

## INTRODUCTION

Do you need a servo for a tiny little project? Or are you seeking for an affordable solution? This mini metal servo is quite impressive, it suits the job for a large range of tasks. With metal gear, it could give you a 1.8kg\*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.

Why Metal? Usually a metal gear servo will last longer than plastic version, especially for robotic applications which require servo moving at most of time. Metal servo provide way better solid performance than plastic version.

Project 1: OBLOQ-IoT Module +Micro:bit IoT Flower Watering

### Hardware list:

Gravity: UART OBLOQ – IOT Module (Microsoft Azure)

Micro: Mate - A Mini Expansion Board for micro:bit (Gravity Compatible)

Micro:bit - an Educational & Creative Tool for Kids

9g Metal Gear Micro Servo (1.8Kg)

One bottle and part of tube

Gravity: Analog Capacitive Soil Moisture Sensor- Corrosion Resistant

Project 2: Microbit Projects: Yes/No Bear

There are 2 possible answers. Either yes or no. We randomly generate the outcome when a button is pressed. When the answer is yes, the display will show Y & the tilt servo will response. When no, the display will show N and pan servo will response.

Part needed

2 x 9G servo motor

1 x microbit

1 x micro:mate(breakout board)

1 x Pan tilt kit

1 x stuffed toy bear

## SPECIFICATION

Operating Voltage: 4.8~6V

Limit angle:  $180^{\circ} \pm 10^{\circ}$

Reduction ratio: 320:1

No load speed: 0.12 seconds / 60 degrees (4.8V)

Stall torque: 1.8 kg / cm (4.8V)

Stall current: 300mA (4.8V)

Operating temperature: -10 ~ +50 degrees Celsius

Cable length: 180mm(7")

Size: 22.3\*11.8\*26.3 mm(0.88\*0.46\*1.04")

Weight: 12 grams

## **DOCUMENTS**

Dimension Diagram

## **SHIPPING LIST**

DMS-MG90 micro servo x1