

mDrawBot: 4-in-1 Drawing Robot

SKU 110090040



What is mDrawBot?

DrawBot is a 4-in-1 drawing robot kit, it can be assembled into 4 different configuration drawing robots: **mScara, mSpider, mEggBot and mCar**. This kit consists of over 60 components, including beams, brackets, motor, etc. And comes with a specially-designed software named mDraw to control these robots.



mScara

mScara is a SCARA (Selective Compliance Articulated Robot Arm) driven by stepper motors. Adding a pen on mScara, it can draw pictures on a flat surface. You can also turn mScara into a desktop laser engraver replacing the pen with a laser diode.



mSpider

mSpider is a drawing robot which can draw pictures on a wall or a white board. Two stepper motors control the movement of mSpider though strings. Theoretically, its drawing range can be expanded by increasing the length of the strings.



mEggBot

mEggBot is designed to draw on things that are improbable to print on, such as eggs or ping-pong balls. It can be used to write letters, draw expressions on spheroid, or draw Easter eggs.



mCar

mCar is a three-wheel robot car, which contains two stepper-motor-drive wheels and a ball-caster wheel. It can draw its own movement tracks on flat surface. Installing a chalk instead of a pen, it can draw on the floor.

How to Use mDrawBot ?

Assembly

Each mDrawBot kit can be assembled into any of the 4 different configurations. We provide the detailed assembling instructions and you can build any configuration in an hour. The assembly instructions can be downloaded

here:https://github.com/Makeblock-official/mDrawBot.

Software

After installing the mDraw software, you can import images and make the robot draw them. mDraw is a powerful software designed for mDrawBot. Here are some features:

- Support mScara, mSpider, mEggBot, mCar, XY
- Support both pen drawing and laser engraving
- Support custom settings of motor direction, drawing range, etc
- Support saving parameters
- Support SVG. file
- Support conversion from BMP to SVG
- Support zooming, rotating, mirroring, and moving the SVG graphics
- Support Windows7 or later. (Will be available in Mac OS X, Linux soon.)

mDraw is an open source project hosted on Github. Fork it

here:https://github.com/Makeblock-official/mDrawBot.

SPECIFICATIONS

• Frame: Anodized Aluminum

	mScara	mSpider	mEggBot	mCar
Working Area	120° of an annulus (exradius	,	Cylinder with	
(mm2)	208mm, inradius 168mm)	/	L×D=60×(10-60)	/

• Power Supply:

	Voltage	Current	Frequency
Input	AC 100-240 V	0.6A	50-60 Hz
Output	DC 12 V	2.0 A	/

- Main Controller: Makeblock Orion (Arduino UNO compatible)
- Software: mDraw
- Connection: USB or Bluetooth
- Supported File Types: .Plain SVG, .BMP etc.
- Supported OS: Windows7 or later. (Will be available in Mac OS X, Linux soon.)
- Package Contains:
- • Aluminum Extrusion Parts
- • Plastic Timing Pulley 90T
- • Timing Pulley 18T
- • Pen Lift Mechanism
- • Makeblock Orion(Controller)
- • Stepper Motors
- • Stepper Motor Drivers
- • 9g Micro Servo Pack
- Cables
- • Other Hardware and Accessories

PART LIST

1 x Beam 0824-032	1 x Threaded Shaft 4x39mm	50 x Nut M4
2 x Beam 0824-096	1 x Circle Shaft D4x80mm	4 x Nylon Stud M4x30
3 x Beam 0324-184	2 x Shaft Collar 4mm	2 x Plastic Ring 4x8x1mm
3 x Bracket 3x3	5 x Flange Bearing 4x8x3mm	8 x Plastic Ring 4x7x3mm
3 x Plate 3x6	1 x Square Nut M4	4 x Plastic Ring 4x7x10mm
1 x Bracket U1	3 x Nylon Cap Nut M4	2 x Plastic Rivet R4060
4 x Timing Pulley Slice 90T	1 x Polyester Thread(8m)	4 x Plastic Rivet R40120
2 x 42BYG Stepper Motor Bracket	2 x Timing Belt 112MXL	1 x 9g Micro Servo Pack
2 x Plastic Timing Pulley 90T	10 x Nylon Cable Tie 2 x100	2 x 42BYG Stepper Motor
2 x Tire 90T B	1 x Rubber Bank	2 x Base Bracket
1 x Caster Wheel	1 x Cross&2.5mm HEX Screwdriver	1 x Battery Holder
2 x Rubber Blanket	1 x HEX Key 1.5mm	1 x Makeblock Orion
2 x Shaft Connector 4mm	1 x Wrench 5mm&7mm	2 x Me Stepper Motor Driver
2 x Timing Pulley 18T	26 x Screw M4x8	1 x RJ25 Adapter
1 x Pen Holder and V Clamp	42 x Screw M4x16	1 x AC/DC Adapter 12V/2A
2 x 2 Inch G Clamp	5 x Screw M4x22	1 x 9g Servo Extension Cord
1 x Plastic Hinge	1 x Screw M4x35	2 x 6P6C RJ25 Cable-20cm
1 x Plastic Hinge Gasket	6 x Headless Set Screw M3x5	1 x 6P6C RJ25 Cable-35cm
1 x Spring 0.6x6x50	8 x Countersunk Screw M3x8	1 x Micro USB Cable

Technical Details

Weight	G.W 2712g
Battery	Exclude