

071605T4MCT

MECHATRONICS TECHNOLOGY LEVEL 5

ENG/OS/MC/CR/04/5/A

Operate Robotic and Automated Systems

March/April 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

PRACT MENT

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INSTRUCTIONS TO CANDIDATE:

1. You are required to perform the following tasks;

Task 1: Identify the components

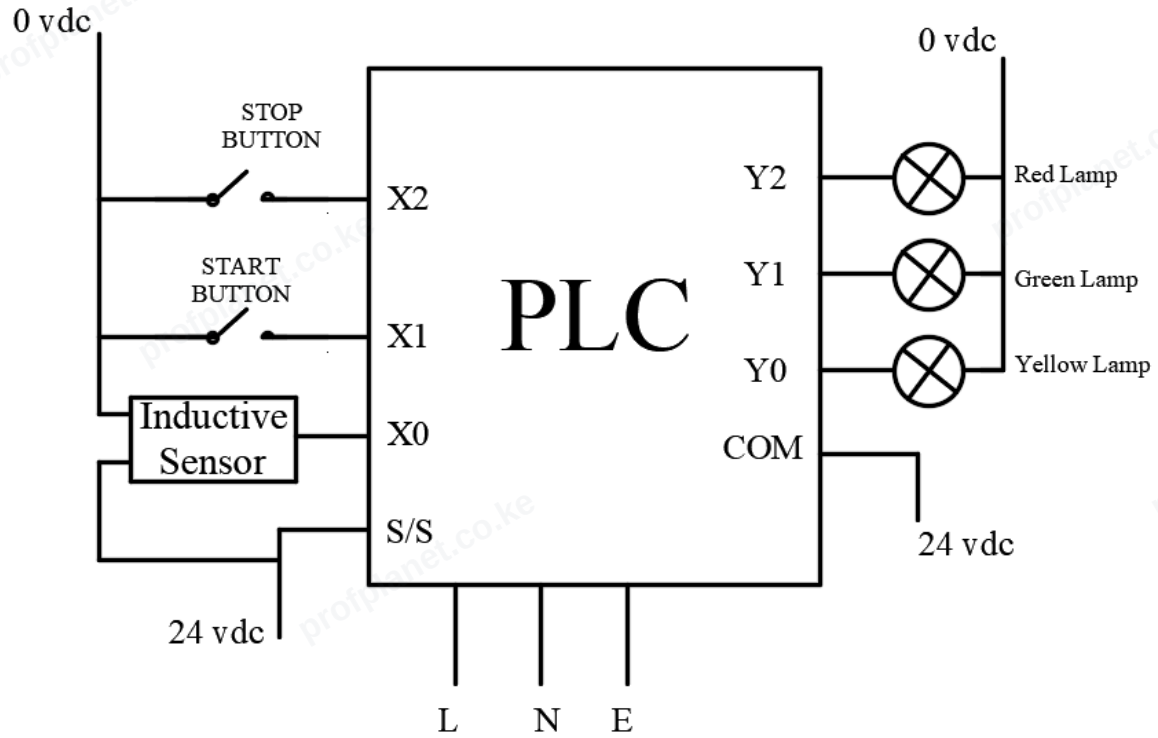
Task 2: Connect the 24V DC motor, yellow, green, and red indicator lamps, start and stop push buttons, and the inductive sensor to the PLC as shown in *Figure 1*.

Task 3:

- i. Copy PLC program shown in *figure 2* on the provided software to perform the following operations;
- ii. Download the program to the PLC.

Task 4:

- i. Run the system and place metallic object in front of the sensor. Observe the results.
- ii. Disconnect the components from the PLC and return all the used materials and devices back to their storage and clean up after the practical



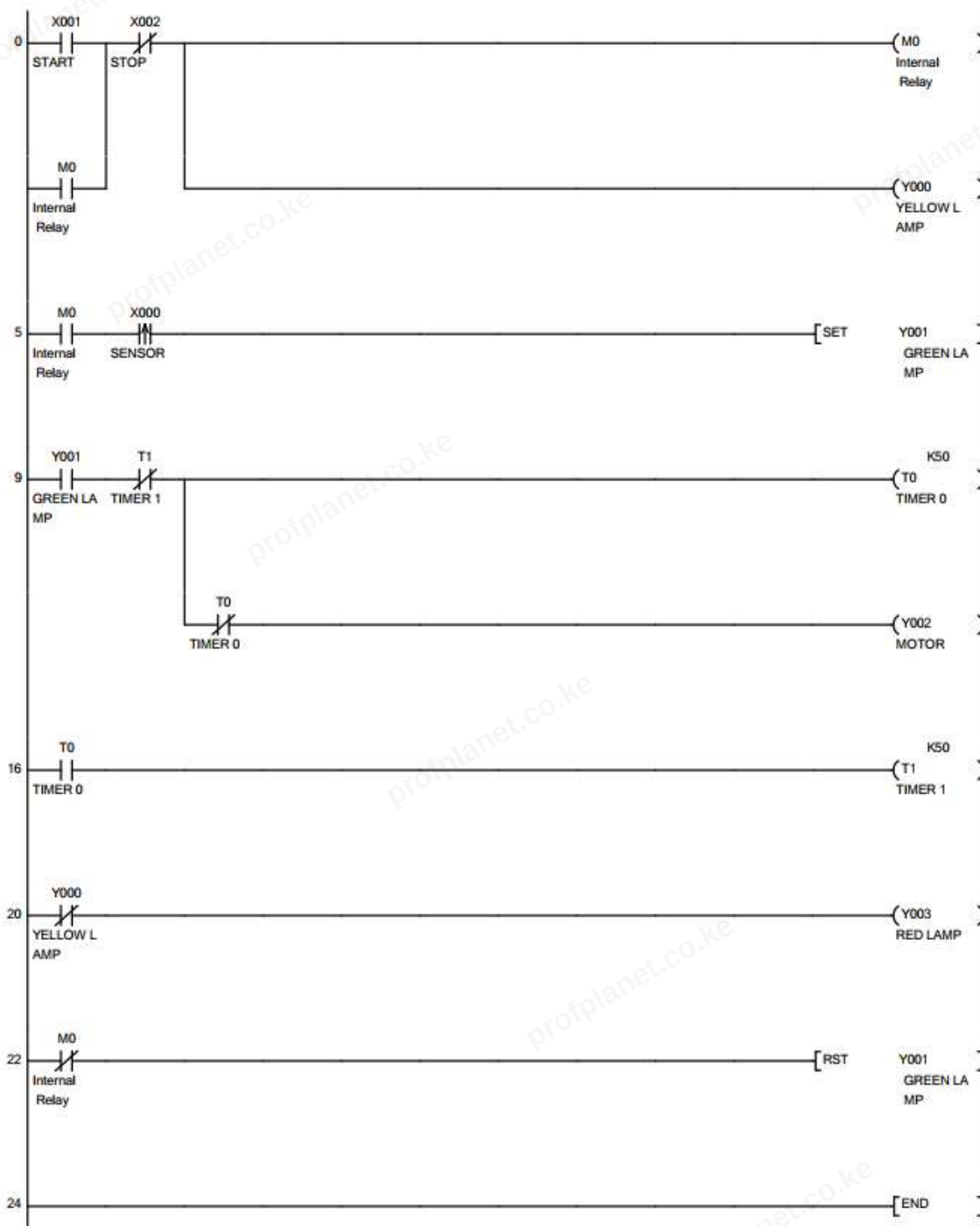


Figure 2

2. You have been provided with the following resources for the practical tasks:

- i. Green indicator lamp
- ii. Yellow indicator lamp
- iii. Red indicator lamp
- iv. Start push button
- v. Stop push button
- vi. 24VDC motor
- vii. PLC module
- viii. Computer with PLC software installed
- ix. Communication cable
- x. Connecting wires
- xi. Set of screwdrivers
- xii. Side cutter
- xiii. Connecting wires