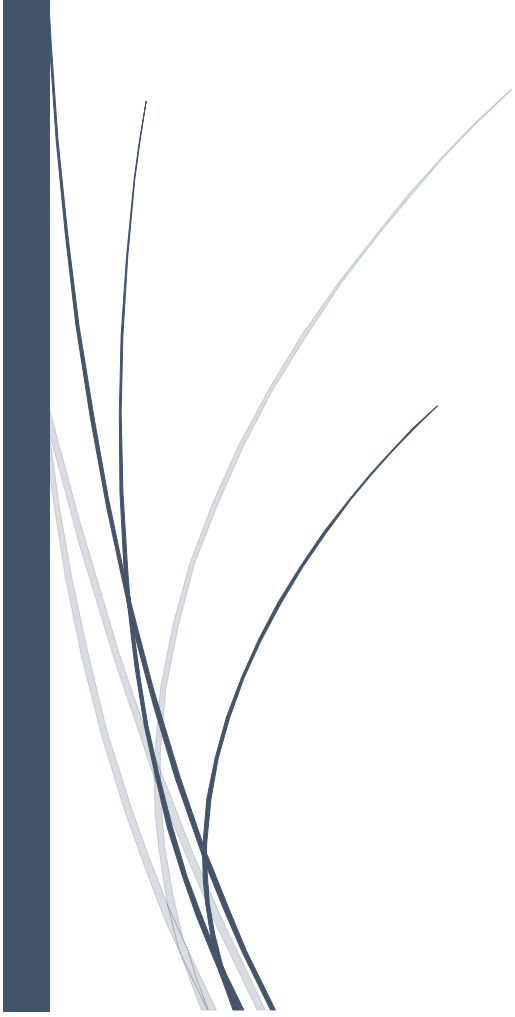
BIO-Electronics

Task #1

Interfacing between 8051 MC & Led and Button



Group #3

Steps:

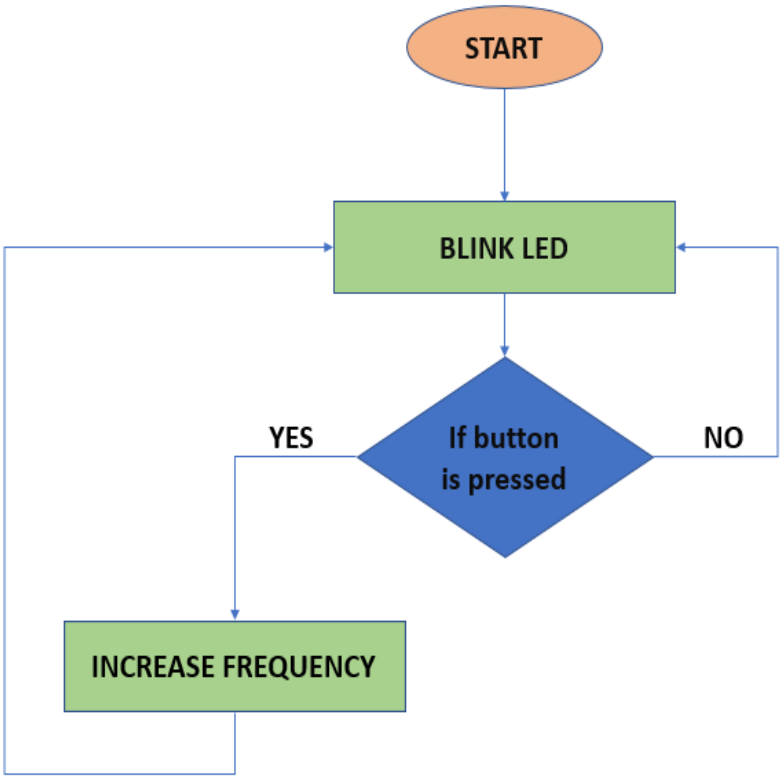
- Turn on the led
- Check if the pushbutton pressed or not
- If it is not pressed go to nopress function to delay with one second (blinking with 1 Hz)
- Go to toggle again and check the pushbutton again
- If the pushbutton is pressed increase the frequency of blinking
- Go to toggle again and check the pushbutton again

Written Code:

```
MOV A,#10          ;put 10 in accumulator like i = 0 (intial value);
toggle:
SETB P1.6          ;put 1 in 6th bin in port #1 (turn on led)
JB P2.0,nopress    ;if bin P2.0 is equal 1 go to no press else continue code
MOV R1, #10        ;put 10 in register R1 Like x=10
ADD A,R1           ;A=A+R1 like i= i+x (counter to increase freq)
sjmp toggle        ; go to toggle again like ( start the function from begining)
nopress:           ;if P2.0 is equal 1 w ill entrance this function
CALL delay         ; delay
CLR P1.6           ;put 0 in 6th bin in port #1 (turn off led)
CALL delay         ;delay
sjmp toggle        ; go to toggle again like ( start the function from begining)

delay:   MOV R5, A       ;delay by 1s or 1Hz
third:   MOV R6, #200
second:  MOV R7, #200
DJNZ  R7 , $
DJNZ  R6 , second
DJNZ  R5 , third
ret
end
```

FLOW CHART


START
BLINK LED
If button is pressed
YES
NO
INCREASE FREQUENCY