

**St.Joseph College of Engineering**

**Sriperumbudur**

Department of Computer Science and Engineering

IOT Assignment

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

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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:-**



