Phasor Innovation Pty Ltd

http://www.phasorinnovation.com

Phasor Innovation is an Australian owned technology company based in Melbourne. Our team of scientists and engineers provides design and consulting services, as well as conducting cutting edge research & development in electronic warfare (EW) and quantum technologies.

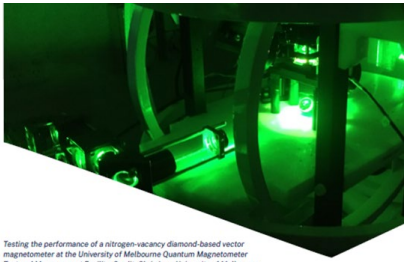
Phasor Innovation has a reputation for providing innovative solutions to challenging problems in the RF/Microwave, electromagnetics, antenna, EW and quantum areas. We work predominantly in the defence sector, with projects in the land, sea, and air domains. Together with our partner universities, we are developing the next generation of quantum sensors for the defence, mining, industrial and healthcare sectors.

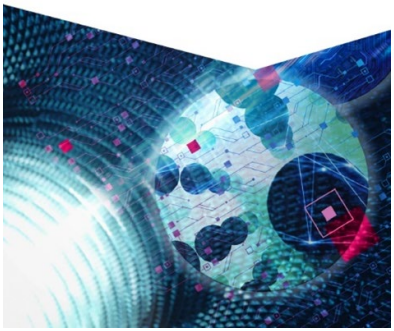
Australian Government
Department of Industry, Science and Resources

National Quantum Strategy

Building a thriving future with Australia's quantum advantage

industry.gov.au/quantum





Testing the performance of a nitrogen-vacancy diamond-based vector magnetometer at the University of Melbourne Quantum Magnetometer Test and Measurement Facility. Credit: Chris Lew, University of Melbourne

Case study: Transitioning from the lab to future applications

Phasor Innovation is an Australian quantum business specialising in:

- radio frequency and microwave engineering
- electromagnetics
- system integration
- quantum technologies.

Phasor Innovation is collaborating with the University of Melbourne and RMIT University on researching and developing the next generation of diamond-based quantum sensors. There are a range of new and emerging applications for this technology in many areas including the defence, mining, space and medical sectors.

The collaborative university and industry team successfully competed in the inaugural Army Quantum Technology Challenge in 2021 and are currently working together on a subsequent project to design, construct, test and evaluate a quantum diamond-based vector magnetometer that will provide improved surveillance and detection of subterranean targets. The team has also received funding from Defence to further develop the technology for precision magnetic navigation in GNSSdenied environments.

Quantum diamond magnetic field sensors for improved situational awareness

Diamond defects create delicate quantum sensors