

The Servo Library is a great library for controlling servo motors. In this article, you will find two easy examples that can be used by any Arduino board.

The first example controls the position of a RC (hobby) servo motor with your Arduino and a potentiometer. The second example sweeps the shaft of a RC servo motor back and forth across 180 degrees.

Hardware Required

Arduino Board

Servo Motor

10k ohm potentiometer

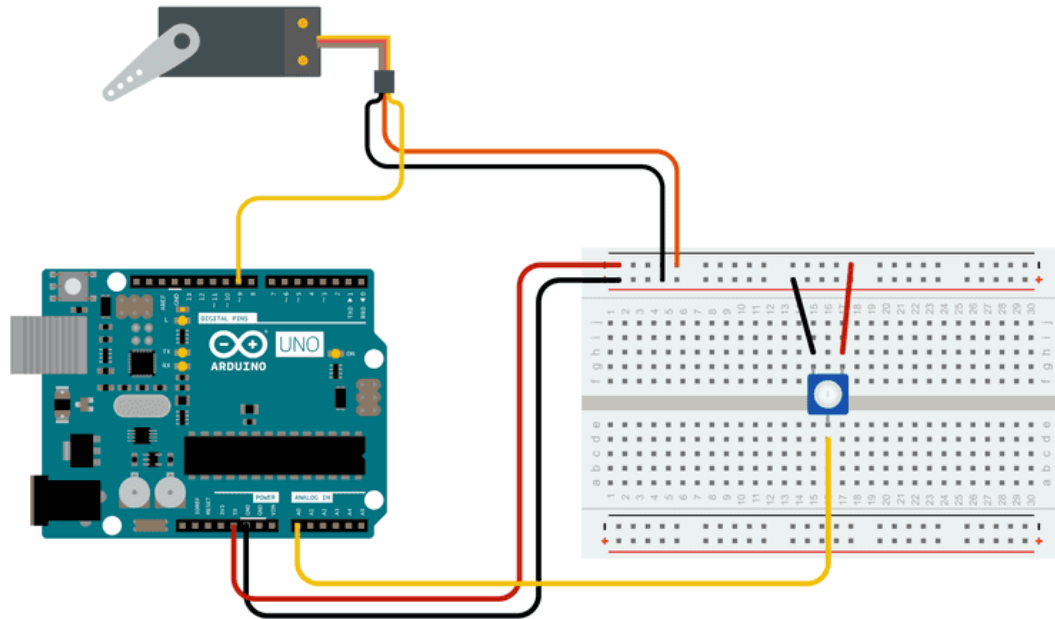
hook-up wires

Circuit

Servo motors have three wires: power, ground, and signal. The power wire is typically red, and should be connected to the 5V pin on the Arduino board. The ground wire is typically black or brown and should be connected to a ground pin on the board. The signal pin is typically yellow or orange and should be connected to PWM pin on the board. In these examples, it is pin number 9.

Knob Circuit

For the Knob example, wire the potentiometer so that its two outer pins are connected to power (+5V) and ground, and its middle pin is connected to A0 on the board. Then, connect the servo motor to +5V, GND and pin 9.



Sweeps the shaft of a RC servo motor back and forth across 180 degrees.

COD

```
#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() {
```

```
  myservo.attach(9); // attaches the servo on pin 9 to the servo object
```

```
}
```

```
void loop() {
```

```
  for (pos = 0; pos <= 180; pos += 1) { // 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(15);                  // waits 15ms for the servo to reach the position
```

```
  }
```

```
  for (pos = 180; pos >= 0; pos -= 1) { // goes from 180 degrees to 0 degrees
```

```
    myservo.write(pos);          // tell servo to go to position in variable 'pos'
```

```
    delay(15);                  // waits 15ms for the servo to reach the position
```

```
  }
```

```
}
```