Andhra Pradesh State Skill Development Corporation

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Embedded systems

BUTTON INTERFACING TO 8051

LED Controlling by using push button switch

AIM: To write a program on button with led using 8051

Software Required :
　　　　1. Keil uVision5
　　　　2. Proteus 8

Components Required:
　　　　1.AT89C51 Microcontroller
　　　　2.LED
　　　　3.Push button switch
　　　　4.System

Theory:

　　　　A light-emitting diode (LED) is a semiconductor device that emits visible light when an electric current passes through it. The light is not particularly bright, but in most LEDs it is monochromatic, occurring at a single wavelength. The output from an LED can range from red (at a wavelength of approximately 700 nanometers) to blue-violet (about 400 nanometers).   Some LEDs emit infrared (IR) energy (830 nanometers or longer); such a device is known as an infrared-emitting diode (IRED).
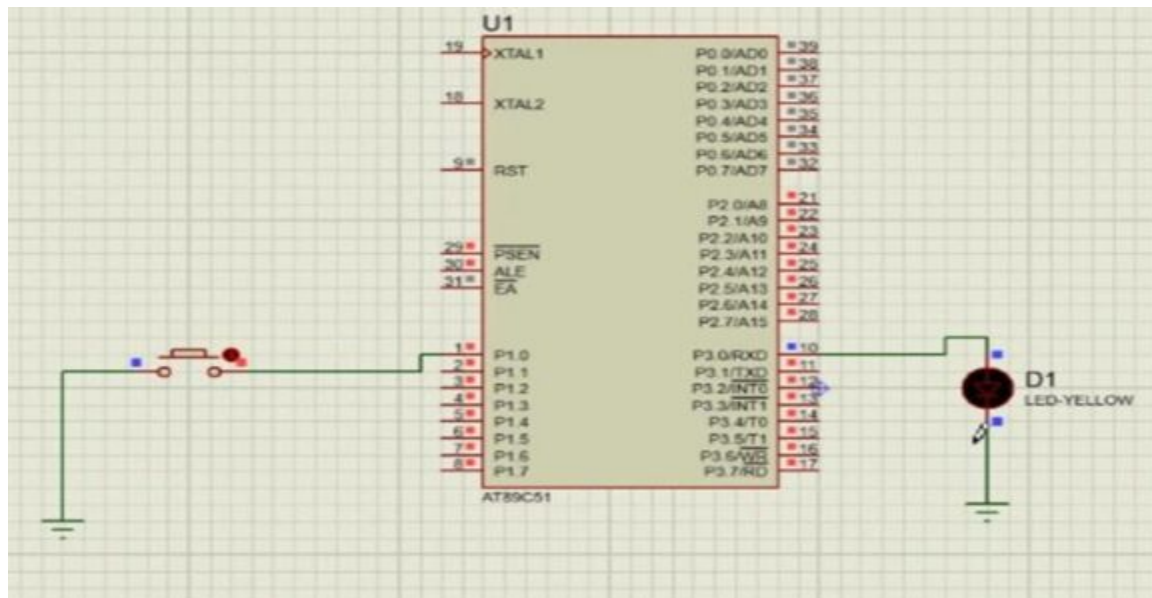

Push Button:

　　　　A Push Button switch is a type of switch which consists of a simple electric mechanism or air switch mechanism to turn something on or off.

Depending on the model they could operate with momentary or latching action functions.

The button itself is usually constructed of a strong durable material such as metal or plastic. Push

Button Switches come in a range of shapes and sizes. We have a selection of push button

switches here at Herga.

Circuit diagram:

code:

```
#include<regx51.h>
sbit button=P1^0;
sbit led=P3^0;
void main()
{
led=0;
while(1)
{
if(button==0)
led=1;
if(button==1)
led=0;
}
}
```

Result: successfully observed led performance by using push button switch in proteus software.