* **Learning objective :**
* LED Blinking using 8051 Microcontroller and Keil C – AT89C518051 Microcontroller is a programmable device which is used for controlling purpose.
* Basically 8051 controller is Mask programmable means it will programmed at the time of manufacturing and will not programmed again, there is a derivative of 8051 microcontroller, 89c51 micro controller which is re-programmable.
* **INPUT PORTS**
* Switch 1= port 2.1
* Switch 2= port 2.2
* 5v source
* **OUTPUT**
* sw1==0 && sw2==0 o/p= 0x00
* sw1==0 && sw2==1 o/p= 0x0A
* sw1==1 && sw2==0 o/p= 0xA0
* sw1==1 && sw2==1 o/p= 0x0A and = 0xA0
* delay is 500ms
* **Logic**
* #include <reg51.h>
* sbit sw1 = P2^1;
* sbit sw2 = P2^2;
* void delay(unsigned int);
* void  main(void)
* {
* sw1 = 0;
* sw2= 0;
* while(1)
* {
* if (sw1==0 && sw2==0)
* {
* P1 =0x00;
* }
* else if(sw1==1 && sw2==0)
* {
* P1=0x0A; //blink green colour
* }
* else if(sw1==0 && sw2==1)
* {
* P1=0xA0;     //blink green colour
* }
* else if(sw1==1 && sw2==1)
* {
* P1=0x0A;
* delay(500);
* P1=0xA0;
* delay(500);
* }
* }
* }
* void delay(unsigned int t)
* {
* unsigned int i,j;
* for(i=0;i<t;i++)
* for(j=0;j<1275;j++);
* }
* **RESULT :**

Blinking an LED using a microcontroller is a fundamental project in embedded systems. Let's take an example using an Arduino board, a popular platform for prototyping with microcontrollers. We'll use the Arduino IDE and write a simple sketch to blink an LED connected to pin 13.