The course is designed to teach students the theory of operation, disassemble and reassemble the vertical arm, horizontal arm, horizontal arm drive unit, drive shafts, spring assembly, and motors. Additionally, how and when to PM the robot, fluid control, process arm components, and troubleshooting. When applicable, disassemble and reassemble the gear pumps and valve pack.

Topics include
- Proper safety precautions used while performing mechanical repair
- Theory of operation of robot controller and mechanical unit
- Description and operation of mechanical components
- Overview of paint process arm components
- How to use manual for repair and ordering of spare parts

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

- Perform safety precautions used while doing mechanical repair
- Properly start-up, operate, and shutdown the robot
- Describe the operation of mechanical components
- Disassemble and reassemble mechanical unit
- Use the manual for repair and ordering of spare parts
- Identify and describe the paint process components
- Overview the 2x2 valves
- Overview of paint process arm preventive maintenance procedures
- Perform preventive maintenance procedures on the robot
- Calibrate robot with calibration fixtures

Student profile
- Industrial personnel required to mechanically repair the robots and to perform regular preventive maintenance

Prerequisites
- Mechanical background or experience is helpful
- Ability to navigate through the Paint Teach Pendant

Course duration
The course duration is 4.5 days.

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