Dobot Magician - Advanced Educational Plan
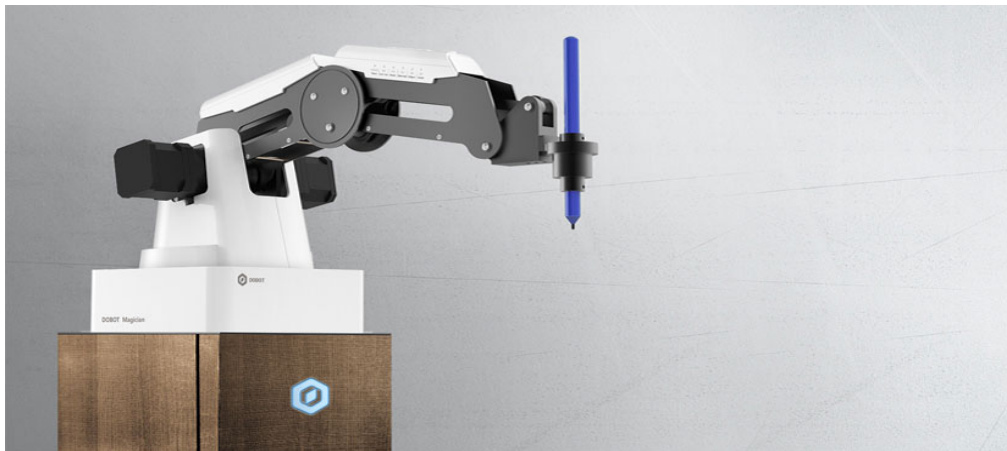**SKU 110090101**

DESCRIPTION

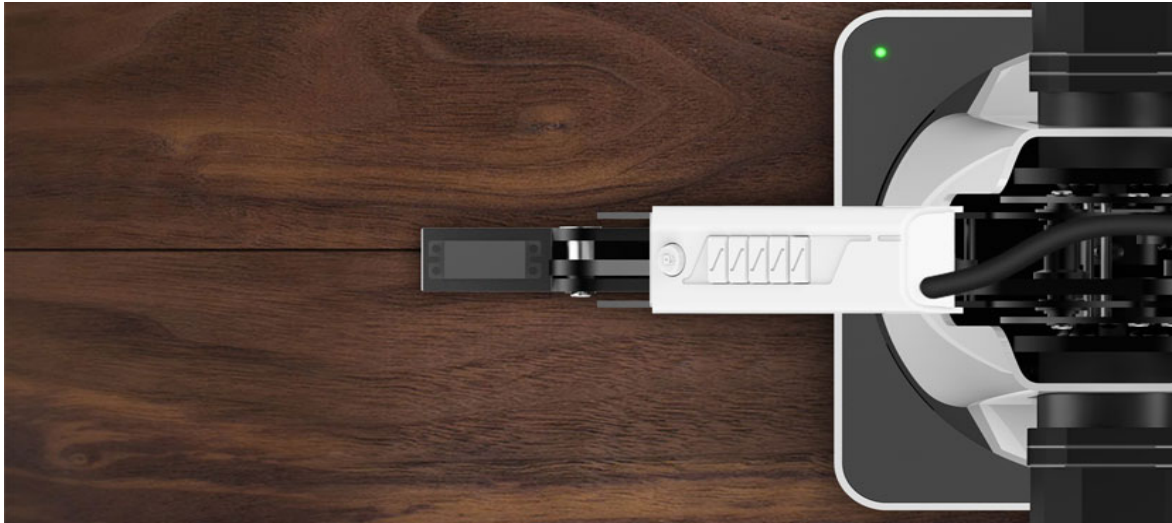# Dobot Magician

SHAKE HANDS WITH FUTURE

Wisdom in shapes & colors

Black & white body with consistent quality at fingertips
Unibody design, unbox and enjoy right away

Designed for desktop, safe and easily lifted
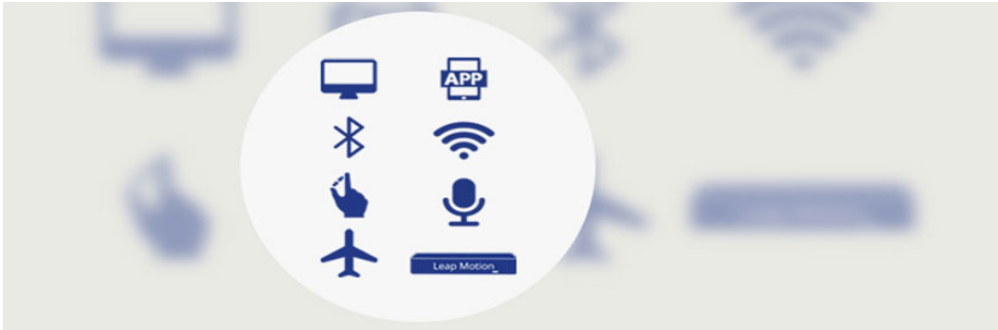
Most user-friendly robotic arm

Thoughtful details integrated in simple design

Controlling methods

Multiple controlling method, enjoy anytime
PC, phone, gesture, voice, even brainwave can be used to control Dobot Magician.

Handhold teaching

Handhold teaching, repeat your tasks with just a click
The handhold teaching feature lets you control a robotic arm without any limits.
The most intuitive interaction bringing the best of your efficiency.

End tool quick switch

End tool quick switch, it's never been so smooth
With the standardized plug-in style end tool holder, you can switch end tools by
simply screwing.

Operation software

Dobot Studio,one big step of interaction

Integrated so many features, while making it easier to control a robotic arm.

A whole set of parameters for your customization. Calibrate your own robotic arm without any coding!
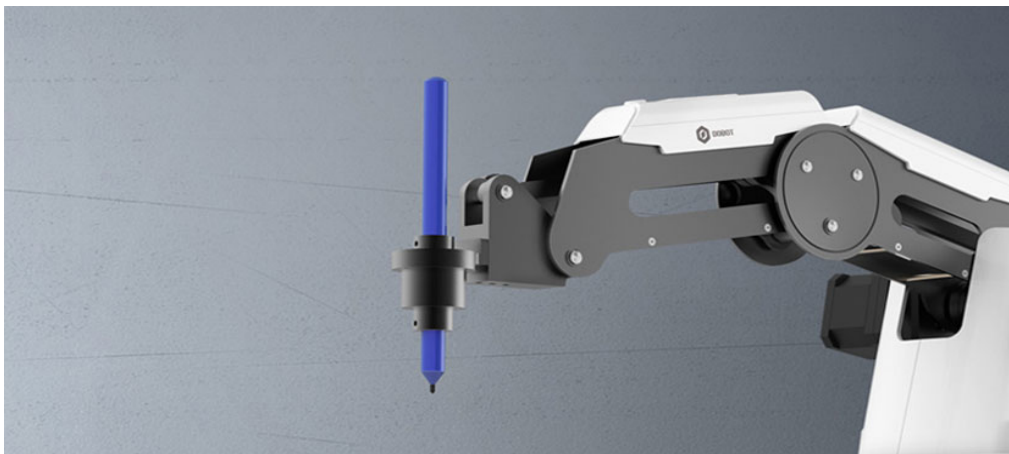

Draw like magic

Dobot Magician supports BMP, SVG and DXF
±0.2mm precision, laying perfect strokes
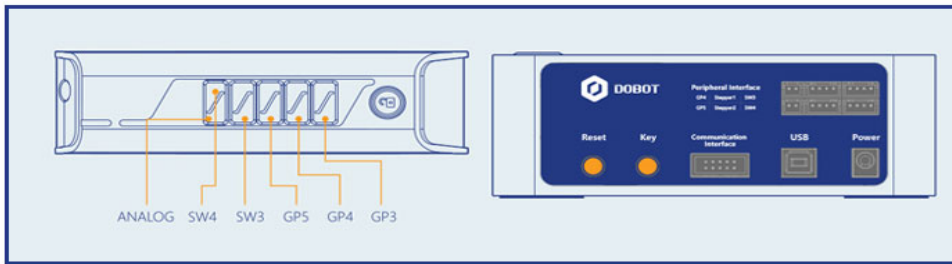Powerful laser engraving, handling wood and leather with ease

Develop, and be ahead

Endless potential, fast deployment. Be ahead of the game.

Rich extension ports

13 extension ports, 1 programmable key, 2MB offline command storage, endless possibilities for developers

Visualized programming

Visualized programing interface, just pile up the blocks and there's the code, the easiest way to learn coding. Support major programing languages including C++, C#, Python and java, with API and pre-set modules integrated.
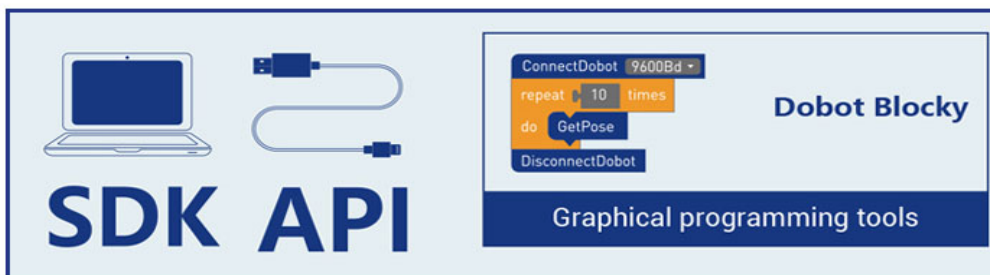
Fast deployment

Easy to use, fast to deploy, affordable maintenance…
A highly cost effective solution for small businesses
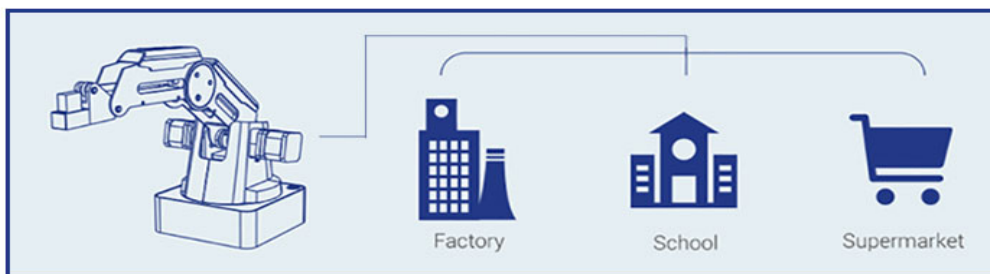
Not only that

The Dobot Magician has every feature to blow you away

3D printing   WIFI connection   Multi-Dobot cooperation   Offline mode

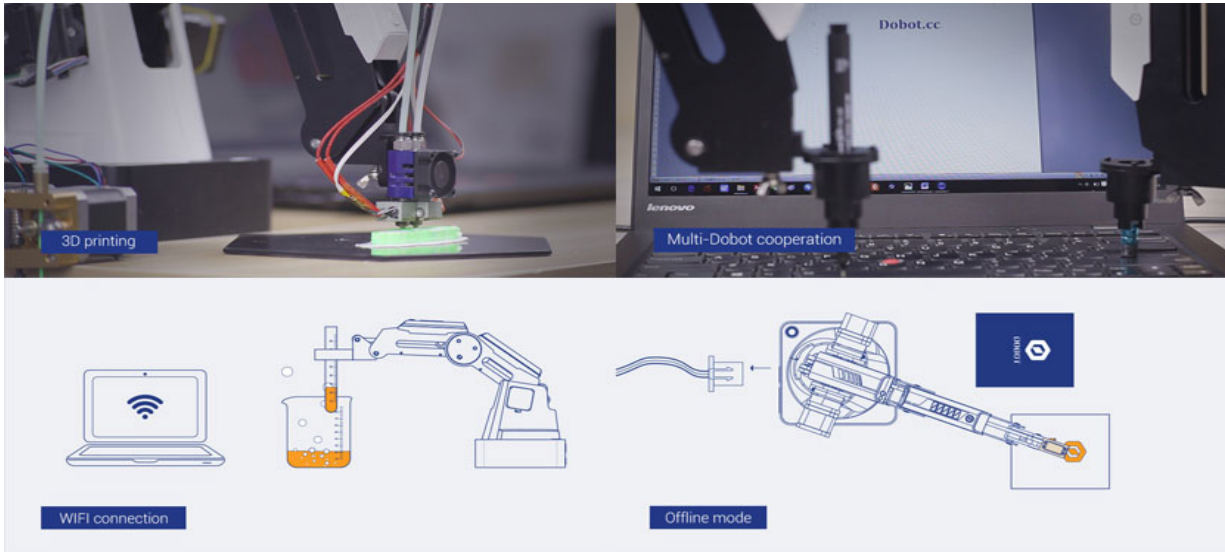3D printing

Multi-Dobot cooperation

WIFI connection

Offline mode

Future lifestyle

One robot, many extensions, a highly cost effective solution
Enhanced human-machine cooperation, bringing efficiency to daily life
Technology influencing education in most entertaining ways
Living rooms, classrooms, workshops, factories…the future life is right ahead
the future life right ahead

Classroom

Mechanics, Electronics, Programming, Design… Knowledge empowers your life!

Home

Smart, fun and reliable!

Workshop

User friendly, easy to learn, bringing more efficiency.

Factory

Fast to equip, easy to maintain, a high cost effective solution for production line.

Specification

Specifications	
Number of Axes	4
Payload	500 g
Max. Reach	320mm
Position Repeatability(Control)	0.2 mm
Communication	USB /WIFI */ Bluetooth
Power Supply	100V - 240 V, 50/60 Hz
Power In	12 V / 7 A DC
Consumption	60W Max
Working Temperature	-10°C-60°C

Axis Movement		
Axis	Range	Max Speed(250g workload)
Joint 1 base	-135° to +135°	320° / s
Joint 2 rear arm	0° to +85°	320° / s
Joint 3 forearm	-10°to +95°	320° / s
Joint 4 rotation servo	+90° to -90°	480° / s

Physical	
Weight	4KG
Base Dimension(Footprint)	158mm × 158mm
Materials	Aluminum Alloy 6061, ABS Engineering Plastic
Controller	Dobot Integrated Controller
Robot Mounting	Desktop
Packing Size (L × W × H)	307mm × 224mm × 330mm

Applications	
Software	DobotStudio, Repetier Host, GrblController3.6, DobotBlockly (Visual Programing editor)
SDK (Software Develop Kit)	Communication Protocol, Dobot Program Library
Extensible I/O Interfaces	1. I/O × 10 (Configurable as Analog Input or PWM Output)
	2. Controllable 12V Power output × 4
	3. Communication Interface (UART, Reset, Stop, 12V, 5V and two I/O included)
	4. Stepper × 2

Endeffectors		
3D printer Kit	Print Size (L × W × H)	150 mm ×150 mm × 150mm
	Material	PLA
	Resolution	0.1mm
Laser*	Power Consumption	500mw
	Type	405 nm (Blue laser)
	Power	12V, TTL trigger (With PWM Driver)
Pen Holder	Pen Diameter	10mm
Vacuum Suction Cap	Cap Diameter	20mm
	Pressure	-35 Kpa
Gripper	Range	27.5mm
	Drive Type	Pneumatic
	Force	8N

Front View

Top View
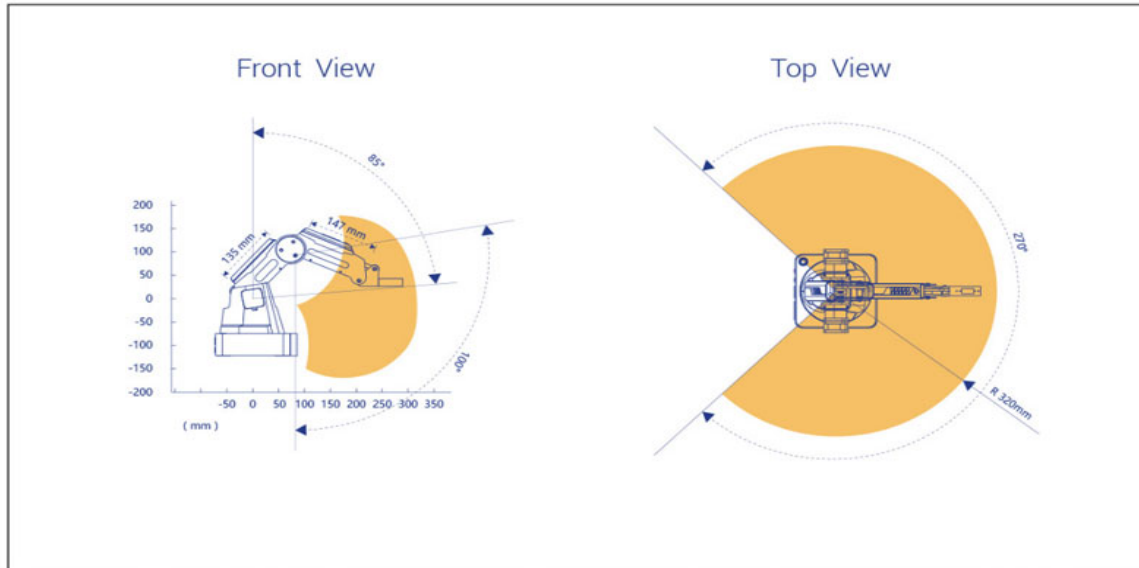
Note: Above information is for reference only and subject to change without prior notice. Items marked with * are optional inclueded in default package.

Part List

- Robot Arm
- Gripper
- 3D Printing Kit
- **Laser Engraving Kit**
- **Joystick Control Kit**

- Vacuum pump Kit
- Writing and Drawing Kit
- Bluetooth Module
- **Wi-Fi Module**
- **Leap Motion**