# **INTRODUCTION**

#### Remind: micro:bit board and batteries are not included.

Here comes Maqueen – micro:bit educational programming robot platform Maqueen is an easy-to-use micro:bit programming robot for STEAM education, which inherits the playability and simple operation of micro:bit. With a mini body, play-and-play, it allows students to quickly learn graphical programming in an entertaining way while nurturing their interests in science and logical thinking.

Suggest Age: 8 +

Maqueen is accessible to Mind+ Programming platform now. Mind+ is a graphical programming platform from DFRobot, supporting python, Arduino and other programming platforms. At present, Mind+ has been applied to all kinds of sensors, modules and related educational products.

#### micro: Maqueen (with micro:bit)



#### micro: Maqueen (with micro:bit/IR Remote Controller)



Maqueen×1

IR Remote Controller×1

USB Cable×1

#### Line-tracking Map×1

#### micro: Maqueen (with micro:bit/micro:Gamepad/IR Remote Controller)





Affordable No budget pressure



Coding Language path Learn from blocks to text coding



Palm size Small enough to carry and collect



Powerful All basic functions you can think of



Quick to Assemble Save time for entire class



Wide Extension DIY projects with endless possibilities



Easy to Start Friendly and playful to beginners



Abundant Teaching content Online tutorials and guidebook available



### Weapon Magueen with micro:bit as brain!



Stand on the shoulders of giants, enjoy online educational sources together with 4 million children

micro: bit is a tiny programmable computer which is portable and only palm-sized. It is designed for primary and secondary school students to learn digitalized and computer thinking. micro:bit makes teaching and learning simple and fun.









**4-step assembly, Fool Proof** Save efforts for entire-class teaching and leave more time to create and play







3.Plug in micro: bit(order separately)



2.Fix battery holder



4.Install ultrasonic sensor





**1** Graphical Programming, play coding in blocks while learn programming and logical thinking.



2 Support multiple platforms: Mind+, Makecode, Scratch, Python; grow from zero to hero.



# Mind+

The only thing and everything for kids to start hardware programming .

Website: mindplus.cc

FREE DOWNLOAD





**01** Three mainstream open source hardware platforms support

**02** Wide range add-on component support



**03** Convert blocks into coding languages by build-in interpreter



Enjoy Hundreds of Creative Hacking Projects in **3** Hours









### Free Game Cards and **Rich Tutorials Available**



**Quick Start Guide** help beginners to quickly start and learn



Game Card 13 challenges are prepared for a fun adventure in Maqueen



Book "Maqueen & microbit Graphical Programming" a textbook for robotics and programming learning and teaching







There are 3 playing modes for

#### Single Player Mode Interactive Mode Multiplayer Mode Players will unlock a piece of Use Maqueen' s brain micro:bit Cooperate with your teammates basic equipment in each stage to unlock more tools like to complete the missions. calculating, drawing, etc. You could utilize external equipment to accomplish all of the tasks 1:Walking Maqueen 1:little Math Expert 2:Singer Maqueen 3: Rhythm Master 2:Dancer 1:Maqueen's Commander 2:Motion Controlled Car 4:Light Chaser 5:Little Tagalong 3:Flying Chess 4:Gamepad+Maqueen







#### ATTESTATION

#### of conformity with European Directives

Attestation Number:	1988AB0827N055002
Product:	micro:Maqueen for microbit Educational Programming Robot
Brand Name:	N/A
Model:	ROB0148-EN
Additional Model:	N/A
Applicant:	Chengdu Jiqu Technology Co., Ltd
Address:	No.188, KexingRd West, Wenjiang, Chengdu, Sichuan, China
Technical Characteristics:	DC 4.5V(1.5V*AAA*3) from Battery

The submitted sample of the above equipment has been tested for C  $\varepsilon$  marking according to following European Directive and standards:

- Electromagnetic Compatibility Directive 2014/30/EU

Standards	Report Number	Report date
EN 55014-1:2017 EN 55014-2:2015	CE190827N055	Sep. 18, 2019

The referred test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the essential requirements in the specified European Directive.

This verification does not imply assessment of the production of the product. The CC marking may be affixed if all relevant and effective European Directives with CC are applicable.

Senior Project Engineer EMC Department



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Name: Breeze Jiang Date: Sep. 18, 2019

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#### ATTESTATION OF CONFORMITY

Attestation Number:	1988AB0827N055001
Product:	micro:Maqueen for microbit Educational Programming Robot
Brand Name:	N/A
Model:	ROB0148-EN
Additional Model:	N/A
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Technical Characteristics:	DC 4.5V(1.5V*AAA*3) from Battery

The submitted sample of the above equipment has been tested according to following standard(s):

Standards	Report Number	Report date
FCC Part 15 Subpart B, Class B (sDoC)	FS190827N055	Sep. 18, 2019

The referred test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the essential requirements.

This verification does not imply assessment of the production of the product.

Senior Project Engineer EMC Department

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Name: Breeze Jiang Date: Sep. 18, 2019

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**Certificate of ROB0148** 

Click here to get more playing video of Micro: Maqueen

If you need **the micro: Maqueen Lite Skin Pack**, please click the following links.

Blue Skin Pack

**Green Skin Pack** 

White Skin Pack

**Red Skin Pack** 

We also offer the kit including **micro: Maqueen Lite and skin pack, please click here.** 

(Note: The skin pack is compatible with micro: Maqueen Lite. Not compatible with micro: Maqueen Plus.)



# Colorful micro: Maqueen Lite with Skin (Installed)



# **FEATURES**

- Support for Makecode, will support Scratch and python later.
- Small size, flexible movement.
- All-metal miniature gear motor, good quality, strong driving force.

• Line patrol, ambient light, LED lights, ultrasonic interface, buzzer, I2C interface, mechanical expansion screw hole, etc. ... full-featured, highly expandable.

• Exclusive customized POM bearing wheel, flexible and reliable, strong obstacle crossing ability.

• Easy to install, easy to use.

# **SPECIFICATION**

• Supply Voltage: 3.5V~5V DC ( Three AAA batteries or 3.6V~3.7V lithium battery )

- Infrared Grayscale Sensor(High-low level) x 2
- Buzzer x 1
- Infrared Receiver (NEC decoder) x 1
- LED Lights (High-low level control) x 2
- RGB Ambient Light (16 million colors) x 4
- SR04, SR04P Ultrasonic Interface(5V) x 1
- I2C Interface (3.3V) x 1
- Gravity Extension Interfaces (P1, P2) x 2
- N20 All-metal Gear Motor x 2
- Motor Reduction Ratio: 1:150
- Motor Drive Mode: PWM motor drive
- Bracket and Protective Cover Extension M3 Screw Hole x 6
- Programming Method: Makecode graphical programming, Mind+ graphical programming
  - Dimension: 81mm x 85 mm x 44mm/3.19 x 3.35 x 1.73in
  - Weight: 75.55g

# **PROJECTS**

#### 1. micro:Maqueen - Assembly & Play

**Introduction:** Maqueen is a graphical programming robot for STEM education, which inherits playability and simple operation of micro:bit.

#### 2. Project: Maqueen Runs The Egg

Introduction: Little Robot Transports An Egg On Obstacle Course

#### 3. Review: Amazing! DIY Robot kit Maqueen V2.0 - BBC Micro:Bit

**Introduction:** The Mini-body, interesting features and plug-and-play allow children to quickly learn graphic programming in entertainment, nurturing children's interest in science and logical thinking.

#### 4. Project: DF Robot micro Maqueen Motor and Line Sensor

**Introduction:** This is a DF Robot micro:Maqueen Robot for the Micro:Bit Controller, using the Arduino IDE. using a simple library I wrote that can be found here.

# **5.** Project: Line follower robot - Micro: bit robot project - How to Make a Snake Robot

Introduction: In this tutorial, we will learn how to make a snake robot.

## **DOCUMENTS**

- Product wiki
- Maqueen4.1-MakeCode-Tutorial
- Maqueen-CE-FCC
- Silly-Maqueen-Makecode
- Silly-Maqueen-Mindplus
- MicroPython
- Download Mind+ For Free

### **SHIPPING LIST**

• micro:Maqueen micro:bit Educational Programming Robot Platform \*1