



Class: 4th Stage
Subject: Control Lab
Lecturer: Dr. Essam Zuhair, Eng. Aceel
Talib Hussain
E-mail: aceel.talib@mustaqbal-college.edu.iq



(Control laboratory)

Experiment No. 00(0)

(Electro pneumatic trainer (using a cylinder))

Prepared by
(Eng. Aceel Talib Hussain)



Class: 4th Stage
Subject: Control Lab
Lecturer: Dr. Essam Zuhair, Eng. Aceel
Talib Hussain
E-mail: aceel.talib@mustaqbal-college.edu.iq



Exp.No. (5):- Electro pneumatic trainer (using a cylinder).

Unit objective:-

After completing this unit, you will be able to understand the use of push buttons and the use of cylinders.

Wiring sequence:-

PS+	CDP 24V
PS-	CDP COM (0V)
CDP 24V	Simulation + Extension Panel RL-1 COM
CDP COM (0V)	Simulation + Extension Panel Com (0V)
EDO/1	CDP CDO/1
Simulation Extension Panel COM (0V)	CDP Com (0V)
Simulation Extension Panel EDI/0	CDP CDI/1
S (SOLENOID) 1 (+)	RL(relay) 1 NO
S (SOLENOID) 1 (-)	CDP Com (0V)

Procedure:-

- 1- Make the connection as shown in the table above.
- 2- Set FRL pressure to 3 bar.
- 3- Connect the power supply.
- 4- C¹ (cylinder) get step out when you press the push button (EDI/0)
- 0- The C¹ (cylinder) step in (get to its original position) when you release the push button (EDI/0).



Class: 4th Stage
Subject: Control Lab
Lecturer: Dr. Essam Zuhair, Eng. Aceel
Talib Hussain
E-mail: aceel.talib@mustaqbal-college.edu.iq



Conclusion:-

In this experiment we have gone through the process of using a limit switch, with a push button. It shows that how we can push button switch to start and stop the cylinder.

Component requirement

1. EDI/° (Push button)
2. S1 (°/2 way DC valve).

Discussion:-

- What is the voltage of power supply, CDP panel, and simulation and extension panel?
- Why do you use air compressor for this experiment? And what is the pressure needs to make the device work?
- What is (EDI/°)? What its work?