DOBOT

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AFINIA 3D

MG400

Lightweight desktop robot,
smaller footprint than A4 paper!

MG400 is a lightweight desktop robot with a footprint smaller than one piece of A4 paper. Designed to be flexible to deploy, easy to use, and safe to collaborate, Magician Pro makes automation affordable and accessible for diversified and small-batch production scenarios. Featuring 750g payload, 440mm maximum reach, hand-held teaching and collision detection, Magician Pro truly fits perfectly for lightweight desktop applications and fast deployment in the production line.

Small Space Occupation

MG400 adopts a compact design that integrates the controller into the machine body with a 190mm*190mm footprint, which can be easily integrated into any production environment. Any space that is smaller than one piece of A4 paper, MG400 is good to go.

Professional Performance

MG400 is equipped with servo motors with a high-precision absolute encoder, a self-developed servo drive and controller, achieving a repeatability of ±0.05mm.

With the vibration suppression algorithm deployed in the controller level, under the condition of ensuring the space trajectory accuracy of the robot's multi-axis motion, the repeatability bandwidth stabilization time is accelerated by 60%, and the residual vibration is reduced by 70%.

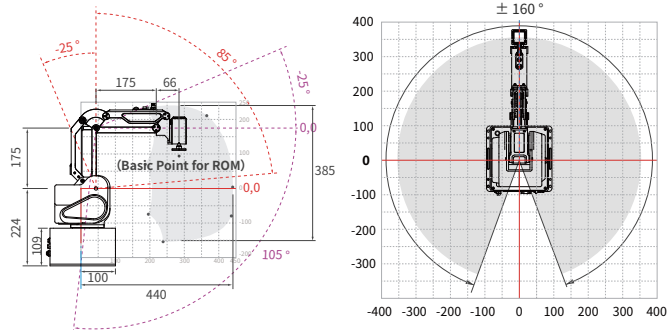## Simplicity Means Productivity

The design concept of simplicity is integrated into every dimension of the robot, making it much easier for small and medium-sized enterprises to apply automation.

Shorter deployment time: integrated & compact design, flexible & easy to deploy, plug and work.

More programming options: offering trajectory reproduction, graphical programming, and Lua script programming, which are ideal for applications of different complexity and developers with different programming skills.

Higher programming efficiency: Intuitive programming interface and guided-interactive design greatly improve the programming efficiency and lower the threshold of robot applications.
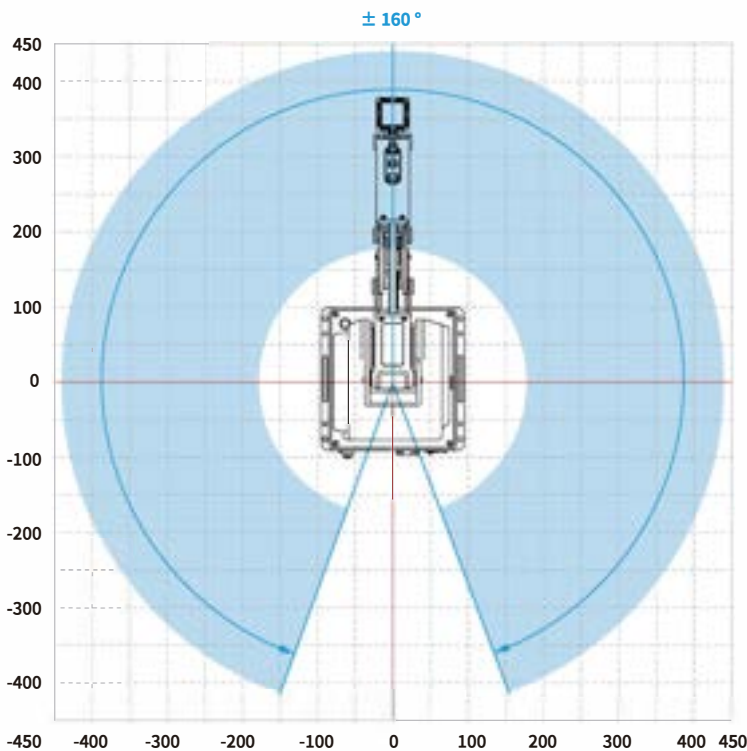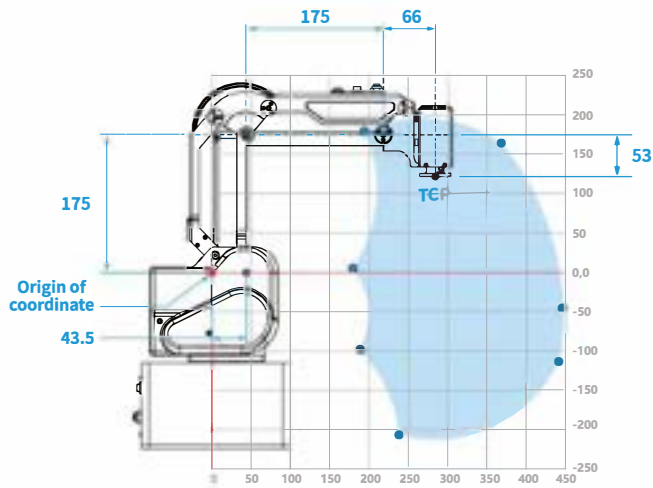
Higher debugging efficiency: supported by the robot dynamic gravity compensation algorithm, Magician Pro's hand-held teaching is smooth, easy and efficient, reducing the teaching time during robot programing up to 80%.

Specifications

Product Name	DOBOT MG400	
Product Name	DT-MG-P4R07-01I	
Degree of Freedom	4	
Payload	500g (Max 750g)	
Reach	440mm	
Repeatability	±0.05mm	
Joint Ranges	J1	±160°
	J2	-25 ° ~ 85 °
	J3	-25 ° ~ 105 °
	J4	-180 ° ~ 180 °
Joint Maximum Speed	J1	300 ° /s
	J2	300 ° /s
	J3	300 ° /s
	J4	300 ° /s
Power	100~240V AC, 50/60 Hz	
Nominal Voltage	48V	
Nominal Power	240W	
Communication Interface	TCP/IP, Modbus TCP	
Installation Way	Counter	
Weight	8kg	
Base Size	190mm × 190mm	
Working Environment	0 °C ~40 °C	
Software	DobotStudio 2020, SCStudio	

DOBOT MG400

Shenzhen Yuejiang Technology Co.,Ltd │China

Product Name	DOBOT MG400
Product Model	DT-MG400-4R075-01

Controled Axes	4
Rated Load	500 g（Max. 750 g）
Max. Reach	440 mm
Repeatibility	±0.05 mm

Motion Parameters	Joint	Motion Range	Max. Speed
	J1	±160°	300 °/s
	J2	-25 ° ~ 85 °	300 °/s
	J3	-25 ° ~ 105 °	300 °/s
	J4	-360 ° ~ 360 °	300 °/s

Power Input	100~240 V AC，50/60 Hz
Rated Voltage	DC 48 V
Rated Power	150 W
Communication	TCP/IP，Modbus TCP
Installation	Desktop
Weight	8 kg
Base Dimension	190 mm × 190 mm
Work environment	0 °C~40 °C
Software	DobotStudio Pro，SCStudio

Interface

Base:	Digital Input	16
	Digital Output	16
	Ethernet	2
	USB 2.0	2
	Encoder Input	1
	Air way	1
End:	Digital Input	2
	Digital Output	2
	Air way	1

Mounting Drawing

Dimensional drawings showing coordinate origin, motion envelope, interface panel, and mounting dimensions.