Improved Linear Actuator
With Custom Rod End

CCTY

CCT**Y**

EXECUTIVE SUMMARY

In robotics and automation reliability is non-negotiable. While off-the-shelf bearings may seem convenient, they often introduce design limitations, reduced load capacities, and shortened cycle life. Custom-engineered bearings from CCTY are tailored with application-specific design attributes for durability and performance.

THE CHALLENGE

A customer developing advanced linear actuators for robotic applications was facing repeated failures with off-the-shelf rod ends. The existing bearings were seizing under load resulting in unreliable performance during testing. Limited options in the market restricted the customer's ability to achieve the cycle life and durability the design required.

THE SOLUTION

CCTY engineered a complete bearing assembly designed specifically for the actuator's performance demands. By optimizing materials, tolerances, and internal geometry, the custom rod end improved load-handling capacity.

THE RESULTS

The customer experienced significant improvements in both load performance and cycle life. The new assembly integrated seamlessly into their actuators, outperforming previous solutions during testing and helping the customer move forward with confidence in their product's reliability.

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In robotic applications, precision drives performance. Off-the-shelf bearings often fall short, making custom-designed solutions the smarter investment.

– **Nik Jerinic**
Robotics Sales Manager

CCTYgroup.com

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CHINA
TEL: +86-511-88883388
INFO.CN@CCTYGROUP.COM

NORTH AMERICA
TEL: +1-847-540-8196
INFO@CCTYGROUP-US.COM

EUROPE
TEL: +49-(0)-9723-9339-000
INFO.DE@CCTYGROUP.COM

INDIA
TEL: +91 96014 95610 / +91 98230 17144
INFO.IN@CCTYGROUP.COM

JAPAN
TEL: +81-3-5444-4451
INFO.JP@CCTYGROUP.COM

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