How to use Makeblock in Scratch

Distributed by



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What is Scratch about?

Scratch is one of the drag and drop programming software contributed by MIT. It helps young people learn to think creatively, reason systematically, and work collaboratively — essential skills for life in the 21st century.

In Scratch's offline version, users can include some third party electronic modules in Scratch. Scratch is also completely free and available in more than 40 languages. You can use Scratch in Windows, Mac, and Linux OS.

Instructions:

Several programs have to be installed before start using Makeblock electronic modules in Scratch. First, install Adobe Air and Scratch offline. Then get the latest version of Makeblock library before fire up the ScratchApp code to Meduino. Finally, download and install the Makeblock application.

1. Install Adobe Air and Scratch offline.

Make sure you already **install Adobe Air** before install Scratch offline. If not, please download it as below:

For Window:

http://get.adobe.com/air/

For Mac:

http://airdownload.adobe.com/air/mac/download/2.6/AdobeAIR.dmg

For **Linux**:

http://airdownload.adobe.com/air/lin/download/2.6/AdobeAIRInstaller.bin

After install this Adobe Air, download Scratch offline and install it.

http://cdn.scratch.mit.edu/scratchr2/static/sa/Scratch.air

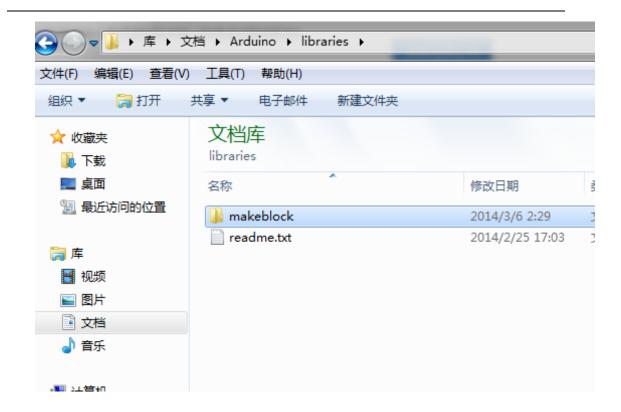
2. Get the latest version of Makeblock library

This is the directory of your Makeblock library: "My Computer" -> "Documents" -> Arduino -> Libraries -> makeblock.

If it is different from the one in the Github account of Makeblock, please download the Makeblock library from this link.

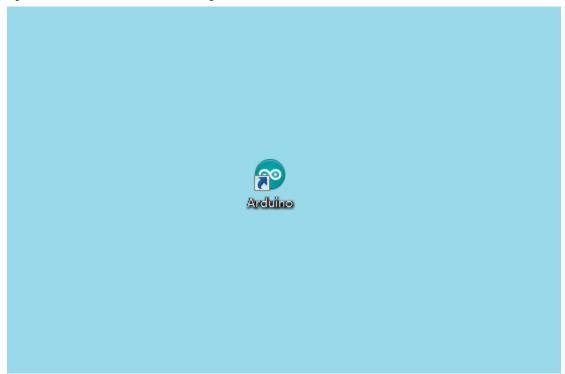
https://github.com/Makeblock-official/Makeblock-Library/archive/master.zip

Copy and paste or just unzip this file shown in the picture below to your: "My Computer" -> "Documents" -> Arduino -> Libraries



3. Upload the Makeblock "ScratchApp" to Meduino or Me-Baseboard

Open Arduino softeware on desktop.



Dasebodiubuzzeilest sketch_mar18a | Arduino 1.0.5-r2 Makeblock_Robot_Starter_Kit > File Edit Sketch Tools Help Me_4Button Ctrl+N New Me Bluetooth Ctrl+O Open... Me_DigitalTube Sketchbook Me InfraredReceiver Examples 01.Basics Me Joystick Ctrl+W 02.Digital Close Me_LedStripDriver Ctrl+S Save 03.Analog Me_LightSensor Ctrl+Shift+S 04.Communication ▶ Save As... Me_LimitSwitch Ctrl+U 05.Control Upload Me_LineFinder Ctrl+Shift+U Upload Using Programmer 06.Sensors Me_MotorDriver 07.Display Ctrl+Shift+P Me_RJ11Adapter Page Setup 08.Strings Ctrl+P Print Me_ServoDriver 09.USB Me_Shutter Ctrl+Comma Preferences 10.StarterKit Me_StepperDriver ArduinoISP Quit Ctrl+Q Me_UltrasonicSensor

As shown in the picture below, click File->Examples->makeblock->ScratchApp

Upload the **ScratchApp program** to **Meduino** or **Me-BaseBoard**. If you are **not familiar** with this, please go to this website for more information on how to upload program.

makeblock

ScratchApp

http://wiki.makeblock.cc/index.php/Makeblock_Robot_Starter_Kit#Programming

4. Install Makeblock application for Scratch

Download the following zip file:

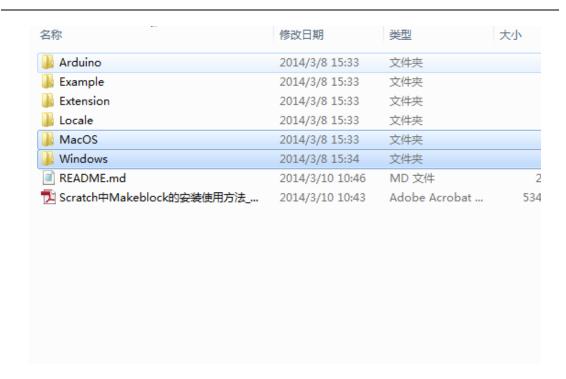
 $\frac{https://github.com/Makeblock-official/Makeblock-Help-App-For-Scratch-Offline/archive/master.zip}{/master.zip}$

Unzip the Makeblock zip file.

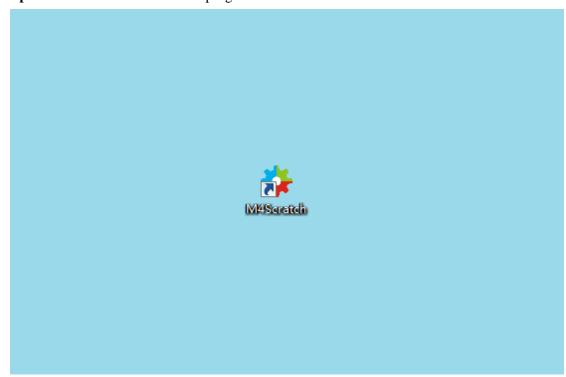
In the unzipped file "Makeblock-Help-App-For-Scratch-Offline-master", find the **installation file** that is suit for your OS.

For example, for Windows user:

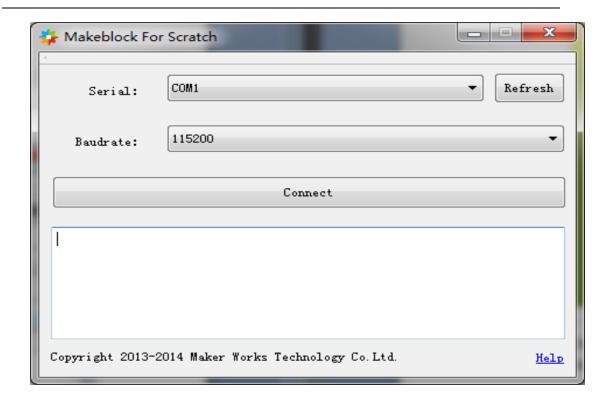
Makeblock-Help-App-For-Scratch-Offline-master -> Windows -> Setup_en.exe



Open the Makeblock for Scratch program "M4Scratch"



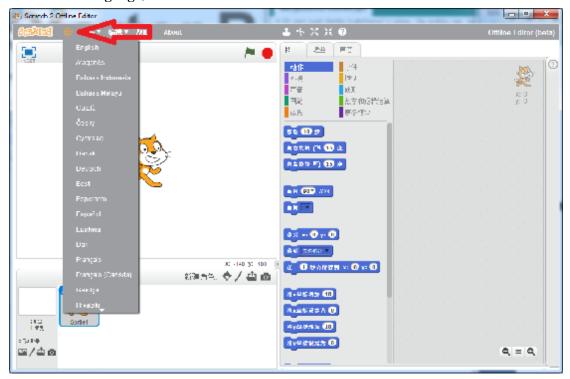
Choose the corresponding Makeblock or Baseboard serial port as well as the baud rate at 115200. Then click "Connect". Make sure this program is still on when using Scratch.



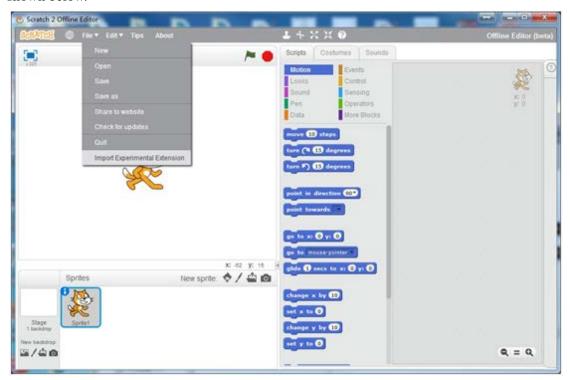
On your desktop, open Scratch 2



For different language, choose here.



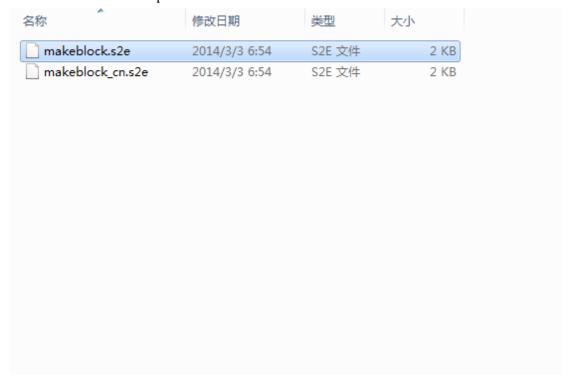
Press "Shift" key on your keyboard and **left click "File"** on top left of Scratch to import electronic modules from Makeblock. Choose **Import Experimental Extension** as picture shown below.



Find the file downloaded "Makeblock-Help-App-For-Scratch-Offline-master". Under this directory to find the electronic modules:

Makeblock-Help-App-For-Scratch-Offline-maste->Extension

Note: You don't need to worry about importing the wrong file. You can always **press Shift** and **click File** to import a new one.



As the picture shown below, **click "More Blocks"**. Makeblock electronic modules will be shown in your Scratch page. Now you can start your drag and drop programming experience in Scratch! Let's get it started!

