Sequence control of 8 LEDs through 8255 port
Control of 2 relays
Operating a 7-segment display
Switch state input through 8255 port
SID/SOD Operation

Introduction

This unit has been designed to train the students to handle basic input-output operations of the 8085 microprocessor through 8255 ports. The power supply, drivers and other hardware are pre-wired resulting in a greater reliability of operation. The students are expected to enter a few suggested programs and also to develop their own programs for a variety of input-output operations, which include,

a) Light the 8 LEDs in a cycle, in binary sequence, as a bar graph display etc.
b) Operate the 2 relays with software controlled timing
c) Operate the 7-segment display through segment control
d) Sense the state of the 4-switches as input and send out suitable signals to various output devices.
e) Study of SID/SOD

The system comprises of a main unit and a µp kit, connected through a flat cable. The main unit houses all the I/O devices, viz. LED’s, relays, 7-segment display, switches and their drivers/ interfacing circuits. In addition the status of the relays and switches are displayed with the help of lamps mounted on the panel.

Schematic Diagram