C-215 Robot System Operations 1

Certification website: [Smart Automation Certifications - SACA]

Credential Summary

Prepares individuals to set up, adjust, monitor and operate industrial robot systems in an Industry 4.0 automation environment.

Overview

- **Related Instructional Hours:** 80-85
- **Exam details**: Has a hands-on practical assessment and a written (online) knowledge assessment.
- **Third party testing provider**: Smart Automation Certification Alliance (SACA)
- **Exam cost**: $500 with SACA membership
- **Renewal details:** Certifications do not have an expiration date, however, there is a $395 renewal fee for membership.

Job Opportunities

- **Relevant SOC codes**
  - Electro-Mechanical Technician 17-3024
- **Demand information**
  - Average flame ranking = 2.09/5
- **Average Wages**
  - $70,410 (33.85 per hour)
    (Average wages pulled as of October 2023)

Knowledge, Skills, and Competencies

- Adhere to robot safety rules
- Identify robot types and robot components (and end-effectors)
- Perform normal startup and shutdown
- Perform emergency shutdown and recovery
- Identify robot work envelope
- Perform robot safety inspection
- Use teach pendant to view menus and status indicators
- Use teach pendant to jog robot in joint mode or using Cartesian coordinates
- Adjust jog speed, setting and testing robot joint travel limits
- Use teach pendant to identify robot position in each of 5 frames
- Define a frame using 3-point method
- Load a robot program using Ethernet or memory card
- Test digital robot inputs and outputs
- Test robot program in single step or continuous mode
- Select and run robot program using teach pendant
- Teach/adjust robot points using proper frame
- Identify/recover from a fault
- View/interpret robot alarm history.

Post Secondary Relevance

- **Credit for prior learning**
  - Ivy Tech gives credit
- **Next level programs of study**
  - Engineering Design
  - Mechanical and Architectural Design
  - Manufacturing Design
  - Mechanical Design
  - BIM Architecture
  - Architectural Design