



AI and robotics is being deployed in situations to dangerous for human workers | Photo source [Dan Meyers](#) on [Unsplash](#)

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AUTONOMOUS ROBOTS HELP WITH NUCLEAR DECOMMISSIONING

 COMPUTING & TECH

The new robots are designed to think and act for themselves in situations too dangerous for human workers

Spotted: One of the main downsides of nuclear power is the challenge of decommissioning old facilities, a process that requires adequate technologies, sufficient funding, solutions for the management of nuclear waste, and a skilled workforce.

Smart robots can play an important role in decommissioning legacy power stations quickly, safely, and cheaply, and a new project in Cumbria, known as the ‘Robotics and AI Collaboration’ (RAICo), is developing robots that are designed to think and act for themselves, carrying out work that is too dangerous for humans.

The project is a collaboration between The University of Manchester, the UK Atomic Energy Agency (UKAEA), Sellafield Ltd, the Nuclear Decommissioning Authority, and the National Nuclear Laboratory.

“We’re helping Sellafield and other nuclear end-users to develop the next generation of remote surveying and handling equipment so they can improve their operations,” explains Professor Barry Lennox, a leading member of the RAICo team.

The project’s ultimate goal is to transfer the technology it develops to sites across the UK. RAICo will also provide a pilot for the development of robotic systems in other sectors, such as the offshore energy sector, agriculture, nuclear fusion, and even outer space.

The technology is described as ‘hot’ robotics, a prefix that was coined to reflect the use of robots in radioactive environments inside nuclear reactors. Professor Lennox, however, believes that the

meaning of 'hot' will now need to be broadened as the technology is applied to more general applications.

Other robotics innovations recently spotted by Springwise include the [SeaClear system](#), which uses a combination of robotics and machine learning to efficiently locate and remove marine debris, and a [dam in China that is being built by robots](#).

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26th July 2022

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Takeaway:

A recent report from the UK's Department for Business, Energy and Industrial Strategy estimates that the UK market size for autonomous robotic systems will reach almost £3.5 billion (around €4 billion) by 2030. With the right support, robotics and artificial intelligence (AI) could transform the UK economy and make it more competitive on the global stage. The RAICo team are at the forefront of this effort.