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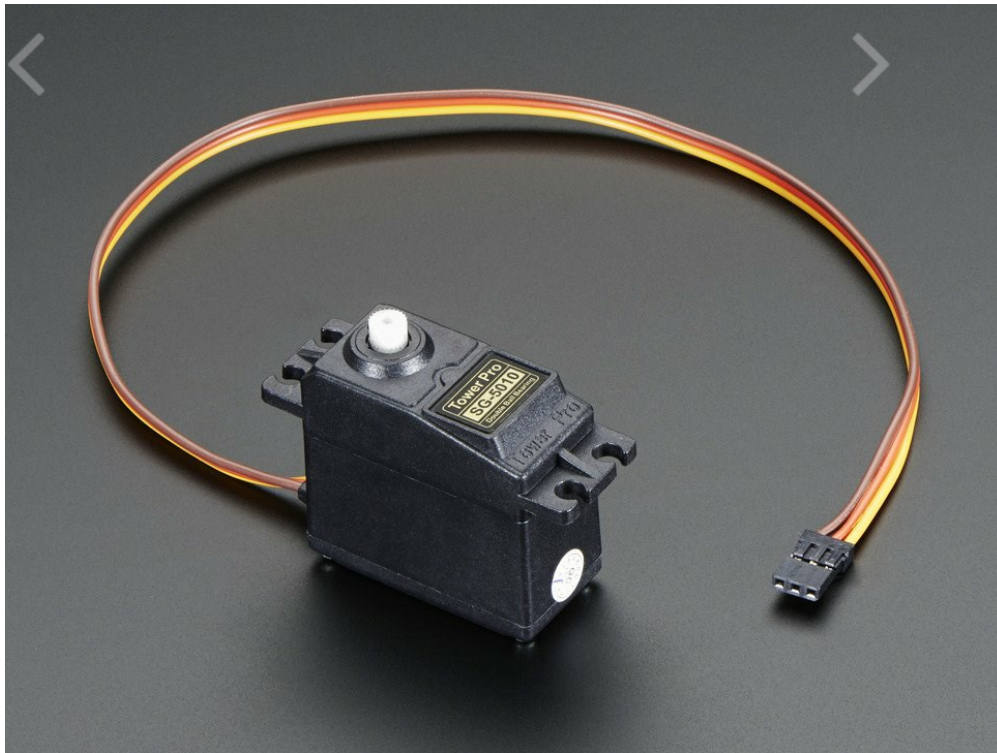
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## Company Address

Arrow Electronics, Inc  
9201 East Dry Creek Road  
Centennial, CO 80112



## Standard servo - TowerPro SG-5010 - 5010

PRODUCT ID: 155

IN STOCK

1

ADD TO CART

1-9

10-99

100+

ADD TO WISHLIST

[DESCRIPTION](#)[TECHNICAL DETAILS](#)

## DESCRIPTION

This high-torque standard servo can rotate approximately 180 degrees (90 in each direction). You can use any servo code, hardware or library to control these servos. Good for beginners who want to make stuff move without building a motor controller with feedback & gear box. Comes with 3 horns, as shown. They aren't the highest quality servo (which is why they are less expensive) and so are not suggested for hobby planes. We now carry the Tower-Pro SG-5010.

To control with an Arduino, we suggest connecting the orange control wire to pin 9 or 10 and using the [Servo library](#) included with the Arduino IDE ([see here for an example sketch](#)). Position "0" (1.5ms pulse) is middle, "90" (~2ms pulse) is all the way to the right, "-90" (~1ms pulse) is all the way to the left.

Note that the default servo pulse widths (usually 1ms to 2ms) may not give you a full 180 degrees of motion. In that case, check if you can set your servo controller to custom pulse

lengths and try 0.75ms to 2.25ms. You can try shorter/longer pulses but be aware that if you go too far you could break your servo!

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## TECHNICAL DETAILS

Details:

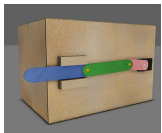
- Power: 4.8V - 6V DC max (5V works well)
  - Average Speed: 0.2sec/60degree (@ 4.8V), 0.16sec/60degree (@ 6V)
  - Weight: 39g (1.37 oz)
  - Torque: At 5V, 5.5kg-cm / 76oz-in, and at 6V 6.5kg-cm / 90oz-in.
  - Size mm: (L x W x H) 40 x 20.0 x 38 mm
  - Size in: (L x W x H) 1.60x.79x1.50
  - Spline Count: 25
- 

## LEARN



### [Crickit Powered Minerva Owl Robot](#)

Eyes that move, wings that flap! Build your own owl robot!



### [Slider Crank Mechanism -- from Cardboard and Craft Sticks](#)

Build a simple slider crank driven mechanism controlled with Circuit Playground Express



### [Adafruit 16 Channel Servo Driver with Raspberry Pi](#)



### [Snake Charmer Box](#)

Fun beginner's project for Circuit Playground Express

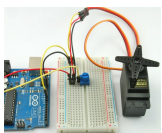


### [Adafruit PCA9685 16-Channel Servo Driver](#)



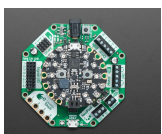
### [Pushrod Garage](#)

Build a cardboard garage with working garage door for your tiny cars or robots!



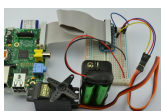
### [Arduino Lesson 14. Servo Motors](#)

Learn Arduino, Lesson 14. Servo Motors



### [Introducing Adafruit Crickit #MakeRobotFriend](#)

Make your robot pal who's fun to be with using Crickit!

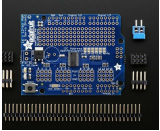


### [Adafruit's Raspberry Pi Lesson 8. Using a Servo Motor](#)

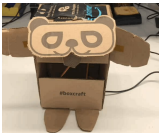
Write a Python program to control a servo motor with a Raspberry Pi



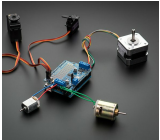
[Animatronic Hand](#)  
Build a cardboard animatronic hand with independent finger control using CRICKIT robotics controller board!



[Adafruit 16-channel PWM/Servo Shield](#)  
16 channels of servo-bustin' power



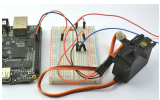
[Trash Panda](#)  
Adorable Hugging Panda Friend



[Adafruit Motor Shield V2 for Arduino](#)  
Stackable, high current DC and Stepper motor shield for Arduino



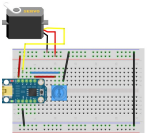
[Stumble-Bot](#)  
A simple walking robot that teaches basic programming skills



[Controlling a Servo with a BeagleBone Black](#)  
Use a BeagleBone Black and Python to set the position of a servo



[Crickit Controlled Animatronic Eyeball](#)  
Build a robot eye that looks in any direction!



[Trinket \(& Gemma\) Servo Control](#)  
Get your Trinket or Gemma moving



[Modifying Servos for Continuous Rotation](#)  
Make tiny gear-motors for your next robot!



[AdaBox 008](#)  
Explore and use the contents of your AdaBox 008



[Adafruit Motor Selection Guide](#)  
Choose the right motor (and controller) for the job!



[Using NeoPixels and Servos Together](#)  
An introduction to AVR peripherals.



[Make It Bubble](#)  
Make a soap bubble blowing robot for bubbly fun

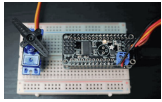


[Adafruit 16-Channel PWM/Servo HAT & Bonnet for Raspberry Pi](#)  
16 channels of servo-bustin' power for your Pi



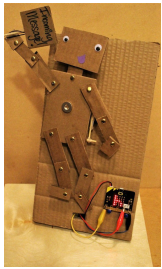
### Adafruit 8-Channel PWM or Servo FeatherWing

A 8 x servo party for your Feather!



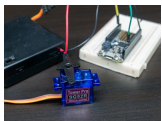
### CircuitPython Hardware: PCA9685 PWM & Servo Driver

How to use the PCA9685 PWM & servo driver with CircuitPython!



### Micro:Bit Puppet "Text Message" System!

Build a simple & silly radio communication system with the Micro:Bit!



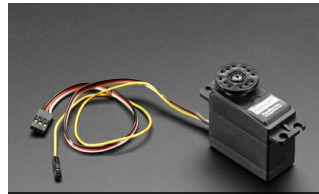
### Using Servos With CircuitPython and Arduino

How to use servo motors with CircuitPython and Arduino

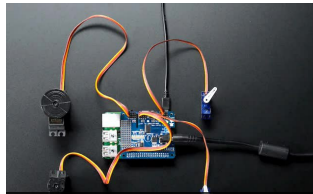
## MAY WE ALSO SUGGEST...



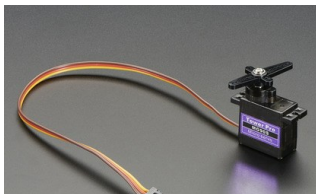
Adafruit MetroX Classic Kit -



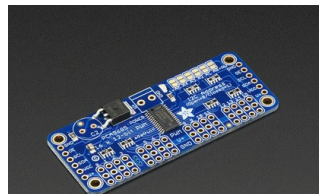
Feedback 360 Degree -



Adafruit 16-Channel PWM /



Micro Servo - MG90S High



Adafruit 16-Channel 12-bit



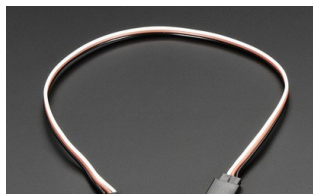
Machined Aluminum Servo



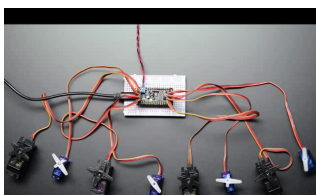
Continuous Rotation Micro



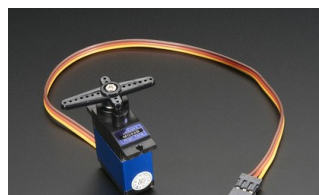
Analog Feedback Servo



Servo Extension Cable -



8-Channel PWM or Servo



Micro Servo - High



Standard Size - High Torque

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*"The art of progress is to preserve order amid change and to preserve change amid order" - Alfred North Whitehead*

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