

## **Assignment-1**

**Topic :** Assignment on home automation using Arduino

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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()
{
    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,HIGH); digitalWrite(7,HIGH);
}
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,HIGH); digitalWrite(7,HIGH);  
}  
if(t>=100)  
{  
    for(int i=0; i<=30000; i=i+10)  
    {  
        tone(12,i); delay(1000); noTone(12); delay(1000);  
    }  
}  
if(t<100)  
{  
    digitalWrite(8,LOW); digitalWrite(7,LOW);  
}  
}
```

**OUTPUT:-**

