```cpp
#include <Servo.h>

Servo myservo;

const int TRIG_PIN = 9;
const int ECHO_PIN = 10;
const int DISTANCE_THRESHOLD = 10; // centimeters

void setup() {
  Serial.begin(9600);
  pinMode(TRIG_PIN, OUTPUT);
  pinMode(ECHO_PIN, INPUT);
  myservo.attach(8);
  myservo.write(0);
}

void loop() {
  // Generate 10-microsecond pulse to TRIG pin
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);

  // Measure duration of pulse from ECHO pin
  long duration = pulseIn(ECHO_PIN, HIGH);

  // Calculate the distance
  float distance = 0.017 * duration;

  // Print the distance to Serial Monitor
  Serial.print("Distance: ");
  Serial.print(distance);
  Serial.println(" cm");

  // If an object is detected within 10 cm, activate the servo
  if (distance < DISTANCE_THRESHOLD) {
    for (int i = 0; i < 3; i++) {
      for (int j = 0; j < 10; j++) {
        myservo.write(j);
        delay(100);
      }
      for (int j = 10; j >= 0; j--) {
        myservo.write(j);
        delay(100);
      }
    }
  }
}
```