

Cybercopter Flyer - Claim

The purpose of the 'Cybercopter Flyer' invention is intended to provide the cool round shape flying vehicle like UFO which can be used to replace the existing helicopters and vertical takeoff and landing aircrafts. The Cybercopter Flyer is invented with 4 main lift-up engines which can be turbofan, turbojet or more advanced engines with Plug-and-Fly engine modules supports; and the 2 main turning and pushing side engines which are used to turn left or right while flying, with plus of the additional pushing engines on the back to help Cybercopter Flyer flying faster, hovering greater, balancing better and easy to fly compare to any other flying vehicles with great advantage of vertical takeoff and landing with the great Standier. Cybercopter Flyer can be use for air transformation, highway patrol, rescuing services, heavy air lifting, sightseeing, great fly-fighting for military services. Cybercopter Flyer can be built with bigger shape with 12 lift-up engines which can be used for heavy duty and large air transformation. The Cybercopter Flyer not only use for air transportation services, Cybercopter Flyer can be used for Space Programs to explore the universe and carry satellites into space to replace space shuttles and space launchers. This claim shows the overview figure of this invention which was submitted on 2024/10/23 with U.S. PCT/US24/52515 and International PCT/IB2024/000800 Patent Numbers, which can be used as the representing invention drawing to print on the patent frame and the following functions and features of this invention.

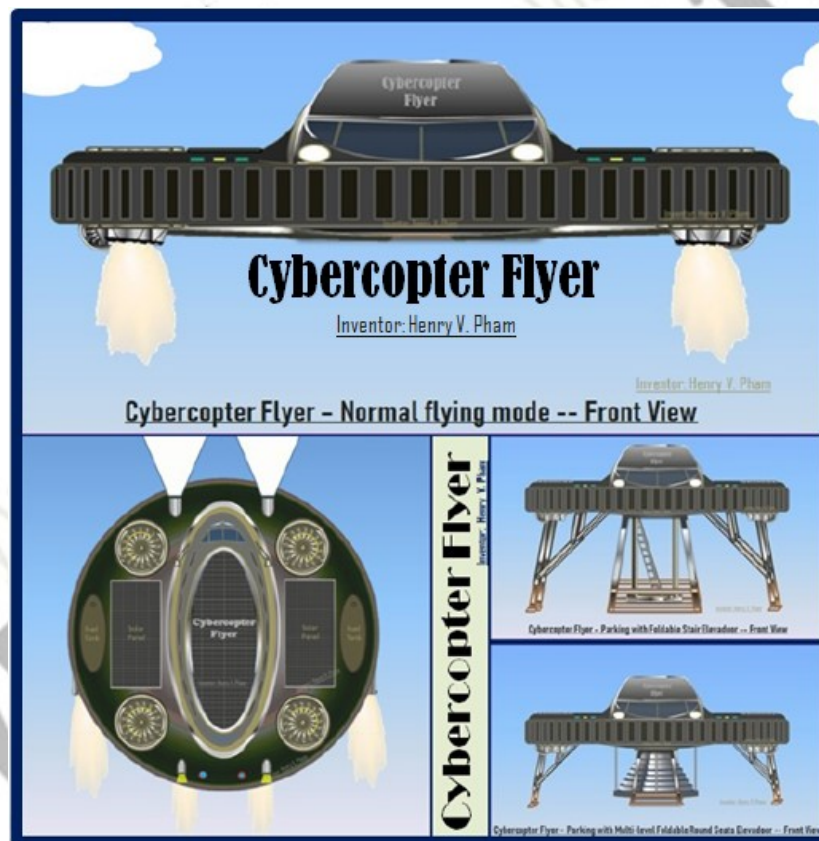


Figure-A: Cybercopter Flyer -- Overview

1. The main apparatus for the Cybercopter Flyer, comprising:

The Cybercopter Flyer could come with 4 main lift-up engines, 2 main turning and pushing side engines and the additional pushing engines on the back; Cybercopter Flyer would also come with

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Standier which would be built at the bottom and is foldable stand with legs for standing, and the Elevadoor would be built at the center bottom which would be used as an elevator with door to provide access into the vehicle. Wherein, the 4 lift-up engines would be built at 4-corners of the inner square of the flying vehicle round shape with rotation directions reverting on both side as recommended to keep the flying vehicle balancing easier; The engines can be built with hybrid engines or hybrid powers which would be fan engines and jet engines with Plug-and-Fly engine modules which is allowed to replace different vendor engines easier; The Cybercopter Flyer would be built with Speed Pedal, Brake Pedal, Yoke with Up and Down joystick which would support “fly like drive a car” with front, sides, back and bottom cameras. The website www.TheCybercopterFlyer.com describes more detail about the Cybercopter Flyer.

2. The main functions operating apparatus for the Cybercopter Flyer, comprising:

The Cybercopter Flyer would come support common behavior of “fly like drive a car” with Steering Wheel/Yoke, Speed Pedal, Brake Pedal with up/down hand joystick for lift-up and hover-to-land. Wherein, the 4 lift-up engines would be used to takeoff or hovering which can be built with fan or jet engines; the sides turning engines would be used to turn left or right, when turning right the left engine pushing and the right engine stopping and when turning left the right engine pushing and the left engine stopping; the Steering Yoke would control the sides engines for turning left and right like driving a car; the back engines would be built to push the vehicle forward beside the side engines pushing; the Standier is the foldable stand with 4 legs as recommended to support landing safer even with 2 legs on both sides stuck; the Elevadoor at the bottom would provide access into the vehicle and can be built more than 1 for larger versions; the Cybercopter Flyer would come with fan engines only with Battery Power and Solar Surface Panels for consumer which can be charged at home, office or available charger stations. Cybercopter Flyer can be built bigger with 12 lift-up engines with 3 engines in one to support heavy duty or can be built small version for one person flying.

3. The shape and engines layout apparatus for the Cybercopter Flyer, comprising:

Cybercopter Flyer would come in round shape like UFO shape with 4 lift-up engines, 2 side turning engines, back pushing engines, Standier legs, Elevadoor and the floor would be built in round shape within the frame layout of the 4 lift-up engines with 1 front controllable camera, 1 back view camera, 4 bottom side view cameras plus the 2 top side/rear cameras like car side/rear mirrors to provide the back side views while flying. Cybercopter Flyer can be built in ellipse shape to have long floor which would have the similar layout. Wherein, the 4 lift-up engines at the 4 corners of the inner circle square would have 4 cameras which would be used to monitor the 4 lift-up engines and the surround area at the bottom of the vehicle; the 4 Standiers would be built in pair front-and-back and left-and-right with independent and synchronization mechanical controllers, and Cybercopter Flyer can be built with different foldable legs but safety is a concern; the left and right body of the vehicle would be reserved to fuel tanks or battery packs while the top surface of the Cybercopter Flyer would be used to install solar panels; the lights would be built in front and back for head lights and signal lights plus the LED lights around the vehicle for round shape decoration and recognition as recommended; Cybercopter Flyer

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could be built with shock sensors, proximity sensor or approaching sensors around the body to protect and detect when hovering and turning around in small or obstacles areas.

4. The cockpit and dashboard layout apparatus for the Cybercopter Flyer, comprising:

The Cybercopter Flyer cockpit and dashboard would come with Multi-Cameras Viewer, Engines Status Indicator, Power Status Viewer, Speed Pedal, Brake Pedal, Up/Down hand Joystick for lift-up and hover-to-land to support "Fly like drive a car" behavior with the new Quadletter Compass as recommended and other common components for flying vehicles. Wherein, the Multi-Cameras Viewer would provide the switchable views to view different cameras; Engines Status Indicator would provide to monitor the engines with Power Status Viewer to monitor and check fuel level or battery status as the common flying vehicles; Quadletter Compass is designed with 4 main direction letters in the quadrant of the circle for compact space; the cockpit would be built with co-pilot seat with similar views and control functions.

5. The Plug-and-Fly engine modules and Thruster Tilters apparatus for the Cybercopter Flyer, comprising:

The Cybercopter Flyer would come with fan or jet engines which can be built with Plug-and-Fly engine modules to support replace-able engines easier, and the engine thrusters would be built with the lift-up engines to tilt the thrusts in different directions to support flying faster and to adjust the engines forces to keep the Cybercopter Flyer balancing better when an engine fails to operate. Wherein, the Plug-and-Fly engine modules would allow different engine manufacturers can challenge to build their engines to support Cybercopter Flyer around the world; the Thruster Tilters can come with different ways depends on the available space, and this invention provides with 4-ways thruster tilter, 6-ways hexagon thruster tilter, 8-ways octagon thruster tilter or similar for more directions of tilting.

6. The floor and passenger seats layout apparatus for the Cybercopter Flyer, comprising:

The base floor of the Cybercopter Flyer would be recommended to build within the circle or ellipse shape inside the 4 lift-up engines. Wherein, the front section would be built for cockpit for pilot seats, and the passengers seats would be layout around the Elevadoor within the circle or ellipse shape floor.

7. The flying modes and featuring apparatus for the Cybercopter Flyer, comprising:

Cybercopter Flyer flying features would come with normal flying mode, fast flying mode and hovering mode. Wherein, Cybercopter Flyer can fly with normal mode for power saving with 4 lift-up engines operating vertically to maintain altitude while other engines pushing forward; Cybercopter Flyer can fly faster with the 4 lift-up engines tilting to the back for additional pushing forward; Cybercopter Flyer can hover anywhere at any altitudes when the pushing engines slow-to-stop running which is the great advantage of the Cybercopter Flyer that can hovers and lands anywhere.

8. The Elevadoor features and functions apparatus of claim 1 & 2, further comprising:

The Elevadoor would come with gear mechanical or rope pulling mechanical options with built-in foldable stairs or ladders. Wherein, the Elevadoor base would be the floor and attached to the Cybercopter Flyer ceiling that would be built in the middle of the vehicle, larger versions can have more than one Elevadoor or with traditional stairs to support passengers accessing faster; the Elevadoor can be built to support Slide-Foldable ladders, Chain-Foldable ladders, Circle-Foldable stairs or other foldable ladders and stairs with additional rope ladders which can be used for emergency cases when other stairs

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or ladders not available; the Multi-level foldable circle stair which can provide 360° directions accessing that can be used for sky-diving or can be divided in sections with safe passenger seats around on each level that can be used for sightseeing with the Elevadoor retractable to open and close during the flight.

9. The Standier foldable legs for landing apparatus for the Cybercopter Flyer, comprising:

The Cybercopter Flyer Standier would come 4 foldable legs for safe landing even when 2 legs fail functioning. Wherein, the standing leg with support of retractable bars would be built to expand for standing at 100° for strong support as recommended compare to the body horizontal surface; the Standier would be built to fold in multiple folding steps with motors to control gears and retractable bars with slide and lock mechanical.

10. The safety and protection featuring apparatus for the Cybercopter Flyer, comprising:

Cybercopter Flyer would come with emergency exit doors, cameras and sensors around the vehicle protection and safety purposes. Wherein, emergency exit doors would be built on top side of the vehicle; security and viewing cameras on the bottom around the vehicle plus the side back views cameras as mentioned in claim 2 and 3 above; the shock or touch sensors can be built around the Cybercopter Flyer which can be divided into 8 detection sections to detect the vehicle from touching or close approaching to obstacle objects; Cybercopter Flyer can be built with Fast Approach Alert System with passive mode radar or cameras to detect fast approaching object in the air during the flight; the GPS or LPS devices with Map Navigation can be built-in for positioning system to locate the vehicle anytime for safety purposes, where the LPS device functions and features were described in the 'LPS – Local Positioning System' invention which was submitted on 2021/11/23 with U.S. PCT/US21/72562 and International PCT/IB2021/000949 Patent Numbers.

11. The surround area checking and silent flying apparatus for the Cybercopter Flyer, comprising:

The Cybercopter Flyer with fan or hybrid engines for the 4 lift-up engines could be built to support silent flying that needs drone or remouflyer built-in on top of the Cybercopter Flyer to check the surround area before takeoff. Wherein, the drone or remouflyer with built-in cameras with pilots controls, would be built on top of the Cybercopter Flyer with the charger station base with built-in automatic opener and waterproof where drone or remouflyer can be charged and secured before use to check the surround area to takeoff safely.

12. The space programs supporting apparatus for the Cybercopter Flyer, comprising:

Cybercopter Flyer would be built to support space programs to carry satellites into space, can be built to collect space debris and can be built to explore the universe. Wherein, the Cybercopter Flyer could be built with satellite carrier base to replace the Elevadoor for passenger access which can be used to hookup satellite and the Standiers can stand on the raise base to carry satellite; the satellites are orbiting with rotation of the earth, and the death satellites can be catch by Cybercopter Flyer easier with robot arms or net catching; when we have Space Stations with refuel-able or re-charge-able to have enough energy, the Cybercopter Flyer can be used to explore the universe and can able to fly back to the earth.

13. The government and military supporting apparatus for the Cybercopter Flyer, comprising:

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The Cybercopter Flyer can be built with many different versions for government services, border patrol and military supports. Wherein, the Cybercopter One can be built safely and securely for the president services for flying and landing safely anywhere; Cybercopter Fighters can be built to use in military with weapons equipped around the vehicle, and Cybercopter Flyer can be built with more advanced option with the capability to roll in the air which can be used as a fighting tactic and strategy during the fighting mission.

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