



eVTOL 101

The emerging world of eVTOL is set to transform the transport industry, but what exactly is eVTOL or for that matter UAV?

The majority of the transport industry runs in a two-dimensional space, solely on the ground. With the increase in global population and the ever-growing need to transport more commodities and people, ground space, mainly roads, are running out, especially in highly populated urban areas. Thinking three-dimensionally, looking to the skies can solve this and make for quicker, more direct journey times.

eVTOL (electric vertical take-off and landing) stems from the wider Advanced Air Mobility (AAM) industry. eVTOL aircraft are small, lightweight, agile, sustainable and vehicles, powered by electric powertrains, including batteries and fuel cells. Their ability to take off and land vertically, like a traditional helicopter and then transition to winged flight like a conventional plane is their biggest advantage. Couple this with a very simple and reliable powertrain (distributed electric motors across the airframe), these aircraft have the ability to be used in almost every area of transportation.

eVTOL aircraft can also be operated as Unmanned Ariel Vehicles (UAVs), increasing their versatility further still. UAVs are autonomous or remote-controlled aircraft. The UAV applications for eVTOL are mainly related to cargo use cases from delivery of mail and emergency supplies to larger cargo for commercial businesses. However, in the future, following further testing and certification UAVs and general eVTOL aircraft will be able to carry passengers.

eVTOL aircraft will remove a large percentage of vehicles on the road, from acting as urban taxis to relacing delivery vans. This sustainable solution will transform the transport industry creating a landscape we have only imagined until now.

About MGI Engineering

MGI Engineering was founded by Mike Gascoyne in 2003. Mike has worked in Senior Management and at a Technical Director level in F1 for over 25 years. The company leverages extensive and unrivalled experience of utilising cutting-edge technologies to offer complete engineering and project management solutions that maximise sustainability and future-proof viability with a mission-led engineering approach. This includes the Cargo eVTOL sector.