



Praxis Aeronautics

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Praxis Aeronautics is the leading solutions provider of integrated solar energy harvesting composite structures to the global Defence Autonomous Systems market.

CAPABILITIES

- In-house design and manufacture of solar energy harvesting composite structures for Unmanned Aerial Systems (UAS) and Unmanned Surface Vehicles (USV).
- Design and manufacture of multifunctional composite structures.
- Aeronautical design and engineering including FEA and CFD.
- Electronic design and engineering.
- CNC machining.
- Composite manufacturing using a range of techniques including wet lay-up, vacuum bagging, resin infusion, pre-preg, filament winding as well as proprietary processes unique to Praxis.
- Manufacturing facility 1450sqm.

KEY MARKETS

- Praxis works in the global Defence Autonomous Systems market in partnership with companies and research institutions.
- The benefits of Praxis's technology are also transformative for the commercial markets of precision agriculture, mining, medical delivery and infrastructure inspection.

DISCRIMINATORS

- The only fully integrated process that structurally encapsulates solar cells inside composite material.
- When applied to fixed wing UAS, flight duration is typically increased 200% - 300% over a standard battery powered UAS.
- Cost effective as it is suitable for both Silicon and Gallium Arsenide cells.
- Using the solar cells as part of the composite structure, the weight of the cells is offset, resulting in a light, tough and aerodynamic system.
- 100% manufacturing yield.
- The process enables the encapsulation of solar cells and other electronics into multiple applications for Defence purposes such as remote power generation, shelter and vehicles.
- Provision of complete solutions with fully integrated solar cells and miniaturised power management system.
- A wholly Australian owned SME.

KEY CUSTOMERS

- Leading UAS Defence suppliers globally.
- Leading USV suppliers globally.

MEMBERSHIPS

- Australian Association for Unmanned Systems
- Defence Teaming Centre