

Fibre optic load cell for multi-axis force sensing

Force sensing for autonomous vehicles, aerospace, medical, construction, mechanical and industrial settings.

Applications: Force sensing for autonomous vehicles, aerospace, medical, construction, mechanical and industrial settings



Features	Benefits
New approach to design and fabrication	Production is quicker and cheaper
Mounting of fibres with 3D printed form and magnets	Allows instrumentation of the load cell in minutes
AI optimisation and mapping algorithms	Facilitates measurement of any desirable combination of multi-axis forces (e.g. axial, shear, bending moment); Temperature is considered explicitly as another output of the sensor
Machine learning used in production	Simplified fibre optic pattern is more convenient for production, requiring a lower level of skill to manufacture
Robust design and use of new materials	Suitable for applications in harsh environments; Durable and long-lasting for long term use

Awaiting patent and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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