



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





**Makeblock**  
*Construct Your Dreams*

# Product Catalogue

# INDEX

01~18

Robot Kits

19~29

Extension Kits

30~45

Mechanical Parts

46~55

Electronic Modules

01~18

# ROBOT KITS



## Airblock

Build it. Code it. Fly it. Airblock is a modular and programmable drone. The transformable blocks enable you to assemble your dream aircraft or hovercraft. Conquer the sky, land and water with Airblock.

# Airblock

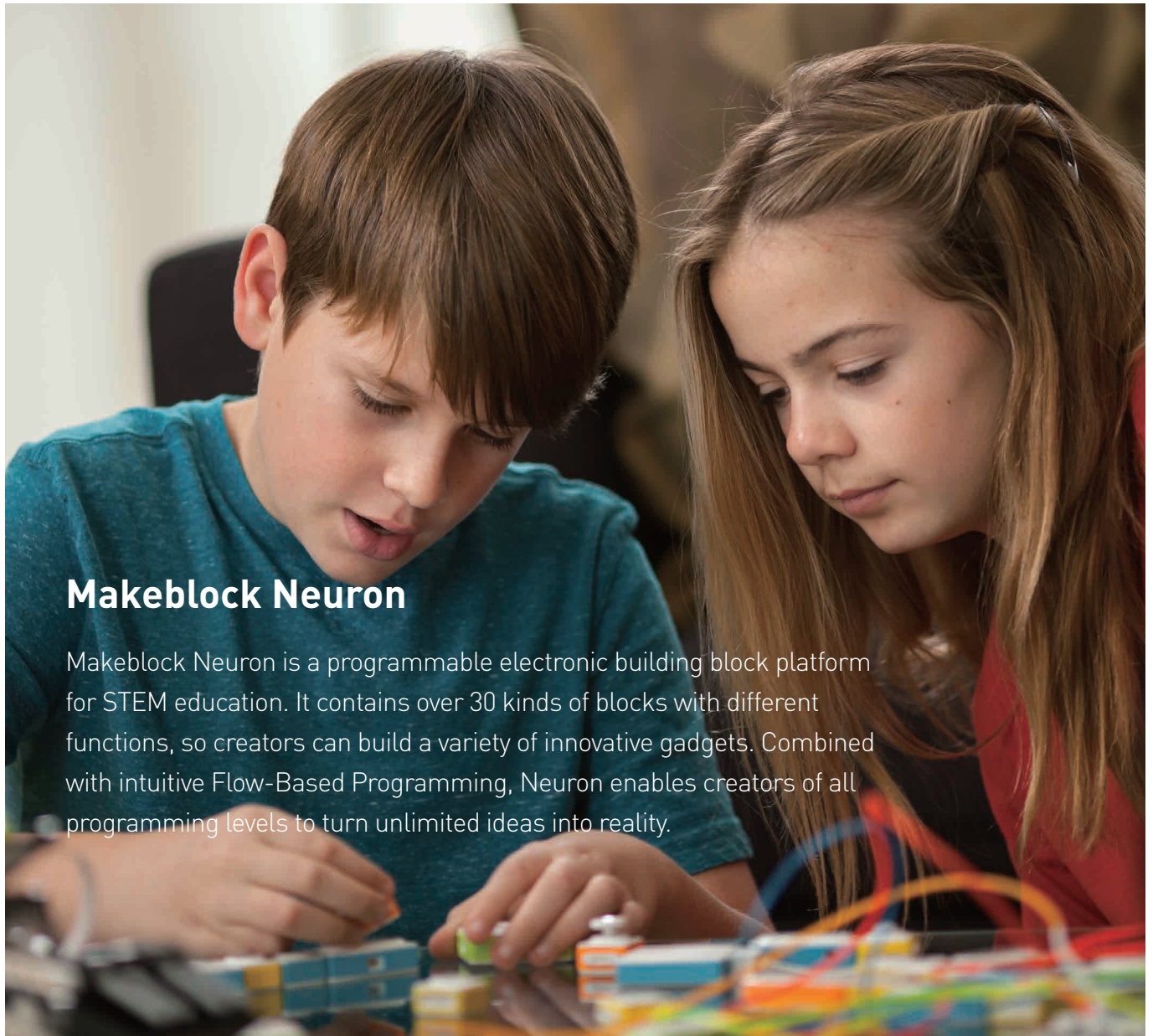


## Highlights

- Take over the sky, land and water: Quickly switch between Drone and Hovercraft forms through simple reassembly, and control Airblock to operate in the sky, or on land and water
- Be creative with it: Create what you want – the blocks can be freely assembled and disassembled. Unleash your imagination to create various interesting projects with everyday items.
- Code to fly: Makeblock APP is available for both iOS and Android. Simply drag and drop different command blocks like forward, pause, and turn, and connect them together to create a series of actions.

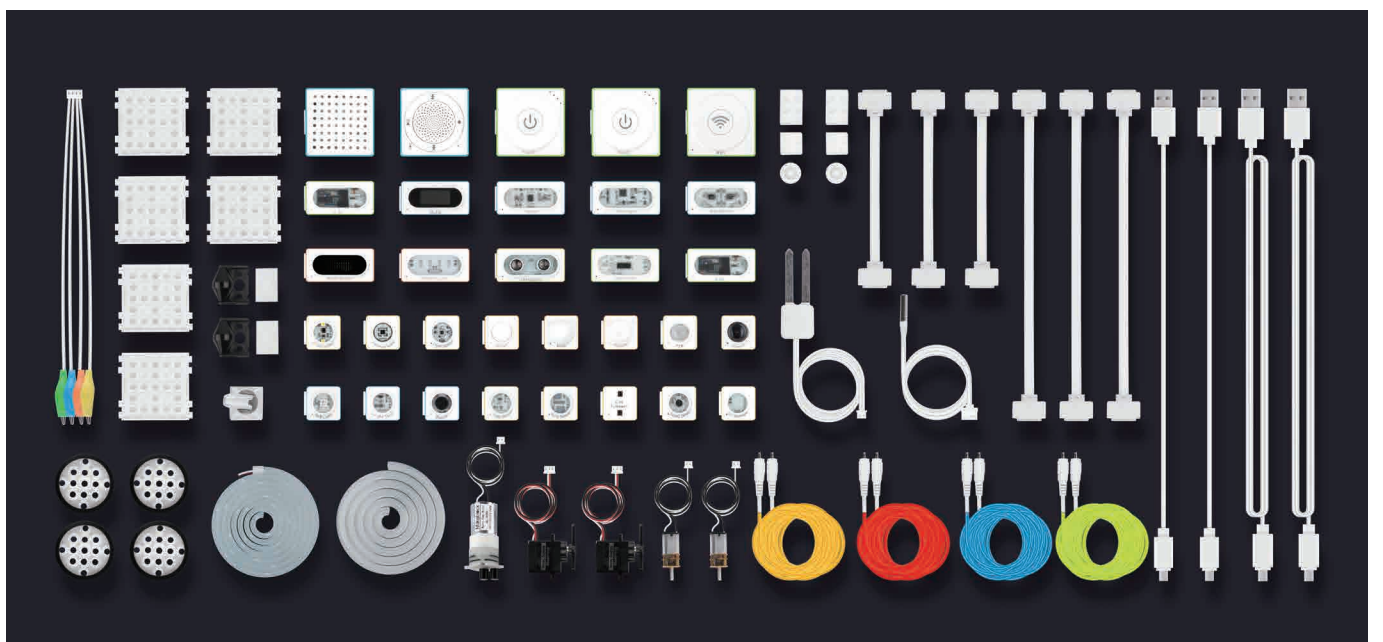
## Specifications

Product Name	Airblock
Mainboard	Crystal
Microcontroller Chip	SMT32
Motor	6 × Hollow cup motor
Communication Modes	Bluetooth
Softwares (OS Platforms)	Makeblock (Smart Device: iOS / Android)
Power Supplies / Battery	7.4V 700mAh Li-polymer Batter (Included)
Product Dimensions	Aircraft: 230 x 222 x 53 mm (9" x 8.7" x 2") Hovercraft: 335 x 192 x 127 mm (13.2" x 7.5" x 5")
Package Dimensions	380 mmx 297 mmx 135mm (15" x 20" x 6.8")
Actual Weight	Aircraft: 150g (5.29oz) Hovercraft: 195g (6.88oz)



## Makeblock Neuron

Makeblock Neuron is a programmable electronic building block platform for STEM education. It contains over 30 kinds of blocks with different functions, so creators can build a variety of innovative gadgets. Combined with intuitive Flow-Based Programming, Neuron enables creators of all programming levels to turn unlimited ideas into reality.



## Highlights

- **Simple and Durable:** Each block is simply connected through Pogo Pin, making Neuron more durable.
- **Integrated Solution for STEM Education:** Neuron features specialized blocks with unique functions, intuitive Flow-Based Programming software and rich teaching resources.
- **No Coding Experience Required:** The easy-to-use Flow-Based Programming enables advanced features, like IoT and Microsoft Cognitive Services, with just a few taps.
- **Continuously Updated Teaching Materials:** Build a variety of innovative gadgets by following examples in our guidebooks and updated database.
- **More Blocks, More Creativity:** Create fun gadgets with unique blocks like Voice Recognition, LED Panel, Camera, EL Wire, Joystick, etc.
- **Control Remotely:** Creators can also perform Flow-Based Programming through internet to control Neuron gadgets remotely, e.g. building a gadget at home to take care of their precious during week-long vacations.
- **Limitless Extensions:** Compatible with Makeblock platform and LEGO® blocks - fun is infinite with great ideas.

## Specifications

Product Name	Makeblock Neuron 1. Light Wizard Kit 2. Science Lab Kit 3. Explorer Kit 4. All-in-One Kit
Block category	<ul style="list-style-type: none"> <li>• <b>Energy + Communication Blocks:</b> Power, Bluetooth, Wi-Fi, Wireless T, Wireless R</li> <li>• <b>Input Blocks:</b> Line Follower Sensor, Light Sensor, Color Sensor, Ultrasonic Sensor, Gyro Sensor, Temperature Sensor, Sound Sensor, Humiture Sensor, Camera, PIR Sensor, Soil Moisture Sensor</li> <li>• <b>Output Blocks:</b> Dual DC Motor Driver, Dual Servo Driver, RGB LED, LED Panel, LED Strip Driver, Display, Mic&amp;Speaker, Buzzer, EL Wire Driver</li> <li>• <b>Control Blocks:</b> Button, Knob, Joystick, Funny Touch, Voice Recognition</li> </ul>
Communication Modes	Bluetooth / Wi-Fi
Softwares (OS platforms)	Neuron (Smart Device: iOS & Android tablet) mBlock (PC: macOS / Windows)
Power Supplies/Battery	3.7V 950mAh Lithium Battery Input: 5V/1A Max Output: 5V/2A Max
Product Dimensions	<ul style="list-style-type: none"> <li>• 24mm x 24mm x 14mm Max: Line Follower, Light Sensor, Color Sensor, Gyro Sensor, Temperature Sensor, Sound Sensor, Humiture Sensor, Camera, PIR Sensor, Button, Knob, Joystick, RGB LED, Soil Moisture Sensor, LED Strip Driver, Buzzer</li> <li>• 24mm x 48mm x 14mm Max: Bluetooth, Voice Recognition, Ultrasonic Sensor, Funny Touch, Display, Dual DC Motor Driver, Dual Servo Driver, Wireless-T, Wireless-R, EL Wire Driver</li> <li>• 48mm x 48mm x 14mm Max: Power, Wi-Fi, LED Panel, Mic &amp; Speaker</li> </ul>

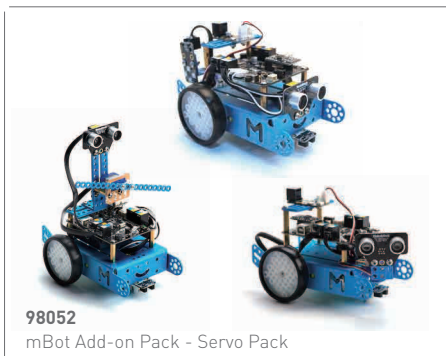


## mBot STEM Educational Robot Kit

mBot is an ideal entry-level STEM educational robot kit. It provides an entertaining learning experience for beginners by integrating robots and programming. Beginners can learn graphical programming through games and explore more new ways to play with expansion packs and LEGO® blocks.



### Expansion Packs



98052  
mBot Add-on Pack - Servo Pack



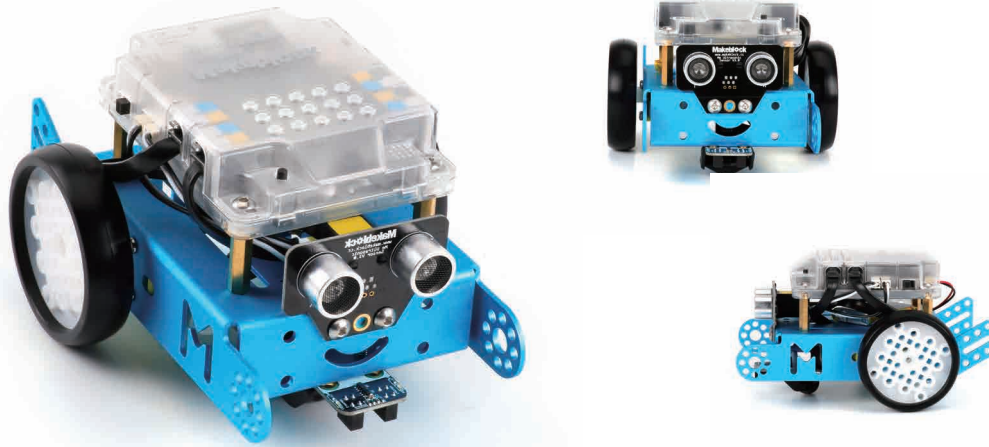
98050  
mBot Add-on Pack Six-legged Robot



98056  
mBot Add-on Pack - Interactive Light & Sound

# mBot STEM Educational Robot Kit

SKU: 90053/90058/90107/90109



## Highlights

- No Coding Experience Required: Learning is easy with graphical programming software mBlock and a programming game.
- Limitless Extensions: Equipped with 4 extension interfaces for connecting 40+ electronic modules (7 electronic modules included in the kit), and compatible with Makeblock platform and LEGO® blocks, mBot will bring you endless pleasure.
- Easy to Build: Clear step-by-step instructions, user-friendly design.
- Learning High-Level Languages: From graphical programming to Arduino in C language coding, you master programming from basic to advanced level.
- Continuously Updated Resources: Multi-national teaching materials and online resources updated all the time for endless learning.

## Versions

**90053** mBot V1.1-Blue (Bluetooth Version)  
**90058** mBot V1.1-Blue (2.4G Version)

**90107** mBot V1.1-Pink (Bluetooth Version)  
**90109** mBot V1.1-Pink (2.4G)

## Specifications

Product Name	mBot STEM Educational Robot Kit
Mainboard	mCore (Arduino Uno compatible)
Microcontroller Chip	ATmega328P
Inputs	Light Sensor, Button, IR Receiver, Me Ultrasonic Sensor, Me Line-follower Sensor
Outputs	Buzzer, RGB LED, IR Transmitter, Motor
Communication Modes	Bluetooth / 2.4GHz Wireless Serial (2.4G Version) / USB
Softwares (OS Platforms)	mBlock (PC: Windows / macOS / Linux) Makeblock (Smart Device: iOS / Android) Arduino (PC: Windows / macOS / Linux) mBlock App (Smart Device: iOS / Android)
Power Supplies / Battery	3.7V Lithium Battery (Not included), or 4 x AA battery (Not included)
Product Dimensions	170mm x 130mm x 90mm (6.69" x 5.12" x 3.54")
Package Dimensions	370mm x 210mm x 50mm (14.57" x 8.26" x 1.97") (Pink version) 215mm x 178mm x 103mm (8.46" x 7.00" x 4.06") (Blue Version)
Actual Weight	500g (17.64oz)

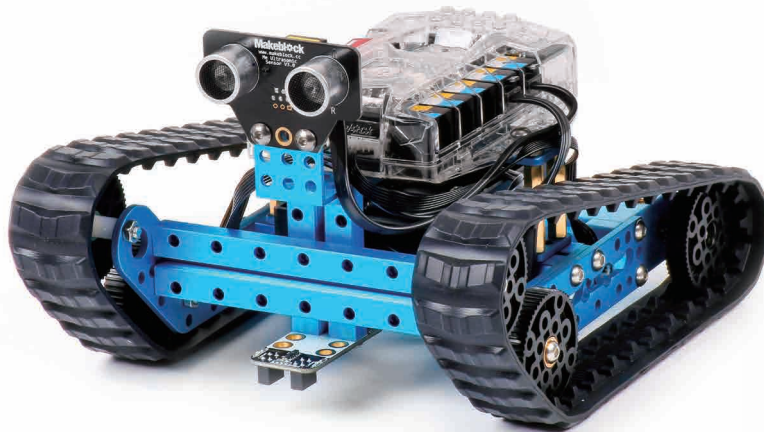
## mBot Ranger 3-in-1 Educational Robot Kit

mBot Ranger is a three-in-one STEM educational robot kit with 3 pre-set forms. Building process and learning programming with mBlock are fun and easy. Users can explore more ways to play with expansion packs and LEGO® blocks.



# mBot Ranger 3-in-1 Educational Robot Kit

SKU: 90092



## Highlights

- Three-in-One building forms: Land Raider, Nervous Bird and Dashing Raptor
- No Coding Experience Required: Learning is easy with graphical programming software mBlock.
- Limitless Extensions: Equipped with 10 extension interfaces for connecting 40+ electronic modules (12 electronic modules included in the kit), and compatible with Makeblock platform and LEGO® blocks, mBot Ranger will bring you endless pleasure.
- Endless way to Play: Besides various pre-set play modes, simple and easy programming allows you to realize infinite whimsies. The sky's the limit.
- Continuously Updated Resources: Multi-national teaching materials and online resources updated all the time for endless learning.
- Learning High-Level Languages: From graphical programming to Arduino in C language coding, you master programming from basic to advanced level.

## Specifications

Product Name	mBot Ranger 3-in-1 Educational Robot Kit
Mainboard	Me Auriga (Arduino Uno compatible)
Microcontroller Chip	ATmega2560-16AU
Mechanical Parts / Electronic Modules	Me Auriga included: Sound Sensor / Light Sensor / RGB LED Ring / Gyroscope Sensor / Buzzer / Ultrasonic Sensor / Line Follower Sensor / 180 Encoder motor
Communication Modes	Bluetooth / USB
Softwares (OS Platforms)	mBlock (PC: Windows / macOS / Linux) Makeblock (Smart Device: iOS / Android) Arduino (PC: Windows / macOS / Linux)
Power Supplies/Battery	6 x AA battery (Not included)
Product Dimensions	175mm x 200mm x 125mm (6.89" x 7.87" x 4.92")
Package Dimensions	270mm x 215mm x 95mm (10.63" x 8.46" x 3.74")
Actual Weight	1600g (56.44oz)

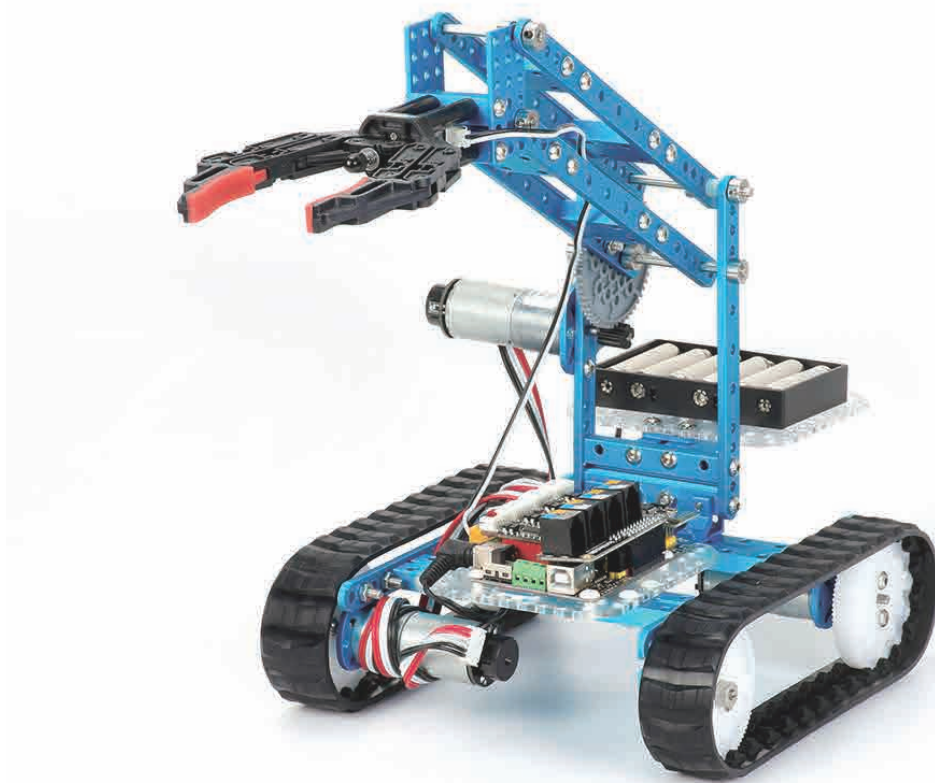
## Expansion Pack



**98062**  
mBot Ranger  
Add-On pack - Laser Sword

## Ultimate 2.0 - 10-in-1 Robot Kit

Featuring over 160 pieces, and compatible with both Arduino and Raspberry Pi, Ultimate 2.0 allows you to create your unique robot. Whether you are a mechanical or electronics engineer, teacher or student, it lets you learn mechanical structures, electronic modules and programming skills with ease.



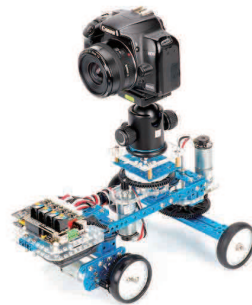
Robotic Arm Tank

# Ultimate 2.0 - 10-in-1 Robot Kit

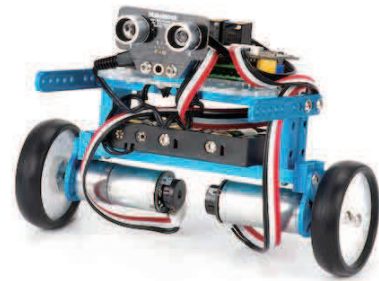
SKU: 90040



Robotic Bartender



Camera Dolly



Self-Balancing Robot



3D Capture B



Detecting Robot



3D Capture A



Rolling Tank



Robotic Ant



Catapult Ram

## Highlights

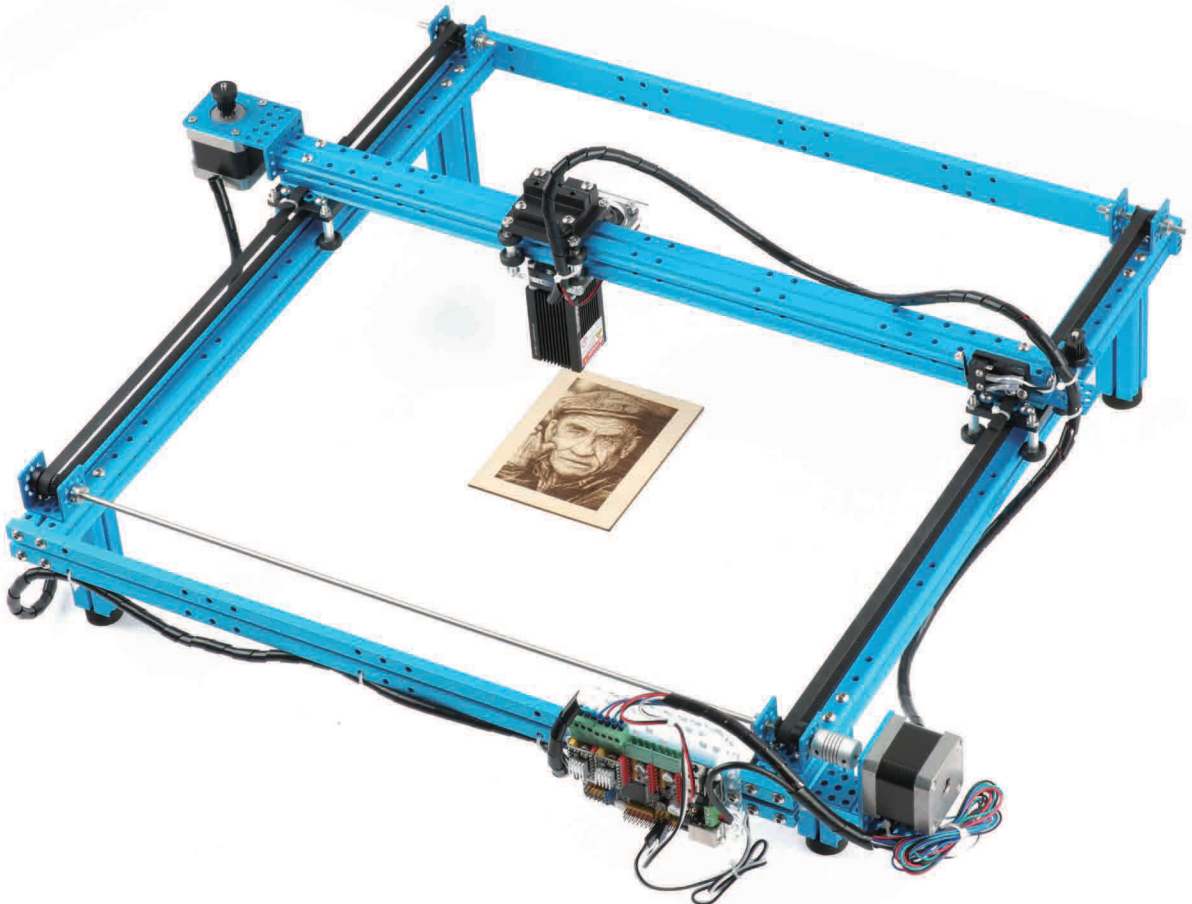
- Infinite Extensibility - Satisfy your creative needs with a rich range of standardized parts and electronic modules.
- More Parts, More Creativity - Realize your imagination with over 160+ pieces (80+ types of pieces) including our all new powerful MegaPi mainboard, encoder motors, robotic arm, DC motors, sensors and Blue tooth module. It also comes with a shutter and phone stand for easy photo taking.
- Multiple Control Methods - A specially-designed app enables you to control the robot by simply dragging and dropping command blocks. It supports Arduino IDE programming, graphical programming, Node JS and also Python programming (by combining with RaspberryPi).

## Specifications

Product Name	Ultimate 2.0 - 10-in-1 Robot Kit
Mainboard	MegaPi (Arduino compatible)
Microcontroller Chip	ATmegaA2560-16U
Mechanical Parts	Aluminum Extrusion Parts / Plastic Timing Pulleys 90T / Plastic Gears / Tracks and Wheels / Cables / Others Hardware and Accessories
Electronic Modules	MegaPi / MegaPi Shield for RJ25 / Bluetooth Module / Motor Driver / Ultrasonic Sensor / Line Follower Sensor / 3-Axis Accelerometer and Gyro Sensor / RJ25 Adapter / Shutter / Makeblock Gripper / Encoder Motor
Communication Modes	USB / Bluetooth
Softwares (OS Platforms)	mBlock (PC: Windows / macOS / Linux) Makeblock (Smart Device: iOS / Android) Arduino (PC: Windows / macOS / Linux)
Power Supplies / Battery	6 x AA battery [Not included]
Product Dimensions	370mm x 198mm x 267mm (14.57"x7.80"x10.51")
Package Dimensions	508mm x 310mm x 151mm (20" x 12.20" x 5.84")
Actual Weight	3650g (128.75oz)

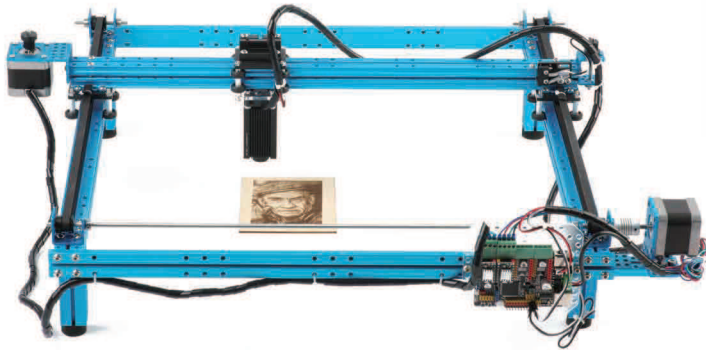
## LaserBot

LaserBot is a desktop laser engraver. Equipped with a 1.6W 445nm high power solid-state laser, and controlled by its software mLaser, LaserBot can easily engrave and cut many things for you, and help you to make innovative gadgets in daily life. For instance, it can make Christmas cards/birthday cards for your family members, or recreate your honeymoon photos with wood for decoration, etc.



# LaserBot

SKU: 90105



## Highlights

- Simple but solid H-shaped structure
- High-precision anodized aluminum alloy
- Arduino compatible
- User friendly software

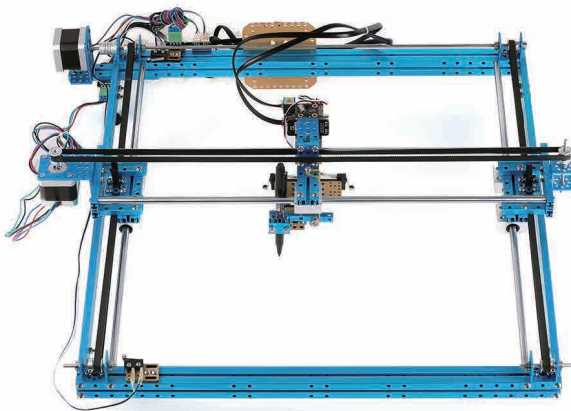
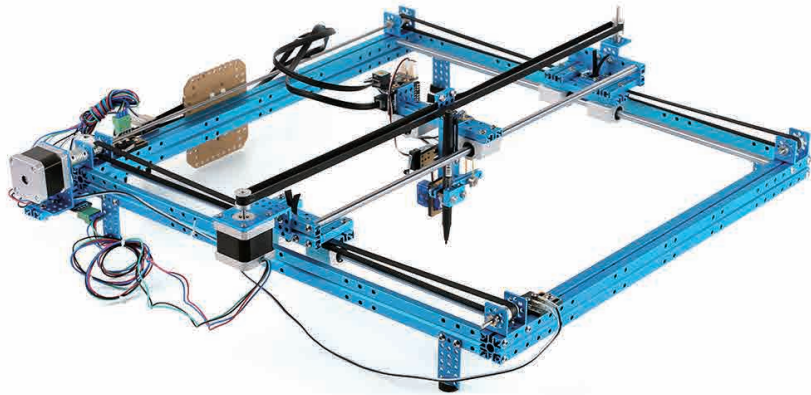
## Specifications

Product Name	LaserBot
Mainboard	MegaPi (Arduino compatible)
Microcontroller Chip	ATmegaA2560-16U
Main Parts / Sensors	1.6W 445nm High-Power Solid State Laser
Mechanical Parts / Electronic Modules	Aluminum Extrusion Parts / Timing Pulley 18T / Linear Motion Slide / MegaPi (Controller) / Stepper Motors / MegaPi Stepper Motor Drivers / Micro Switch 9.Cables / Other Hardware and Accessories
Motor	42 BYG Motor
Communication Modes	USB
Softwares (OS Platforms)	mLaser (PC: Windows / macOS)
Supported File Types	*PNG, *JPG, *BMP, *SVG, *DXF
Accuracy and Precision	0.1mm
Max. working speed	200mm/s
Power Supplies/Battery	100-240V~50/60Hz AC/DC Power adapter, 12V/2.0A
Product Dimensions	535mm × 637mm × 184mm (21.06" × 25.08" × 7.24")
Working area	383mm × 367mm (15.08" × 14.45")
Package Dimensions	562mm × 336mm × 90mm (22.13" × 13.23" × 3.54")
Actual Weight	4475g (157.85oz)



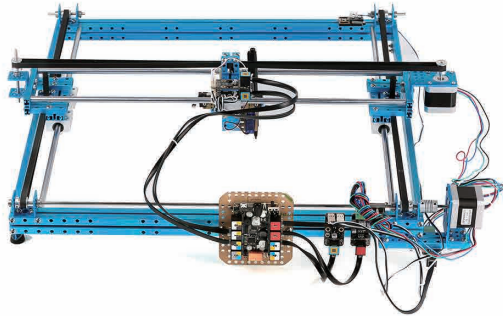
## XY Plotter Robot Kit V2.0

XY Plotter Robot Kit is a drawing robot that can move a pen or other instruments to draw digital artwork on flat surface precisely. It can also be developed into a laser engraver by adding our Laser Engraver Upgrade Pack (Sold Separately).



# XY Plotter Robot Kit V2.0

SKU : 90014/91018



## Extension Kit



**98004** Laser Engraver Upgrade Pack (500mV) for XY-Plotter Robot Kit V2.0

## Highlights

- Super easy-to-use stepper motor driver
- Dual-way transmission mechanism
- Stable working status and high accuracy
- Painting accuracy: 0.1mm

## Versions

- 90014** - XY-Plotter Robot Kit V2.0 (With Electronics)
- 91018** - XY-Plotter Robot Kit 2.0 (No Electronics)

## Specifications

Product Name	XY Plotter Robot Kit V2.0
Mainboard	Orion (Arduino Uno compatible)
Microcontroller Chip	ATmega2560-16U
Mechanical Parts / Electronic Modulues	Aluminum Extrusion Parts / Timing Pulley 18T / Linear Motion Shaft D8×496mm / Linear Motion Slide Unit 8mm / Makeblock Orion (Controller) / Stepper Motors / Stepper Motor Drivers / 9g Micro Servo Pack / Micro Switch / Cables / Other Hardware and Accessories
Motor	42 BYG Motor
Communication Modes	USB
Softwares (OS Platforms)	mDraw (PC: Windows / macOS) BenBox (PC: Windows)
Supported File Types	*SVG, *BMP, etc.
Accuracy and Precision	0.1mm
Max. working speed	50mm/s
Power Supplies / Battery	100-240 V-50/60Hz AC/DC Power adapter, 12V/3.0A
Working area	310mm × 390mm (12.2" × 15.35")
Product Dimensions	620mm × 620mm × 140mm (24.4" × 24.4" × 5.51")
Package Dimensions	566mm × 333mm × 70mm (22.28" × 13.11" × 2.76")
Actual Weight	4300g (151.68oz)

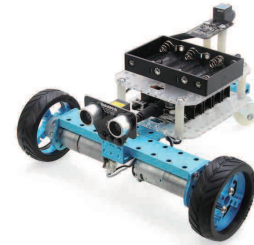
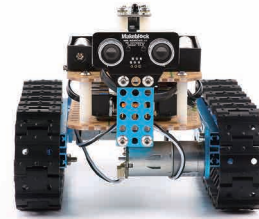
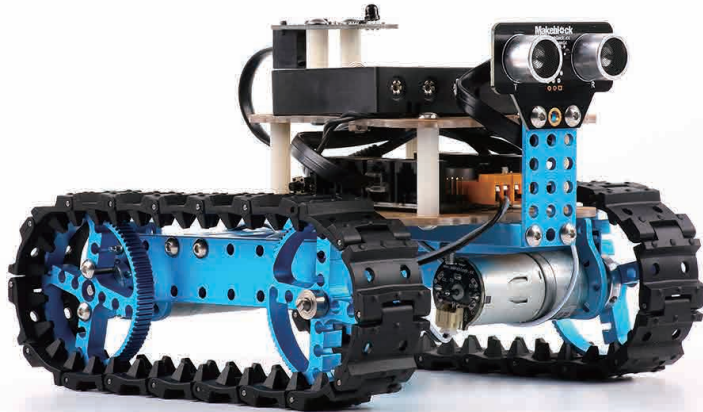
## Starter Robot Kit

Starter robot kit, as its name shows, is a start for your robotics and maker world. With a set of beginner-friendly instructions, it takes you step-by-step on learning robotics, electronics and programming.



# Starter Robot Kit

SKU : 90004/90020



## Highlights

- Excellent choice for beginners to learn electronics, graphic programming mBlock, and Arduino programming.
- Build a robot tank or a three-wheel robot car.
- Easy wiring, no soldering required.

## Versions

**90004** - Starter Robot Kit (IR Version)

**90020** - Starter Robot Kit-Blue (Bluetooth Version)

## Specifications

Product Name	Starter Robot Kit
Mainboard	Orion (Arduino Uno compatible)
Microcontroller Chip	ATmega328P
Motor	2 x 186 RPM DC Motor
Communication Modes	Bluetooth / IR / 2.4GHz Wireless Serial [2.4G Version] / USB
Softwares (OS Platforms)	mBlock (PC: Windows / macOS / Linux) Makeblock (Smart Device: iOS / Android) Arduino (PC: Windows / macOS / Linux)
Power Supplies / Battery	6 x AA battery (Not included)
Product Dimensions	22mm x 16mm x 130mm [8.66" x 6.3" x 5.12"]
Package Dimensions	257mm x 195mm x 85mm [101.18" x 76.77" x 33.47"]
Actual Weight	1350g [47.62oz]

## Extension Kits



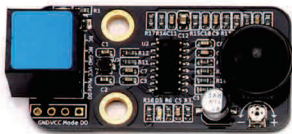
**98000**  
Robot Arm Add-on Pack for Starter Robot Kit-BlueElectronic



**94010** Add-on Pack for Starter Robot Kit

## Inventor Electronic Kit

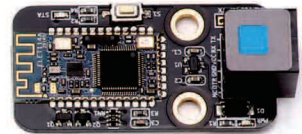
The Makeblock Inventor electronic kit is a modular electronic platform for quick prototyping. This kit contains 12 sensors and actuators, each with a color-coded connector to simplify wiring. Each module comes with Arduino library for quick programming.



Me PIR Motion Sensor



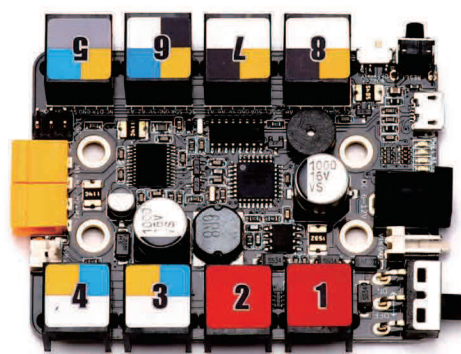
Me Ultrasonic Sensor



Me Bluetooth Module



Me RGB LED



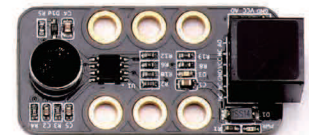
Me Orion



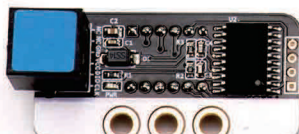
Me Light Sensor



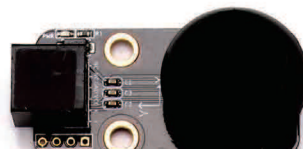
Me RJ25 Adapter



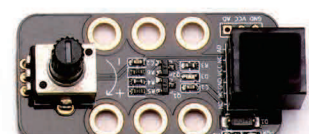
Me Sound Sensor



Me 7-Segment Serial Display - Red



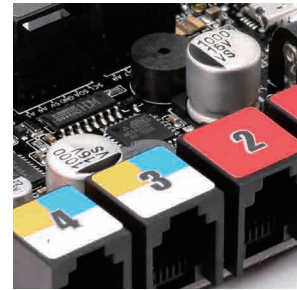
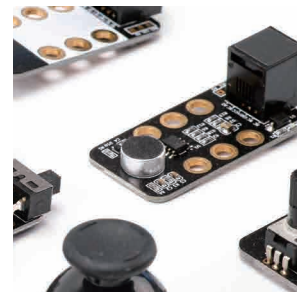
Me Joystick



Me Potentiometer

# Inventor Electronic Kit

SKU : 94004



## Highlights

- 12 electronic modules included, plus one Makeblock Orion (Arduino-compatible);
- Arduino programming support;
- Graphic programming languages support (mBlock);
- Easy and intuitive wiring with color-coded RJ25 connector;
- Bluetooth module included for connecting with smartphones;
- Comes with smartphone App (Android and iOS available).

## Specifications

Product Name	Inventor Electronic Kit
Mainboard	Orion (Arduino Uno compatible)
Microcontroller Chip	ATmega328P
Communication Modes	Bluetooth / USB
Softwares (OS Platforms)	mBlock (PC: Windows / macOS / Linux) Makeblock (Smart Device: iOS / Android) Arduino (PC: Windows / macOS / Linux)
Power Supplies/Battery	DC 6-12V
Package Dimensions	240mm x 170mm x 71mm (9.45" x 6.69" x 2.80")
Actual Weight	470g (16.58oz)

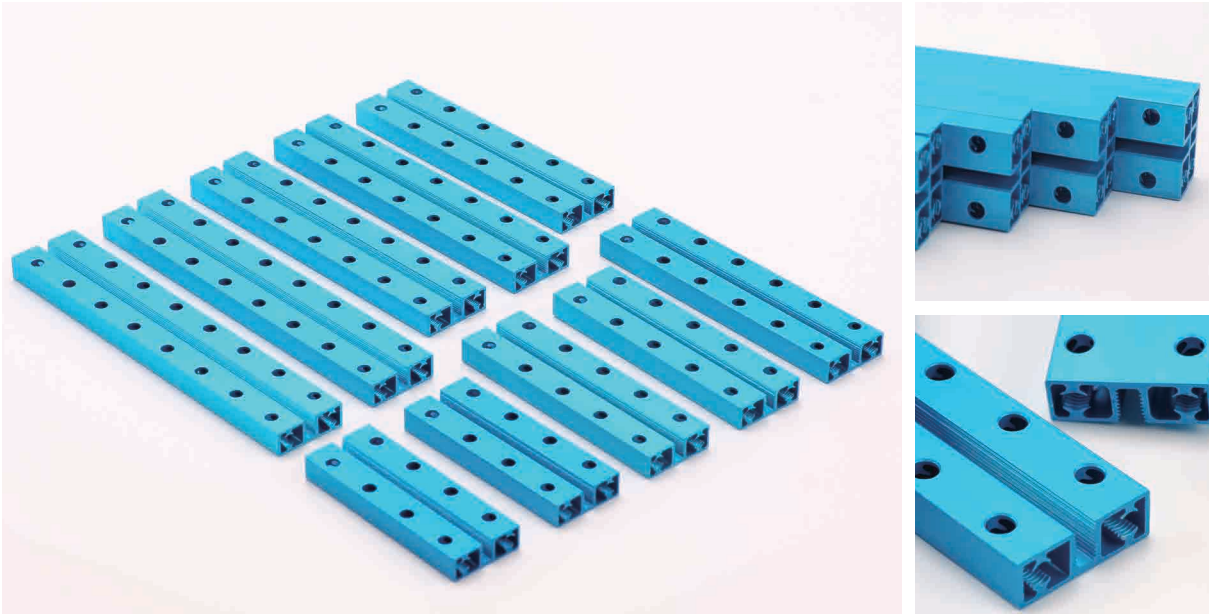
19~29

# EXTENSION KITS

## Short Beam 0824 Robot Pack - Blue

SKU : 95000

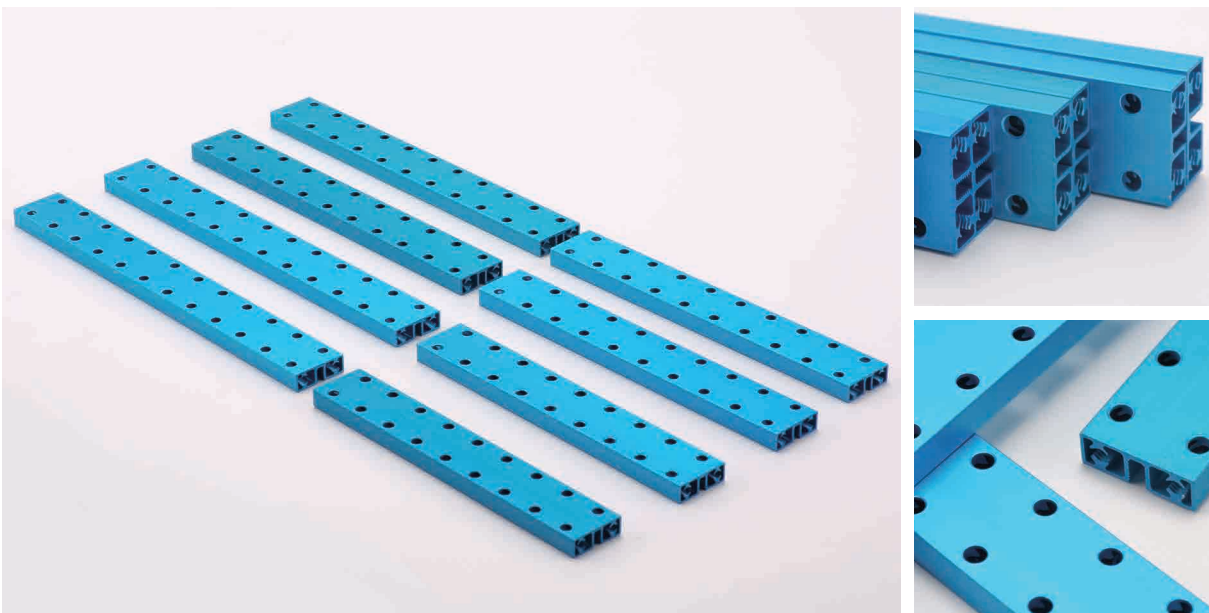
This Beam0824 Pack contains the shorter beams of Beam0824, from 64mm length to 128mm. Total number of beams is 10.



## Medium Beam 0824 Robot Pack - Blue

SKU : 95002

This Beam0824 Pack contains the medium length of Beam0824, from 144mm length to 192mm. Total number of beams is 8.

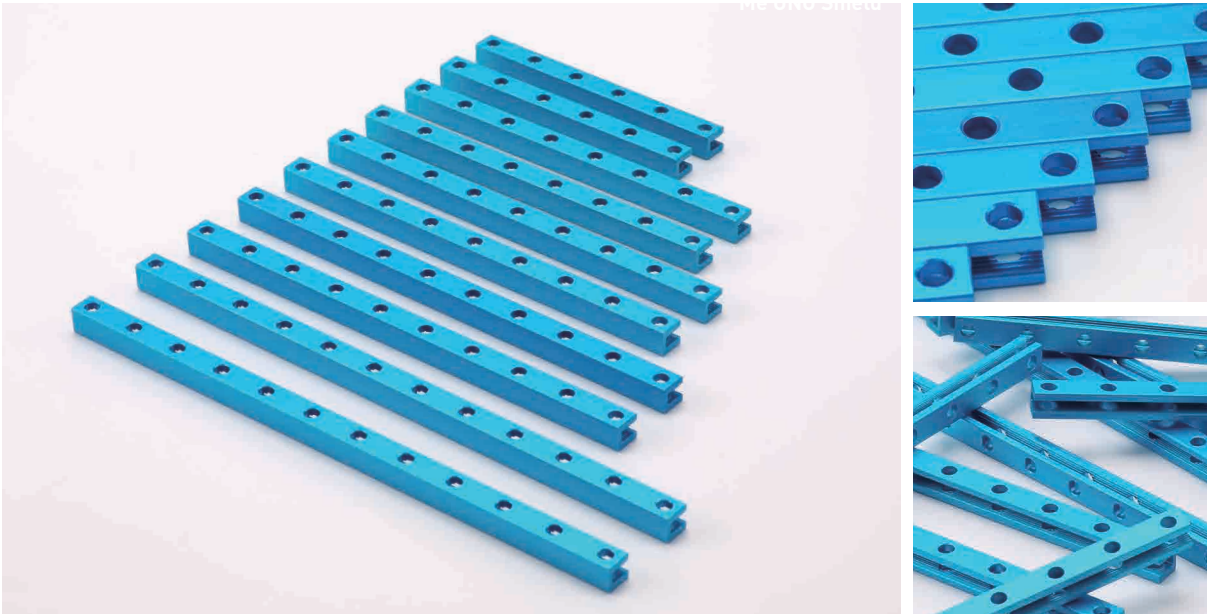




## Beam Robot Pack - Blue

SKU : 95004

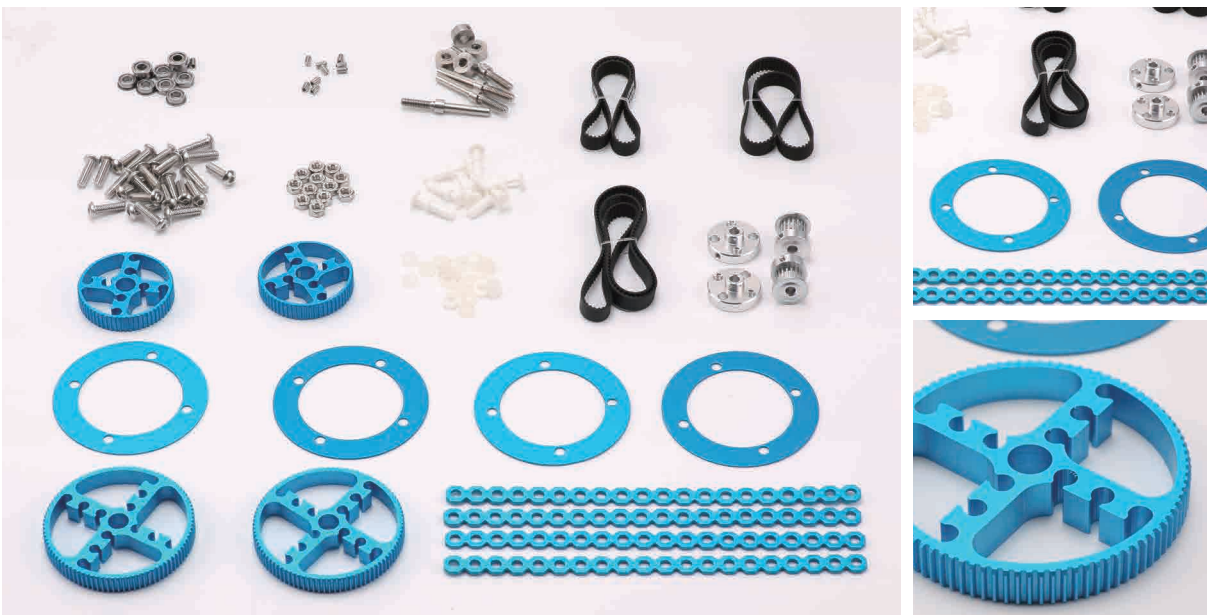
This beam robot pack contains the most frequently used parts in Makeblock platform, which are compatible with most Makeblock motion and structure components.



## Robot Motion Pack - Blue

SKU : 95006

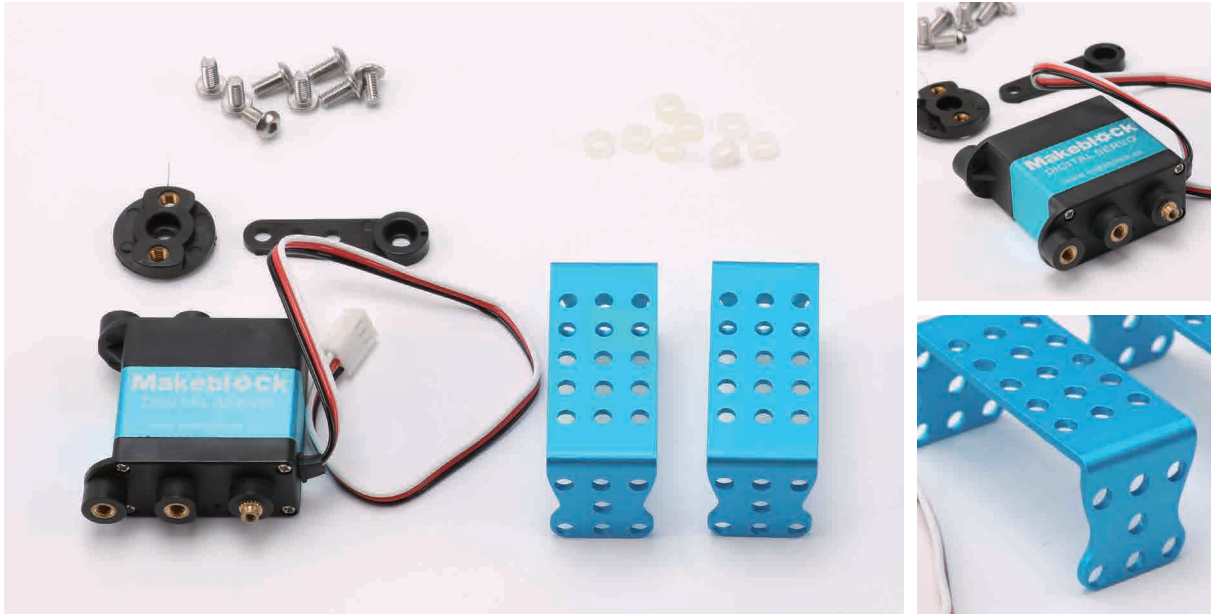
This Kit contains frequently-used parts in building motion mechanisms.



## Robot Servo Pack- Blue

SKU : 95008

This Kit contains a Makeblock high torque (15kg.cm) digital servo and 2 servo bracket, with these bracket, it's easy to build a joint for a robot, and also there are a lot of ways to connect the servo with other Makeblock Parts.



## 25mm DC Motor Pack-Blue

SKU : 95010

A 25mm diameter DC metal geared motor, together with a motor bracket, a shaft connector and a multipurpose wheel. The multipurpose wheel included can be used as a timing pulley, a wheel hub, or a tank wheel.

