

Multi-State Advanced Manufacturing	RELEASE DATE	3/18/2016
Consortium	VERSION	v 001
US DOL SPONSORED TAACCCT GRANT: TC23767	PAGE	1 of 2
PRIMARY DEVELOPER: Glenn Wisniewski – Henry	y Ford College	

# Integrated Manufacturing Systems Troubleshooting Sequence Diagram Lab – Student Instructions

## Sequence Diagram Lab - Part 1

Attached is a blank sequence diagram.

Through observations of the AMTEC/SMC/FESTO/Amatrol System operations, please complete the Sequence diagram for the system on AMTEC or for an assigned station on another integrated systems...

- Identify the outputs associated with each step this includes Output Actuators solenoids and associated PLC I/O addresses (this identifies the I/O lights on the module) (e.g. Output light 4 or input light 2 on the module). The student will need the print package to complete.
- 2) Identify the triggers that caused the action this is from observation and may not be 100% accurate.

#### Sequence Diagram Lab - Part 2

Using the PLC Logic, verify the triggers for each step in the Sequence Diagram and record your findings on the Sequence Diagram. This includes Input device (e.g. Photo Eye for puck present on Transfer station), PLC I/O addresses, and I/O lights on the module (e.g. Input light 4 or input light 0, on the module). The student will need the print package, the PLC Junction Box Addressing handout, the PLC logic, and the Tag listing.

Note the corrected Sequence Diagram will have to be handed in to validate completion





Multi-State	
Advanced Manufacturing	
Consortium	

US DOL SPONSORED TAACCCT GRANT: TC23767 PAGE PRIMARY DEVELOPER: Glenn Wisniewski – Henry Ford College 3/18/2016 v 001 2 of 2

**RELEASE** 

VERSION

DATE

# Integrated Manufacturing Systems Troubleshooting Sequence Diagram Lab – Student Instructions

## **SAFETY DISCLAIMER:**

M-SAMC educational resources are in no way meant to be a substitute for occupational safety and health standards. No guarantee is made to resource thoroughness, statutory or regulatory compliance, and related media may depict situations that are not in compliance with OSHA and other safety requirements. It is the responsibility of educators/employers and their students/employees, or anybody using our resources, to comply fully with all pertinent OSHA, and any other, rules and regulations in any jurisdiction in which they learn/work. M-SAMC will not be liable for any damages or other claims and demands arising out of the use of these educational resources. By using these resources, the user releases the Multi-State Advanced Manufacturing Consortium and participating educational institutions and their respective Boards, individual trustees, employees, contractors, and subcontractors from any liability for injuries resulting from the use of the educational resources.

## **DOL DISCLAIMER:**

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

### **RELEVANCY REMINDER:**

M-SAMC resources reflect a shared understanding of grant partners at the time of development. In keeping with our industry and college partner requirements, our products are continuously improved. Updated versions of our work can be found here: <u>http://www.msamc.org/resources.html</u>.

