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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## DF15RSMG 360 Degree Motor (20kg)

SKU:SER0035



### INTRODUCTION

This is the most powerful standard servo sized motor from DFRobot so far. The DF15RSMG equips with two pairs of the servo shells. One is a standard shell with four M4 mounting holes. And the other one includes a shell with double bearing which is specially designed for the application of the robot arm or the joints. The shells of this kit are thickened to make it stable enough for motion system.

The torque of this motor is about 19kg.cm at 7.4v power supply. Using the Arduino servo library, you could drive this servo motor easily. To reduce the consumption of your microcontroller, this servo has a lock function for the pulse detection. So driving it to a target position just requires one PPM controlling signal.

**NOTE:** This Servo Motor is **not** a servo which allows you control position, but it is actually a motor with servo appearance. You could use servo.h to make adjust its speed and rotation direction. For more, you could find it in Comment below.

### **Cable definition**

- Brown - GND
- Red - VCC
- Orange - Signal(PPM input wire)

## **SPECIFICATION**

### **Mechanical specification**

- Rotation angle range: 360°
- No-load speed:60°/0.16s @7.4v
- Stall torque:19.3kg.cm (7.4v)
- Dynamic torque:15.1kg.cm (7.4v)
- Gear:steel,copper mixed gear
- Assembly method:fastening with double layer 4 screws
- Equip 2 pairs of shells,2 metal servo horns and 2 servo support
- Size: 40x40x20mm (1.57x1.57x0.79")

### **Electrical specification**

- Working Voltage: 5-7.4v
- Stall current:3A(@8.5V - Limit test)
- PPM Voltage:3V-5V
- PPM Resolution:2us
- PWM driver frequency:4KHZ
- Range of PPM positive pulse width:400us-2550us
- Minimum value of PPM negative pulse width:400us

## **SHIPPING LIST**

- DF15RSMG Servo x1
- Servo Shell x2
- Fitting package x1