```
float
temp;
            int tempPin = 0;
            int led = 13;
            int sensor = 2;
            int state = LOW;
            int val = 0;
            int  valor_limit = 650;
            const int buzzer = 6;


            void setup() {
              Serial.begin(9600);
              pinMode (led, OUTPUT);
              pinMode (sensor, INPUT);
              pinMode (8, OUTPUT);
              pinMode (7, OUTPUT);
              pinMode (buzzer, OUTPUT);
            }

            void loop() {
               temp = analogRead(tempPin);
               temp = temp * 0.48828125;
               Serial.print("TEMPERATURE = ");
               Serial.print(temp);
               Serial.print("*C");
               Serial.println();
               delay(1000);
               Serial.println(analogRead(A1));
               if(analogRead(A1) > valor_limite){
                digitalWrite(8, LOW);
                digitalWrite(7, HIGH);
                tone(buzzer, 1200);
                delay(500);
              }
              else{
                digitalWrite(8, HIGH);
                digitalWrite(7, LOW);
                noTone(buzzer);
                delay(500);
```

```
  }
 delay (1000);

 val = digitalRead(sensor);
 if (val == HIGH) {
  digitalWrite(led, HIGH);
  delay(500);

  if (state == LOW) {
   Serial.println("Motion detected!");
   state = HIGH;
  }
 }
 else {
    digitalWrite(led, LOW);
    delay(500);

    if (state == HIGH){
     Serial.println("Motion stopped!");
     state = LOW;


  }
 }
}
```

OUTPUT: