**Aircraft Design**:

Aircraft design encompasses the conceptualisation, development and refinement of Aerodynamics, Performance & Stability and Airframe structure. This process requires the formulation of technical data and the use of computational analysis to design and optimise the solution.

**Aerodynamics & Performance**: The flow field around the aircraft are simulated using high fidelity software ensures aerodynamic parameters to improves overall flight characteristics, reduces drag for long endurance operation, derivatives are designed to maintain stability even in harsh environmental conditions, leading to safer and more economical flights.

**Aircraft Structure**: The composite airframe helps designer with high strength to weight ratio, desired structural rigidity, keeps the airframe lighter and protect all the avionics, payload and propulsion systems against adverse environment. The mechanical properties of the composite materials are tested per ASTM standards, the structural behaviour of the aircraft detailed components are simulated using analysis software's to calculate Margin of safety, ensures aircraft’s are designed to operate in adverse environmental conditions-JSS55555

**Modular Airframe**: The airframe has a truly modular design, ease of transportation, no tools needed to assemble or disassemble the drone (tool - less field operation) and the modular design allows to replace payloads, and other onboard equipment without much effort.

**Stealth features**: Radar visibility is minimized with help of composite airframe and absence of large metal components, making the aircraft non - detectable in hostile environments.