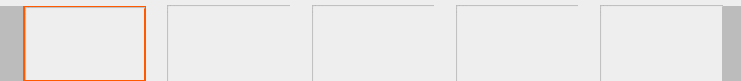
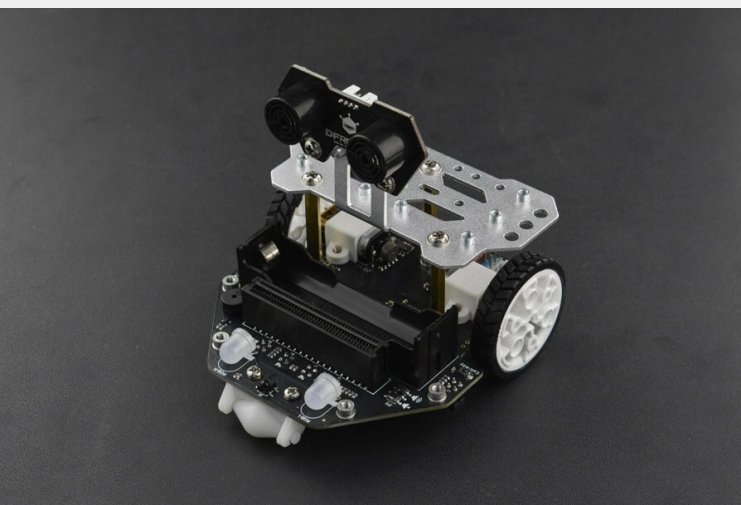


/ [micro:Maqueen Plus - an Advanced STEM Education Robot for micro:bit](#)



micro:Maqueen Plus - an Advanced STEM Education Robot for micro:bit

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Quantity:

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Frequently Bought Together

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INTRODUCTION

News: micro:Maqueen Plus has been named a Winner in the Hardware: Emerging Tech/eSports for the 2020 Tech & Learning Awards of Excellence.

[Click here to learn more.](#)

Maqueen, K12 STEM Edu robot, micro: bit

micro: Maqueen Plus is an **advanced** version of [micro:Maqueen Lite](#) (4.0), which is more powerful and intelligent. Optimized with **better power management** and **larger capacity power supply**, it can be perfectly compatible with [HuskyLens AI Vision Sensor](#), which makes it an accessible **AI robot teaching tool**.

In addition, micro:Maqueen Plus comes with a **larger and more stable chassis**, **more built-in functions** and **more expansion ports**, it is not only suitable for classroom teaching, but also can be suitable for **after-school extended exercises** and **robot competitions**.

(**Note:** [micro:bit board](#) and **batteries** are not included.)

Maqueen, K12 STEM Edu robot, micro: bit
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What is micro: Maqueen Series?

micro: Maqueen launched by DFRobot is a series of educational robot products for primary and secondary school programming. It includes a cost-effective "Lite" version, a powerful "Plus" version, and rich peripherals such as "Mechanic". You can choose different versions and peripherals based on your needs.

Maqueen, K12 STEM Edu robot, micro: bit

Selection Guide for micro:Maqueen series

Name	micro: Maqueen Lite	micro: Maqueen Plus
Power supply	3 AAA Batteries or CR123A Lithium battery (600~800mA)	18650 Li-ion battery (2300mA~2500mA)
Charging circuit	×	√
Power display	×	√
Encoder and PID control	×	√
Support for installing Huskylens AI camera	×	√
Support for line-tracking sensor calibration	√	√
Support for analog reading of line-tracking sensor	×	√
Number of line-tracking sensor	2	6
Number of IO expansion port	4	12
Number of servo port	2	3
Number of mechanic expansion thread	2	16
Motor rated rotation speed	133 rpm	260 rpm
LED color	Red LED	Large size RGB LED with 7 colors
Ultrasonic Model	H-SR04	DFRobot high-quality URM10 ultrasonic sensor
Continuous usage time with Huskylens	30min	180min
Standard continuous usage time	8h	24h
Come with line-tracking map	×	√
Onboard IR receiver and buzzer	√	√
Onboard WS2812 RGB LED	√	×
Application Scenario	Entry level classroom teaching	Intermediate level teaching, after school workshop, robot competition

What makes micro:Maqueen Plus so powerful?

High Capacity Lithium Battery

- Powered by 18650 high capacity lithium battery.
- Onboard charging circuit and battery indicator.

High Capacity Lithium Battery

Competition-level Sensors

- 6 line tracking sensors to allow complex routine programs and complicated maze algorithms.
- Supports analog readings and sensor calibrations with only one key.

Competition-level Sensors

Rich Extension Interfaces

- 9 GPIO expansion ports, 3 I2C extension ports, 3 servo expansion ports.
- 12 M3 threaded connections.
- Fully compatible with micro: Maqueen Mechanic and [HuskyLens AI vision sensor](#).

Rich Extension Interfaces

High Speed Metal Motor

- 260 RPM high speed metal motor; higher travel speed and well suitable for robot competitions.

High Speed Metal Motor

Motor with Encoder and PID Control

- 2 encoders to read real-time speed and direction, thus multiple cars running in the same map can be smoother.
- PID control for a stronger moment force in low speed.

Motor with Encoder and PID Control

Abundant Configurations

- 2 large-size RGB LEDs, supports 6 colors displaying.
- Onboard infrared receiving sensor and buzzer.
- Free high-quality ultrasonic sensor, which performs better than SR04 version.
- One free line-tracking map for user-friendly experience.

Abundant Configurations

Large and Stable

A larger size and more stable chassis than micro: Maqueen Lite, which is available for combining with more accessories.

Large and Stable

Easy to Install

Easy to Install

Coding system

Coding system

Maqueen Plus, Tutorial, Free Tutorials, robot tutorials, robot

Maqueen Plus, Tutorial, Free Tutorials, robot tutorials, robot

Downloaded from [Arrow.com](https://arrow.com)

SPECIFICATION

- Power Supply: 3.7V-18650 lithium battery
- Charging Voltage: 5V
- Charging Current: 900mACharging Time: 4h
- Battery Indicator: 4 LEDs
- Drive Motor: N20 motor 260 rpm
- Buzzer * 1
- RGB-LED * 2
- GPIO Expansion Ports: P0 P1 P2 P8 P12 P13 P14 P15 P16
- I2C Expansion Ports * 3
- Servo Expansion Ports *3
- Line Tracking Sensors *6
- Line Tracking Sensor Output Data: analog + digital
- Line Sensor Calibration: support
- Infrared Receiving Sensor *1
- Ultrasonic Sensor: URM10
- Top Metal Plate * 1
- M3 threaded connections *12
- Map Size: 50cm*50cm
- Dimension: 107x100mm/4.21 x3.94"

DOCUMENTS

- [micro:Maqueen Wiki with 10 Projects](#)
- [Rich Tutorials and Courses for micro:Maqueen Plus](#)
- [Rich Tutorials and Courses for micro:Maqueen Plus+HUSKYLNES](#)
- [Download Mind+\(Scratch3.0 Based Offline Editor\) For Free](#)
- [MU-MicroPython\(Designed for micro:Maqueen Lite and micro: Maqueen Plus\)](#)
- [Award-Winning](#)

SHIPPING LIST

- Maqueen Plus *1 ([micro:bit board](#) and batteries are not included.)
- Ultrasonic Sensor *1
- Top Metal Plate * 1
- Wheel *2
- Copper Pillar *3
- Instructions *1
- Line-tracking Map *1

REVIEW

FAQ

2 Comments

DFRobot

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Sean Tibor · 8 days ago

I want to get my students learning how to design their own 3d printed attachments for this robot. Is there a Fusion 360-compatible design that we can download for this robot?

↑ · Reply · Share >

↓






Jon Wagner · a month ago

I've had the Maqueen Plus for a little over a week and I'm really enjoying it. I've setup a small tutorial page here: [Arrow.com](#)

Downloaded from [Arrow.com](#) more about my experiences with it. For the price, I think it's a great buy, much

cheaper than other kits I've used in the past which cost several hundred dollars. I do want to try some more advanced scenarios such as bluetooth, I2C communications and perhaps the Huskylens in the future. But for now, definitely happy with this little robot and hope the page above is helpful to someone considering it.

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