



## THE CLIENT

University of Nottingham  
School of Physics & Astronomy  
– research spanning Astronomy,  
Cold Atoms & Quantum Optics,  
Condensed Matter Theory,  
Experimental Condensed  
Matter & Nanoscience,  
Magnetic Resonance  
Imaging & Spectroscopy  
and Particle Cosmology.

## THE STORY

A new research centre was required for collaboration between the University of Nottingham and e2v technologies in the area of microwave semiconductor device fabrication based at the school of Physics and Astronomy at the university. An existing laboratory and office space was converted into a suite of cleanrooms. Some existing walls were demolished, new doorways generated and existing exterior windows changed



Research &  
Development



Class 7



90m<sup>2</sup>

**£450k**

Project Value



Nottingham

to double glaze aluminium units. The cleanrooms were then fitted out using a laminated partition/wall lining system, lay-in grid suspended ceiling, vinyl flooring with a fully equipped changing room.

The facility was designed as ISO Class 7 turbulent flow with localised ISO Class 5 laminar flow canopies and wet benches. The chemical process benches were for acid and solvent based chemical processing. Emergency shower and eye wash were fitted as safety features for chemical handling.

Services included a number of specialist gases, which were installed using orbital welding.

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## School of Physics & Astronomy Head of School

We are proud that research undertaken within the School, by Professor Sir Peter Mansfield, was recognised by the award of a Nobel Prize for the invention of Magnetic Resonance Imaging body scanners, which have already helped more than half a billion people worldwide. Drawing on aspects of this work, our recent use of quantum technologies to understand how the brain works is changing the way that neurological conditions are detected and treated.

**Professor Mark Fromhold**  
Head of School



The University of  
Nottingham



# MICROWAVE PROCESSING RESEARCH CENTRE



Cleanroom  
solutions

## CLIENT CASE STUDY

### Contact Us

🏠 Unit C The Brocks,  
Homefield Rd,  
Haverhill, CB9 8QP

☎ 0330 113 0303

✉ sales@guardtech.com

🌐 www.cleanroom-solutions.co.uk



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The project included DI water, process chilled water, process extract as well as small power and data fitted in dado trunking.

Air conditioning was mounted externally and consisted of an air handling unit, chiller, chilled water pipework, LPHW pipework from the university's existing system, humidifiers and controls to achieve the designed close control criteria.



## THE RESULT

**Cleanroom Solutions Director Jan Pyrgies said: "This project required us to take a laboratory and office and repurpose them as cleanrooms. This required some creative thinking and some skilled work onsite, but the team rose to the challenge and delivered a beautiful controlled environment."**

