



UNMANNED VEHICLES MANUFACTURE

Advanced integrated Technologies 

DESIGN FOR
MANUFACTURE

LIGHTWEIGHT COMPOSITE
STRUCTURES

BUILD TO PRINT

PRE-PREG LAMINATING

TRIM & ASSEMBLY
INTEGRATION

ASSEMBLY OF COMPLEX
INTEGRATED
STRUCTURES

UUV, UAV, USV, UGV

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Capabilities:

Aerodynamic CFD & FEA – Ensuring optimal structural integrity and flight efficiency.

Composite Design & Manufacturing – Lightweight, high-strength airframe solutions.

Mechanical & Electromechanical Systems Integration – Seamless hardware and software connectivity.

VTOL & Fixed-Wing Airframe Development – Tailored solutions for specific mission needs.

Ground Control & Link Systems – Advanced communication solutions, including fibre-optic and denied-GPS operations.

AI-Driven Vision Systems – Enhanced situational awareness and autonomy.

Design

- ISO9001: 2015
- Concept design
- Complex mechanical design
- 3D surface modelling
- Full CAD capability surfaces and systems
- Finite Element Analysis FEA
- Computational Fluid Dynamics CFD
- Structural Analysis
- Harmonic analysis
- Vibration analysis
- Aerodynamic analysis
- Thermal Analysis
- Fatigue & Failure Analysis
- MTBF prediction
- Configuration control

Manufacturing

- Pattern, Tooling, Jig design & manufacture
- Full structural composite capability
- CNC multi axis machining
- Large autoclave capacity 3.5m diameter x 6m long
- Structural hot and cold bonding
- Integration of electro/mechanical assemblies
- Controlled manufacturing areas
- Large Assembly Hall, covered by 2 tonne gantry, 22m x 7m x 7m
- Ultrasonic Degreasing
- Inspection, CMM, 2x Faro Arms,
- Creaform metrascan CMM
- Thermal Cycling & Environmental Test Chambers

