**Program**

//including header files and defines input, output pins and variables

#include<reg51.h>

sbit Fan=P1^3;

sbit Light=P1^4;

sbit TV=P1^5;

char str;

char Charin=0;

//creating a function for delay

void delay(int time)

{

unsigned int i,j;

for(i=0;i<time;i++)

for(j=0;j<1275;j++);

}

//configuring 9600bps baud rate at 11.0592MHz Crystal Frequency

void Serialwrite(char byte)

{

SBUF=byte;

while(!TI);

TI=0;

}

void Serialprintln(char \*p)

{

while(\*p)

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{

Serialwrite(\*p);

p++;

}

Serialwrite(0x0d);

}

void Serialbegin()

{

TMOD=0x20;

SCON=0x50;

TH1=0xfd;

TR1=1;

}

// initialized UART and monitored the SBUF register for receiving the data

// then data is matched and compared with predefined values and relative operation is performed

void main()

{

P1=0x00;

Serialbegin();

Serialprintln("System Ready...");

delay(50);

while(1)

{

while(!RI);

Charin=SBUF;

str=Charin;

RI=0;

if(str=='1')

{

Fan=1;

Serialprintln(" Fan ON");

delay(50);

}

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else if(str=='2')

{

Fan=0;

Serialprintln(" Fan OFF");

delay(50);

}

else if(str=='3')

{

Light=1;

Serialprintln(" Light ON");

delay(50);

}

else if(str=='4')

{

Light=0;

Serialprintln(" Light OFF");

delay(50);

}

else if(str=='5')

{

TV=1;

Serialprintln(" TV ON");

delay(50);

}

else if(str=='6')

{

TV=0;

Serialprintln(" TV OFF");

delay(50);

}

str=0;

}

}