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## TORQUE TRANSMISSION GEARBOX HELPS POWER THE FIRST FDA-APPROVED ASSISTIVE ROBOT

*Specially Designed Gearbox Combines Low Weight, High Torque And Low Cost*

Fairport Harbor, OH – October 13, 2006 – Applied Resources is a manufacturer of The Raptor, the first commercially available, FDA-approved “Smart” Assistive Robot. The Raptor provides assistance for individuals with severe disabilities who use powered wheelchairs. The robotic arm’s elbow contains a right angle gearbox from Torque Transmission, which offers dual shaft output from an extended shaft input.

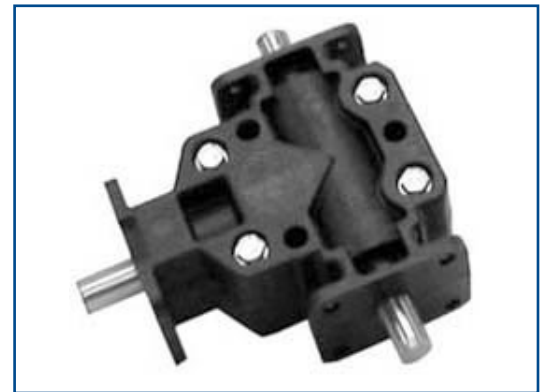
The company was seeking an alternative to the heavy, expensive metal gearboxes available on the market and contacted Torque Transmission for help. “Torque Transmission engineers fitted our off-the-shelf RAB-1, Right Angle Miter Gear Drive with special cut gear ratio to give it more torque to meet the customer’s requirement,” explained John Rampe, President of Torque Transmission. “The result was a low cost, very light weight, yet durable drive,” he concluded.

“The Torque Transmission gearbox was selected for its small envelope, light weight and high torque strength,” noted Craig Wunderly, Chief Engineer for Applied Resources. “We subjected the right angle drives to rigorous testing and the drives successfully passed all of our tests.”

Torque Transmission’s Right Angle Miter Gear Drive (RAB) measures 3-21/32” x 3-15/16” x 1-1/4” deep and weighs 12 ounces. It employs shielded lubricated, hardened steel ball bearings and gears and is rated at 1600 RPM and 1/3 horsepower maximum speed is 3000 RPM. Torque Transmission’s RAB also features a choice of one or two inputs and 1:1 or 2:1 gear ratios, right or left hand configuration, and may be operated in either direction.

Other Key features include:

- Low cost. Half the cost of comparable metal case drives.
- Choice of case and shaft materials: - RoHos Compliant.
- Custom gearing, housing and shaft length and materials available.



Torque Transmission’s Right Angle Miter Gear Drive powers the first commercially available FDA-Approved Assistive Robot. The Fairport Harbor, Ohio-based Company provides the gear boxes which power the arm.

- more -



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Typical uses of Torque Transmission's Right Angle Miter Gear Drives encompass a wide variety of applications including medical and physical therapy equipment, packaging equipment, or any fractional horsepower application where high quality yet compact, lightweight and economical power transmission is required.

For more information, contact Torque Transmission at **800-544-6642** or visit **[www.TorqueTrans.com](http://www.TorqueTrans.com)**

#### **About Applied Resources**

The Phybotics Division of Applied Resources Corp. introduced the Raptor Wheelchair Robot System in the year 2000. The Raptor received approval from the U.S. Food & Drug Administration in December 1999, and made history in June of 2000 as the first sale of an FDA-Approved wheelchair robot in the United States. The Raptor is also sold in the Netherlands.

#### **About Torque Transmission**

For more than 50 years, Torque Transmission has designed and manufactured custom and standard power transmission components for low and fractional drive applications. Torque Transmission's wide product line includes worm gear speed reducers, right angle drives, thrust bearings, pulleys, roller chain sprockets, and flexible couplings. Our motion control components are used in industries such as food processing, medical, point of purchase, automotive, printing, semi-conductor manufacturing, sports and many others.