



QUANTIC

The UK Quantum Technology Hub
in Quantum Enhanced Imaging

Seeing with undetected light

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Central to all conventional imaging is the notion that the light illuminating an object is the light detected, but quantum imaging can change this and offer exciting new applications.

Many organic and inorganic compounds are more easily detected in the infrared wavelength range, however detectors and light sources in the visible range benefit from far better-developed technology. Here, we take advantage of visible technologies while imaging in the infrared, utilising the best characteristics of both wavelengths.

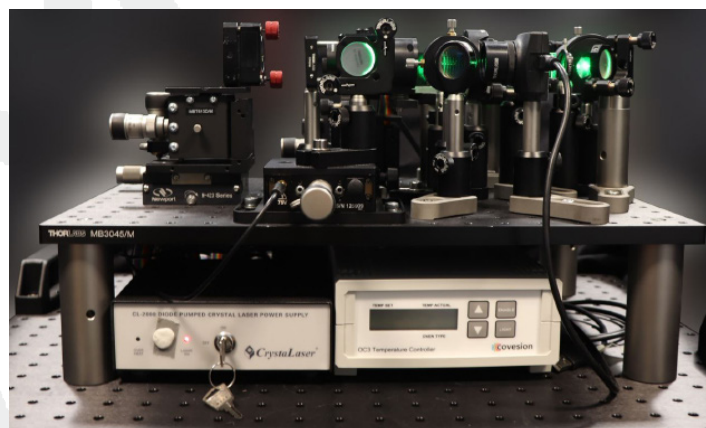
To achieve this, QuantIC creates visible and infrared light using a non-linear crystal, a cheap and compact quantum solution that can be retrofitted to many existing products. The device ultimately allows operation with infrared light, while visible light 'carries' information to the camera. End users reduce their equipment cost by requiring only conventional cameras and simultaneously access the rich information available in the infrared.

Our research continues to develop systems to reach longer infrared wavelengths, and higher efficiency creation of visible and infrared light. QuantIC is excited for the markets this technology will unlock as innovation progresses.

For more information, please contact:

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Imaging wavelengths:	1-4 microns
Total footprint:	30x45 cm
Resolution:	100 microns (10s of microns achievable)
Total cost:	<£10k