



## Tesla Turbine

**The Tesla Turbine is a miniature combustion-driven power generation system that can be used as a personal, portable power supply for individuals, or as a power plant for small autonomous systems such as UAVs.**

### Competitive advantage

- Much higher power/mass ratio than existing battery technologies
- Unlike other turbine technologies, the Tesla Turbine performance improves as the scale decreases
- Simple to use and maintain, and field-serviceable
- Very small footprint, with the turbine and generator integrated into design

### Impact

- The main use of this technology is as a portable power supply for devices used by soldiers
- The device has potential for development as a power plant for small autonomous systems, either for direct power or for electrical generation systems

### Successful applications

- Successfully prototyped

### Capabilities and facilities

- Computational fluid dynamic modelling of the combustor
- Laser diagnostics for optimising combustion efficiency

### More Information

Associate Professor Sean O'Byrne

School of Engineering and Information Technology

T: +61 (0) 2 6268 8353

E: [s.obyrne@unsw.edu.au](mailto:s.obyrne@unsw.edu.au)

UNSW Knowledge Exchange

[knowledge.exchange@unsw.edu.au](mailto:knowledge.exchange@unsw.edu.au)

[www.capabilities.unsw.edu.au](http://www.capabilities.unsw.edu.au)

+61 (2) 9385 5008