

US344

IRC5P Electrical Service

IRB 52, 540, 580, 5300, 5400, 5500

This course is designed to teach students how to identify the electrical components, theory of operation, and introduce proper troubleshooting procedures on the IRC5P robot controller. Approximately 50% of the course is hands-on troubleshooting of actual robot system and controller.



Topics include

- Theory of operation of the IRC5P robot controller
- Safety precautions used while troubleshooting the IRC5P robot controller electrical system
- Description of components in the IRC5P robot controller
- Principles of logical troubleshooting from power up through emergency stop loop and servo system
- Input/Output interfacing between the IRC5P robot controller and peripheral equipment

Course objectives

After successfully completing the course, the participant should be able to:

- Practice safety as it pertains to the robot system
- Identify and use the Paint Teach Pendant
- Interpret and respond to event messages. Use event logs
- Identify different parts of the robot cabinet and arm
- Load system software
- Troubleshoot Power ON circuits
- Troubleshoot Purge circuits
- Troubleshoot computer and drive system to a board level
- Troubleshoot Motors ON / Run Chains circuits
- Troubleshoot the Motors, brakes, and resolvers
- Properly calibrate the robot after a motor change
- Interface an input device and an output device to the robot

Student profile

- Industrial electricians
- Electrical service technicians
- Engineers
- Supervisory personnel

Prerequisites

- Familiarity with use of electronic test equipment (voltmeter)
- Basic understanding of digital electronics is helpful
- IRC5P robot programming US341 is recommended

Duration

The course duration is 4.5 days.

Customer Service – Robotics

1250 Brown Road

Auburn Hills, MI 48326, USA

Tel: 1 800 HELP 365 (1 800 435 7365) option 1, option 4

Outside USA/Canada: +1 440 585 7804

Fax: +1 860.298.3856

E-mail: abbuniversity@us.abb.com

www.abb.us/abbuniversity

© 2010 ABB Inc. 3BUS095261 SM2010-027

ABB reserves the right to change specifications without notice.