



Specifications- Dobot Magician 2.0 Arm



Introduction

The Dobot Magician is a revolutionary robot arm. It is very safe, easy to deploy, and versatile. The Dobot Magician 2.0 is only of its kind Desktop Robotic Arm.

Unlike traditional robots, the Magician is supplied with a lot of end-effectors bundled with it. This makes the deployment very fast. The controller inbuilt and software is freely available.

Further, it is open-source (SDK & API is freely available). It is perfect for a variety of second development and integration.

Available Versions & Accessories

Standard-

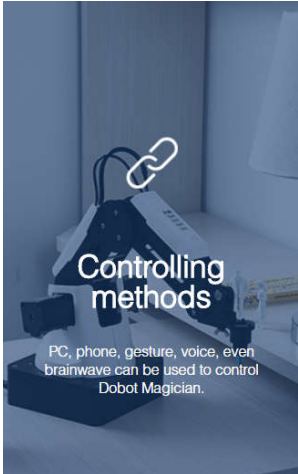
- Complete arm with power supply
- USB connectivity,
- Pneumatic Pick-n-place kit (Pump, suction gripper, 2-finger gripper)
- 3D Printing Kit
- Drawing Pen
- Auto-Leveling tool & essential Tool-kit

Advanced | Educational- Apart from all items from the standard version, following additional accessories are provided-

- Laser Engraver
- BlueTooth/WiFi connectivity modules
- Joystick




Features




Controlling methods

PC, phone, gesture, voice, even brainwave can be used to control Dobot Magician.



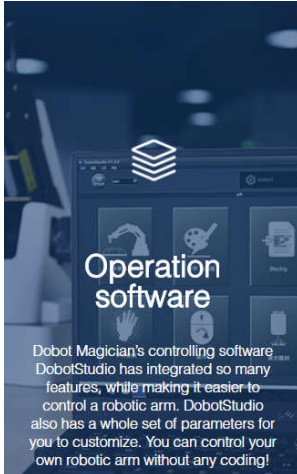
Handhold teaching

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


With the standardized plug-in style end tool holder, you can switch end tools by simply screwing.



Operation software


Dobot Magician's controlling software DobotStudio has integrated so many features, while making it easier to control a robotic arm. DobotStudio also has a whole set of parameters for you to customize. You can control your own robotic arm without any coding!

Applications




Classroom

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




Home

Smart, fun and reliable!



Workshop

User friendly, easy to learn, bringing more efficiency.



Factory

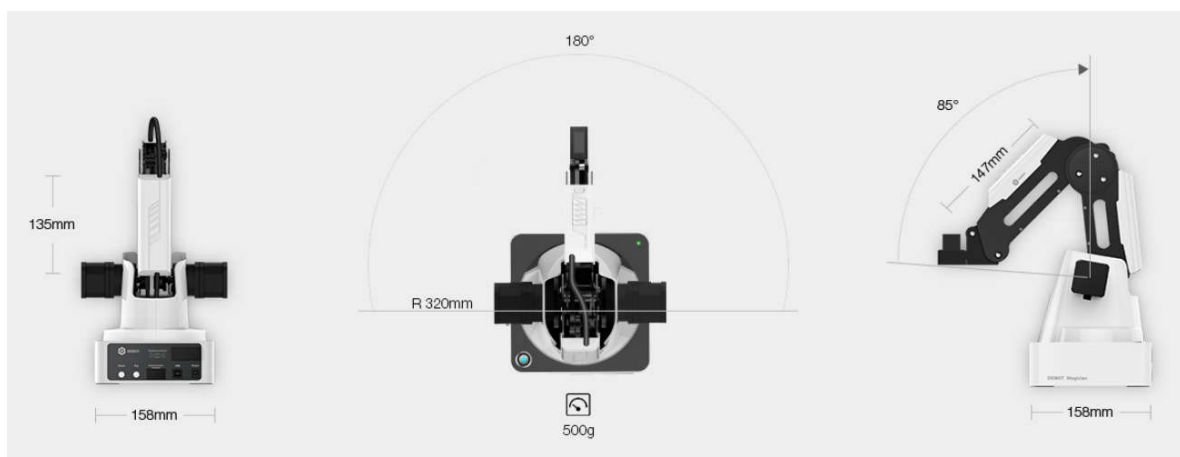
Fast to equip, easy to maintain, a high cost effective solution for production line.

Detail Specifications

| Item | Property | Value | |
|------------------------|---------------------------------|--------------------------|----------------------------------|
| General Specifications | Number of Axes | 4 | |
| | Payload | 500g | |
| | Max. Reach | 320mm | |
| | Position Repeatability(Control) | 0.2 mm | |
| | Communication | USB / WIFI / Bluetooth | |
| | Power Supply | 100 V - 240 V , 50/60 HZ | |
| | Power In | 12 V / 7A DC | |
| | Consumption | 60W Max | |
| | Working Temperature | -10°C - 60°C | |
| Axis Movement | Axis | Range | Max Speed (250g workload) |
| | Joint 1 base | -90° to +90° | 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 | Net Weight | | 3.4kg |
| | Gross weight (Standard Version) | | 7.2kg |
| | Gross weight (Advanced Version) | | 8.0kg |
| | 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 |
| | Carton Size for Standard Version (L × W × H) | | 340mm × 300mm × 400mm |
| | Carton Size for Education Version (L × W × H) | | 345mm × 290mm × 485mm |
| Applications | Software | DobotStudio, Repetier Host, GrblController3.6, DobotBlockly (Visual Programming 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 | |
| End-effectors | 3D Printer Kit | Maximum Print Size (L × W × H) | 150 mm × 150 mm × 150mm (MAX) |
| | | Material | PLA |
| | | Resolution | 0.1mm |
| | Laser * | Power | 500mW |
| | | Type | 405nm (Blue laser) |
| | | Power | 12V , TTL trigger with PWM Driver |
| | Pen Holder | Pen Diameter | 10mm |
| | Vacuum Suction Cap | Cap Diameter | 20mm |
| | | Pressure | -35KPa |
| | Gripper | Range | 27.5mm |
| Drive Type | | Pneumatic | |
| Force | | 8N | |



- End