

# US420 IRC5 Robot Programming I

The course goal is to teach students how to operate and program the robot using the teach pendant.

## Topics include

- Safety precautions used while programming and program execution
- System Description
- Event messages
- Positioning the robot by use of joystick control
- Program creation procedures
- Program modification techniques
- Backup and Restore
- Tool Center Points
- Work Objects
- Program Flow
- Working with numbers
- Operator Communications
- Circles and Offsets
- Clocks and Hot Editing

## Course objectives

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

- Practice all areas of safety as they pertain to the robot
- Properly startup, operate, and shut down the robot
- Properly identify and recover from robot errors
- Perform program storage and retrieval
- Manual and program control of inputs and outputs
- Create Tool Center Point data
- Edit programmed positions
- Create a program with subroutine structure
- Perform editing techniques
- Program instructions, such as, output control, decision making, operator dialog, and clock
- Name I/O and data with proper names
- Identify system parameters
- Define Work Objects

**Student profile** This course is intended for personnel responsible for operating the robot, creating programs and editing programs. Such as:

- Technicians
- Engineers
- Service Personnel
- Supervisory Personnel
- System Integrators



## Prerequisites

No formal requirements

## Duration

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

E-mail: [abbuniversity@us.abb.com](mailto:abbuniversity@us.abb.com)

Website: [www.abb.us/roboticstraining](http://www.abb.us/roboticstraining)