

PRESS RELEASE



Loop Technology

Royal Visitor for UK Robotics leaders Loop Technology

HRH The Prince of Wales paid a visit to Poundbury based Robotics Company, Loop Technology, and was shown 3d robot scanning and virtual reality in action. Both are exciting new technologies the automation experts at Loop are currently developing.

Alun Reece, Technical Director at Loop explained “we were delighted to welcome HRH to Loop Technology, it was a real honour to show him FibreEYE and HoloCell both ground-breaking technologies where we’ve identified a need but as yet nothing automated exists”.

The business relocated to Poundbury in August 2016, reinvigorating the disused factory and establishing the Loop Technology Centre.

HRH watched a demonstration of a Loop Technology product FibreEYE, deployed on an industrial Robot which scans carbon fibre for defects. Carbon Fibre is very strong, light and excellent material for use in a number of fields, one of which being aircraft manufacture.

Paul Bower, Senior Software Engineer at Loop explained “the ability to use carbon fibre in aircraft manufacture brings huge benefits, making aeroplanes lighter means less fuel usage. The use of advanced fibre placement (AFP) techniques also means less waste, both bring environmental benefits”.

Loop Technology also demonstrated a robot being controlled using an augmented reality headset. A physical robot copied the actions of the virtual robot, responding to voice commands and hand gestures linking virtual and physical reality in the same environment. A useful tool which will allow engineers to interact with robots in which ever environments they are required, these may even be in different locations.

Ends.

Further Information

Loop Technology Limited is a high-tech robotic automation organisation employing 32 staff in various aspects of the business ranging from mechanical design, electrical design, software design, finance, HR, logistics and workshop technicians. The team at Loop are highly skilled and experienced designers, engineers and technicians dedicated to developing forward-thinking processes keeping Loop at the cutting-edge of composite manufacturing automation systems and, as a result, helping Loop experience significant growth.

The company began in 1998 in Weymouth, and moved to Dorchester in 2006 and has consistently been at the forefront of solving difficult automation problems. August 2016 Loop moved into larger premises on Poundbury, increasing their turnover by 80% as a result of the improved operational area, further enabling the company to take on larger projects within the aerospace sector. A key area Loop is developing automation solutions for is composite inspection and lay-up. Composite material is being adopted for use in many sectors such as aerospace and automotive, renewable energy, as it is an extremely strong yet light-weight material. Automating the process of depositing, shaping and inspecting the fibres of this material is new technology.

1. FibreEYE[®]

FibreEye[®] is a real-time 3D topography scanner.

FibreEye[®] is primarily designed to scan Carbon Fibre, which is difficult to scan as it has unique optical properties (Optically reflective and absorbent at the same time).

Integrating laser profiling, 3D scanning and robot control, large areas can be scanned quickly and precisely.

Custom software analyses scans in real-time to identify deposition errors as they occur.

Integrated interface with external machinery can stop depositions that deviate from expected CAD models in real-time.

Environmental advantages: making aircraft lighter, thus more environmentally friendly, lower risk of scrap parts thus less waste.

2. HoloCell

By developing this technology Loop now have a useful tool which will allow them to simulate robot motions in which ever environments are required, including at customer sites.

This technology can enable robot operators to interact with machines although they may be in different locations. As the virtual robots are responsive to you and the world around you this technology is also proving a successful tool for Loop as an interactive visualisation experience for potential sales.