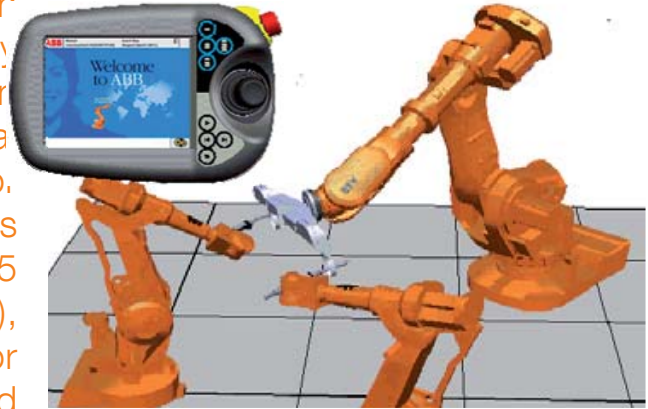


Accelerated Programming for Material Handling (Integrators Only)

IRC5 – 4½ days – Course Code: US426

This course is designed for students with strong programming skills (not necessarily ABB products). A quick paced combination of our IRC5 Programming I for Material Handling (US420) & IRC5 Programming II for Material Handling (US425) courses, this course provides a brief overview of IRC5 Programming I for Material Handling (US420), then instruction in IRC5 Programming II for Material Handling (US425) features and techniques.



Topics Include

- Safety precautions used while programming and program execution
- Operating controls and indicators on the robot controller
- Positioning the robot by use of joystick control
- Program creation procedures
- Program modification techniques
- Setup programmable keys
- Interpret and respond to error codes
- Creating and using Tool Center Points
- Creating and using Work Objects
- Identify and manipulate data values
- Apply the theory of singularity at a basic level to anticipate problem areas in programs
- Use the search instruction and error handling instructions
- Use program displacement instructions
- Use interrupt instructions and trap routines
- Use event handling routines
- Use advanced I/O instructions
- Use instructions to enhance robot performance
- Use the Multitasking

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 FlexPendant
- Run the robot system in manual mode and automatic mode
- Interpret and respond to event messages
- Load, create, save, delete, check and edit basic programs using the FlexPendant and Robot Studio Online software
- Verify robot synchronization using a calibration routine
- Create and Define a Tool Center Point
- Use movement instructions in a basic program
- Use Input/Output instructions in a basic program
- Create routines, and use routine instructions in a basic program
- Use decision making instructions in a basic program
- Use registers and math instructions in a basic program

- Use FlexPendant communication instructions in a basic program
- Use time instructions in a basic program
- Use offsets for movement instructions
- Use work objects for position reference
- Dynamically change data values
- Use instructions to avoid singularity
- Perform robot searches, displacements, and error handling
- Program interrupts and trap routines
- Create and use background tasks

Student Profile

This course is intended for personnel responsible for starting and operating the robot, creating programs and editing programs.

- Engineers
- Service Personnel
- Supervisory Personnel
- System Integrators

Prerequisites

- This course is intended for someone who has a strong robot programming background, but is not familiar with ABB robots.

Duration

Course duration is 4.5 days.

Customer Service – Robotics

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