

Facilities and affiliations

The facilities available to the HIT Team include a dedicated pervasive computing development and prototyping unit, producing the School's own breed of wearable technologies (computers, headsets, person locating systems, etc.), a suite of dedicated VR equipment, ranging from portable interactive systems to autostereoscopic and haptic feedback workstations and a motion base simulator for mobile human interface studies.



HP VISTA

One of the major University initiatives with which the HIT Team is associated, by virtue of its close working relationship (research and technical consultancy) with the Landscape Archaeology and Geomatics Division of the Institute of Archaeology and Antiquity, is the state-of-the-art Visual & Spatial Technology Centre, supported by Hewlett Packard (HP VISTA). In brief, the Centre consists of:

- a 4.27m by 1.8m dual-channel rear projection display Powerwall system, provided by Fakespace Inc.
- a smaller, transportable ROVR display unit
- an Elumens VisionStation providing a semi-immersive partial-hemispheric display of 160° field of view
- a Reach-In haptic workstation, based on field sequential stereo viewing and the Sensable Inc. PHANToM controller
- a stand-alone VR development workstation for modelling and run-time activities using such packages as 3ds max, VR4Max and Vizard

For further information email [Professor Vince Gaffney \(mailto:v.l.gaffney@bham.ac.uk\)](mailto:v.l.gaffney@bham.ac.uk).

North of England Wolfson Centre for Human-Centred Medical Technologies

Based at Manchester's Royal Infirmary (MRI), the Wolfson Centre is one of the world's longest-established human-centred medical research and consultancy teams. The Centre's role is to evaluate new medical and surgical technologies with the aim of providing timely human factors recommendations to medical groups and specialists on usability and adoption issues relating to those technologies.



Established in 1994 with funding from the UK Department of Health and the Wolfson Foundation, the Centre's original remit was to research and develop affordable simulation for laparoscopic cholecystectomy training. The PC-based Virtual Reality trainer MIST, today marketed by Mentice of Sweden (www.mentice.com), became the first ever commercial laparoscopic surgical skills trainer and is a mandatory part of training courses at the European Surgical Institute in Hamburg.

Since that time, the Centre has expanded its focus to encompass simulation for gynaecological and temporal bone surgery, surgical robotics, real-time interactive 3D imaging for operating theatres (based on pre-processed bespoke CT and MRI datasets) and medical task analysis. The Centre is directed by Mr Rory McCloy FRCS (Consultant and Head of Surgery at the MRI) and EECE's Prof. Robert Stone (Visiting Professor, Department of Surgery).