

Stephen Derby

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Robotics and Automation Engineering

Education

BS Mechanical Engineering 1976	ME Mechanical Engineering 1977	PhD Mechanical Engineering 1981
Rensselaer Polytechnic Institute	Rensselaer Polytechnic Institute	Rensselaer Polytechnic Institute

Work Experience

1981-1986	Rensselaer Polytechnic Institute - Assistant Professor
1986-2010	Rensselaer Polytechnic Institute - Associate Professor
2011-Present	Rensselaer Polytechnic Institute - Associate Professor Emeritus
1982-1991	GRASP, Inc. – President
1998-Present	Distributed Robotic LLC – President www.distributedrobotics.com
2001-2006	Co-Director Rensselaer Polytechnic Institute Flexible Manufacturing Center
2011-Present	Automation Director Pack Flow Concepts LLC www.packflowconcepts.com
2012-2013	Head Automation Consultant – Home Delivery Services www.hdsglobal.com
2018-2019	Technology Lead AutoGuide Mobile Robots
2023	Senior Robotic Architect Jabil Circuit
2024	Rensselaer Polytechnic Institute – Adjunct Professor

Consulting

2018-2019	Aerofarms Hydroponics Automation
2019	Cloud Kitchen Company Food Automation
2013-2017	Corning Life Sciences Packaging Automation
1981-1984	Benet Weapons Laboratory of the Watervliet Arsenal Robotic Autoloader
1991-1993	Center for the Disabled, Albany, NY Human Assist Robotics Devices

Patents

US #4,919,586	The Closed Loop Assembly Micro Positioner
US #6,394,740	Material handling device
US #6,394,736	Bulk mail container unloading system, apparatus and method
US #6,565,308	Bulk mail container unloading system, apparatus and method
US #6,688,451	Tracked Based Robotic System
US #6,860,543	Mechanism for moving a door
US #6,910,519	Process and apparatus for assembly of wax trees
US #7,104,588	Mechanism for moving a door
US #7,147,032	Process and apparatus for assembly of wax trees
US #7,427,314	Desiccant container and method of manufacture
US #7,601,388	Method and apparatus for transferring thin films from a source position to a Target Position
US #7,712,598	Robotic Tread System Having a Net-Zero Motion Head for Moving Objects
US #9,334,081	Folding side-wall container and automated system of use
US #9,339,529	Automated product engager, transporter and patterned depositor system
US #9,410,310	Vertically and horizontally adjustable sink system for use by persons using a wheelchair and/or a walker

Selected Automation Projects (Over 75 total)

Home Delivery Service (HDSGlobal.com) Louis Borders CEO – DC Automation Designer working with multiple System Integrators for Robotic Order Picking and Logistics

BASF Fuel Cell Membrane Automation: Processing, Material Handling and Packaging

Bausch & Lomb Contact Lens Automation: Material Handling, Inspection and Packaging

Built Trackbot Multihead Robot and exhibited at Pack Expo trade show 2000 and other trade shows.
www.distributedrobotics.com/products/trackbot/

Designed High Speed Packaging line for Kraft/Mondelez for flexible case packing
www.packflowconcepts.com/innovative-automation/mixed-product-case-packer/

Expertise

Robotics – Collaborative (Universal Robots UR – 5), SCARA, 6 Degree of Freedom and Gantry style robots

End Effectors – Grippers – Off the shelf and Custom Design

Automation Design – Custom Automation Solutions – Modular Design

Design, build, maintain, and improve automation systems integration for manufacturing equipment, robots, controls, machine vision and processes.

Design automation equipment, determine root causes of equipment failures and diagnose manufacturing defects, initiate repair plans.

Work with engineering, maintenance, and production on projects to increase efficiency and improve safety.

Patent Infringement Litigation – Expert Witness