

Expt 8

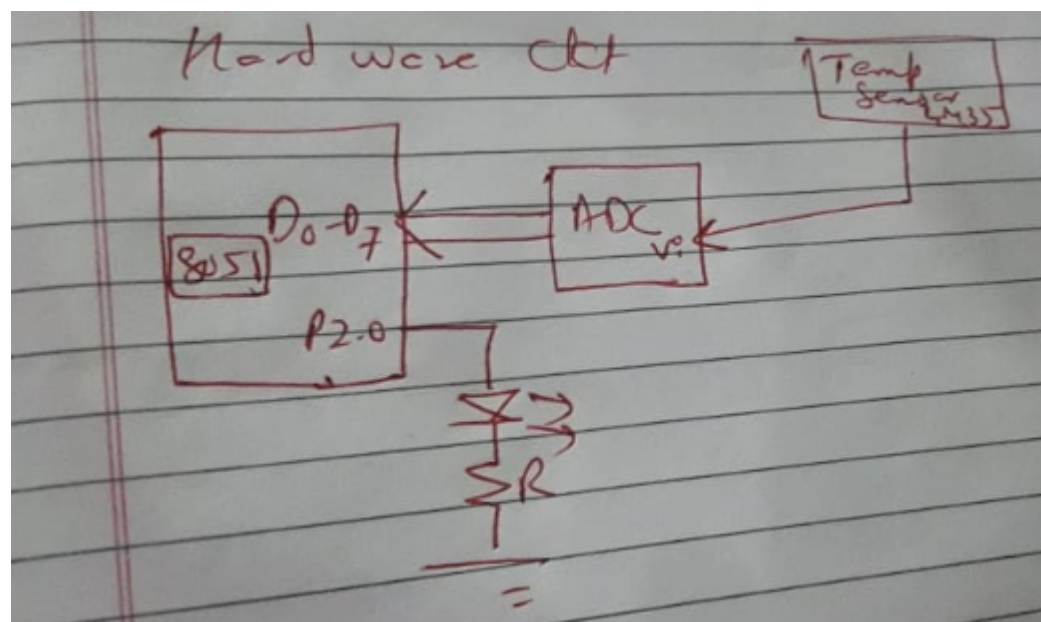
Practical 8

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Aim: Write Embedded C program to detect temperature in room. If the temperature of the room goes above 50° , LED connected to the output port should glow, and when the room temperature falls below 50° , LED should turn off.

Algorithm:

- i) Set port 1 as input port
- ii) Set port 2 as output port
- iii) If the temperature reads at P1 & more than the 50° temperature, then set P2.0 to 1
- iv) Call delay
- v) Else Reset bit P2.0
- vi) Call delay



Code:

```
#include <reg51.h>

void delay(unsigned int t);

sbit out=P2^0;

void main(void)
{
    P1=0xff;
    P2=0X00;
    out=0;
    while(1)
    {
        if(P1>0x99)
        {
            out=1;
            delay(100);
        }
        else
        {
            out=0;
            delay(100);
        }
    }
}

void delay(unsigned int t)
{
    int i,j;
```

```
for(i=0;i<=t;i++)  
for(j=0;j<=1275;j++);  
}
```