

ĐẠI HỌC QUỐC GIA THÀNH PHỐ HỒ CHÍ MINH
TRƯỜNG ĐẠI HỌC BÁCH KHOA
KHOA CƠ KHÍ
BỘ MÔN CƠ ĐIỆN TỬ



TRANG BỊ ĐIỆN - ĐIỆN TỬ TRONG MÁY
CÔNG NGHIỆP

EXERCISE 4

GVHD: TS. LÊ ĐỨC HẠNH

DANH SÁCH THÀNH VIÊN:

STT	Họ và tên	MSSV
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TP.HCM, Ngày 5 tháng 12 năm 2024

Mục lục

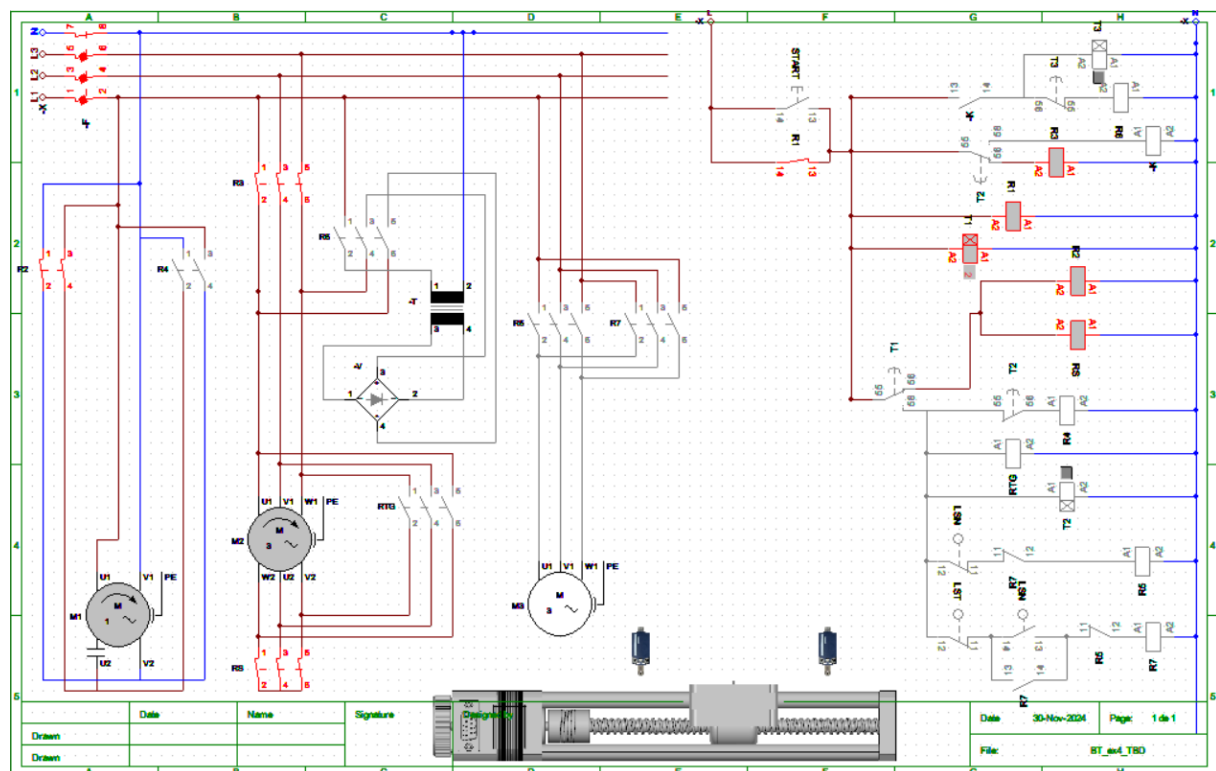
1	Design a control circuit for described operation below:	2
1.1	Push button start.	2
1.1.1	Motor 1 (AC1phase), Motor2(3phase) run in star mode, after 5s motor 1 change direction, motor 2 change from star to delta, motor 3 start running.	2
1.1.2	Motor 3 (3phase) runs from left to right then meets a limit switch then return to right then loop again, while in 5s later motor1 stops and motor2 stop (kinematic).	4
1.2	Circuit have emergency stop button.	6
1.2.1	Before the emergency stop button is pressed	6
1.2.2	After the emergency stop button is pressed	7

1 Design a control circuit for described operation below:

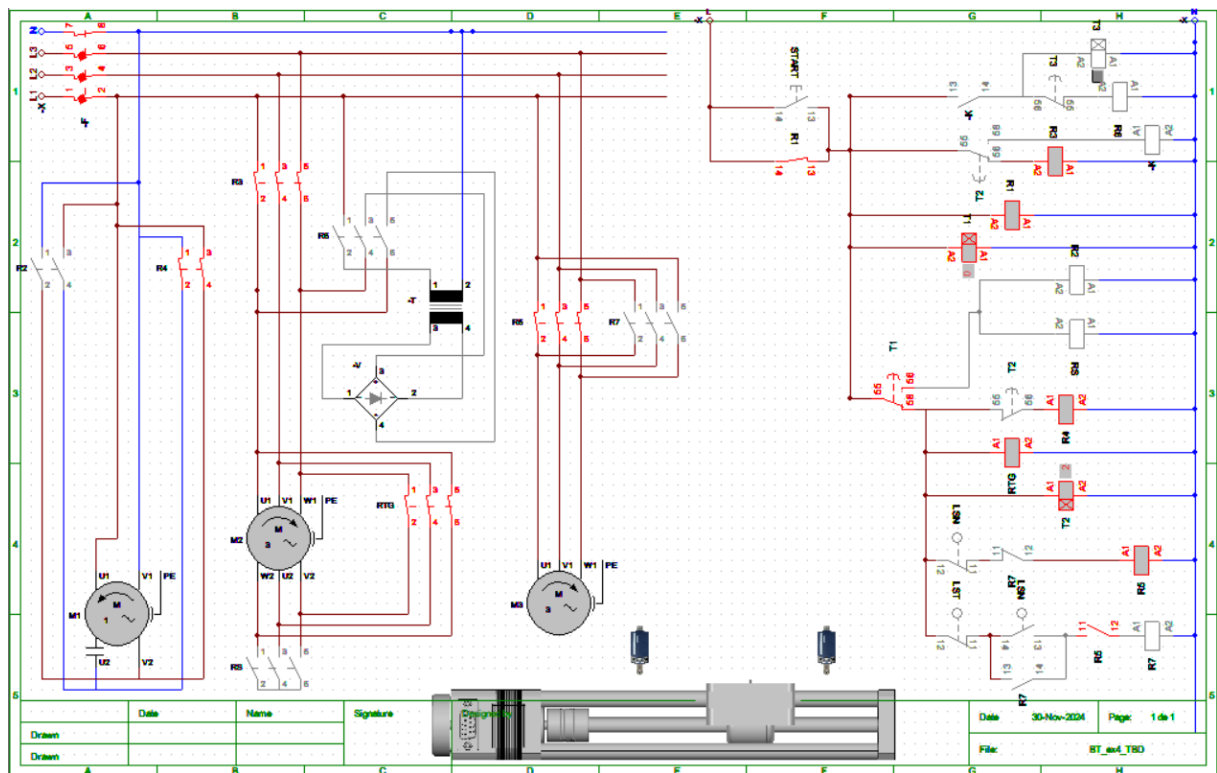
1.1 Push button start.

1.1.1 Motor 1 (AC1phase), Motor2(3phase) run in star mode, after 5s motor 1 change direction, motor 2 change from star to delta, motor 3 start running.

Motor 1 (AC1phase), Motor 2 (3phase) run in star mode:

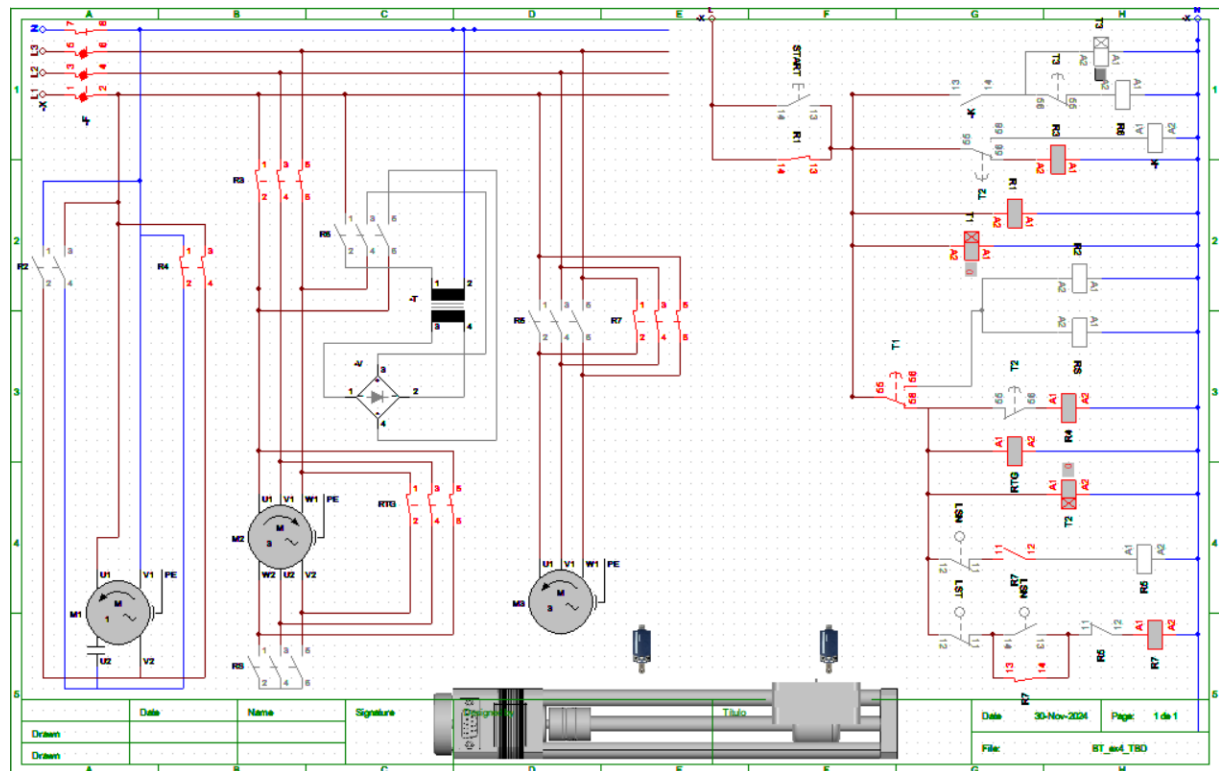


After 5s motor 1 change direction, motor 2 change from star to delta, motor 3 start running:

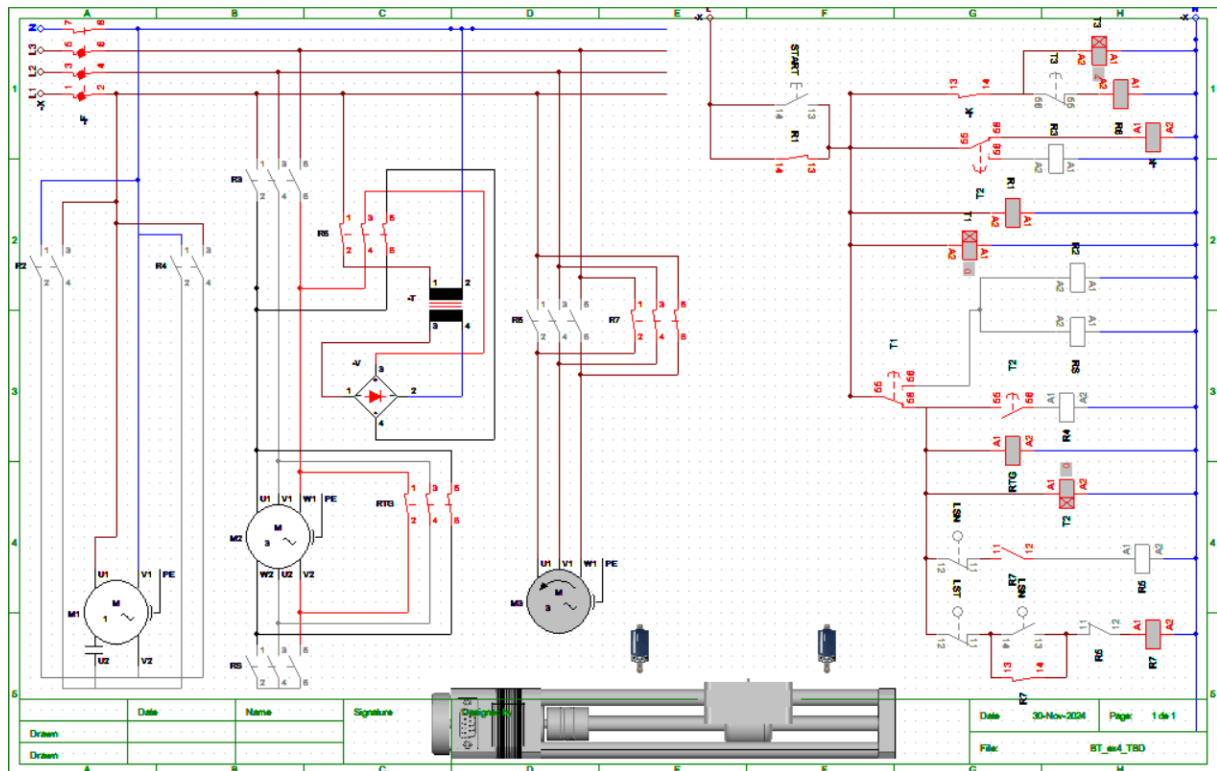


1.1.2 Motor 3 (3phase) runs from left to right then meets a limit switch then return to right then loop again, while in 5s later motor1 stops and motor2 stop (kinematic).

Motor 3 (3phase) runs from left to right then meets a limit switch then return to right then loop again:

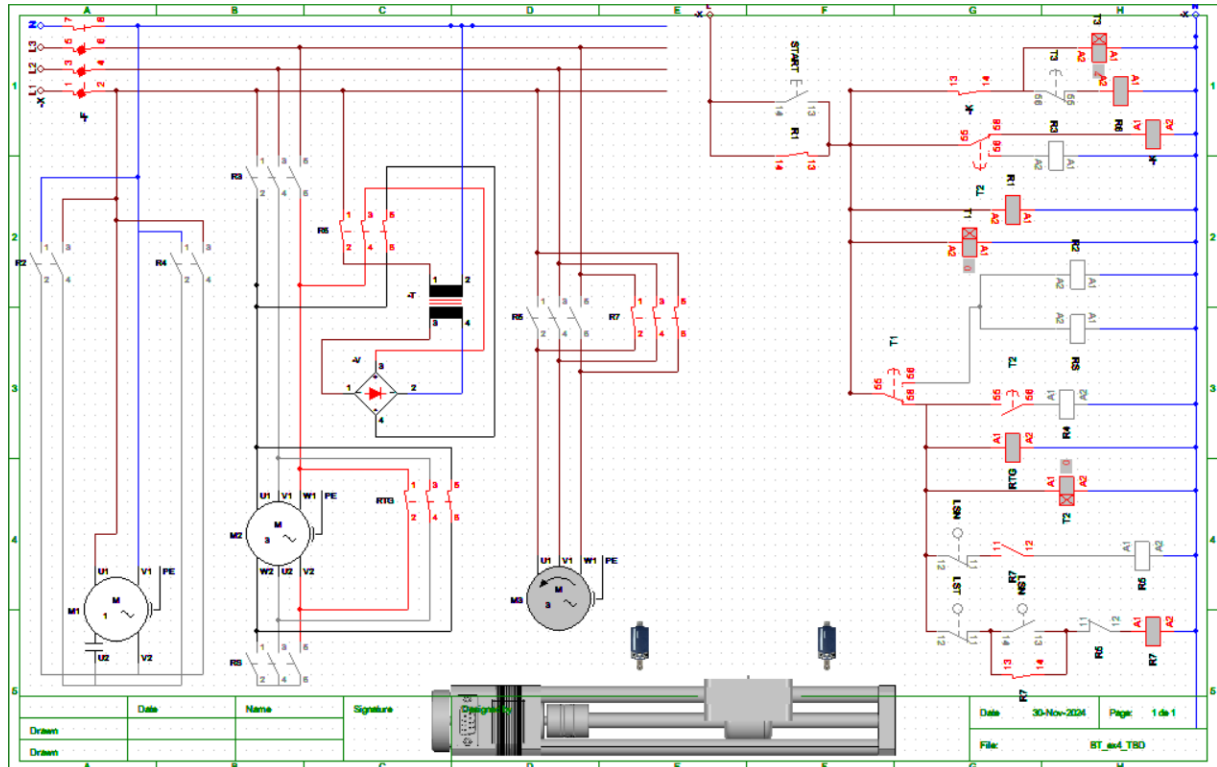


In 5s later motor 1 stops and motor 2 stop (kinematic):

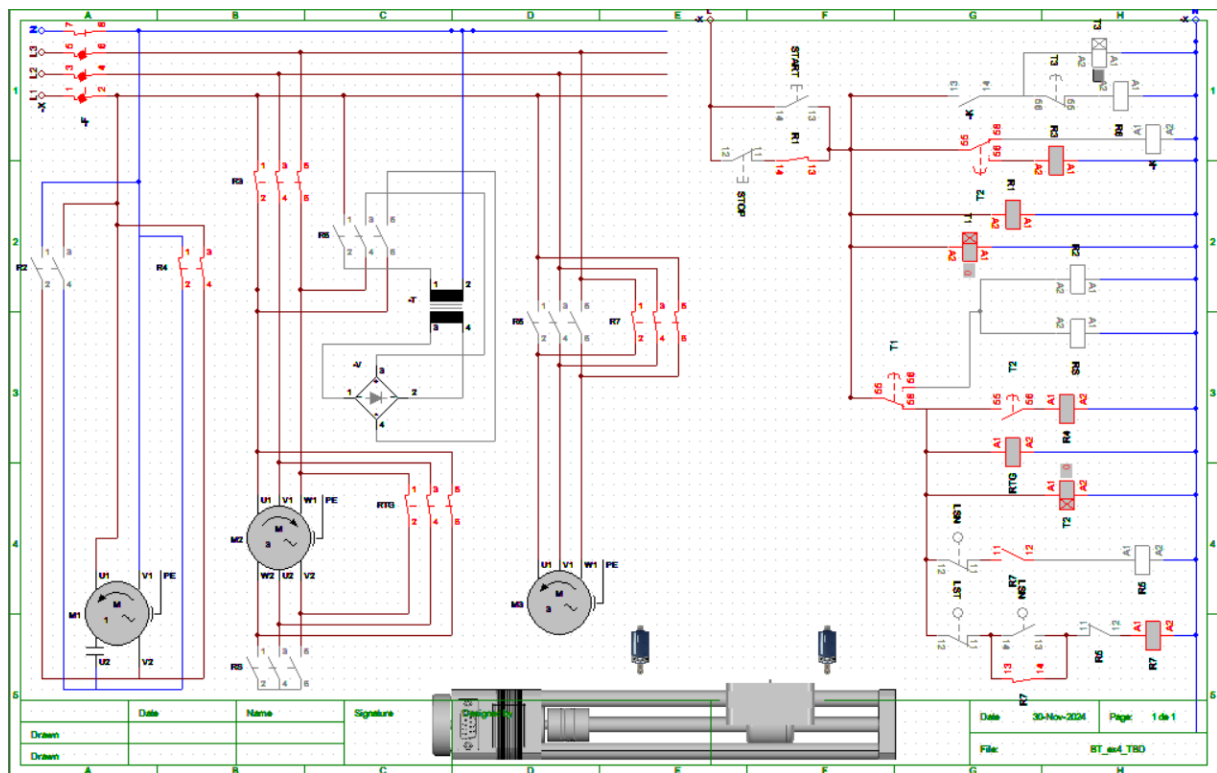


1.2 Circuit have emergency stop button.

1.2.1 Before the emergency stop button is pressed



1.2.2 After the emergency stop button is pressed



⇒ After the emergency stop button is pressed, all motors stop immediately and will not reactivate until the start button is pressed.