

## Experiment # 5

### Using PLC in Control Circuits

➤ **Objectives:**

To familiarize the students with the use of PLC in control circuits.

➤ **Equipment:**

Mitsubishi F1-40 PLC, DC contactors, 3-phase motor, 3-phase Y-Δ motor.

➤ **Pre-lab:**

Write plc program for every part in the Experiment.

➤ **Procedure:**

1. Transform the control circuit of Figure (5.1) into a PLC program

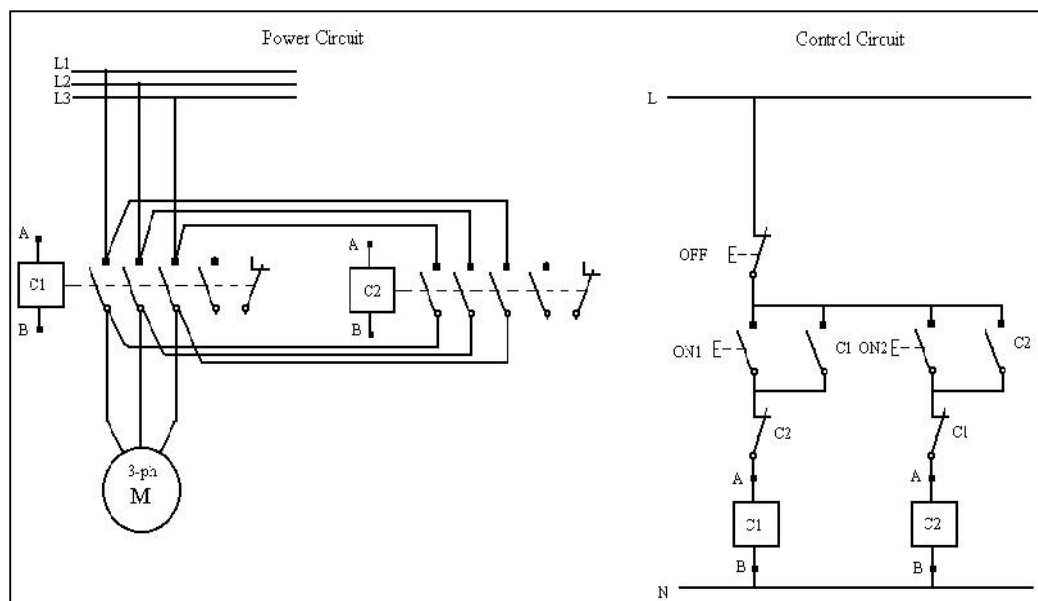


Figure (5.1)

2. Implement the circuit of Figure (5.1) practically.
3. Check the operation of the circuit.
4. Transform the control circuit of Figure (5.2) into a PLC program.
5. Implement the circuit of Figure (5.2) practically.
6. Check the operation of the circuit.

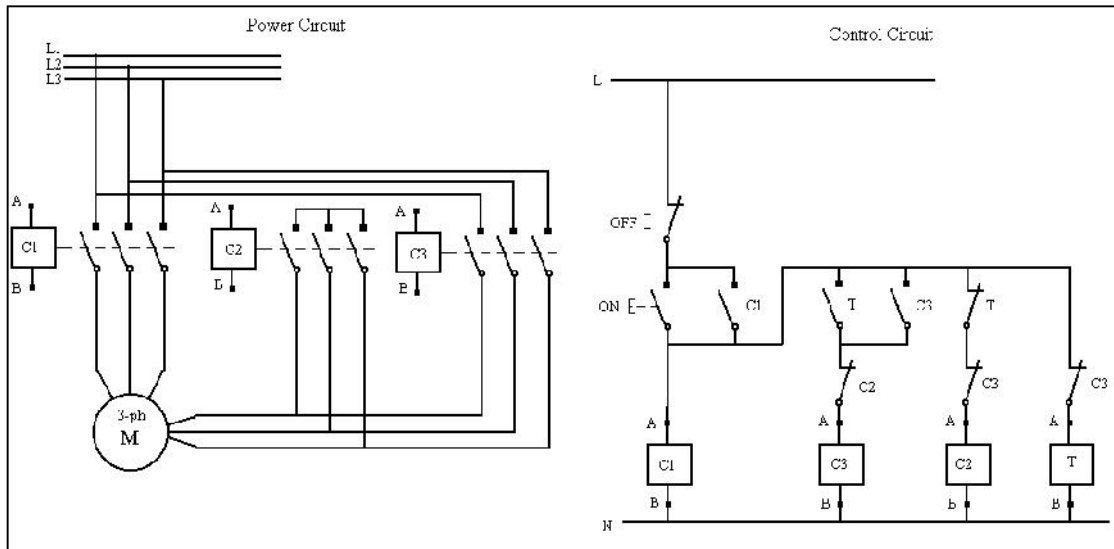


Figure (5.2)

7. Transform the circuit of Figure (5.3) into a PLC program.
8. Implement the circuit of Figure (5.3) practically.
9. Check the operation of the circuit.

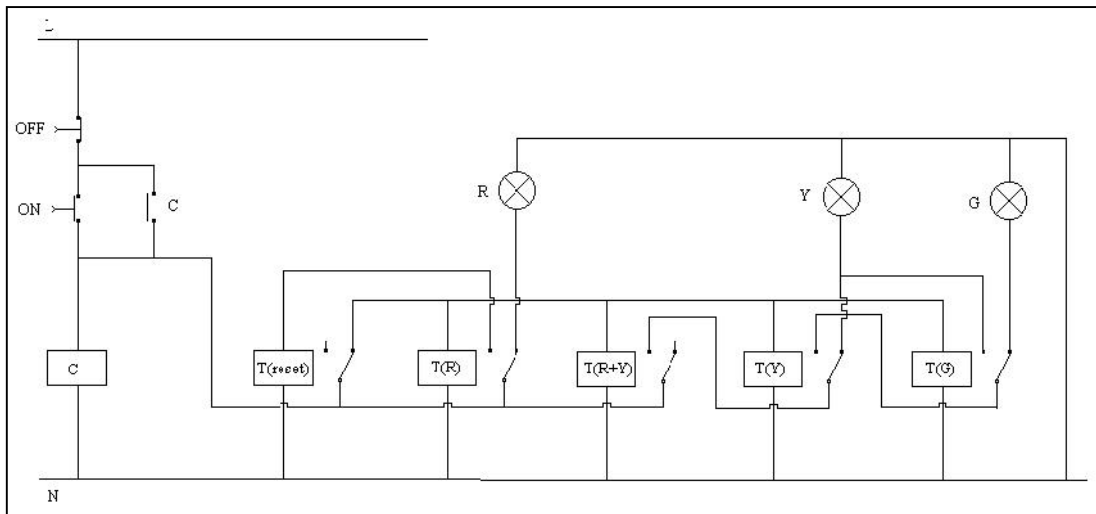


Figure (5.3)