



INTRODUCING

India's First 5-Seater eVTOL
Electric Vertical Take-Off and Landing Aircraft

NALWA
5X
Never let you down



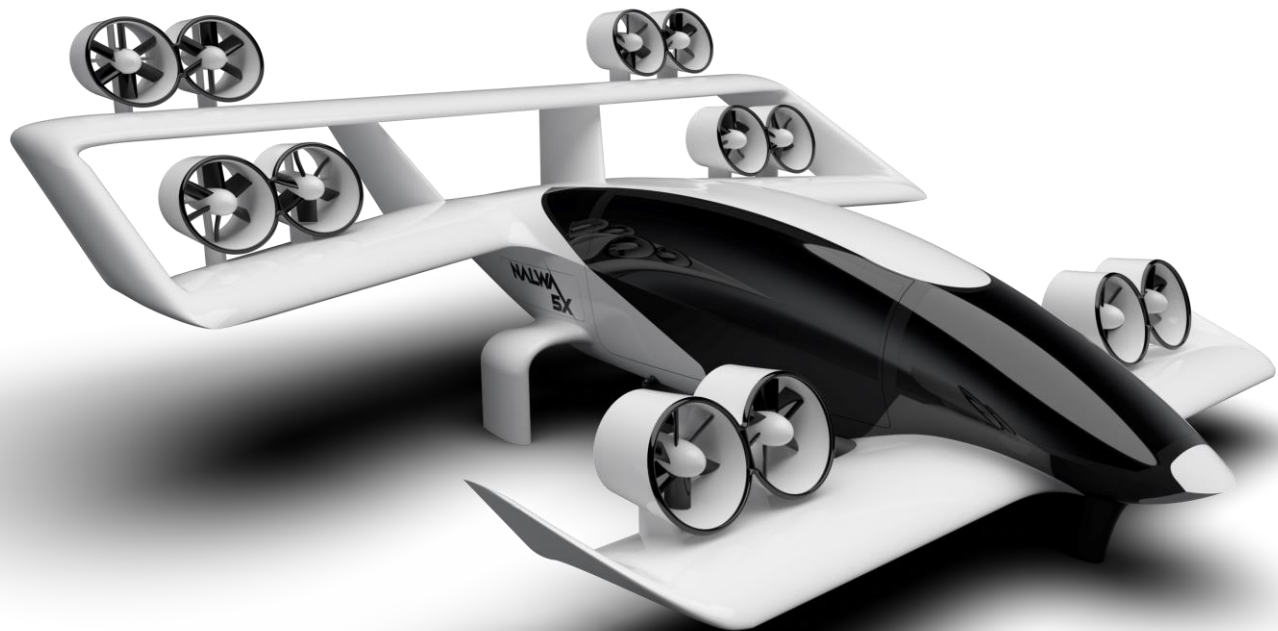
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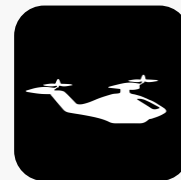
About Nalwa Aero

Nalwa Aero Private Limited is a pioneering technology firm based in India that specializes in cutting-edge drone and eVTOL (Electric Vertical Take-Off and Landing) technology development. Nalwa Aero is registered by the management of IQBri Verticals Private Limited (IQVL) established in 2012. Nalwa Aero has a vision to transform the future of air transportation in India and beyond.

Our Mission: To revolutionize air transportation by harnessing the potential of eVTOL technology, providing efficient and sustainable solutions for urban air mobility, and driving societal and economic growth.



The NALWA eVTOL



Is a groundbreaking **5-seater**, full electric Vertical take-off and landing capable aircraft (eVTOL) in development by IQVL, in collaboration with renowned technology institutes and leading e-VTOL manufacturers from the United States, that combines efficiency, versatility, and safety.

The NALWA will offer a wide range of potential uses in both military and commercial sectors, showcasing its versatility and adaptability for various applications.



IMPRESSIVE PERFORMANCE: Will have a maximum design speed of 400 km/h, allowing for swift transportation. Its service ceiling of over 2,000 meters makes it suitable for a wide range of applications.



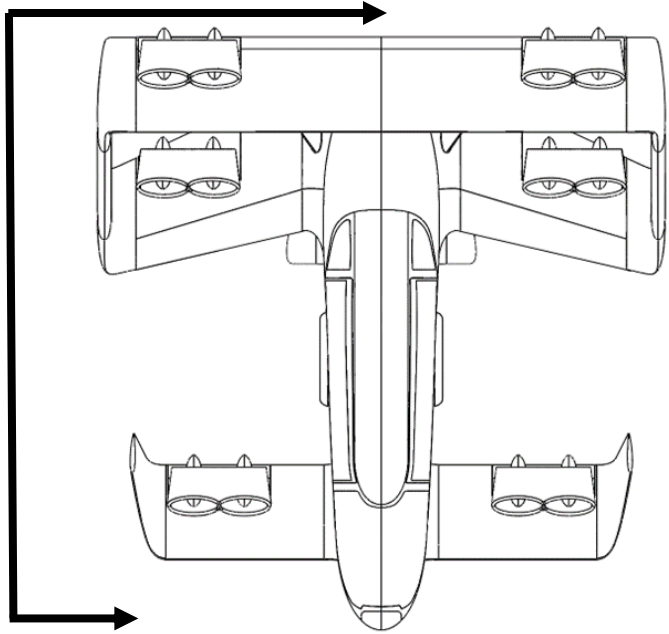
AUTONOMOUS OPERATION: With autonomous capabilities for up to 1.5 hours, plus an additional 15 minutes of reserves, the NALWA will offer increased flexibility and operational efficiency.



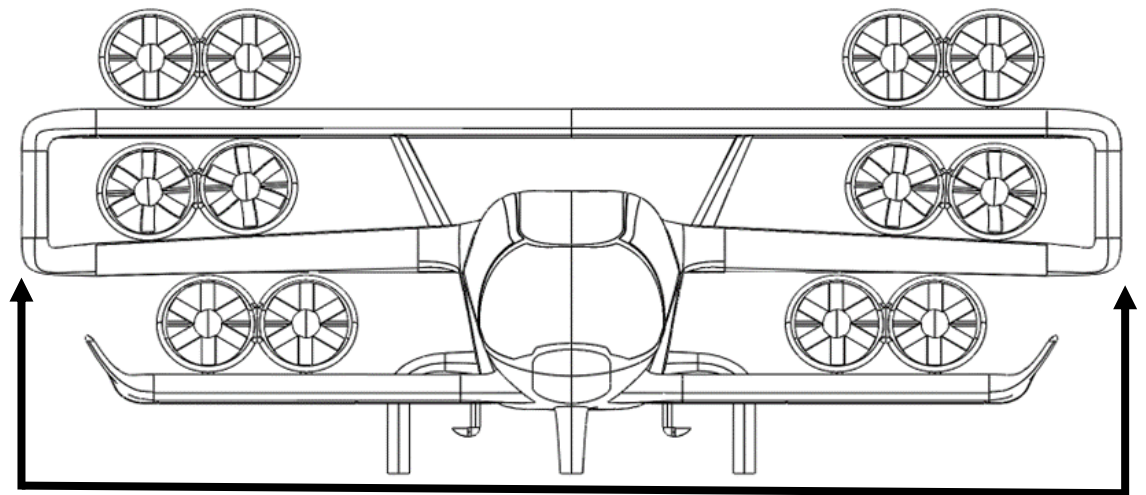
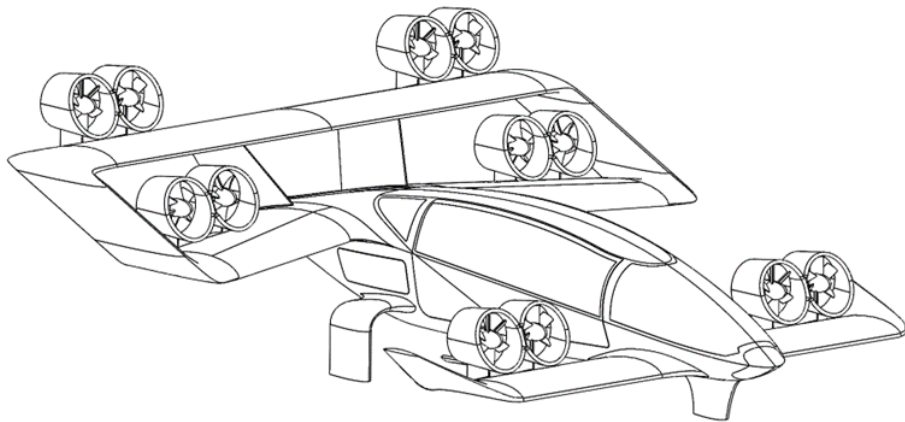
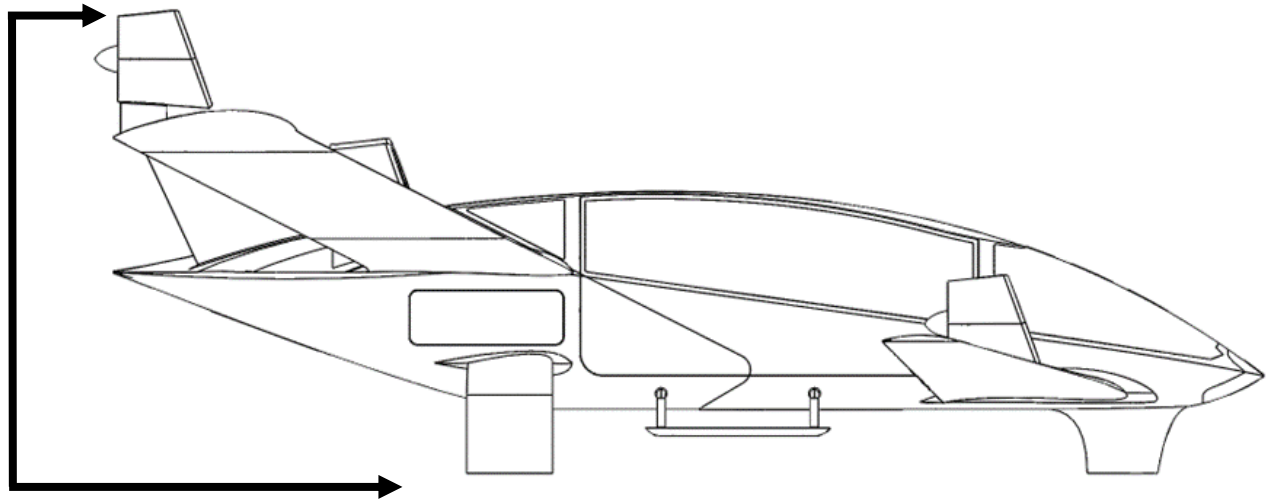


Dimensions

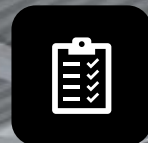
7,53 meters



2,5 meters



7,15 meters



Characteristics

The NALWA EVTOL aircraft boasts impressive technical characteristics that set it apart in terms of performance, versatility, and advanced technology.



HIGH SPEED AND EXTENDED RANGE: With a maximum design speed of 400 km/h, the NALWA can swiftly reach its destinations. Its impressive range allows for extended missions, making it suitable for various applications.



COMPACT DIMENSIONS: Short span and length enable effortless maneuverability in tight spaces, making it an ideal choice for urban air mobility applications.



CUSTOMIZABLE INTERIOR: The interior is fully customizable, providing flexibility and adaptability for various applications. Users can configure the cabin to meet their specific needs,



EFFICIENT PROPULSION: Is powered by 12 advanced design, efficient and quieter pivoting electric ducted fans, it suitable for urban air mobility applications.



REMARKABLY QUIET OPERATION: Equipped with soundproofing materials and advanced electric ducted fans, the NALWA ensures a remarkably quiet flying experience. This feature aligns perfectly with the requirements of urban air mobility, minimizing noise pollution.



Service Ceiling
+2,000 meters



Max. Payload
700 kg.



MTOW
2,000 kg.



CRUISE SPEED
350 Km/hrs



MAX SPEED
400 Km/hrs



AUTONOMY
1.5 hrs



450 KM



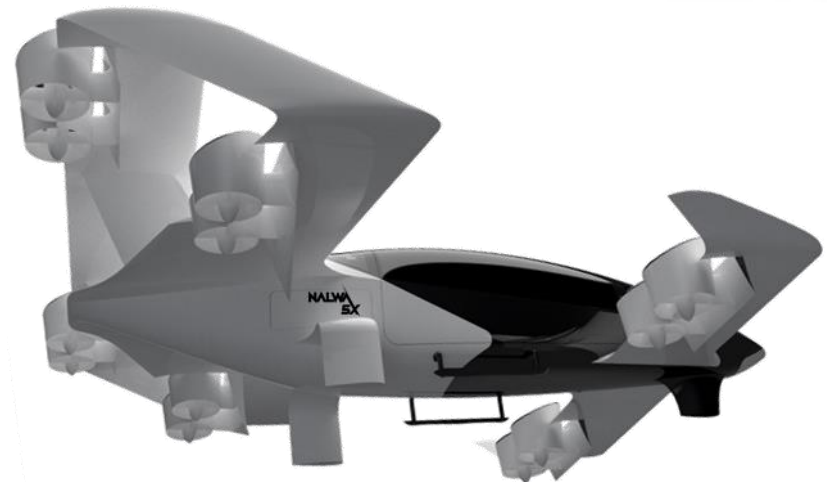
Propulsion

The NALWA aircraft's pivoting propulsion system is a unique and innovative feature that enhances its maneuverability, stability, and control. This system is achieved through the integration of multiple electric ducted fans (EDFs) (currently under development by a worldwide recognized German manufacturer, strategically positioned throughout the aircraft. By independently controlling the speed and direction of each EDF, the NALWA can achieve highly maneuverable VTOL capabilities, as well as exceptional stability and control in challenging wind conditions.

In addition to these benefits, the pivoting propulsion system also increases the NALWA's overall efficiency by optimizing thrust direction and airflow, resulting in improved energy efficiency and reduced noise levels. The EDFs also strategically located on the rear part of the wings also help to increase the lift produced by the wing. This is because the fans accelerate the airflow over the wing, creating a greater pressure differential between the top and bottom of the wing.



REDUCE NOISE TECHNOLOGY: The use of soundproofing materials and state-of-the-art fan blade designs allow for reduce noise levels (60db), to acceptable values for Urban Air Mobility operations.





Safety

The NALWA e-V-TOL aircraft is built with a strong emphasis on safety, incorporating advanced features and robust design elements to protect passengers and ensure operational security.



REDUNDANT SYSTEMS: It is equipped with redundant systems for critical components, such as engines, flight control, and navigation systems. If one system fails, the backup system seamlessly takes over, ensuring continuous operation and passenger safety.



PARACHUTE SYSTEM: The aircraft could be equipped with a parachute system (optional) as an additional safety measure in the event of power loss or structural failure, the parachute can be deployed, enabling the NALWA to land safely.



STABLE DESIGN: The canard-like configuration of the NALWA enhances stability during flight, even in challenging wind conditions. This stability feature contributes to safe and confident maneuvering.



IMPACT-RESISTANT MATERIALS: is constructed with lightweight yet robust composite materials. These materials possess high impact-absorbing capabilities, providing additional safety measures in the event of a crash.





Potential Uses

The NALWA is a highly promising solution with distinct advantages over comparable aircraft. Its potential uses are diverse, ranging from military operations such as troop transport and surveillance to commercial and civil applications in transportation, delivery services, medical evacuation, tourism, and agriculture. The exceptional capabilities, coupled with its versatility and adaptability, make it a compelling choice for operators seeking a reliable and multifunctional aircraft solution.

Commercial and Civil Applications



Air Taxi: As an air taxi, offers convenient and efficient transportation for individuals, connecting urban centers and reducing travel time



Medical Evacuation: The Medevac version, will be equipped with medical equipment and can evacuate up to two patients, providing a lifeline for medical emergencies and supporting hospitals and other medical organizations.



Courier Service: With its payload capacity, serves as a reliable courier service, transporting and delivering packages, swiftly and securely

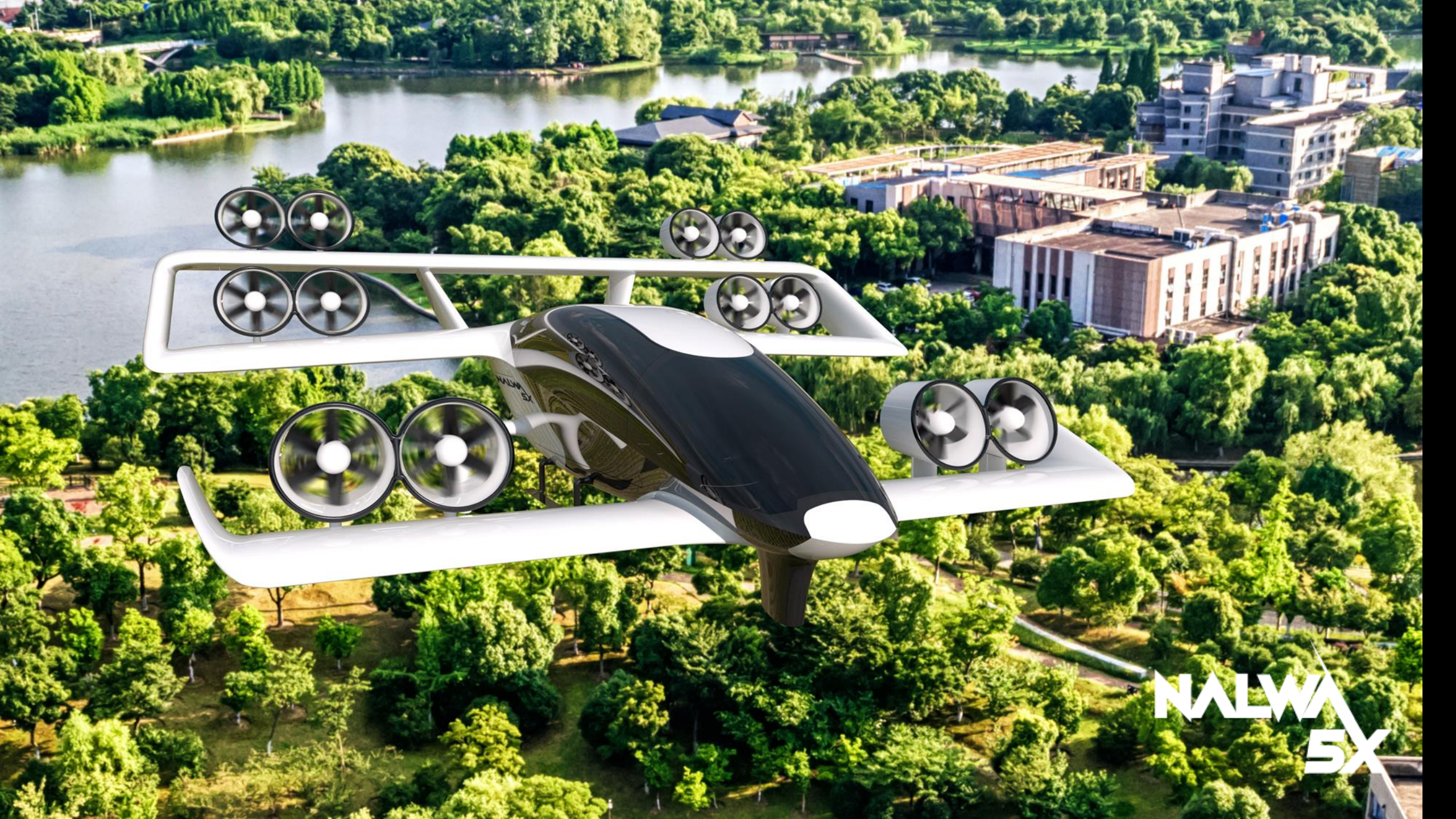


Air Tractor: The specialized air tractor version will be equipped with a sprayer contributes to efficient crop spraying operations, benefiting farmers and agricultural businesses.



Tourism: Large panoramic windows enhances tourism experiences by providing aerial sightseeing opportunities.





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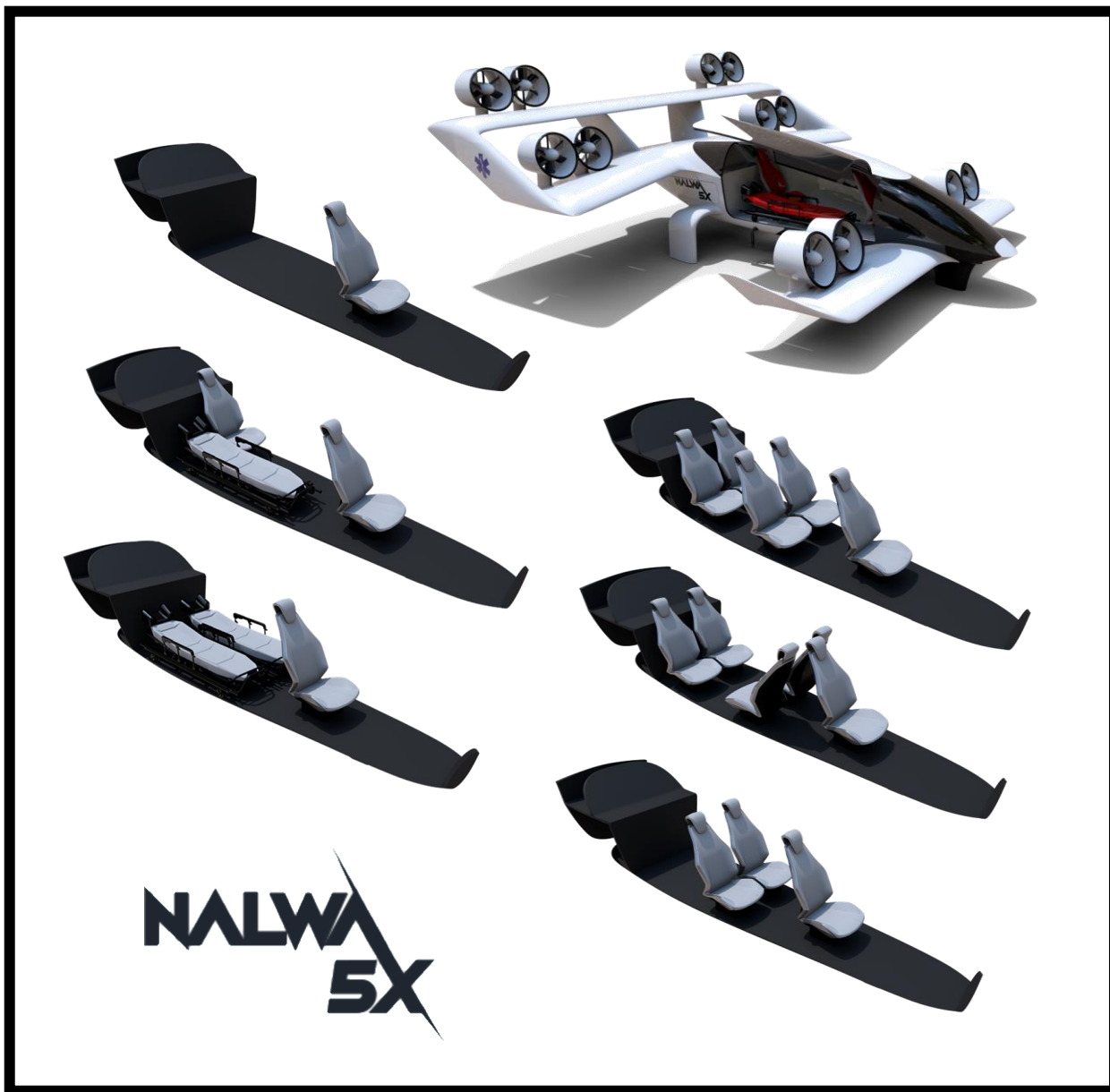
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Interior Configurations



The NALWA features a highly versatile 5-seat cabin that can be rapidly reconfigured to suit diverse missions from passenger transport to cargo delivery. For passengers, it offers a comfortable interior with ergonomic recliner seats, personal amenities, soundproofing and panoramic views. The same cabin can transform into a cargo hold with a 1000 kg capacity by installing rollovers, tie-downs, and nets. For medical evacuations, the cabin can be equipped with stretchers, patient monitoring systems, and life support equipment. The modular interior components allow interchanging passenger seating, cargo loading rollers, and medical litters based on operational needs. This unique ability to switch interior configurations enables the NALWA aircraft to serve a wide range of commercial and military roles that need customizable payload accommodations. The reconfigurable cabin design perfectly complements the aircraft's high performance and safety to create an adaptable eVTOL platform.



Military Applications



Troop Deployment: The NALWA could play a crucial role in efficiently transporting troops to strategic locations, ensuring swift and effective deployment.



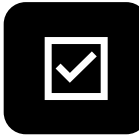
Reconnaissance Missions: Can be equipped with advanced surveillance systems to conduct essential reconnaissance operations, gathering crucial intelligence for military strategies.



Search and Rescue Support: With its maneuverability and rapid response capabilities, it provides invaluable assistance during search and rescue missions, saving lives in critical situations.

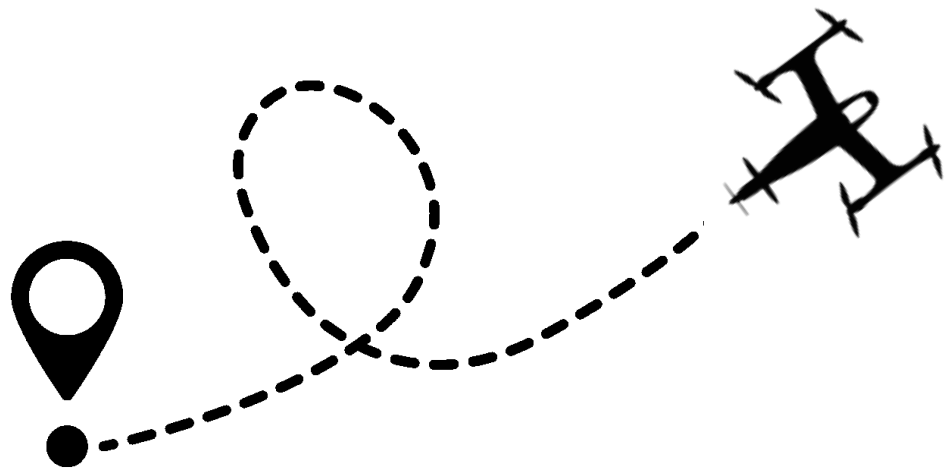


Close Air Support: The NALWA can be equipped with weapons and tactical systems to offer air support to military operations, providing firepower and tactical advantage when needed.



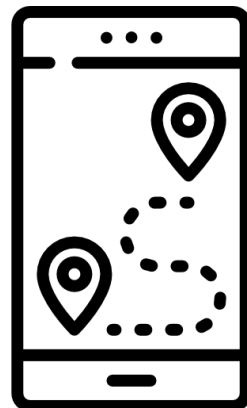
Supply Delivery: Capable of delivering supplies to remote locations, it facilitates the distribution of essential resources to military personnel in hard-to-reach areas or in the battlefield.





Benefits and advantages:

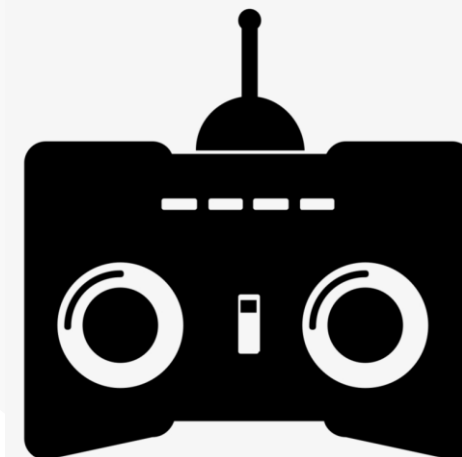
- Detects and avoids obstacles in real time.
- Enables timely emergency response.
- Plans and executes more efficient flight paths.
- Minimizes unnecessary delays.
- Enables flying in challenging environments.
- Responds quickly to changing conditions.
- Can be operated remotely by a pilot on the ground.
- Precise maneuverability and control during complex missions.
- Offers additional flexibility for various operational scenarios.
- Advantages of Autonomous and Remote-Controlled Capabilities a.
- Reduce pilot workload, allowing them to focus on other essential tasks.
- Provides the pilot with a better understanding of the aircraft's surroundings.
- Assists in making informed decisions based on real-time data.



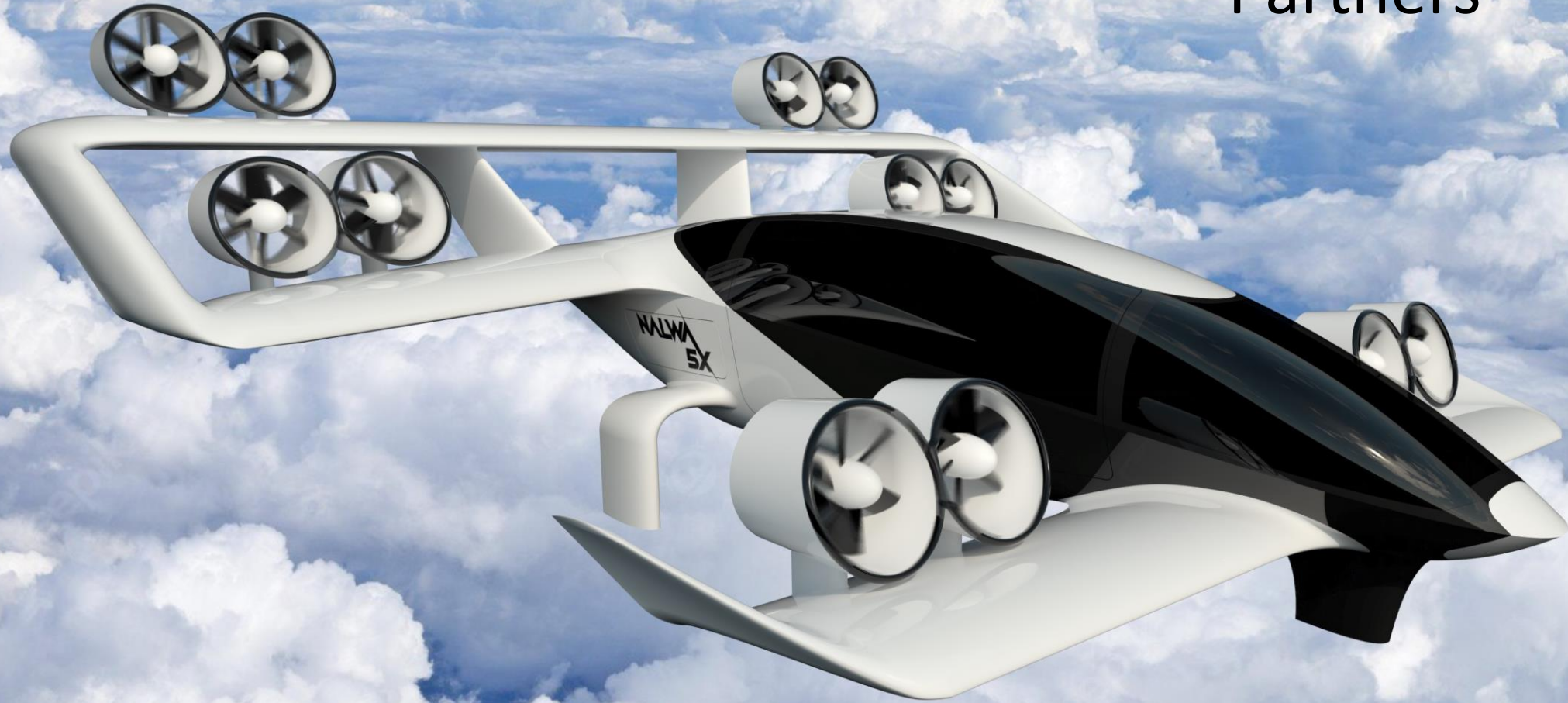
Autonomous Navigation



The NALWA will be equipped with the latest technology in autonomous navigation systems. Utilizes a variety of sensors, including cameras, radar, and GPS, to track the aircraft's position and environment. Capable of planning and executing flight paths, avoiding obstacles, and responding to emergencies. Ensures increased safety, efficiency, and flexibility.



Partners



IQVL has partnered with a diversity of companies, located in the United States, Germany, Australia and Spain for the development of the NALWA e-V-TOL, to bring the best technology of the eVTOL market to India.

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