

World's first remote offshore rescue service among robotics projects backed by government

UK offshore wind workers could soon be kept safe using a remotely operated search and rescue service, thanks to a pioneering project backed by £7 million of government support.

This project is one of 38 business-led projects which will receive funding to accelerate their robotics and AI technologies as part of a drive to build back better from the coronavirus (COVID-19) pandemic.

Science Minister Amanda Solloway announced the winning projects, which include a paint applicator robot and a healthcare drone pad control centre, today (Tuesday 25 May) at the 2021 Robotics and Artificial Intelligence Industry Showcase.

Located across the UK, the projects will help to transform key UK industries and sectors – from life sciences to offshore energy – by making them safer and more productive. The funding forms part of the government's commitment to invest in ground-breaking research and raise economy-wide investment in research and development to 2.4% by 2027.

Science Minister Amanda Solloway said:

We are throwing our weight behind the most transformative technologies because innovation is at the very core of our plans to build back better from the pandemic, drive productivity and grow the economy.

From a first of its kind automated rescue service for UK offshore energy workers, to drone technology delivering for our NHS, these robotics technologies could be game changing as part of our continued efforts to tackle global challenges – from pandemic preparedness to climate change – all while cementing the UK's status as a science superpower.

Offshore Survival Systems in Edinburgh is being backed to develop a first of its kind search and rescue service which will use a network of semi-autonomous unmanned rescue vessels (URVs) to save lives at sea. It will be aimed primarily at supporting UK workers in the offshore energy industry who must deal with increased wind speeds and wave heights, while working far from shore.

Digital & Future Technologies, an electronics firm in Colchester, Essex, will also receive funding to help NHS and healthcare workers to tackle COVID-19 and future pandemics. The business will be building an automated drone system

which will load and unload its own cargo, ensuring that vital healthcare equipment such as personal protective equipment (PPE) can be delivered to UK hospitals at speed and without the need for human assistance.

Meanwhile, University of Liverpool spin-out Mobotix will use its funding to develop an automated 'back-up lab', which can be operated remotely. This lab will mean that pioneering research can be done during periods of lockdown or social distancing, without risk of infection. The project will help build operational resilience for the UK's leading life sciences laboratories so that they can maintain the scientific excellence demonstrated in combating COVID-19 over the past year.

Andrew Tyrer, Challenge Director for the Robots for a Safer World challenge, said:

The funding is crucial to widening the scope of our work and reach out to innovative designers not captured by our previous competitions. With net zero ambitions underlying industrial plans in every sector, and the chance to rebuild new industries after the pandemic, robotics, AI and automation are vital ingredients for the future.

Other projects receiving grant funding include:

- Motion Robotics in Southampton, developing a smart drone pad control centre to deal with a future increase in levels of drone transport for healthcare. The control centre will help coordinate drone flights between hospitals and suppliers or laboratories, ensuring a smooth and uninterrupted supply chain
- Crover Ltd, an Edinburgh based technology company developing the world's first small robotic device that can 'swim' through grains stored in bulk, for example wheat and barley, highlighting their condition and identifying grain spoilage. This will enable farmers to intervene at an early stage, reduce wastage and protect their revenues
- HausBots Limited, a Birmingham based small and medium-sized enterprise (SME), developing a wall-climbing robot that paints and protects walls from damp. Painting is the 5th most dangerous job in the UK, with painters at risk of accidents and health conditions, including repetitive strain injury. This project aims to deliver safety and productivity to painters, contractors and clients, in a cost-effective way

The investment is being delivered through UK Research and Innovation's flagship Robots for a Safer World Challenge, a £112 million programme to develop research and innovation in advanced robotics and autonomous systems.