



Electric Vertical Take-off and Landing Aircraft

[Source: DTE](#)

The emergence of [electric vertical takeoff and landing \(eVTOL\) aircraft](#) has captured the attention of innovators, urban planners, and commuters.

- eVTOL aircraft are a subset of **VTOL aircraft that** use electric power to hover, take off, and land vertically. Unlike **traditional aircraft, eVTOL aircrafts do not require runways**, making them ideal for urban environments where space is limited.
- eVTOL technology provides solutions for **daily commuting, cargo delivery, and emergency services**, with reduced maintenance and operating expenses. It has the potential to be **used for premium and emergency services in crowded urban areas.**
 - It can eliminate the need for elaborate infrastructure like helipads, and can operate at speeds of up to 200 km/h.
- **Indian Innovations:** Indian Institute of Technology, Madras-incubated ePlane Company plans to launch e-flying taxis in Bengaluru, awaiting [Directorate General of Civil Aviation \(DGCA\) approval](#).
 - While global advancements in eVTOL are promising, **India lacks clear policies. Route planning, collaboration, and air traffic control** are essential for effective integration.

//



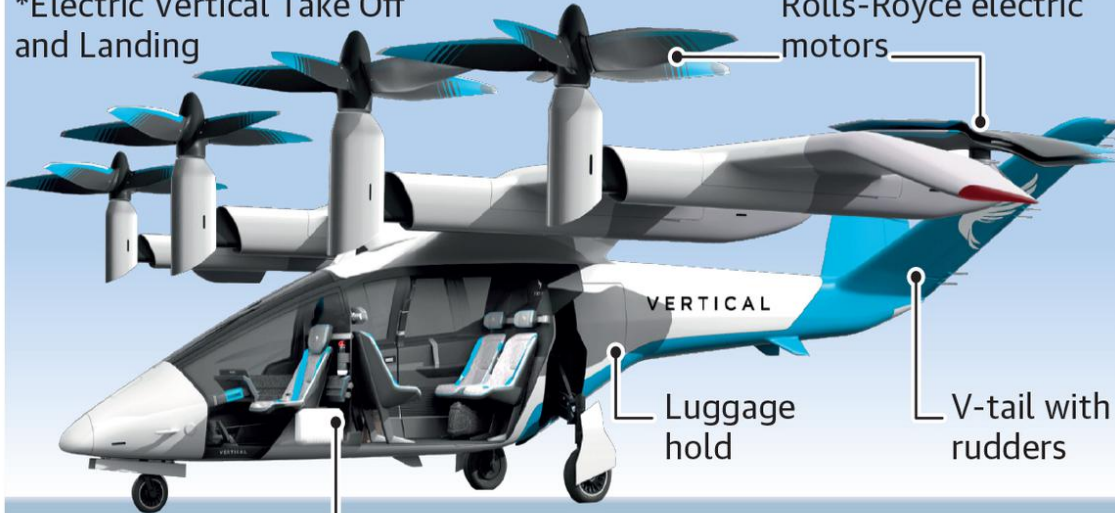
What are electric aircraft?

The Union Aviation Minister while speaking at the seventh edition of the India Ideas Conclave in Bengaluru, stated that India is in 'conversation' with a number of eVTOL producers. But how are Electric Vertical Take off and Landing aircraft structured? And what are they capable of ?

Vertical Aerospace VA-X4

*Electric Vertical Take Off and Landing

Propulsion: Eight Rolls-Royce electric motors



Pilot and four passengers
Rear vertical rotors

Front rotors

Take-off and landing:

Rear vertical rotors fan out, front propellers orientate vertically

Stowed

Cruise speed: **241km/h**

Range: **161km**

Payload: **450 kg**

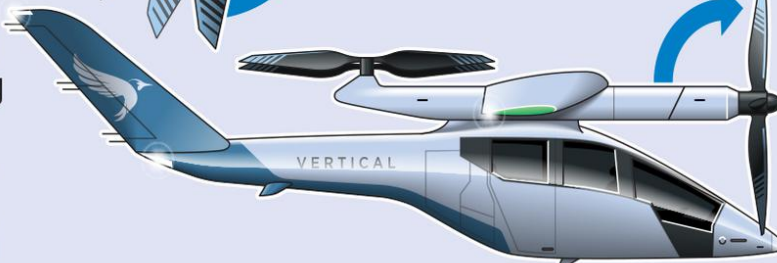
Wing span: **15m**

Length **13m**

Height: **4m**

Open

Flight: Rear rotors fold into *stowed* position. Undercarriage withdraws. Front propellers tilt for forward motion



Sources: Vertical Aerospace, Future Flight, Business Wire Picture: Vertical © GRAPHIC NEWS

[Read more...](#)

PDF Refernece URL: <https://www.drishtias.com/printpdf/electric-verticaltake-off-and-landing-aircraft>

