

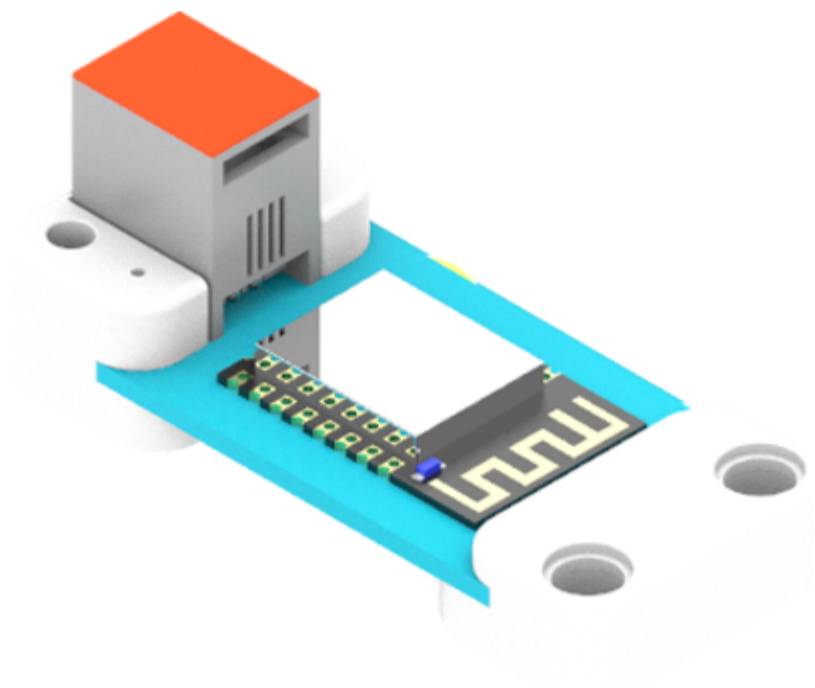
WIFI Module(EF05043)

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38.1. Introduction

Based on ESP8266 module, it is able to connect the micro:bit to the IoT platform and upload the data or control the micro:bit from the platform.



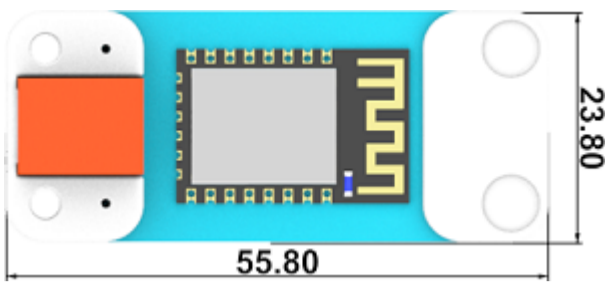
38.2. Characteristics

- Designed with RJ11 ports and easy to plug.

38.3. Specification

Item	Parameter
SKU	EF05036
Connection	RJ11
Connection Type	Serial Communication
Core IC	ESP8266

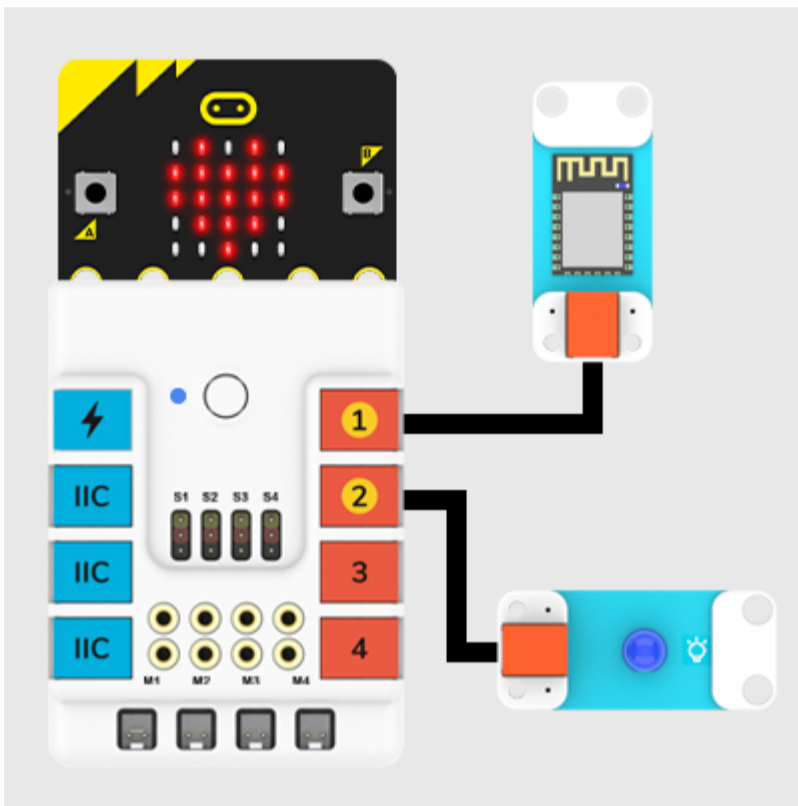
38.4. Outlook and Dimension



38.5. Quick to Start

38.5.1. Materials required and connections diagram

- Connect the WIFI module to the J1 port and the LED to J2 port on Nezha expansion board.



38.6. Kids IoT

- KidsIoT is a platform for IoT(Internet of Things) produced by ELECFREAKS with only three minutes to get connected, it can achieve a remote control to the micro:bit. (Currently in English version only) link: [KidsIoT Cloud Platform: https://www.kidsiot.cn/](https://www.kidsiot.cn/)

microbitplanetX/images/kidsiot_01.jpg

38.7. KidsIoT Registration

- Sign up in the website to get a new account.

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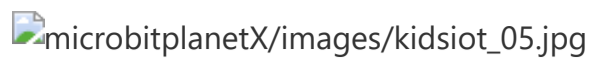
- Fill in with your email address and password, and click Sign Up.

microbitplanetX/images/kidsiot_03.jpg

- After signing up, an email should be sent to your mailbox.

microbitplanetX/images/kidsiot_04.jpg

- Activate your account with the links sent to your mailbox, note the letter might be in your junk email for the first time.



- Sign Up successfully!



38.8. KidsIoT Guidance

- Go to the log in interface by clicking Sign in.



- Click log in to enter the device manage interface, the "User Name" on the top left corner is your email address, the unique "User Token"(Currently miswritting as ID, we will correct to Token later) on the top right corner is the only indentification code for this platform which is corresponding to your account.



- Create new device, "Topic" is the only identification code(the only device in the account), and you can revise the device name(only 10 devices can be created).



- The upload data will be shown on the left, what on the right is a two-dimension line chart for data and time. You can choose the data that you want to see or export the data.
- You can use "Remote Control" to give commands to the micro:bit.



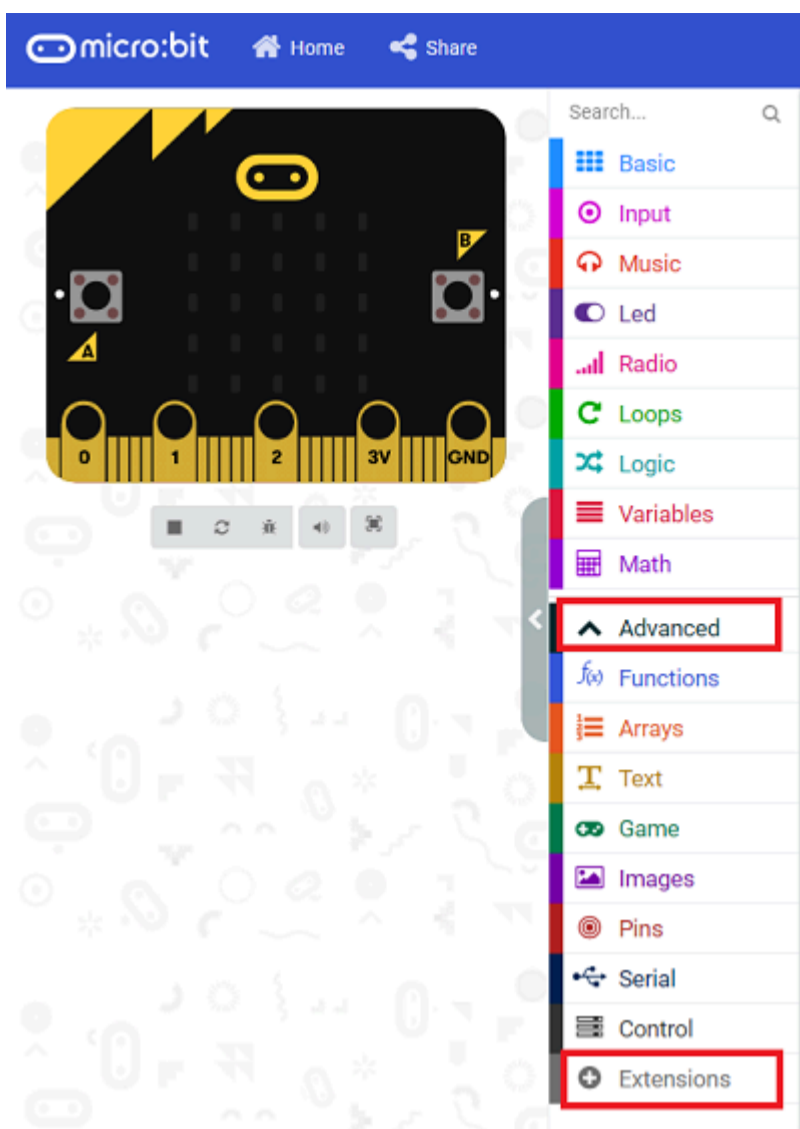
38.9. Write Code

[MicroSoft MakeCode](#)

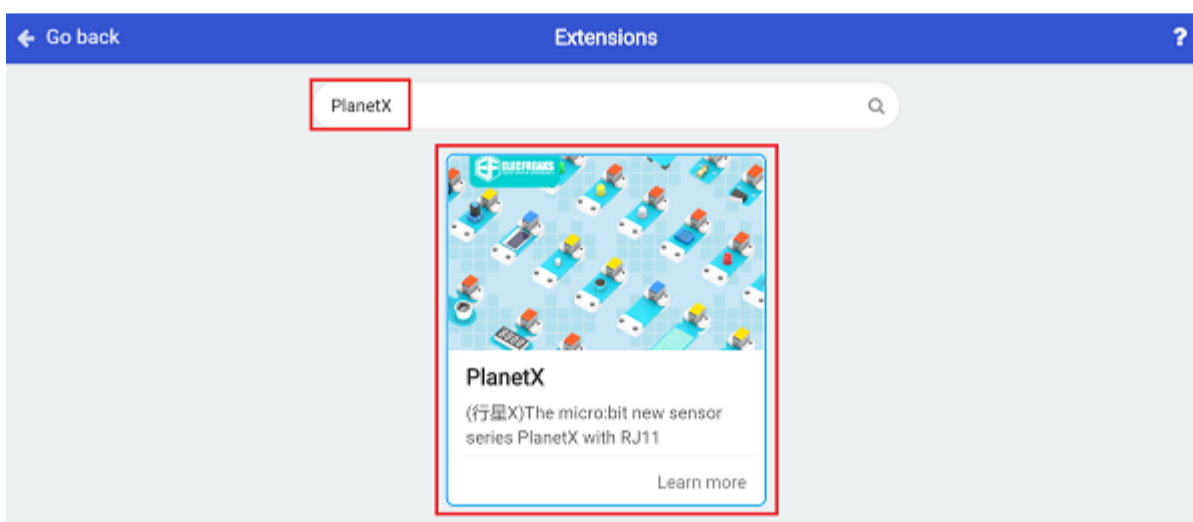
38.10. Programme

38.10.1. Modules Connection Diagram

Click "Advanced" in the drawer of the MakeCode to see more choices.



We need to add a package for programming. Click “Extensions” in the bottom of the drawer and search with “PlanetX” in the dialogue box to download it.



Note: If you met a tip indicating that the codebase will be deleted due to incompatibility, you may continue as the tips say or build a new project in the menu.

38.10.2. Code Details

microbitplanetX/images/kidsiot_14.jpg

Connect to Kids’IoT platform, User Token is the only identification code for the account which can not be revised.

microbitplanetX/images/kidsiot_15.jpg

microbitplanetX/images/kidsiot_16.jpg

Topic is the only identification code and you have to appoint the upload device when connecting. The device number(Topic) will be in sequential order.

microbitplanetX/images/kidsiot_17.jpg

Upload an integer to KidsIoT and it shows here.

microbitplanetX/images/kidsiot_18.jpg

microbitplanetX/images/kidsiot_19.jpg

Judge if the connection status is successful, "True" for success, "False" for failure. You can edit the reconnection system to ensure the stable connection.



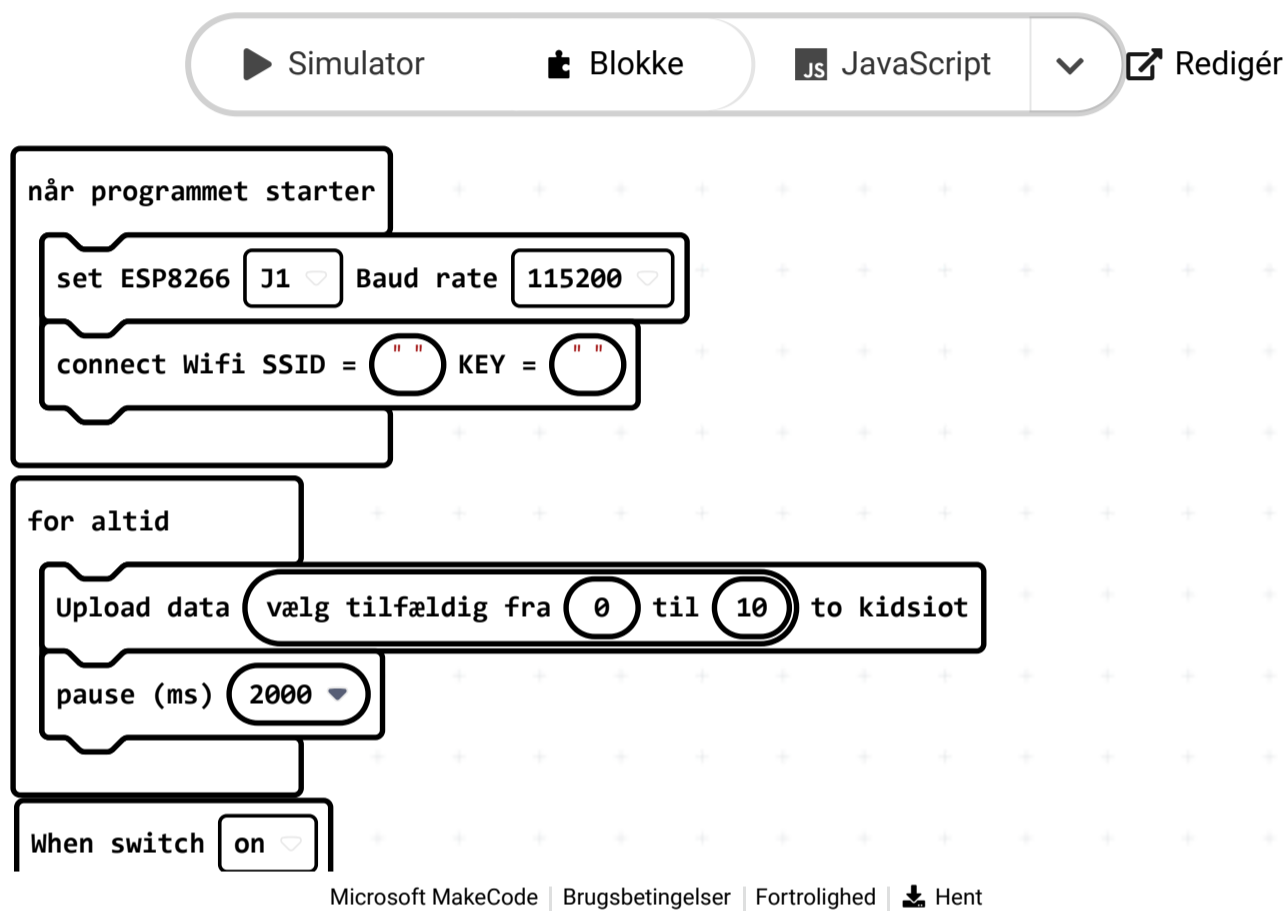
When getting connected well, you can click this switch to operate these two bricks.

38.10.3. Link



Link: https://makecode.microbit.org/_4eoUoJLffWsf

You may also download it directly below:



38.10.4. Phenomenon

- Connect WIFI after powering on
- In the forever brick, judge if WIFI is successfully connected, if yes, it displays a big heart icon; or it keeps trying.
- In the forever brick, judge if KidsIoT is successfully connected, if yes, it displays a small heart icon; or it keeps trying.
- If the kidsIoT is successfully connected, a random value from 0~10 will be uploaded to the platform.
- Turn on the switch on the platform to turn on the LED.
- Turn off the switch on the platform to turn off the LED.

By ELECFREAKS Team

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