

ROLE DEFINITION

Document No.	m2nxt/A&R/CDL	Date:20.03.20
BT/SU No.	A&R/CDL	Issue No.:01
Role Name	CDL	
Date Applicable		

Essential Qualification:	BE/Diploma (Elec,Mechatronics,Inst.)	Desired Qualification : Any of the essential
Other Professional Training required	Controls. CNC,PLC,ROBOT,Drives,Servo,HMI,IOT,etc,..	
Overall Experience:	6-10 years	Related experience: 3-6 yrs

The project will have Controls Design Lead (CDL), who coordinates all the design aspects of the projects, although the design activities, or its parts, might be actually executed by other persons – including outside parties and vendors. The responsibilities of the Control Design lead are:

Sr. No.	Role	Responsibility
1.	System Requirement Specification [SRS] Electrical & Control System Design Design Approval Prints [DAP] Bill Of Material [BOM] Hardware Architecture Control Architecture Electrical & Control Drawings System Proving Support Design Check Lists Application Check list System Proving Support Design Changes Design Effort Tracking & Reports On – Site support upto closure	<ol style="list-style-type: none"> Design lead will be involved from the PSM [preliminary stage meaning] Design lead will make a site visit along with the PL [Project Leader], for evaluating the existing site / equipments / components / process, etc. or to interact with the customer representatives about the finer aspects of their requirements, or clarification of his understanding. SRS will have to be signed off by the PL. Design lead will understand the mechanical system & Application system requirement Design lead will Complete electrical and control system design as per the concept, wiring diagrams, panel diagrams, Flow Charts of Operational Sequences – CNC & PLC The operating logic, I/O assignments, sequence of operation, error & exception conditions, safety interlocks Design lead will work to develop the CNC/Robot programs, HMI and PLC ladder. Preparation of the DAP drawings as per the DAP checklist – specific to project if provided by PL. Design lead will work for detailed BOM, along with target costs, CBOM [Critical Bought Out Material] Design lead will work for release of detailed panel & machine wiring diagrams, Design lead will work for panel manufacturing and assembly drawings will be released at DRM [Design review meeting]. The CDL will be responsible to review the designs before release himself, or through other competent reviewers, for correctness and completeness and suitability for application. He will use the following tools, and ensure their compliance Design lead will work for Checklist for verifying general system design guidelines for operating environment, safety, maintenance and usability To ensure that these are bring complied with, the design will be reviewed through the Application Checklist suitable for that application. DL is required to proactively support the project in build phase, Testing / Prototyping & Trials of concept, Any Design modifications & changes for resolving issues at Proving stage. etc. User Requirement Change Requests (UCR), System Change Requests (SCR), Engineering Change Requests (ECR) DL will be responsible for preparing and tracking the micro schedules and sub-milestones in the design activity to ensure that design timeframes are met. Panel Layouts, Field Wiring Diagrams, Basic User Manual – Skeleton of document with Startup / Shutdown / Programmed Sequences & Cycles, and Diagnostics pages. DL is responsible for arranging design support upto Project Closure, as per the requirements on site, as requested by Field Representative.
	Skill Set	
	PLC Code development Multi PLC capability, AB,Siemens, Mitsubishi, etc,.. Motion control system CNC Gantry GCode software development User interface development Flowchart for application development Design, guide design & assembly engineers	