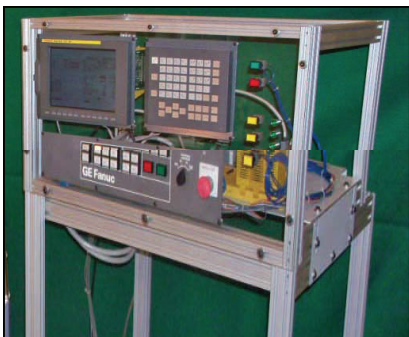
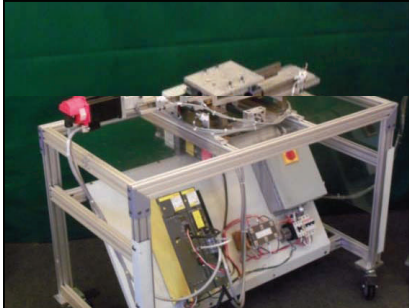
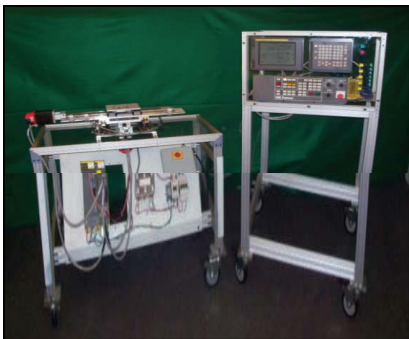


Cleveland Industrial Training Center...

.....is proud to welcome renowned trainer,
John Robbins of Automation Consultants for a one-week only course.

CNC Troubleshooting - Fanuc Controls

This course is designed for technicians who will be troubleshooting CNC equipment with Fanuc controls. We will emphasize the importance for technicians to fully understand how the electronics and mechanics interact in order to troubleshoot a problem. The course will cover the three primary areas of CNC troubleshooting:



Electrical - Motors, servos, encoders, ladder logic and diagnostics.
Mechanical - The major components that make up a machine tool.
Environmental - Outside factors such as leveling, power, tooling.

Cost includes a 300-page reference manual.

John Robbins has been providing national technical support to machine tool builders, distributors and end users since 1990. His company, Automation Consultants, boasts an impressive list of corporate clients who regularly rely on John's expertise. He has received extensive training in all aspects of machine tool operations. This includes accuracy issues, electrical troubleshooting and modifications to existing equipment. In many instances, he is able to go to component level in diagnosing problems. His ability to explain the operation of the various machine tool components makes him an excellent instructor.

During the course the students will assemble a CNC machine. This includes items such as box and linear guide rails, gibbs, ballscrews and a lubrication system. Once this is complete, the students will add the motors, servo drives and all of the necessary wiring. In the next step they will install the control, operator panel, parameters and ladder logic. As they assemble the machine we will discuss each component, how to adjust it, and how it can fail.

After the assembly, errors will be introduced into the machine. The students will use what they have learned in class to diagnose the problems. The students will also be presented with various scenarios dealing with machine failures. They will discuss potential causes for the failure and determine a logical series of tests in order to quickly isolate the problem.

Classes meet:
Mon. - Thurs. 8am - 5pm
Fri. 8am - Noon
May 10th. thru 14th. 2010
Or
May 17th. thru 21st. 2010

Cleveland Industrial Training Center
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216-459-9292 216-459-9220 (fax)
Contact Tim Duffy - Director
Tim.duffy@clevelandindustrialtraining.com

Call today for details
on cost, special offers
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seat!