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## **Engineered Arts wins igus manus UK award for sophisticated robotic movement design**

*A total of 85 iglidur bearings helps RoboThespian move smoothly*

High-performance polymer bearings expert igus has presented a prestigious manus UK award to Engineered Arts. This is in recognition of the company's innovative use of polymer bearings within its RoboThespian humanoid robots. RoboThespian is fitted with iglidur® bearings on all rotating shafts, which has enabled its movements and gestures to be more fluid and friction-free, giving a convincing and human-like performance.

RoboThespian is a life-sized humanoid robot designed for human interaction in a public place. Being fully interactive, multilingual and user-friendly, it offers a new and memorable way to communicate and entertain. Users can set it up for inspirational educational, business or theatrical performances simply by writing their own scripts; these can be elevated to truly spectacular shows with multiple RoboThespians working together.

RoboThespian was designed by Engineered Arts Limited, which has a worldwide reputation as a developer of full-size humanoid robots for communications, research and entertainment. It was originally intended for use in science and technology centres as an entertaining vehicle for content delivery. RoboThespian represents the future of technology with leading-edge features including motion capture, object recognition and telepresence. Over 40 RoboThespians are now installed in 14 countries around the world. Simple to operate and maintain, they are trusted by national science centres including NASA's Kennedy Space Center, visitor attractions, commercial users and academic research institutions.

RoboThespian has over 26 axes, powered with a mixture of pneumatic and servo actuators. Engineered Arts constantly strives to make its behaviour and movements as human-like and smooth as possible. Long service life, high reliability and easy serviceability are essential; the

robots are deployed around the world in locations such as visitor attractions, and subjected to continuous daily use, as well as live TV and event appearances.

These issues have been successfully addressed, with the bonus of a significant reduction in weight, through designing-in maintenance-free iglidur J and G polymer bearings on all rotational shafts – a total of 85 iglidur bearings are used to help ease movement throughout the body from head to toe. This contributes to a longer life for RoboThespians around the world. The low friction, small size and lightweight iglidur bearings complement the anodised aerospace grade aluminium components used throughout RoboThespian; they form the basis for the smooth human-like movements and gesturing now evident whenever RoboThespian is in action.

“We have a great relationship with the people at igus and receive a first-class service from them,” comments Marcus Hold, Design & Production Engineer at Engineered Arts. “The products are of excellent quality and are reliable which is of the utmost importance to us, as our humanoid robots are required to perform daily without fail in busy public environments.”

Hold continues: “The impact of the iglidur bearings on RoboThespian’s performance is just as important – without igus, he wouldn’t be able to move in the smooth way he does today.”

– Ends –

**About igus:**

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 more than 2150 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 100,000 products available from stock with between 1,500 and 2,500 new products introduction each year

For more information, please call igus 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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