

*Let's begin with the basics...*

## **iVision<sub>max</sub>** Self-Learning Kit



Today, automation technologies are the key enabler in modern manufacturing. These technologies play a significant role in increasing the efficiency, competitiveness and profitability of a modern manufacturing enterprise.

If you, an engineering student, hope to make a successful career in modern manufacture, you must understand automation technology and acquire the relevant skills and expertise.

Larsen & Toubro is committed to helping fresh graduates, like you, to achieve the skills and expertise required to take their careers to the next level. It offers comprehensive technical training to enable budding engineers acquire, maintain and optimize their automation skills.

L&T Automation Academy, located at Automation Campus, Navi Mumbai, offers broad-based, comprehensive professional training covering all areas of the automation field and the complete project cycle.

To enhance learning clarity for engineering students, L&T has designed a self-learning automation kit – iVisionmax.

This learning kit will acquaint you with automation systems like PLC, SCADA and HMI. It will help you to programme PLC, SCADA and HMI by means of several simple examples.

You will perform hands-on experiments in the initial years of your studies and grasp the latest automation technology in a short time.



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The system comprises industrial components of the latest technology: an L&T PLC, an L&T HMI, an L&T Energy Meter and L&T SCADA.

Using the platforms provided, you will learn and acquire real-world knowledge on:

- PLC Hardware, Logic development, Communication with HMI and integration with third-party devices, protocols, diagnostics
- SCADA GUI development, animation, alarms, trends, database communication, scripting and report generation, interface with control system / devices
- Different levels of automation – from field to SCADA dashboard

The kit will hone your competencies and enable you to stride into the industrial world with greater confidence.

## Key Benefits

- Enriches your automation knowledge
- Enables you to learn the fundamentals with the help of practical examples. The in-built programme for learners makes your task easy.
- Institutes can use the kit for in-house automation training to meet the objectives of their academic programmes

## The L&T Advantage

- Integrated environment and seamless integration
- Easy to set up
- Compact, space-saving design
- Lightweight and portable
- Supports external load

## Components

SCADA	iVisionmax SCADA – with 128 Tag, Engineering Client, Operator Client, Communication Protocol Modbus TCP/IP, SIMATIC S7 client, OPC DA Client, OPC DA – Server, SNMP
PLC	L&T PLC - 16DI/16DO + 4AI/4AO, Built-in 1 Ch Ethernet (Dual-port Ethernet), Rs232 – 1 Ch, RS-485 – 1, Mini USB Programming Port, Programming Software
HMI	7" TFT color LCD, Ethernet Port, Programming software
Energy Meter	Accuracy Class 1 (5 to 40 Amp), LCD Display, RS485 port Modbus RTU, Support Load up to 40 Amp
Digital Input / Output Interface	• Push Buttons, Selector Switch, Toggle switches, Emergency Pushbutton, Indication Lamps, Potential Free Contacts for external loads
Analog I/O interface	• Potentiometer, Digital Panel Meter
Input Power Supply	Single Phase, 230 VAC
External Load	Up to 5 Amps
Enclosure	• Aluminum padded portable carry-case with telescopic trolley and wheels and front-end bushes, as well as 2 side handles Size : 220mm x 400mm x 300mm, Weight : 8 kg
Other Accessories	• 3-Pin Power Cord, Ethernet Patch cord
Prerequisites	• Desktop for SCADA software • Windows 7 - Professional (SP1) 64 Bit, Intel i5 Core with 3 GHz (or better), 8 GB RAM, HDD with 500 GB space, 10/100 Mbps network adapter, DVD ROM and USB Port, Microsoft Office 2016 – 32 Bit

## About L&T

L&T Control & Automation (C&A) is a Strategic Business Unit of L&T Electrical & Automation. It is a part of Larsen & Toubro – the multi-billion India-based conglomerate. L&T is engaged in technology, engineering, construction and manufacturing, and has a track-record of projects that set industry benchmarks in scale and sophistication.

L&T's C&A business is market leader in delivering integrated electrical & automation solutions in India and overseas. With over three decades of experience in diverse industry segments, the business delivers value through comprehensive solutions based on varied technology platforms, and incorporates the benefits of its wide-ranging experience.



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