

# ***Certified Technician- Supply Chain Automation (CT-SCA)***

## ***Training and Certification Program***



# CT-SCA Collaboration



National Center for Supply Chain Automation



# Industry Advisors

*Industry Partners in the Development Process*



**TARGET**



**DAIFUKU**



# CT-SCA Certification

**Supply Chain Technician:** *A person who installs, operates, supports, upgrades or maintains the automated material handling equipment and systems that support the supply chain.*

## Certification Process:

- 90-120 Min Online Test
- Hands-On Assessment

## Certification 1

### EM

#### Equipment Maintenance

Maintaining Equipment / Systems

## Certification 2

### ER

#### Equipment Repair

Equipment Repair - Installing, Modifying, Troubleshooting and Repairing Equipment/Systems

Pre-Requisite Knowledge

## Certification3

### NR

#### Network Repair

Network Repair - Installing, Modifying, Troubleshooting and Repairing Basic Controllers and Networks

Pre-Requisite Knowledge

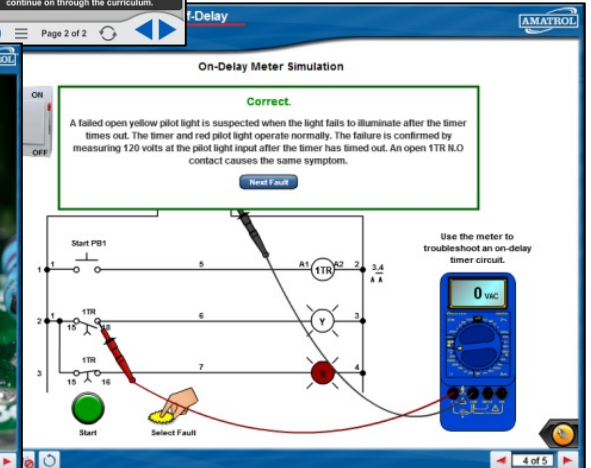
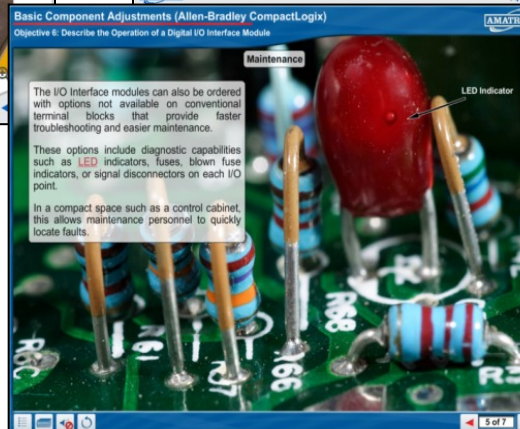
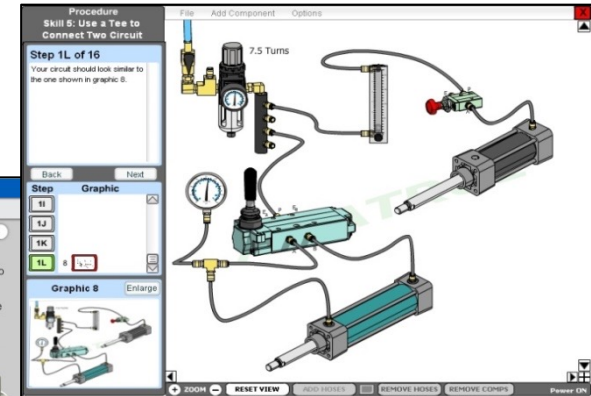
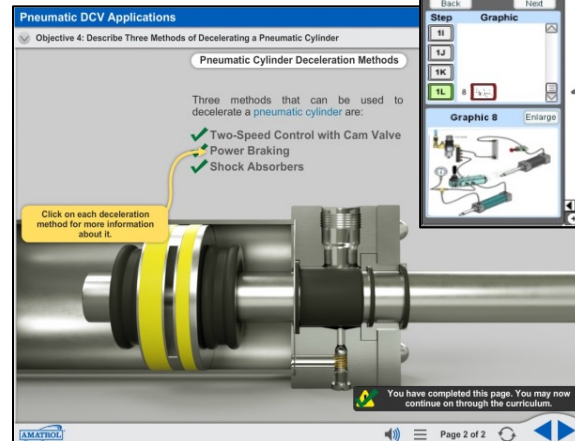
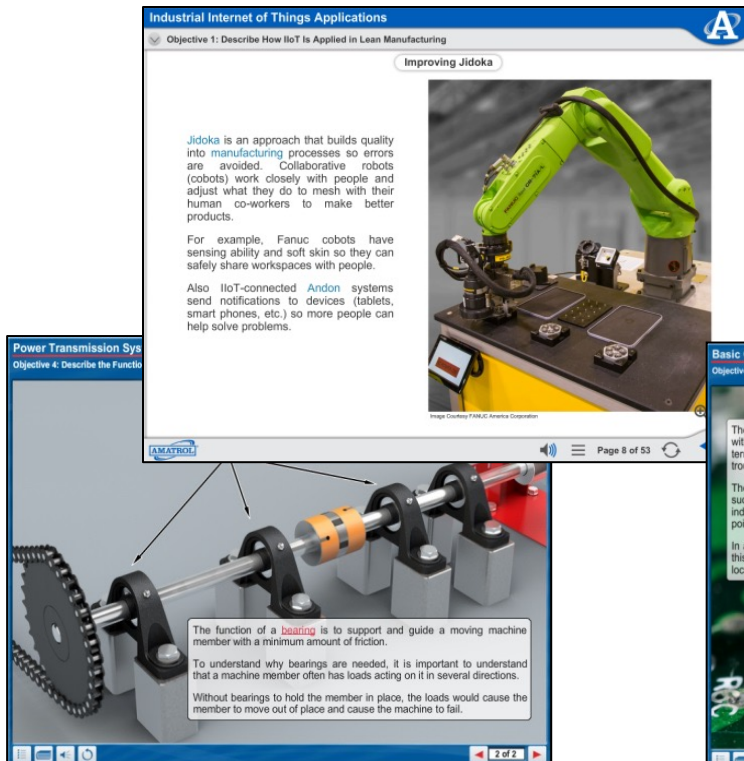
Higher Level

Entry Level



# CT-SCA Courses

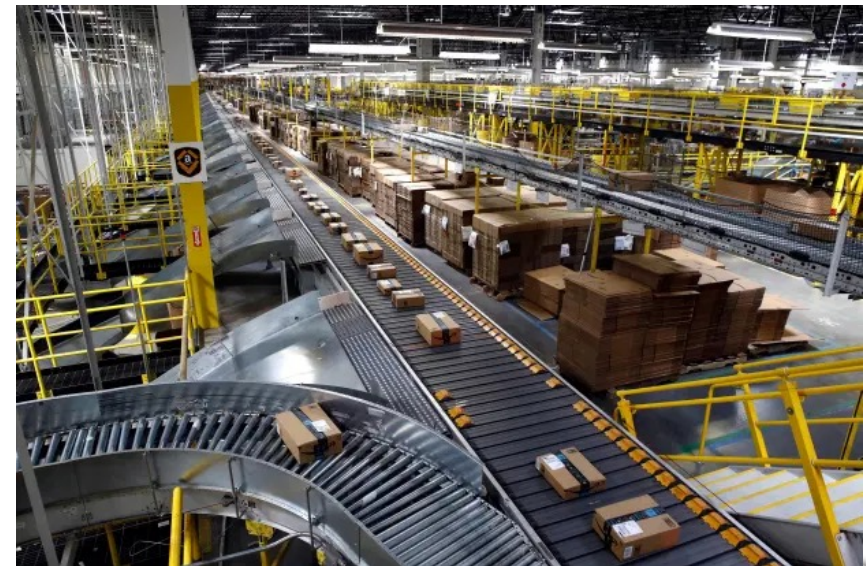
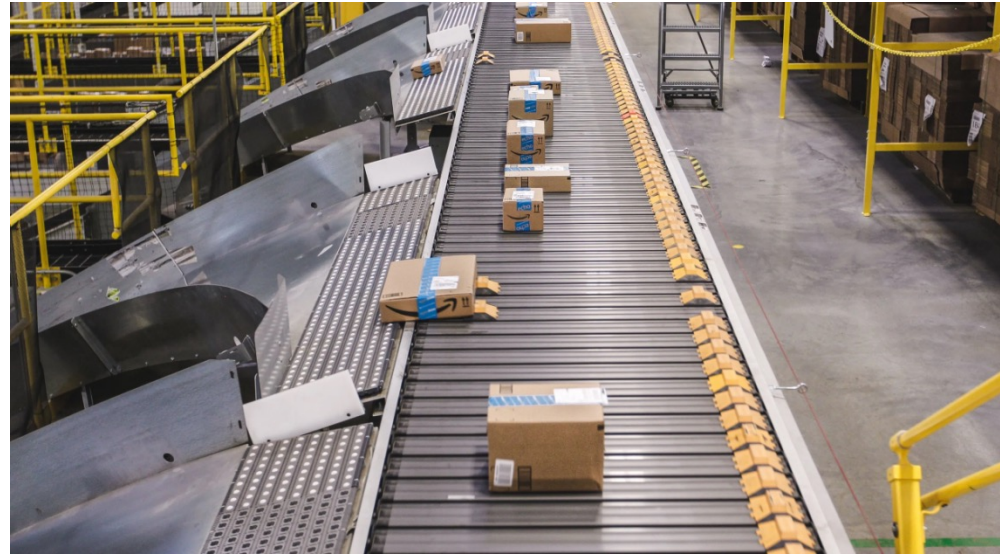
- Aligned with CTSCA Std.
- 200 hours per course, e-learning and hands-on
- Virtual Trainer Simulation





## Skill Boss Logistics

- Hands-on Skills Assessment and Training for the CT-SCA Certification
- Simulates a modern Sortation System



# Skill Boss Logistics Major Elements

## 100 Hands-On Skills

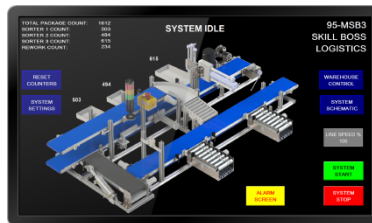
Control  
Unit



HMI with  
Warehouse  
Control Software



Workstation





# Computer-Based Fault Insertion

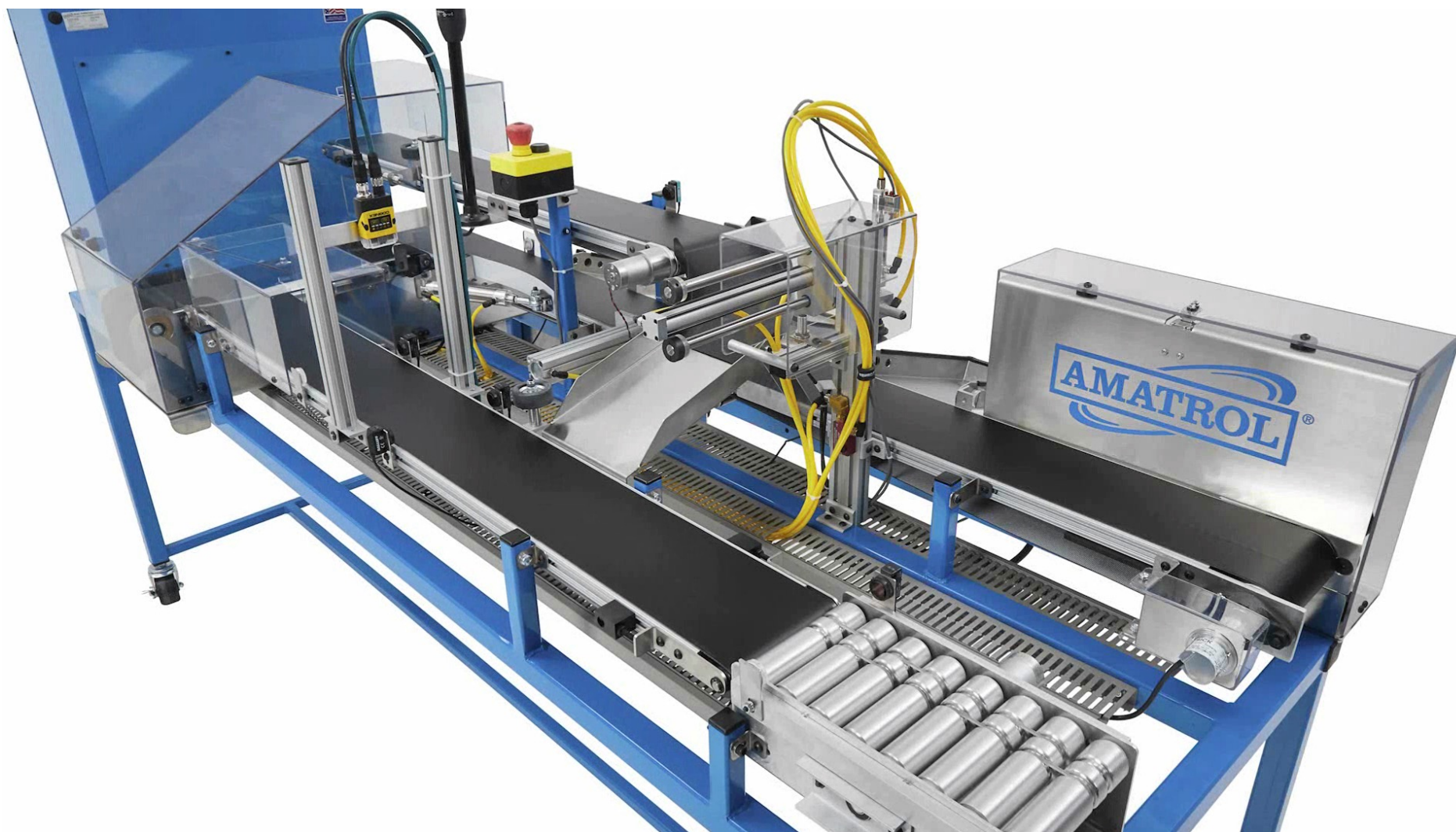
## Examples of 50+ Faults:

- E-Stop Pushbuttons
- Induction Sensor
- Limit Switch
- Photoelectric Sensors
- Magnetic Reed Switches
- Barcode Scanner
- Master Control Relay
- Programmable Controller I/O
- Power Supply
- Variable Frequency Drive
- Pneumatic Valve Solenoids
- Pneumatic Valves
- AC and DC Motors
- Encoder
- Main Power Breaker
- Ethernet Switch



- *Real World Problem Solving*
- *Safe Fault Insertion*
- *Automated Fault Insertion*
- *Student Record Database Analysis*





# Teacher Training

- Location: Amatrol, Inc. Jeffersonville, Indiana
- Next Sessions: May 24, August 23





# CT-SCA Certification

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Industrial Internet of Things Applications

Objective 1: Describe How IIoT Is Applied in Lean Manufacturing

Improving Jidoka

Jidoka is an approach that builds quality into manufacturing processes so errors are avoided. Collaborative robots (cobots) work closely with people and adjust what they do to mesh with their human co-workers to make better products.

For example, Fanuc cobots have sensing ability and soft skin so they can safely share workspaces with people.

Also, IIoT-connected Andon systems send notifications to devices (tablets, smart phones, etc.) so more people can help solve problems.



Image Courtesy: FANUC America Corporation

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