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## **igus cabling solution helps speed up X-rays in hospital emergency rooms**

### *Low friction cable management system for rapid positioning*

Royal London Hospital needed an X-ray machine for its resuscitation unit that could be transported across bays quickly, allowing many bays to be accessed rapidly in mass emergency cases, and to help with the fast and efficient diagnosis of patients' conditions.

The hospital turned to Xograph Healthcare for its expertise in developing specialist X-ray equipment. Xograph Healthcare's team of engineers designed the BuckyStar Resus system, a highly effective, ceiling-mounted X-ray tube support system that can be moved rapidly from bedside to bedside, without having to move the patient.

The BuckyStar Resus is suspended from the ceiling to keep the floor area as free as possible from obstruction, with no trailing cables, and is motorised, giving quick multi-bay coverage. The position of the BuckyStar Resus can be pre-programmed; nurses simply enter the bay number on the control panel and it automatically moves to the desired location. This reduces manual handling, allowing nurses to concentrate on other tasks.

However, one of the challenges Xograph Healthcare faced in designing the new X-ray system was how to contain the high voltage and intelligent communications cables as they travelled over large distances. After considering various options, Xograph Healthcare chose igus' e-chain cable management system.

"Typically, X-ray machines in hospitals cover an area of 16m<sup>2</sup>," says Nigel Darwell-Stone, Business Development Manager at Xograph Healthcare. "However the new X-ray equipment needed to be able to cover 38m<sup>2</sup>. This meant that there was a much greater distance over which to carry the

cabling. We were looking for a neat and simple solution, which was easy to install, and could offer reliable high performance, and in fact our new system can cover an area of 75m<sup>2</sup>.”

As a cabling specialist, igus was able to advise on the best approach to take. The company designed, supplied and installed a full custom system including the energy chain to carry the cables safely as well as the chainflex cables for the motor power, communications and data.

“We recommended a special low friction rol e-chain because they are lightweight and can travel quickly and smoothly over large distances,” says Justin Leonard, director at igus UK. “The rol e-chains incorporate rollers, which significantly reduce friction and therefore less motor power was required.”

Reliability was also important, as the system has to be able to move repeatedly from bedside to bedside, without failure. igus’ e-chains are made from a self-lubricating polymer so require minimal maintenance over a long life time. This combined with the chainflex cables, guaranteed for millions of cycles in e-chains, offered Xograph Healthcare a reliable solution.

“It fits perfectly with our system and we have been impressed with the performance of the rol e-chain and communications cables,” continues Nigel. “Using the low friction e-chain has enabled us to develop an innovative X-ray device which meets the needs of emergency department resuscitation and allows nurses to get on with their day job, rather than being concerned with the operation of the equipment they’re using.”

“The igus energy chain allows flexible use of the X-ray machine across multiple triage bays for check-ups, which until today wasn’t possible due to hanging cables.”

For further information about igus energy chains visit [www.igus.co.uk](http://www.igus.co.uk) or phone 01604 677240.

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### **About igus UK Ltd:**

Based in Northampton in the UK, and with global headquarters in Cologne, Germany, igus is the largest producer of injection moulded polymer bearings and reinforced plastic cable carriers in the world. Product lines include industry-leading e-chain cable carriers, chainflex continuous-flex cables, iglidur plastic plain bearings, igubal spherical bearings, drylin linear bearings and guide systems. The company has 26 subsidiaries across 31 countries and employs approximately 1,800 people worldwide.

With plastic bearing experience since 1964, cable carrier experience since 1971 and continuous-flex cable since 1989, igus provides the right solution based on 80,000 products available from stock with between 1,500 and 2,500 new products introduction each year

For more information, please call igus UK directly on 01604 677240 or visit the website at: [www.igus.co.uk](http://www.igus.co.uk). Follow us at <http://twitter.com/igusUK>, watch our videos at [www.igus.co.uk/YouTube](http://www.igus.co.uk/YouTube), and connect with us at [www.igus.co.uk/Facebook](http://www.igus.co.uk/Facebook).

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### **About Xograph Healthcare**

Xograph Healthcare is a leading independent medical equipment supplier to the UK and Republic of Ireland providing innovative technology and services to hospitals, diagnostic centres, military medical services and veterinary practices.

Its range of medical imaging systems includes general, surgical, mobile, mammography and dental imaging equipment, as well as the latest healthcare IT and direct digital imaging solutions.

Xograph Healthcare is part of the Xograph Group of healthcare, scientific and veterinary companies and is based in Stonehouse, Gloucestershire with a Scottish office in Stirling and an Irish subsidiary based in Dublin. For more information, please visit: [www.xograph.com](http://www.xograph.com)