**SET-3**

**AIM: Write 8051 assembly language program to blink 8 LED connected on port P0 i.e. P0 alternatively high after 1ms, if P2.2 is detected. Otherwise display FFH constantly.**

**CODE:**

ORG 00H

MOV R0, #20 ;Delay of 1 milli second

NL:

MOV R1, #100 ;Nested loop

L1:

DJNZ R1, L1 ;decrement R1, then jump to L1

DJNZ R0, NL ;decrement R0, then jump to NL

JB P2.2, BLINK ;if P2.2=1, jump to loop BLINK

MOV P0, #0FFH ;P0= FFH

JMP EXIT

BLINK:

MOV P0, #55H ; P0 = 55H, high to odd ports

MOV P0, #0AAH ; P0 = AAH, high to even ports

EXIT:

END

**RESULT:**

**MSB**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **INPUT** | **PORT 2** | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| **OUTPUT** | **PORT 0(odd)** | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| **PORT 0 (even)** | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |

MSB

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **INPUT** | **PORT 2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **OUTPUT** | **PORT 0** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |