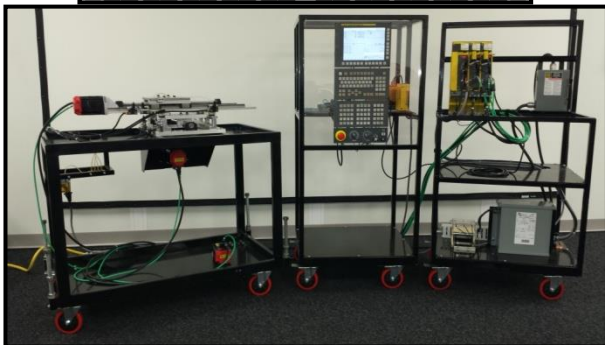
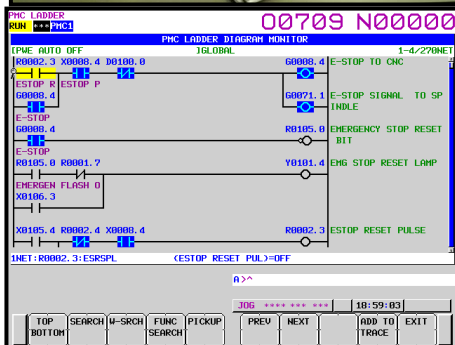


## CNC Troubleshooting – Fanuc Controls

This course is designed for mechanics and technicians who will be troubleshooting CNC equipment with Fanuc controls. We will emphasize 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



During the course the students will assemble a CNC machine simulator. This includes items such as box and linear guide ways, gibbs, ballscrews and a lubrication system. As the machine is assembled we will discuss each component, the proper installation method and how it can fail. Test and adjustment procedures will be done on each of the major components.

After the assembly, we will discuss and test the servo motors, drives and encoders. The machine tool interface, including ladder logic will be covered along with screen navigation.

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.

All of our classes can be tailored to the specific issues that you wish to address. This class is available at your facility or at one of our training centers in Louisville, KY or Cleveland, Ohio.

**About the Instructor** - John Robbins has been providing national technical support to machine tool builders, distributors and end user since 1990. He has provided his training on multiple occasions to Boeing Aircraft, General Motors, Allison Transmission and many other large corporations.

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