Assignment-1

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Topic: Assignment on home automation using Arduino

Code:-

```
int
t=2;
int
e=3;
void setup()
{
 Serial.begin(9600);
 pinMode(t,OUTPUT
 );
 pinMode(e,INPUT);
 pinMode(12,OUTPU
 T);
}
void loop()
{
 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);

 }
if(dis>=100)//(in terms of centimeter)
```

```
{
digitalWrite(8,HIG
H);
digitalWrite(7,HIG
H);
}
if(dis>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000
);
noTone(12
);
delay(1000);
}
}
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)//(in terms of celsius)
{
digitalWrite(8,HIG
H);
digitalWrite(7,HIG
H);
}
if(t>=10
0)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000
);
noTone(12
);
delay(1000
);
```

```
}
}
if(t<100)
{
digitalWrite(8,LO
W);
digitalWrite(7,LO
W);
}
}
```

OUTPUT: