

EEE 442 PROGRAMMABLE LOGIC CONTROLLERS LABORATORY

EXPERIMENT 4

COMPARE INSTRUCTIONS

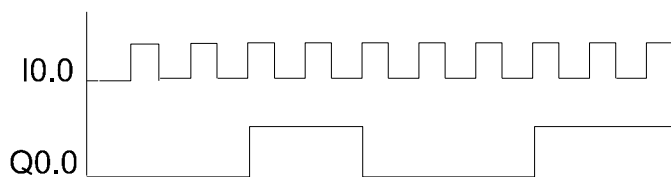
OBJECT: In this experiments compare instructions will be introduced.

Comparison can be done between two bytes or two words.

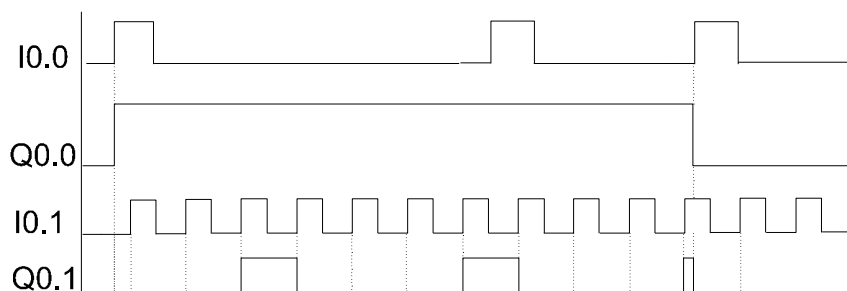
CMP instruction is used to compare two values n1 and n2. A comparison of $n1=n2$, $n1>=n2$, $n1<=n2$, $n1 \lt \gt n2$ (not equal), $n1<n2$, or $n1>n2$ can be made for various data types.

EXPERIMENTAL PROCEDURE

P.1 Write a PLC program to obtain output Q0.0 using compare instructions. Counter is restricted to count until 5.



P.2 Write a PLC program to obtain following output waveforms Q0.0 and Q0.1 using compare instructions.



P.3 Write a PLC program to perform following actions;

When push button PB is pressed first motor will run. If the PB is pressed once more the motor will stop.

EXPERIMENTAL PROCEDURE

E.1 Verify the each program written in P.1 using S-7 1200 PLC.

E.2 Verify the each program written in P.2 using S-7 1200 PLC.

E.3 Verify the each program written in P.3 using S-7 1200 PLC.