```
 1   int led = 13;
 2   int sensor = 2;
 3   int state = LOW;
 4   int val = 0;
 5
 6   void setup() {
 7     pinMode(led, OUTPUT);
 8     pinMode(sensor, INPUT);
 9     Serial.begin(9600);
10   }
11
12   void loop() {
13     val = digitalRead(sensor);
14     if (val == HIGH) {
15       digitalWrite(led, HIGH);
16       delay(500);
17
18       if (state == LOW) {
19         Serial.println("Motion detected!");
20         state = HIGH;
21       }
22     }
23     else {
24         digitalWrite(led, LOW);
25         delay(500);
26
27       if (state == HIGH){
28         Serial.println("Motion stopped!");
```

```arduino
14    if (val == HIGH) {
15      digitalWrite(led, HIGH);
16      delay(500);
17
18      if (state == LOW) {
19        Serial.println("Motion detected!");
20        state = HIGH;
21      }
22    }
23    else {
24        digitalWrite(led, LOW);
25        delay(500);
26
27        if (state == HIGH){
28          Serial.println("Motion stopped!");
29          state = LOW;
30      }
31    }
32  }
```

Serial Monitor