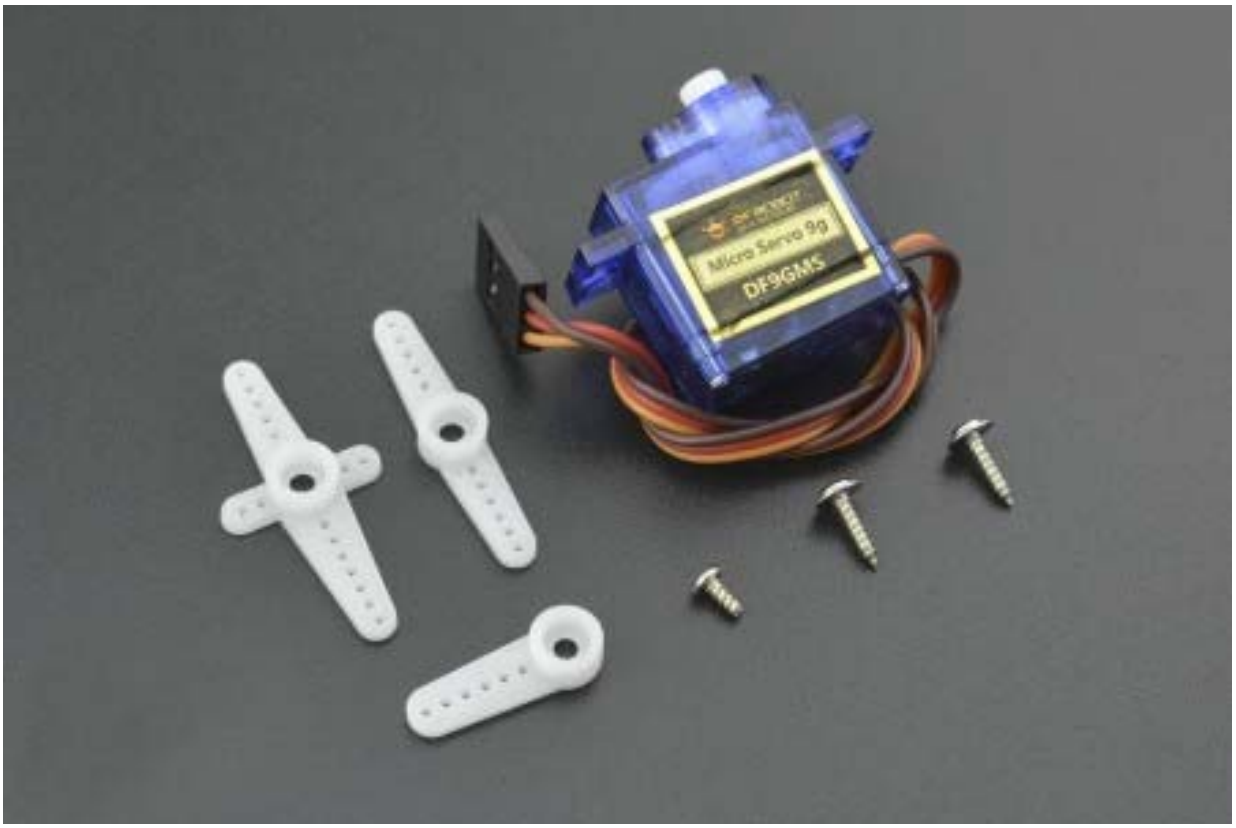

9g 180° Micro Servo (1.6kg)

SKU:SER0006

INTRODUCTION

Do you need a servo for a tiny little project? Or are you seeking for an affordable solution? This mini servo is quite impressive, it does quite the job for a large range of tasks. Only weights 9 grams and gives you a 1.6kg cm torque. Pretty strong regarding its size. Suitable for Beam robots and other automation tasks. Keep in mind that if you need some heavy lifting you should be considering some of our other options. This servo is for you if you are planning on building smaller size robots.

APPLICATIONS

- Insect bot
- Insectbot tutorial

SPECIFICATION

- No load speed: 0.12 seconds / 60 degrees (4.8V)
- Stall Torque: 1.6 kg / cm (4.8V)
- Operating temperature: -30 ~ +60 degrees Celsius
- Dead Set: 7 microseconds
- Operating voltage: 4.8V-6V
- Working rurrent: less than 500mA
- Cable length: 180mm (7 inches)
- Size: 22mmx12.5mmx29.5mm (0.9x0.5x1.2 in)
- Weight: 9 grams

SHIPPING LIST

- 9g 180° micro servo (1.6kg) x1

PROJECTS

Project 1. Micro:bit Surprise box
In this project it shows how the box interacts with flahsing hearts.
Main Components:
micro:bit
DFRobot micro:bit Expansion Shield
DFRobot Ambient Light Sensor
Servo Motor 9g

Project 2: Free Energy? Charge Your Mobile Phone with Hands

Introduction: Wanna charge your phone in the apocalypse? Maybe my hand crank generator can help you.

Hardware components:

- DC-DC Boost Module (0.9-5V)
- 9g 180° Micro Servo (1.6kg)
- 1N4007 – High Voltage, High Current Rated Diode
- Capacitor 100 µF

Project 3: How to make a Fingerprint ID Nerf Gun

My initial plans were to have the Arduino on the side with the power-pack and have the fingerprint ID scanner on the left side of the gun so that it can read the thumb print
Hardware components:
Arduino Nano
Fingerprint Scanner
9g 180° Micro Servo

Project 4. How to make a Smart Rock-Paper-Scissors Game Robot

When finishing reading this tutorial, you will find those very simple devices, principles and technologies can help you build very interesting equipment.

Hardware list:

- DFRduino Uno R3 x 1
- Gravity IO expansion shield for Arduino x 1
- Tower Pro MG90S servo x 3
- Ultrasonic wave sensor x 1

Project 5. FireBeetle Board-ESP32 Tutorials: Reforming a Small electric Fan

The instrument not just can record steps (and calories) at real time, but show time. What is special is that the format of showing is pointer.

Hardware in need:

- FireBeetle ESP32 IOT Microcontroller (Supports Wi-Fi & Bluetooth) × 1
- FireBeetle Covers-Gravity I/O Expansion Shield× 1
- Gravity: I2C OLED-2864 Display × 1
- BME temperature-humidity sensor × 1
- EC11J rotary encoder × 1
- 9g micro servo (1.6kg) × 1
- Dupont line × 10
- Crust By Overlord 3D printer × 1

Project 6 A Christmas present for cute kid & girl - A Clever Rabbit Hat - an EMG sensor based

Things you may need in this project:

1. Gravity: Analog EMG Sensor by OYMotion ×1
2. Beetle - The Smallest Arduino ×1
3. Lithium Battery Charger ×1
4. 3.7 V Lithium Battery ×1
5. 9g 180° Micro Servo ×2
6. Rabbit Hat ×1
7. Needles and Thread
8. Two-step Toggle Switch ×1
9. Elastic (Width: 1.5cm Length: 40cm) ×1
10. Stick ×2
11. Hot Melt Adhesive

Project 7: Micro:bit Missile Launcher

Hardware components:

- 9G servo motor *2
- micro:bit *1
- micro:mate(breakout board) *1
- Pan tilt kit *1
- Dual-axis XY Joystick Module *1
- 2n2222 transistor *1
- WLtoys Missile shooter *1
- Dupont cables

Project 8: micro:bit Laser Target

The ambient light sensor sensor detects the intensity of the laser pointer. If it is greater than 400, it will sound the buzzer and the servo will make the target fall and up. Game over when it reaches 10. Press A to reset score to 0.

Hardware components:

- Micro:bit *1
- DFROBOT micro:bit expansion shield *1
- DFRobot Ambient Light Sensor *1
- DFRobot Digital Buzzer Module *1
- laser pointer

- Servo motor 9g *1
- Popsicle
- Bottle cap
- paper target
- Glue gun
- Crocodile clip
- Micro switch
- 3V battery case

TUTORIAL

- **How to Make a Fully Rotational Servo**