Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lab 1 (Program)\_\_\_\_\_\_\_\_\_\_\_ Quiz 1 (Build) \_\_\_\_\_\_\_\_\_\_\_

1. **Find My PLC Videos (Search for “BCTC Binzer”, Select “MikeBinzer BCTC”, Select “Shared Files” > EET\_PLC\_VIDEOS > MICROLOGIX\_VIDEOS**
2. **Watch the Video “MCII\_L1\_3WS” as you work through this program.**

(Program 1-a) Program a Manual Motor Starter using the I/O indicated below. Program it into the PLC, then Download and Run it. Note that “NO” denotes a Normally Open Switch and “NC denotes the Normally Closed switch. Do not forget to include Symbols (I/O Names). Recall that the OL Contacts must be to left of the coil if they are to effect its operation.

Terminals 11 and 14 are the NO contacts of the Interposing Relay.



***\* See your instructor of I/O assignments (For lab 1 use the Forward PB, Limit, MS and Indicator)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Device** | **I/O Used** | **Device** | **I/O Used** |
| E-Stop (Stop Everything) (NC) | I/\* | Run/Jog (Run =On) | I/\* |
| Stop Motor (Red PB, NC ) | I/\* | Limit Switch (NC) | I/\* |
| Start Motor (Green PB, NO) | I/\* | **NO** OL Contacts | I/\* |
| Motor Starter Coil  | O/\* | Motor Running Ind.  | O/\* |

**Part 1: Program Alone (program a PLC and demonstrate your program to your Instructor**

***Reminders:***

***\_\_\_\_\_The Program has the main comment including the student’s name and lab number.***

***\_\_\_\_\_ All Symbols are clear and concise.***

***Demonstrate your Program” Instructor’s Initials:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Show your Instructor that your program is saved in Your OneDrive\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Demonstrate a Blank Program Running on your PLC\_\_\_\_\_\_\_\_\_\_\_***

***Show that the RSLinx Driver has been deleted\_\_\_\_\_\_\_\_\_\_\_\_***

**PART 2: BUILD THE PROJECT and demonstrate Operation**

Complete the Wiring Diagram on the second page. Do not forget to record terminal numbers and wire numbers (even though you will not use wire numbers in the electrical circuit you build).

***When wiring use RED wires for +24V, Black for -24V, Blue for the wires from switches to the PLC Inputs and YELLOW wire from the PLC outputs to the output devices.***

***Quiz 1 Build:***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Build Works*** | ***Symbols*** | ***Comments*** | ***One Drive*** | ***Blank Program*** | ***Device Driver*** |
|  |  |  |  |  |  |

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