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/* Sweep
 by BARRAGAN <http://barraganstudio.com>
 This example code is in the public domain.

 modified 8 Nov 2013
 by Scott Fitzgerald
 https://www.arduino.cc/en/Tutorial/LibraryExamples/Sweep
*/

#include <Servo.h>

Servo myservo;  // create servo object to control a servo
// twelve servo objects can be created on most boards

int pos = 0;    // variable to store the servo position

void setup() {
  //start serial connection
 Serial.begin(9600);
 //configure pin 2 as an input and enable the internal pull-up resistor
 pinMode(2, INPUT_PULLUP);
 pinMode(9, OUTPUT);
 myservo.attach(9);  // attaches the servo on pin 9 to the servo object
}

void loop() {
  //read the pushbutton value into a variable
  int sensorVal = digitalRead(2);
  //print out the value of the pushbutton
  Serial.println(sensorVal);
  // Keep in mind the pull-up means the pushbutton's logic is inverted. It goes
  // HIGH when it's open, and LOW when it's pressed. Turn on pin 9 when the
  // button's pressed, and off when it's not:
  if (sensorVal == HIGH) {
  //digitalWrite(9, LOW);
  } else {
  for (pos = 0; pos <= 180; pos += 180) { // goes from 0 degrees to 180 degrees
    // in steps of 1 degree
    myservo.write(pos);              // tell servo to go to position in variable 'pos'
    delay(150);
  }
  for (pos = 180; pos >= 0; pos -= 180) { // goes from 180 degrees to 0 degrees
    myservo.write(pos);              // tell servo to go to position in variable 'pos'
    delay(150);                       // waits 15 ms for the servo to reach the position
  }
}
}
```