WORLD OF SCIENCE
AT DSO NATIONAL LABORATORIES

QUANTUM TECHNOLOGY

Key Module Learning Objectives

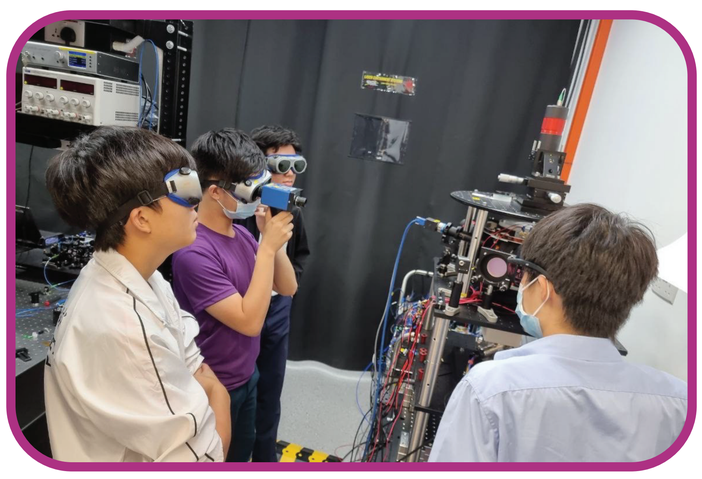
- Understanding that quantum mechanics are a part of our daily life and will become even more important in the coming decades
- Introduction to both the theoretical and experimental aspects of quantum physics
- Cultivating an interest in modern physics by giving students a taste of cutting edge research

Learning Journey Milestones

- Assembled a laser interferometer and used it to measure the wavelength of light
- Visited labs in DSO, NUS, and NTU where real quantum physics R&D is conducted
- Observed macroscopic quantum effects in levitating superconductors and atomic cells

Key Concepts Taught

- Schrodinger's equation, wave-particle duality, and how they affect our daily lives
- How matter waves can be used to build interferometers far more sensitive than classical sensors
- Basics of quantum computing and quantum communications



YDSP Young Defence Scientists Programme

DSTA Defence Science & Technology Agency

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