

TITLE: HOME AUTOMATION USING SENSORS.

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CODE:

Int t=2;

Int e=3;

Void setup()

{

Serial.begin(9600);

pinMode(t,OUTPUT);

pinMode(e,INPUT);

pinMode(12,OUTPUT);

}

Void loop()

{

//ultrasonic sensor

digitalWrite(t,LOW);

digitalWrite(t,HIGH);

delayMicroseconds(10);

digitalWrite(t,LOW);

float dur=pulseIn(e,HIGH);

float dis=(dur*0.0343)/2;

Serial.print("Distance is: ");

Serial.println(dis);

//LED ON

If(dis>=100)

{

```
digitalWrite(8,HIGH);  
digitalWrite(7,HIGH);  
}  
  
//Buzzer For ultrasonic Sensor  
If(dis>=100)  
{  
For(int i=0; i<=30000; i=i+10)  
{  
Tone(12,i);  
Delay(1000);  
noTone(12);  
delay(1000);  
}  
}
```

```
//Temperate Sensor  
Double a= analogRead(A0);  
Double t=((a/1024)*5)-0.5)*100;  
Serial.print("Temp Value: ");  
Serial.println(t);  
Delay(1000);
```

```
//LED ON  
If(t>=100)
```

```
{  
    digitalWrite(8,HIGH);  
    digitalWrite(7,HIGH);  
}  
  
//Buzzer for Temperature Sensor  
If(t>=100)  
{  
    For(int i=0; i<=30000; i=i+10)  
    {  
        Tone(12,i);  
        Delay(1000);  
        noTone(12);  
        delay(1000);  
    }  
}  
  
//LED OFF  
If(t<100)  
{  
    digitalWrite(8,LOW);  
    digitalWrite(7,LOW);  
}  
}
```

CIRCUIT DIAGRAM:

