



# Andhra Pradesh State Skill Development Corporation



The image consists of two main parts. On the left, there is a diagram of a Learning Management System (LMS). It features a central computer monitor displaying the 'LMS' logo. Various icons and text labels are connected by lines to the monitor, representing different components: 'courses', 'documentation', 'tracking', 'e-learning management', 'education', 'system', 'software', and 'management'. On the right, there is a photograph of three individuals (two men and one woman) wearing headsets and working on desktop computers in what appears to be a call center or customer service environment.

## Basics of PLC

**Bit Logic Operations-Linear Programming**

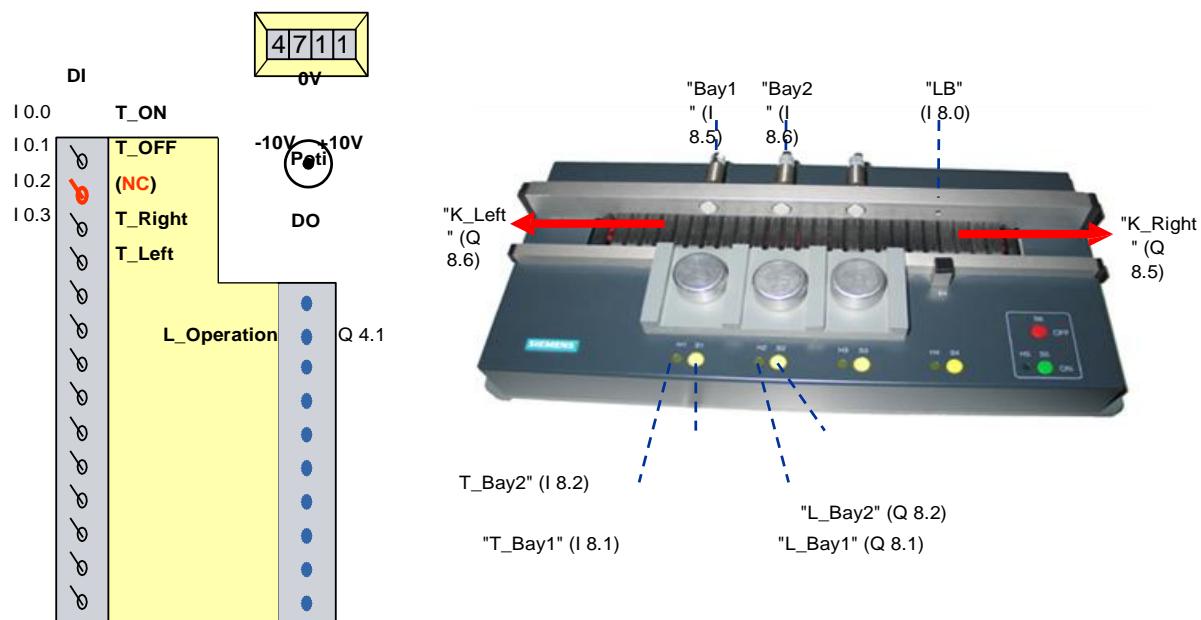


## Binary Operations

The participant should ...

- ... understand the difference between 'real' connected NC contacts and NO contacts, and programmed symbols
- ... be able to explain the terms Result of Logic Operation (RLO), Status (STAT)
- ... be able to program basic binary logic operations
- be able to perform a simple program test with "Monitoring a block"

## The conveyor model as transport line





The conveyor model as transport line. The transport line is used to transport parts from Bay 1 or 2 to the light barrier bay. Operation (Simulator LED "L\_Operation", Q4.1) can be switched on via the simulator pushbutton "T\_ON" (I 0.0) and switched off via the simulator pushbutton "T\_OFF" (I 0.1, NC). • When "L\_Operation" (Q4.1) is switched off... ...the conveyor can be jogged to the right via the simulator pushbutton "T\_Right" (I 0.2) and jogged to the left via the simulator pushbutton "T\_Left" (I 0.3). • When "L\_Operation" (Q4.1) is switched on... ...parts are transported from Bay 1 or 2 through to the light barrier. For this, the part must be placed on the conveyor at exactly one of the two bays and the associated bay momentary contact switch pressed. The indicator lights at Bays 1 and 2 show.... ...a continuous light when a new part can be placed on the conveyor (conveyor is stopped and both proximity sensors are free) ...a 1Hz flashing light at the bay on which a part is detected by the associated proximity sensor, however, only as long as the conveyor has not yet been started (if parts are placed at both proximity sensors, neither indicator light can light up ... a 2Hz flashing light as long as the conveyor is moving. The indicator light at the light barrier bay shows a 2Hz flashing light as long as the conveyor is moving and continuous light when the setpoint quantity has been reached.