Introduction
Teaching, Learning and Having Fun
mBot is an all-in-one solution for kids and beginners to get hands-on experience with robotics, programming, and electronics.

Graphical programming & C language

APP for Control and Coding

Infinite Extensibility
mBlock is a graphical programming environment based on Scratch 2.0. Open Source Code that makes it easy to program Arduino projects and create interactive applications.
Key Features

• Quick entry. 10-20 minutes assembly.

• 4 mode APP control: manual mode; gravity control mode; line following mode; automatic driving mode.

• Convenient wiring electronic system with color-labeled RJ25 ports.

• Graphical programming PC software – mBlock.

• PC programming software - Arduino IDE.

• Graphical programming APP – Makeblock & mBlockly

• Optional 2.4G wireless connection available.

• Extensible with add-on packs and accessories.
90058 2.4G Version
For classroom, no pairing confusion

90053 Bluetooth Version
For individual users, family. app supported
V1.0 vs V1.1

mBot V1.1

mBot V1.0
What’s New?

The new mBot comes with below improvements on its design:

- Taller on-board buttons, which is convenient for you to press even if you assemble mCore with its casing.
- Replace caster wheel with a mini auxiliary wheel, which reduces motion noise and adjusts the center of gravity of mBot.
### Difference between 2.4G version and Bluetooth version

<table>
<thead>
<tr>
<th>Product Name</th>
<th>mBot - 2.4G Version</th>
<th>mBot - Bluetooth Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parts</td>
<td>one 2.4G module for mBot + one 2.4G dongle for computer</td>
<td>Only one Bluetooth module for mBot</td>
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</tbody>
</table>
| Software and programming | • mBlock(graphical) based on Scratch 2.0 - Mac, Windows.  
  • C language Arduino IDE - Mac, Windows. |                                                                                           |
| Inputs               | Light sensor, button, infrared receiver, ultrasonic sensor, line follower           |                                                                                           |
| Outputs              | Buzzer, RGB LED, Infrared emitting, two motor,ports                                 |                                                                                           |
| Microcontroller      | ATmega328 based on Arduino Uno                                                      |                                                                                           |
| Power                | 3.7VDC lithium battery(charger on board) or four 1.5V AA batteries (not included)    |                                                                                           |
| Dimensions           | 17 x 13 x 9 cm after assembled                                                      |                                                                                           |
| Weight               | 400g after assembled                                                                |                                                                                           |
| Wireless Communication | 2.4GHz wireless serial                                                               | Bluetooth(4.0+2.0)                                                                       |
| Wireless technology details | Including one 2.4G module for mBot and one 2.4G dongle for computer. Using wireless frequencies in the 2.4GHz range to create a point-to-point communication, but not WIFI standard and Bluetooth standard. | Only include one Bluetooth module for mBot (Support both Bluetooth 2.0 and 4.0 standard) |
| Advantage            | • Suitable for classroom teaching. There is no signal interference like Bluetooth when 5+ students use in classroom simultaneously  
  • Easy to connect. No pairing trouble and driver needed | One joystick App provided for battle is available on Android & iOS, one entry-level graphical programming App is available on iPad. |
| Disadvantage         | Can’t connect to smartphone, so no App available.                                    | There is signal interference when 5+ people use in classroom simultaneously. And the host computer must have built-in Bluetooth or extra Bluetooth dongle. |
| App                  | N/A                                                                                  | yes                                                                                      |
How to learn mBot with fun?

The user manual helps you to interact with your robot quickly.

Two tutorial books help teachers and kids get started easier.
Add-on and Accessories

- 13412 Me LED Matrix 8 x 16
- 98050 mBot Add-On Pack
- 98052 mBot Add-On Pack

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Six-Legged Robot

Bettle

Dancing Cat
Add-on and Accessories

- 11012 Me 3-Axis Accelerometer and Gyro Sensor
- 11020 Me Touch Sensor
- 11010 Me PIR Motion Sensor V1
- 13402 Me 7-segment display-Red
- 11024 Me Compass
- 11032 Me Temperature and Humidity Sensor V1

MORE…
For schools: mBot will perfectly meet the needs of both children and their educators. mBot & mBlock meets the essentials to enter and advance in the world of graphical programming, electronics and robotics. It will allow many activities or lessons in class with a single product.

For families: Interest is the best teacher for kids, mBot aim to be the right teacher to help kids improve powers of observation, hands-on practice ability, problem finding and solving skills, cultivate creativity, imagination, thinking and learning ability.

For beginners: Great fun for anyone looking to expand their knowledge of Arduino, electronics, robotics and DIY, since mCore board is compatible with Arduino UNO.
Who is interested in mBot?
Have fun with mBot!