DOBOT Magician

Product Overview

The DOBOT Magician is the world's first desktop grade 4-axis robot created by Dobot for university students. It can perform a wide range of tasks such as 3D printing, laser engraving, calligraphy and drawing. It has 13 interface ports to support secondary development, lab projects and robotics curricula.

A variety of application scenarios can be developed through the use of programming software and hardware accessories. The following studies can be taught to different levels of students:

- Robotic systems
- The DH convention
- Control of robot movement
- Robotic programming

Product Highlights

- **Operable by One Person**

  The portable Magician allows every student to have a hands-on opportunity to personally operate a robot for a better learning experience. The all-in-one design allows it to be controlled and switched freely among different control devices, such as on PC, mobile and other wireless devices.

- **High Expandability with Secondary Development**

  The Magician has 13 interface ports and a programming button. Users can create new functions using DobotLab's script programming.
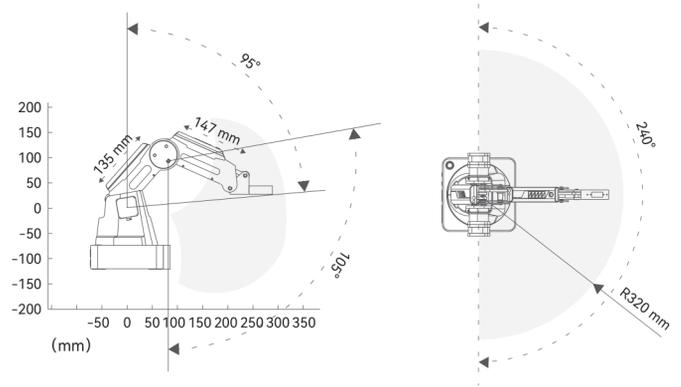
- **Combinations with wide accessory choices**

  A wide variety of accessories such as rails, conveyor belts, mobility and vision modules are available to realize different tasks.

Key Features

Calligraphy and drawing	Script control
3D printing	Graphical programming
Drag-to-teach	Secondary development
Laser engraving	

Dobot Specifications

Dobot Magician

Weight	3.4 kg
Base Dimension(Footprint)	158 mm x 158 mm
Materials	Aluminum Alloy 6061, ABS Engineering Plastic
Controller	Dobot Integrated Controller
Robot Mounting	Desktop
Packing Size(L X w X H)	421 mm x 334 mm x 352 mm
Number of Axes	4
Payload	500 g
Max. Reach	320 mm
Position Repeatability	0.2 mm
Communication	USB \ WIFI* \ Bluetooth*
Power Supply	100 –240 V, 50/60 Hz
Power In	12 V /6.5 A DC
Consumption	78W Max
Working Temperature	–I0℃–60℃

Axis	Range	Max Speed (250 g Payload)
J1 – Base	–120° ~+120°	320° /s
J2 – rear arm	–5° ~+90°	320° /s
J3 – forearm	–15° ~+90°	320° /s
J4 – rotation servo	–140° ~+140°	480° /s

Applications

Software	Dobotlab, DobotStudio, Repetier Host, GrblController3.6, DobotBlockly(Visual Programing editor)
SDK (Software Develop Kit)	Communication Protocol Dobot Program Library
Extensible I/0 Interfaces	I/O x 10, configurable as Analog Input or PWM output
	Controllable 12V Power Output x 4
	Communicate Interface UART, Reset STOP, 12V, 5V and two I/O included
	Stepper x 2

End Effectors

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

Note: Above information is for reference only and subject to change without prior notice. Items marked with are optional kits, not inclueded in default package.

DOBOT | ALTEM TECHNOLOGIES

Get in touch.

https://altem.com/contact/

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