

PROGRAM:

```
void setup()
{
   Serial.begin(9600);
   pinMode(12,OUTPUT);
   pinMode(2,INPUT);
```

```
void loop()
 int motion=digitalRead(2);
 double data=analogRead(A0);
 double n=data/1024;
 Serial.print("Converted Analog Data: ");
 Serial.println(n);
 double volt=n*5; //because connected to
5v
 Serial.print("Voltage data: ");
 Serial.println(volt);
 double off=volt-0.5;
 Serial.print("Offset Data: ");
 Serial.println(off);
 double temperature=off*100;
 Serial.print("Temperature Data: ");
 Serial.println(temperature);
 if(motion==1 && temperature<60)
  tone(12,100);
 else if(motion==0 && temperature>60)
```

```
tone(12,200);
else if(motion==1 && temperature>60)
noTone(12);
else if(motion==0 && temperature<60)
noTone(12);</pre>
```

OUTPUT:

