```
int trig = 2;
int echo = 3;
void setup()
{
  pinMode(trig,OUTPUT);
  pinMode(echo,INPUT);
  Serial.begin(9600);
  pinMode(7,OUTPUT);
  pinMode(8,OUTPUT);
  pinMode(13,INPUT);
  pinMode(1,OUTPUT);
}

void loop()
{
  int i = 0;
  for( i = 0; i<5;i++){
    digitalWrite(trig,LOW);
    digitalWrite(trig,HIGH);
    delayMicroseconds(10);
    digitalWrite(trig,LOW);
    float dur = pulseIn(echo,HIGH);
    float dist = (dur*0.0343)/2;
    Serial.print("Distance");
    Serial.println(dist);
    if(dist>=100){
      digitalWrite(7,HIGH);
      delay(100);
    }
    else{
      digitalWrite(7,LOW);
      delay(100);
    }
  }
  int j = 0;
  for(j = 0;j<5;j++){
    double a=analogRead(A1);
    Serial.print("Adc Value:");
    Serial.println(a);
    double v= a/1024;
    double tvolt= v*5;
    Serial.print("temp value voltage:");
    Serial.println(tvolt);
```

```
  double o = tvolt-0.5;
  double t= o*100;
  Serial.print ("Temperature is :");
  Serial.println(t);
  if (t>=300)
  {
    digitalWrite(8,HIGH);
    delay(1000);
  }
  else
  {
    digitalWrite(8,LOW);
    delay(1000);
  }
 }
 int m = digitalRead(13);
 Serial.print("Motion detector");
 Serial.println(m);
 if(m == 1){
  Serial.println("yes");
  digitalWrite(1,HIGH);
 }
 else{
  Serial.println("No");
  digitalWrite(1,LOW);
 }
}
```