K2x Linear Actuators

Warner Linear was contacted to provide actuators for use on a new race car simulator attraction developed from airline simulator technology. The race car simulator provides the driver with a full sensory immersion experience by combining full motion, 3D imagery displayed across three wide screens, surround sound and genuine race car seating and controls.

Two actuators are positioned vertically under the driver seat and are controlled by motion outputs from sophisticated gaming software, which includes a terrain model, to replicate pitch and roll with braking, acceleration, deceleration, cornering G-forces, hill climbing and descending as well as left to right road slope.

Durable Warner Linear K2x models were selected over competitive units for this challenging application due to their exceptional response time, load carrying capacity, duty cycle and overall value.

The 8” stroke, ball screw actuators feature a 2,800 lbs. (1270kg) load capacity, integral O-ring seals, heavy wall rod and extension tube, bi-directional holding brake and Nitrotec® treated end fittings for superior strength and corrosion resistance. Models also feature a heavy-duty, sealed double ball bearing motors and a mechanical torque limiter for end of stroke and overload protection. High performance synthetic lifetime lubes are used throughout. Unique (patented) screw end bearing guide provides smooth extension operation, high side-load capability and aids in screw re-lubrication.