

Robots doing what humans can't at Culham

Part of the UK-wide Festival of Robotics, visitors were treated to a behind-the-scenes look inside UKAEA's RACE (Remote Applications in Challenging Environments) where cutting-edge technology is being developed to help design and maintain future fusion energy plants.

Fusion, the process that powers the sun and stars, is described as the ultimate energy source and promises to provide safe, sustainable and low carbon power for generations to come.

Nick Sykes, Head of Operations for RACE at UKAEA, said: "The UK is leading the way in fusion energy which we believe will be an environmentally responsible part of the world's energy supply in the second half of this century. Robotics' will play a key role in maintaining fusion powerplants.

"It has been fantastic to showcase the very cool robotics work taking place here at UKAEA and we hope to have inspired the next generation of robotics engineers."

Visitors were able to see the use of artificial intelligence in fusion machines, the latest technology in robot handling, and test their own skills as the next generation of robot operators.

Dave Baker who travelled to Culham from Winchester, said: "The technology being shown at UKAEA is leading edge. It shows how far in front we are. It was absolutely fascinating, and interesting to see all the practical applications for the robots."

Annie Turner, from Chinnor, added: "I didn't know what to expect or what it would be like. It was really interesting and I learned loads. The technology was inspirational, especially for children looking at future careers in engineering."

Technology developed at UKAEA's Culham campus will also be useful for other challenging environments such as space, mining and nuclear decommissioning.

The UK Festival of Robotics is an annual celebration hosted by the EPSRC UK Robotics and Autonomous Systems (UK-RAS) Network, which provides academic leadership in robotics and coordinates activities at over 30 partner universities across the UK.

To find out more about our RACE facility, please visit <https://race.ukaea.uk/> or view some of our online videos on the @UKAEAofficial YouTube channel.

Visit the UK-RAS website for further information about the [UK Festival of Robotics 2022](#)