

Problem statement:

You have to control the output of a seven-segment display on interrupt basis. The initial display of the seven-segment should be digit 0. After five seconds of delay, the seven-segment should display digit 5.

Follow the provided circuit. The input clock frequency of all the counters in 8254 should be 1KHz. You have to use counter 1 with the required mode and load a proper a count according to the delay required. The interrupt signal at the end of the count should be taken using the IR4 pin of 8259. The interrupt type for IR0 should be 50H.

The base address for 8255, 8254, 8259 should be 00H, 08H, 10H respectively. You have to submit the code and the output screenshot in a **Doc file** named with your student ID. You also have to submit the proteus file.