

PLC Lab Assignment

Light Load AGVs are used in a Factory to transfer the small parts. The motion of these pre-defined path AGVs are controlled by traffic signals, such that they move on GREEN (duration of 5 sec) and stop on RED (duration of 10 sec) at each of the 2 squares.

AGVs are dispatched every 10 seconds from E to W and W to E. Same is the case for N-S. Each AGV (for E-W) takes 8 seconds to travel from Point A to B and B to A.

Construct a Ladder logic Diagram for the PLC to control the traffic signals such as to minimize the idle time for AGVs moving E-W. Do not worry about optimizing the time for AGVs moving N-S.

