

PLC125 LAB3.2: WIRING AND TROUBLESHOOTING PLC CIRCUITS

Student Name: _____

Student ID: _____

LAB OUTCOMES:

Upon completion of this lab procedure, the student should be able to:

1. Identify all the sections of the MicroLogix 1200 PLC.
2. Interpret the I/O wiring diagrams from the manufacturer cut-sheets for the ML1200.
3. Wire in 4 inputs and 3 outputs into a MicroLogix 1200 PLC.
4. Interpret the overall operation of a PLC program (ladder logic)
5. Test all the discrete inputs to verify they are working properly.
6. Explain how to determine that a PLC processor is running the PLC program
7. Troubleshoot a failed output in a PLC control circuit.

LAB PROCESS:

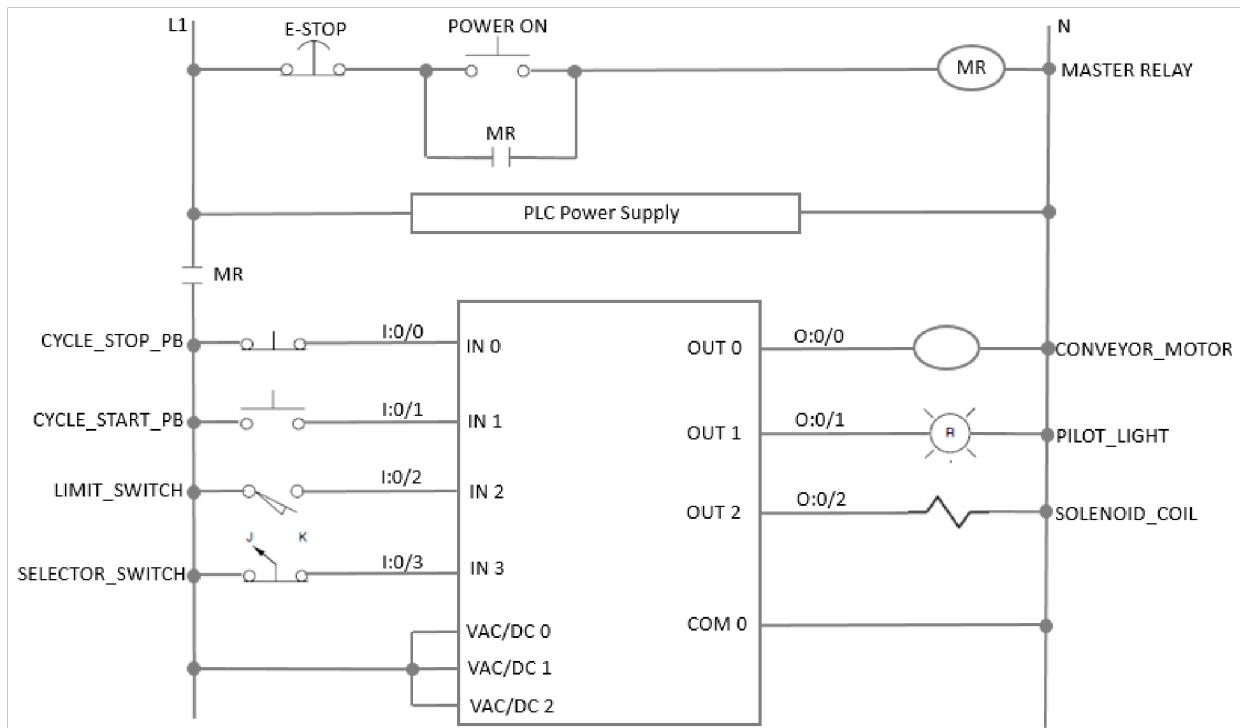
Set up NSCC 120VAC wiring board. Setup the unit on its base, or lay flat on the work table.

Connect the power cord and turn off the power input switch to make sure the unit is not powered.

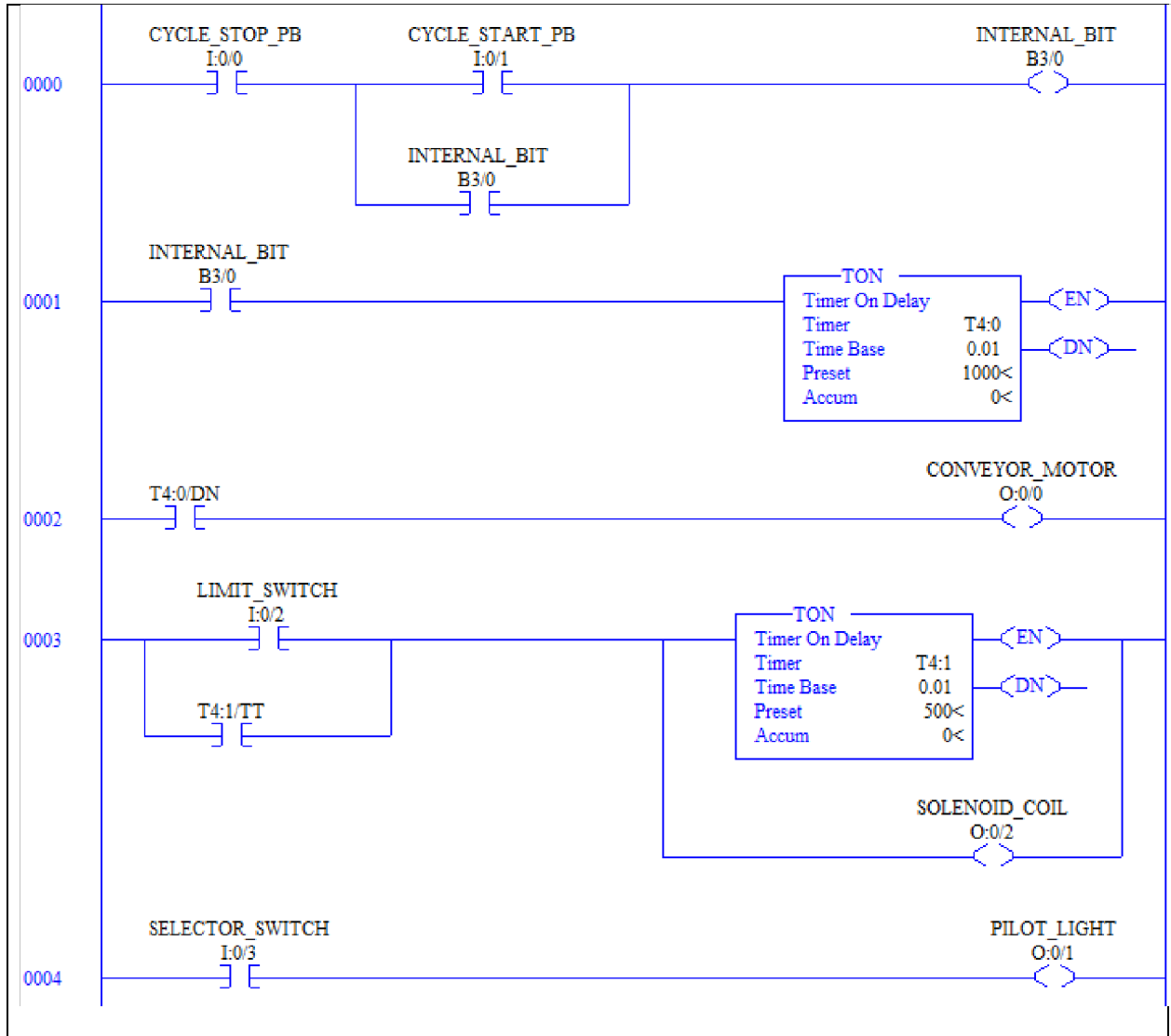
Part 1:

1. Explain all sections of the ML1200 PLC
 - a. Input Section
 - b. Output Section
 - c. Programming Port
 - d. Memory Module Port

- e. Processor Diagnostic Indicators
 - f. I/O Status Indicators
- Interpret the manufacturers cut sheets for the I/O definitions and where the power supply for the PLC is located.
 - Interpret the operation of the following electrical control print with a PLC.



- Wire 4 discrete inputs and three discrete outputs into the PLC system based on the diagram above.
- Test all inputs using the status light indicators to show that all are wired correctly.
- Explain the operation of the PLC program below.



7. Explain how to tell if the PLC is running the PLC program.

8. Measure the voltage of a discrete output

a. Output is on _____

b. Output is off _____

The outcomes of this exercise (listed on page 1) specifies the skills that the Student must demonstrate to the Instructor. Once the Instructor is satisfied with the demonstration of Knowledge & Skills by the individual student, they will sign this document (for the student), then enter a 100% into the Hands-On Lab grade in Sakai.

I verify that this student has completed all of the requirements of this Hands-On Assessment:

Student Name: _____

Faculty Signature: _____ Date: _____

DOL DISCLAIMER:

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