

Development & Consulting Services

RobotDoctor, LLC. • 9220 Nottingham Way, Mason, OH 45040 • www.RobotDoctor.com Steve Roell (513) 702-3709 • Glenn Helmes (513) 542-0033

Software Development / Support

Adept Control Software:

The experts at RobotDoctor can provide the following services:

- √ Complete development and integration of AIM , V⁺, Micro V⁺ and PC software for robot, motion control, and vision applications
- √ Special communications drivers for TCP/IP or serial devices such as manufacturing databases, smart vision cameras and intelligent sensors
- √ Custom drivers for interfacing complex devices to Adept DeviceNet
- $\sqrt{}$ Special utilities for software backup, etc.
- √ Error recovery routine development
- √ Pendant application interfaces
- √ Cell control design and development
- $\sqrt{}$ Application upgrades and feature enhancement for existing installations
- √ Bug fixes

Other robot software development is also available.

Cell Layout Consulting

RobotDoctor services in this area include:

- √ Application feasibility studies
- √ Cell design for efficiency to determine the optimum placement of robot arms and other devices to optimize system cycle time
- $\sqrt{}$ Process development and improvement
- $\sqrt{}$ Cycle time optimization for new or existing cells

• Adept Robot System Replacements / Upgrades

RobotDoctor offers a total solution for the replacement or upgrade of your out-of-support robot or control system including:

- √ Design and supply of controller cabinets for your application and environment.
- $\sqrt{}$ Electrical and mechanical interface design and components
- $\sqrt{}$ Applications software and hardware conversion
- $\sqrt{}$ Installation and bring-up services
- √ Turn-key responsibility



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• Vision System Integration / Consulting

RobotDoctor engineers are experienced with both vision inspection and vision guidance applications. We can provide recommendations as to the optimum camera, lighting and lens selection for your application. We can also provide components or a complete integrated solution.

• Motion Control Consulting

RobotDoctor services include:

- $\sqrt{}$ Servo amplifier selection
- √ Motor sizing
- √ Electrical interface design
- √ Servo system integration
- √ System tuning
- $\sqrt{}$ Special servo level software development.

• Robot Tooling Design

RobotDoctor engineers can make recommendations on actuator selection and gripper design to optimize your application. If desired, we can provide complete designs and components.

Adept Robot System Training

We can provide and develop training courses for customized systems as well as instruct your technical staff on standard Adept software.

• System Documentation

We can develop functional specifications and special documentation for your system.

RobotDoctor Experience:

The Company's founders have over 35 years combined design, development, and application experience with Adept Technology robot and controller based products and systems.



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Steven Roell:

Steve has over 20 years of automation experience in dealing with controls, servos, robots and machine vision. This includes work implementation of many different projects in different market segments such as automotive mechanical and electrical assembly, aerospace manufacturing, high-speed packaging, medical product manufacturing, electrical product assembly and other market segments.

Steve's career started with working with the Delco Remy division of General Motors. He worked directly with the design of automated assembly lines, controls and programming of the robots. During the years with Delco he worked directly on the plant floor implementing many different projects dealing with automated manufacturing.

His next 15 years have been directly involved with assembly robots, servo control and vision systems working with Adept Technology, Inc. During his years at Adept, Steve served as an applications engineer, Manager of applications engineering, Manager of RDASG (contract engineering services), Senior Software Engineer and Servo Software Engineer. He has been involved in hundreds of successful applications and has very good problem solving skills.

Glenn Helmes:

Glenn brings to RobotDoctor LLC over 25 years of robot and machine vision experience, 18 of which are in systems and applications employing Adept Technology robot and controller products.

Since 1993 Glenn has operated Glenn Helmes & Associates, Inc., an automation design and consulting firm providing robot and machine vision mechanical, control, and software solutions to systems integrators and end-users. Glenn has provided design, development, and software services to customers in the automotive, electronics, aerospace, medical and consumer products, and food applications on a worldwide basis.

From 1985 to 1992 Glenn was a member of Adept Technology, most recently as Director of Motion Control and Machine Vision Business. In 1990 he directed Adept's entry into the general and OEM motion controls markets