded and delivered to the AV controller over the network for display on the AV display. Flight plans are synchronised with flight controllers when mechanical configuration is complete. As part of the workspace and flight control storage, BASE STATION maintains AV aircraft data records. The HITL simulator provides sensor information in the form of this data (or sensors in real flight tests). It is the person or pilot who controls the AV and then develops mechanical systems, which is known as the operator (or global user). Aircraft design, shipping, command administration, and network and monitoring are the four primary components of the land user.

The BASE STATION unit performs many functions as listed below:

* Manage communication between AVs and Base station.
* Linking control tools to AV sensors.
* Setting AV boundaries.
* Build an AV aircraft system and manage missions.
* Sending orders and receiving information from AV.
* Monitor AVs in real time.
* Analysis and storage of videos and photos taken from the AV.
* Analyse data obtained and analysis.
* Simulate equipment and predict the results execution.
* Record recording aircraft logs and save them at work.

**Conclusion:**

The history of the flying car is still being written. Over the past 100 years, there have been numerous attempts to build a successful flying car. Very few attempts have met with technological success, and those that have worked at any level have been as ineffective as a car or a plane or both. With the right protections, flying cars can be the answer Our congestion is getting worse and helps improve air quality. Flying cars traveling hundreds of miles an hour can reduce congestion and allow us to live hundreds of years miles away from work. They will also develop the environment by reducing the need to build airports and highways. At first, they were not welcomed by the police, the army, or the immigrants. Agency before being distributed on a larger scale. A functional aircraft carrier should be able to be safely secure travel, flight, and arrival in any densely populated city nature. So far, however, no VTOL car has ever existed to demonstrate such skills. To produce such a plane may require a quiet and efficient development plan undisclosed rotor so that they can flow safely in urban areas Acne. In addition, they will need to work very well, lightweight, powerful engines. Many types of aircraft technology and state-of-the-art are suggested to be converted to flying cars. Coupling flights are usually easy to lose my balance and have difficulty walking long distances, while tilt-rotors are usually noisy. VTOL and short departure and immigration factors are very important in producing interest in flying cars. VTOL efficiency is better achieved with lightweight vehicles loaded with low wings. VTOL capability requires a high degree of weight gain, therefore, Power sources with low weight and volume approx. is very important for the development of flying cars. Turn on heavy materials such as aluminum and compounds are a must-tested physical component of flying vehicles. Simple designs will reduce fuel or energy consumption. The technology of flying cars is evolving, with options as well tools are now available to modern designers who were not in the past. With the advancement of engine technology, electrical equipment, electricity, energy storage, community communications, and controls, flying cars can be real. Electric construction is expected to play a significant role in the file the future of the complete construction of the automotive system, operation, and performance. In addition to power transmission systems, technology related to communication, control, sensors, packaging, security, avionics, and related technologies should be very high improved large shipping of flying vehicles. Electronic control, flight control, collision prevention, obstacle detection, avoidance of crashes, roaming technology, etc. are included in the automotive and aerospace industry. The hybrid propulsion techniques are developed for flying vehicles like Terrafugia TF-X and Skycar are the way of the future.

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