#include <Servo.h>

Servo myservo;

int pos=0;

int ledPin=12;

int inputPin=2;

int pirState=LOW;

int val=0;

int buzzer = 10;

void setup() {

  pinMode(ledPin, OUTPUT);

  pinMode(inputPin, INPUT);

  myservo.attach(9);

 pinMode(buzzer, OUTPUT);

**Serial**.begin(9600);

}

void loop() {

  val = digitalRead(inputPin);

  if (val == HIGH) {

    digitalWrite(ledPin, HIGH);

    tone(buzzer, 1000);

    if (pirState == LOW) {

      pirState = HIGH;

**Serial**.println("Motion detected!");

      for (pos = 0; pos <= 180; pos += 1) {

    myservo.write(pos);

    delay(15);

  }

  for (pos = 180; pos >= 0; pos -= 1) {

    myservo.write(pos);

    delay(15);

  }

    }

  } else {

    digitalWrite(ledPin, LOW);

    if (pirState == HIGH){

      pirState = LOW;

**Serial**.println("Motion ended!");

    }

  }

  delay(1000);

  noTone(buzzer);

  delay(1000);

}