



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

Qualification Code : 071606T4MCT
Qualification : Mechatronic Technician Level 6
Unit Code : ENG/OS/MC/CR/02/6/A
Unit of Competency : Install mechatronic systems

PRACTICAL ASSESSMENT

INSTRUCTIONS TO CANDIDATE

1. You are allocated **3 HOURS** to complete the practical task.
2. The assessor will record your performance at critical points using audio-visual means

Requirement:

- Reciprocating function is making one cylinder do reciprocating motion.
- Using the relay module and the stroke switch control solenoid valve, in order to achieve the hydraulic cylinder reciprocating action.

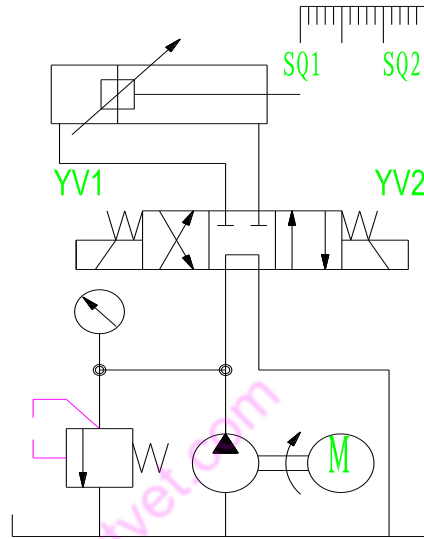


Figure 1: Hydraulic schematics

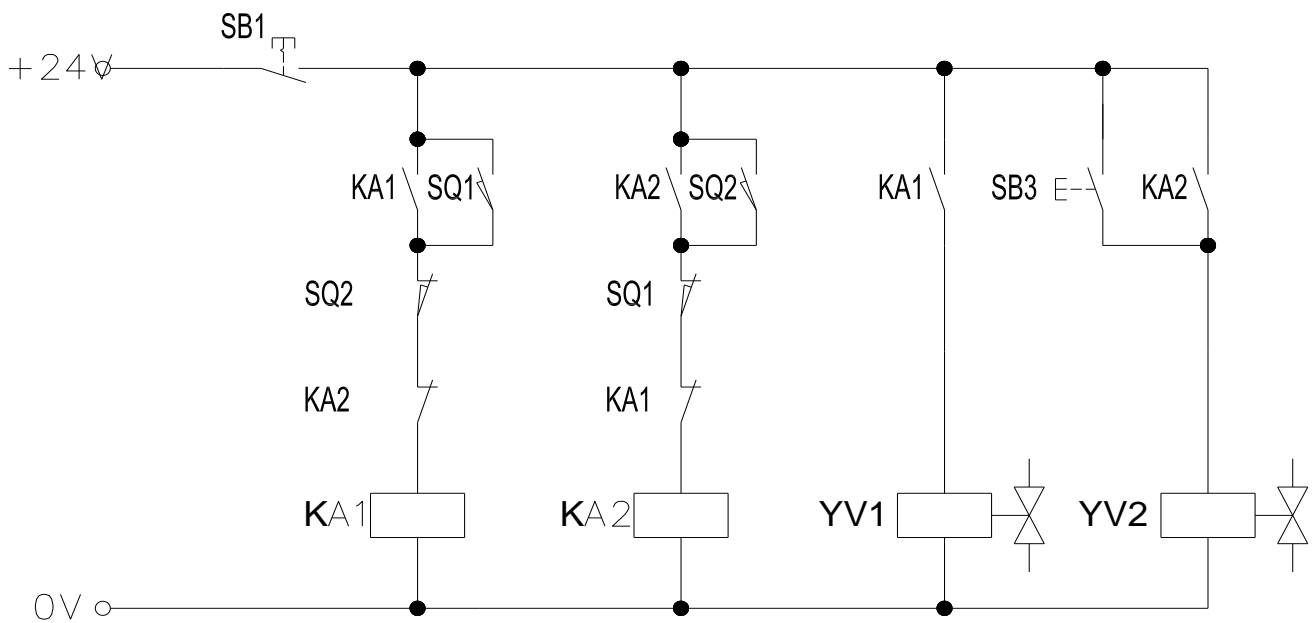


Figure 2: Electrical schematic

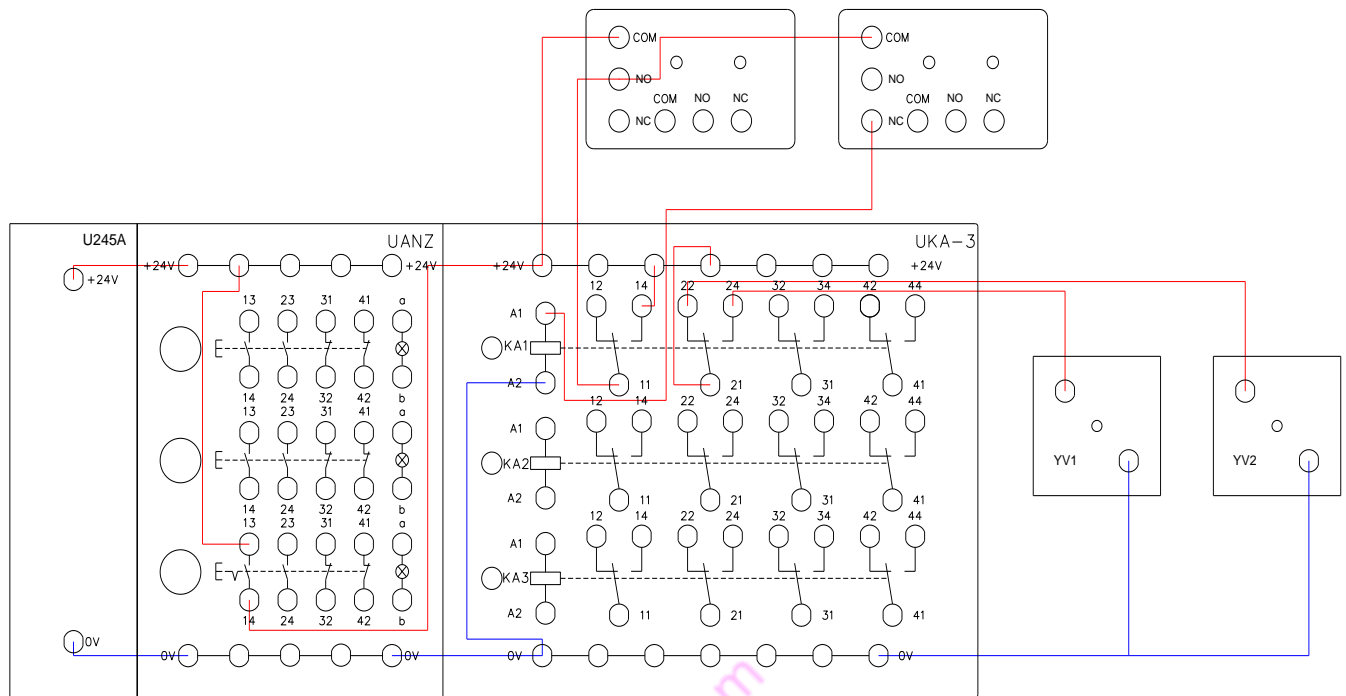


Figure 3: Electrical wiring schematic

PROCEDURE

- i. Study the system schematic diagram
- ii. Chose components per requirement
- iii. Connect the pipes and wires per system diagram.
- iv. Startup the motor.
- v. Realize the pressure relay auto reciprocating circuit.
- vi. Stop the oil pump, take off the oil tube and hydraulic components and put into the drawers or other place and clean them after finish experiments.