

# Magician Go Parameters

## Basic Parameters

<b>Product Name</b>	DOBOT Magician Go Omnidirectional mobile platform	
<b>Product Model</b>	DT-AC-GO4WD-01E	
<b>Product Weight</b>	5Kg	
<b>Main Material</b>	Engineering Plastic (ABS+PC), Aluminum Alloys, Stainless Steel (rotating shaft, suspension shaft)	
<b>Communication Mode</b>	2.4GHz Remote Control, USB Serial, Bluetooth	
<b>Control Mode</b>	2.4G Joystick Remote Control, Bluetooth Wireless Control, Wired Control, Script Control	
<b>Magician Go Dimensions</b>	463*293*125 (mm)	
<b>Performance Parameter</b>	Maximum Load	5Kg
	Rated Power	60W
	Time of Endurance	150min Max (Line tracking+Arm movement)
	Maximum Speed	1m/s
	Rated Voltage	12V
	Working Temperature	0-35°C
	Control Software	DobotLab (Blockly/Python Programming) *Cooperating with DobotLink for connection and firmware upgrading

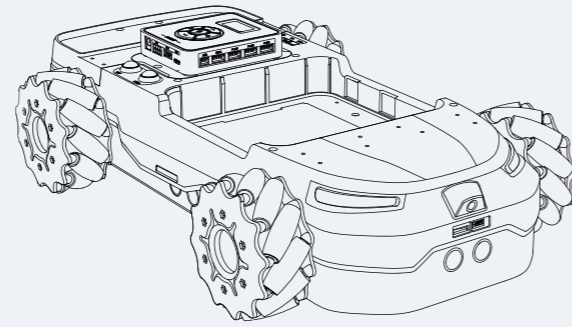


Figure 1 | DOBOT Magician Go Omnidirectional mobile platform

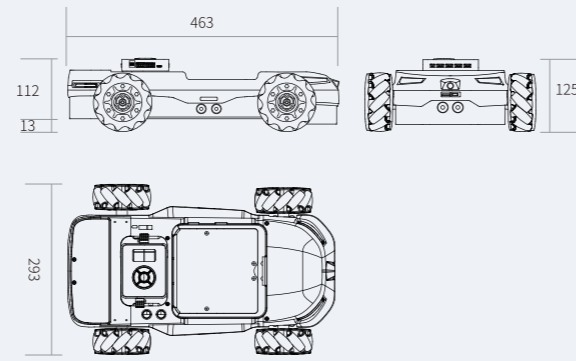
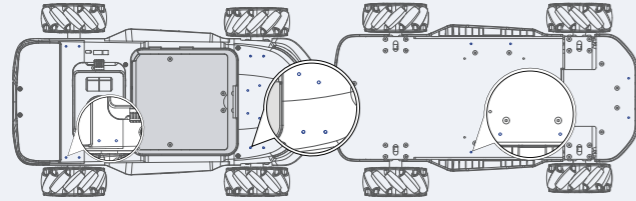


Figure 2 | DOBOT Magician Go Three views

### Mechanical Extension



Mounting slot for robot arm \*1. Top cover extension hole M3\*12, bottom extension hole M3\*8 (for installing extended equipment.)

**Certificates** CE-RED, CE-LVD, RoHS, FCC SDOC, FCC ID, UN 38.3

## Magician Go Specification

Sensor	AI Camera	Sound & Light	Dynamic
Ultrasonic Sensor *4 Gyroscope *1	Chassis AI Camera *1 Arm AI Camera *1	Programmable Buzzer *1 Programmable RGB-LED *4 Status Indicator *2	DC Motor with Encoder *4 Mecanum Wheel *4

## Magician GO Function

Function	AI Visual Function	Port	
1.Odometers (Positioning and navigation) 2.Angle Closed Loop 3.Safety Switch (Obstacle Avoidance on all sides, and stop automatically) 4.Pallet 5.Emergency Stop Locking 6.Motor Blocking Alarm, Voltage Detection, Low Power Alarm, Battery Indicator 7.One Button Response for Bluetooth Connection	1.Visual Line-tracking by Chassis AI Camera 2.Guide Sign Detection by Chassis AI Camera 3.Objects Recognition & Target Automatic Capture by Arm AI Camera 4.Color Detection, Road Sign Detection, Object Detection, April Tag Recognition, Intelligent Line Tracking	Chassis Interface Panels	Chassis AI Camera / Arm AI Camera
		1.USB Type-C *1 2.4Pin General Port *1 3.12V OUTPUT *1	Chassis AI Camera /Arm AI Camera: 1.USB Type-C *1 (Camera firmware upgrading) 2.Micro SD Slot *1 (After SD card is inserted, it can be used to store images collected by chassis AI camera and trained models)

## Magic Box Controller

<b>Model</b>	DT-MB-CTR01-1E	
<b>CPU</b>	ARM 32-bit Cortex-M4	
<b>Operating Voltage</b>	10~12V	
<b>Interfac</b>	Power Interface	4Pin (2 Occupied) Supply power for Magician Go and robot arm
	Communication Port	10Pin Communication Interface (2 Occupied) For communication with Magician Go and robot arm
		USB Type-C Interface *1 For PC serial communication  USB Interface *1 For USB extended device, including Joystick receiver
	I/O Interface	2 interfaces are occupied for controlling chassis and arm AI camera 4 interfaces are available for customizing I/O, AD, PWM output, I2C, etc
	Motor Extended Interface	Motor Extended Interface *2, for controlling the stepper motor
12V Power Interface	12V Power Interface *2, for power input and output	
<b>Virtual USB Drive Space</b>	188kb	
<b>Programming Language</b>	Micro Python	

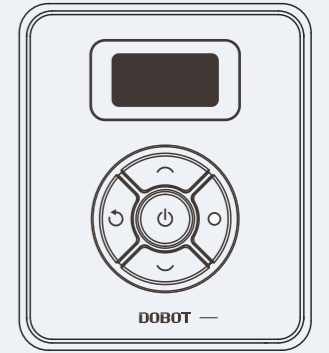


Figure 3 | Magic Box Controller

## Arm AI Camera

<b>AI Processor</b>	Main control chip: K210 Chip core: dual-core RISC-V 64bit@400MHz Memory: 8 Mb Flash: 16 Mb	
<b>Interface</b>	USB Type-C 4Pin communication interface Micro-SD Slot (Maximum 32GB for expansion; high-speed card is recommended)	
<b>Camera Parameters</b>	Lens type: 1/4INCH Aperture: F/2.4 Pixel: 1600*1200	Focal length: 1.7mm Camera Module Chip: OV2640 Field of view (FOV): 150°
<b>Material</b>	Engineering plastics (ABS+PC)	
<b>Dimensions</b>	54*61*28(mm) (without fixture)	
<b>LCD Screen Resolution</b>	2' Color LCD, Resolution: 320*240	

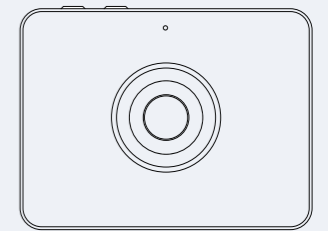


Figure 4 | Arm AI Camera

## Bluetooth Dongle

<b>Connection Type / Communication Protocol</b>	USB2.0, BLE4.2
<b>Transmission Range</b>	15m (Open Field)
<b>Dimensions</b>	72*27.8*12.3 (mm)
<b>Weight</b>	20g
<b>Voltage</b>	5V
<b>Working Frequency</b>	2.4GHz-2.48GHz
<b>Function</b>	1. Automatic Matching 2. One Button Response

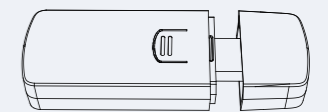


Figure 5 | Bluetooth Dongle

## 2.4G Wireless Joystick

<b>Dimensions</b>	156*102*60 (mm)
<b>Weight</b>	190g
<b>Battery Capacity</b>	500mAh
<b>Charging Port</b>	Micro USB
<b>Connection Type</b>	2.4GHz wireless connection



Figure 6 | 2.4G Wireless Joystick