



**ALL-IN-ONE
AI & ROBOTICS
EDUCATION SOLUTIONS**

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DOBOT EDUCATION SOLUTIONS



ALL-IN-ONE
AI & ROBOTICS
EDUCATION SOLUTIONS

DOBOT AI & ROBOTICS EDUCATION SOLUTIONS

School Levels	Products	Topics Covered
Elementary & Middle School (Age 8-15)	DOBOT Magician Lite DOBOT AI Starter DOBOT MOOZ	AI, STEAM, Robotics, Coding, Makerspace, 21st Century Skills, IT Education, Technology Education.
High School, Vocational & Higher Education (Age 16+)	DOBOT Magician DOBOT M1	AI, Career Technical Education (CTE), Technology and Engineering Education(TEE), Programming, Research and Lab, Innovation Education, Robotics, Computer Science, Industrial Automation/Manufacturing, Mechatronics, Mechanical Engineering.



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8-15
years

SOLUTION FOR ELEMENTARY & MIDDLE SCHOOL

DOBOT AI Lab for Elementary & Middle School focuses on the introduction of AI and is designed to enable students aged 8-15 to expose to basic concepts in artificial intelligence, robotics and programming. The lab is a fully-integrated solution with complete installation, professional development, teacher training, curriculum, technical support and online resources.

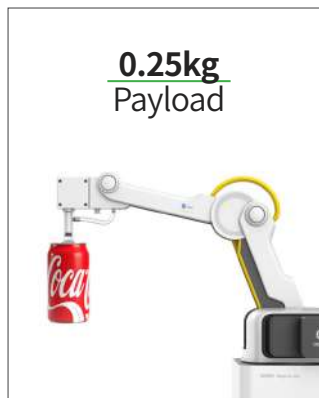


What is DOBOT Magician Lite?

DOBOT Magician Lite is the world's first child-friendly, AI-infused and multi-functional intelligent robotic arm for K12 educators and students. Designed for users of all experience levels and abilities, Magician Lite provides everything that teachers or educators need to instruct students on how to apply the key concepts of AI and STEAM to real-world problems.



Key Specifications



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Truly Kids-Friendly: Safe & Easy to Get Started



Collision Detection



Handheld Teaching

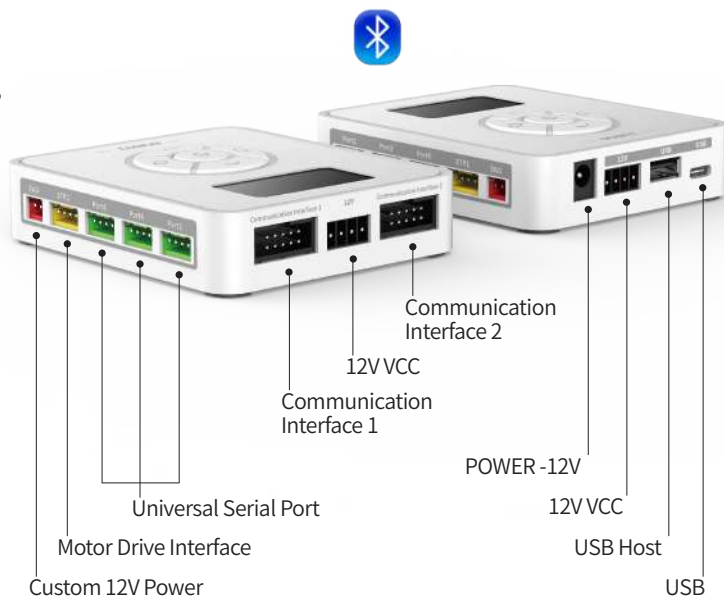


2.4kg
Weight

| External Controller "Magic Box"

Unlock

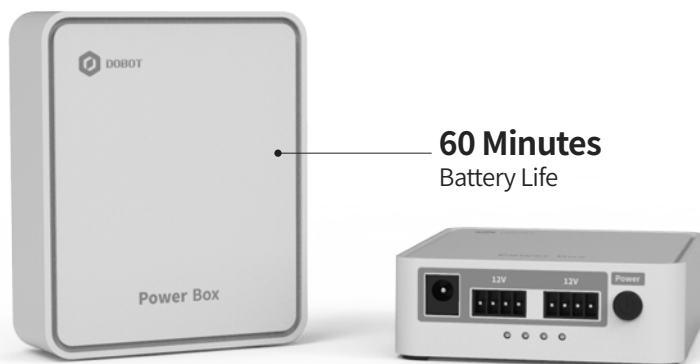
Unlimited Possibilities
for Development



| Power Box

Make Your Class

Mobile



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Fast to Change End-Tools: To Write & Grab



AI Smart Camera: To "See" and "Hear"



- Distortion-Free Lens
- 1 Megapixels
- 135° Rotation
- Microphone

DobotBlock: AI-Powered Graphical Programming Software

Explore & Create



*Magician Lite is also programmable on Python.

What's In the Package?



Hardware	Magician Lite	Magic & Power Box	Gripper	Suction Cup
	Pen Holder	Camera	Block Set	Tool Kit & Cable Set
Software	DobotBlock		DobotLink Development Software	
Our Service	Technical Support	1-Year Warranty	Step by Step Guide	Video Demo

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What Can I Add On to Develop Further?

■ AI Teaching Kit

AI Teaching Kit includes 4 packages of accessories for 4 AI application scenarios including commodity storage (OCR), smart grocery store(image recognition and image segmentation), smart shop assistant (voice recognition and face recognition) and smart garbage classification (image recognition and voice recognition).

With this AI Teaching Kit, students can experience real-world AI scenarios, engage in a series of hands-on activities and be inspired to prototype their own AI solutions.



■ DOBOT Sensor Kit

When equipped with the right sensors, DOBOT Magician Lite make sense of its surrounding environment. Being able to collect data from the environment, the robot can make better decisions. The sensor kits contains:

- photoelectric sensor
- light sensor
- sound sensor
- temperature and humidity sensor
- color sensor
- ...



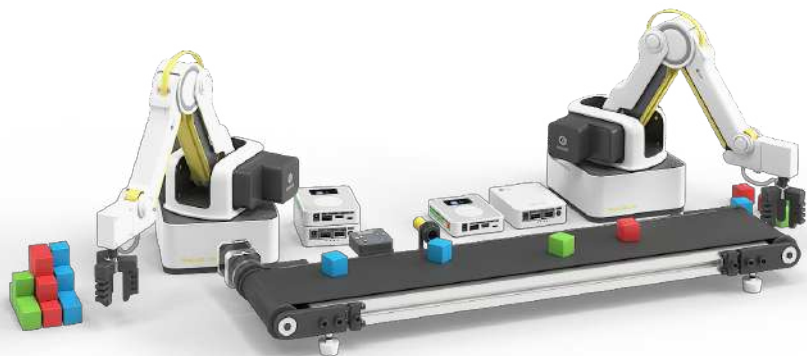
■ Linear Rail Kit

With the Linear Rail Kit, Magician Lite can have its working range expanded to one meter (3.28 feet). This means the robot can do more AI scenario-based tasks with long-distance pick and place, and a larger range of writing and drawing.



■ Conveyor Belt Kit

The Conveyor Kit features adjustable speed & length and color sensor, making it perfect for creating mini automated assembly line to educate students on how smart automation system works in real world.



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What's Included In the Curriculum Solution?

■ AI Curriculum for Elementary School

Basic Course: In this course, you will learn graphical programming and robotics based on task-based teaching, and program the DOBOT Magician Lite to get the hands-on experiences with AI technologies.

Mandatory: In this course, you will learn what Artificial Intelligence (AI) is, explore cases and applications of AI, understand AI concepts and terms like machine learning, image recognition and natural language processing through relevant application tasks.

Experiment: In this course, you will experience how AI and robots play their parts in real life by designing and building AI solutions that draw inspiration from our day-to-day life. From projects like smart parking to smart farm, you will learn and explore how AI automates and simplifies our everyday processes and how it transforms the way we farm and produce.



■ AI Curriculum for Middle School

Basic Course: In this course, you will explore and learn coding skills in Python, and program DOBOT Magician Lite to fulfill engaging curriculum tasks and have a smack at smart AI systems.

Mandatory: In this course, you will learn what Artificial Intelligence (AI) is, explore AI application cases using Python and DOBOT Magician Lite, and improve your understanding of AI concepts and terms like machine learning, image recognition and natural language processing.

Experiment: In this course, you will explore and design a variety of AI applications that are based on real life using Python and DOBOT Magician Lite. These AI projects come from different sectors such as healthcare, catering, servicing, transportation, etc. Through these scenarios, you will be exploring the future of autonomous systems and learn how to build real-world autonomous control systems.



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What is DOBOT AI-Starter?

DOBOT AI-Starter is an entry-level educational robot. With built-in sensors including IR patrol line, ultrasonic color, light sensitivity, geomagnetism, students can control the robot to track along the line, avoid or follow objects just like a self-driving vehicle does.

Features:

- available XBEE, general IO serial port, I2C and other expansion interfaces for further development
- programmable on drag and drop graphical coding software
- be able to combine with DOBOT robotic arms to unlock more possibilities



DOBOT Competition Kits



DOBOT Intelligent Manufacturing Challenge-Ecohero Challenge simulates how garbage is classified by robots in real life, aiming to leverage technologies like AI to raise awareness in young people for environment protection cause.

The competition is open to elementary schoolers, middle schoolers, high schoolers and university /college students. Contestants need to program the robotic arm and the AI-Starter vehicle to identify, move, transport, and unload different types of garbage.

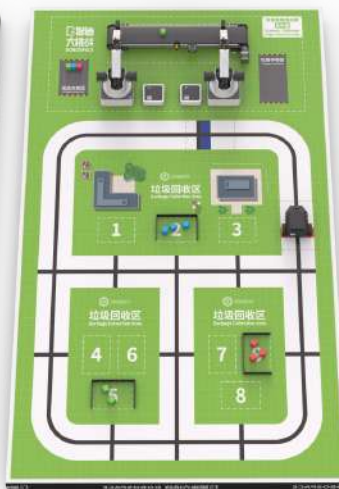
■ DOBOT Competition Map



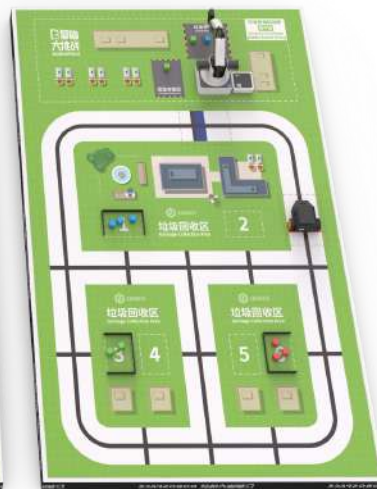
Elementary School



College



High School



Middle School

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What is DOBOT MOOZ-2 PLUS?

MOOZ-2 PLUS is a versatile, modular desktop 3D printer. Simply install the right tool head, and it can do 3D printing, laser engraving and CNC carving without the costs of another machine.



Functions



Modular Design for Quick Setup & Use

Simply open package to reveal the already-assembled MOOZ-2 PLUS machine, and change the print head to get right into 3d printing, laser engraving/cutting and CNC carving in a snap.

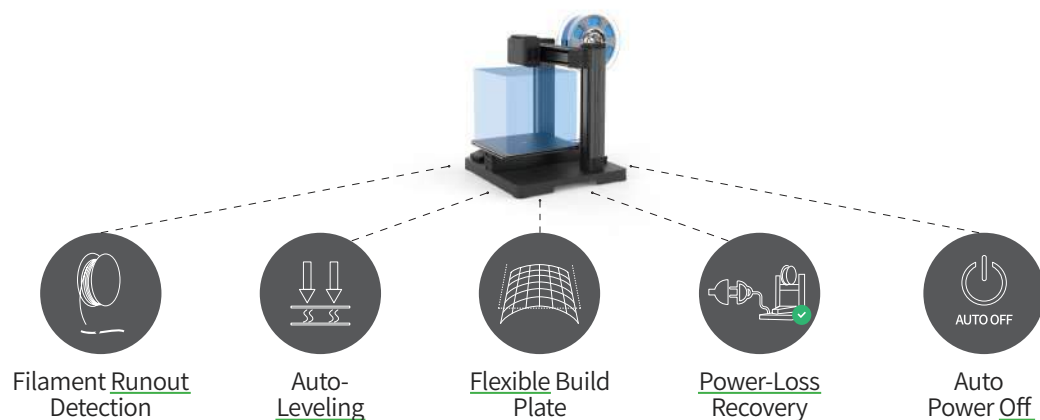


MOOZ-2 PLUS can automatically identify the type of print head.

Build Bigger, Build Smarter

The effective print area is upgraded to 200 * 200 * 190mm (7.87*7.87*7.48 inches) from 130*130*130mm (4.72*4.72*4.72in). This elevation gives you more freedom to print more complex objects.

Also, MOOZ-2 PLUS is all detail-oriented and provides multiple handy features, making 3d printing simpler, smarter and faster.



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SOLUTION FOR HIGH SCHOOL, VOCATIONAL & HIGHER EDUCATION

DOBOT AI Lab for High School focuses on Practicing AI and is designed to enable high schoolers to give students hands-on experience in everyday AI and robotics application scenarios.

DOBOT AI Lab for Vocational School & Higher Education focuses on Mastering AI and is designed to enable research and development of real-world AI and robotics applications. The lab is a fully-integrated solution with complete installation, professional development, teacher training, curriculum, technical support and online resources.

What is DOBOT Magician?

DOBOT Magician is a multifunctional desktop robotic arm for practical training education. Installed with different end-tools, DOBOT Magician can 3D print, laser engrave, write, draw and manipulate different objects. It has 13 expansion interfaces and supports over 20 programming languages, unlocking unlimited possibilities for further development.



Key Specifications



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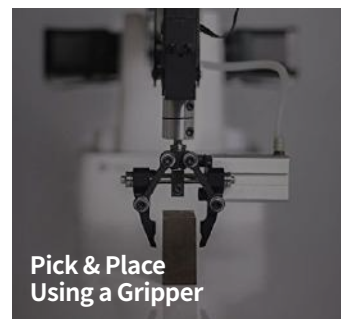
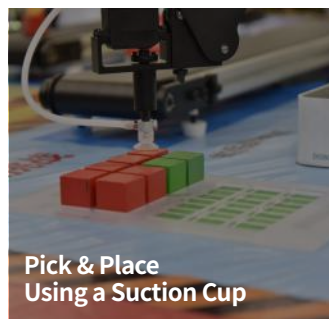
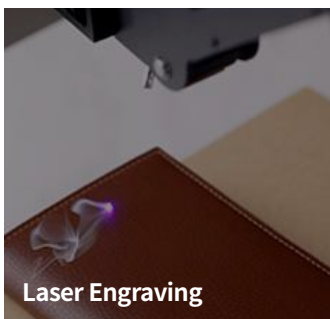
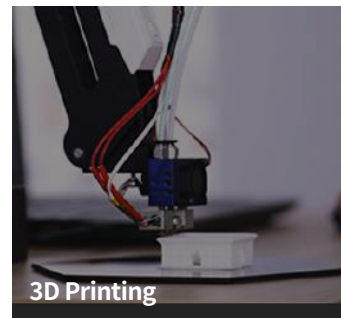
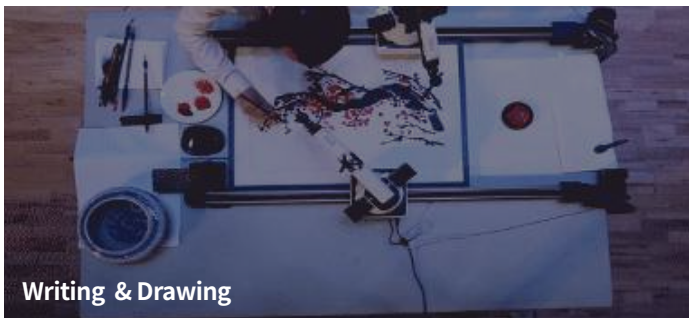
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Multiple Control Methods



Easy-to-Install End Tools for Diverse Functions



Unlimited Possibilities for Further Development & Integration

I/O x 10

Power Output x 4
Stepper x 2

API

Microcontroller
ROS
Arduino
PLC

SDK

Communication
Protocol
Program Library



Programming Languages & Methods



*Note: demos are provided for Matlab and LabVIEW.

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DobotBlock: Graphical Programming Software

Explore & Create

[T] OCR

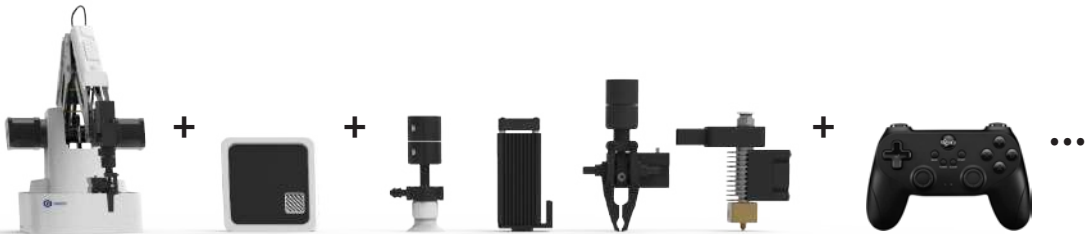
[😊] Facial Recognition

[📷] Image Recognition

[🔊] Voice Recognition



What's In the Package?



Hardware	DOBOT Magician	Gripper Kit	Pneumatic Kit	3D Printing Kit
	Writing Kit	Game Controller	Accessories & Tool Package	Bluetooth & Wifi Module
Software	DobotBlock		DobotLink Development Software	
Our Service	Technical Support	1-Year Warranty	Step by Step Guide	Video Demo

■ What Can I Add On to Develop Further?

■ DOBOT Vision Kit

DOBOT Vision Kit provides a software and hardware platform based on vision development. With drag-and-drop software, users can set up a vision-based application scenario within minutes. Students and teachers can develop research-based projects, AI algorithm simulation and vision-based industrial applications.



■ Basic AI Kit

Basic AI Kit helps beginners understand the fundamentals of robotics, electronics, AI basic and Arduino. Teachers and students can bring AI to life by creating games with hardware and software and even use the engineering design process to break down a problem and design and build a solution.



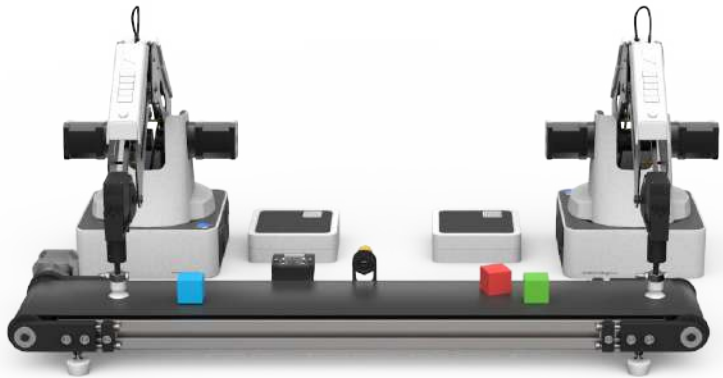
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■ Conveyor Belt Kit

The Conveyor Kit features adjustable speed, distance and color sensor, perfect for creating mini automated assembly line to educate students on how automation system works.



■ Linear Rail Kit

With Linear Rail Kit, DOBOT Magician can have its working range expanded to one meter (3.28 feet). This means the robot can do more industry 4.0 scenario-based tasks such long-distance pick and place, and a larger range of writing, drawing and laser engraving.



What's Included In the Curriculum Solution?



■ Robotic Arm in STEAM Class

In this course, you will learn what artificial intelligence and intelligent manufacturing are and understand how different end tools of DOBOT Magician work such as the included gripper, suction cup, pen holder, 3d printing head, and laser engraving module.

You will experiment with a portfolio of fun, hands-on challenges and wrap up the course with a simulated project of industry 4.0 manufacturing line.



■ Introduction to LabVIEW

In this course, you will learn how to install DOBOT Magician SDK for LabVIEW, how to control the robot using motion and programming, how to install end-effectors on the robot to manipulate different objects, and how to run simulations on LabVIEW.

In the last few chapters, you will get to design and build some mini projects including vision-based sorting and voice-controlled robot.

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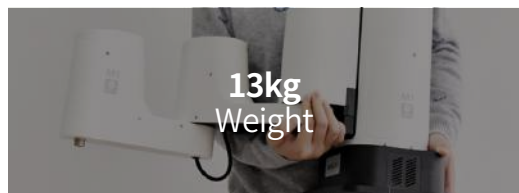
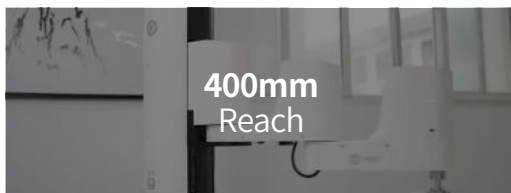
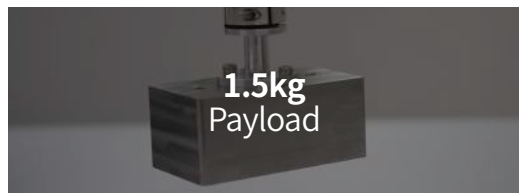
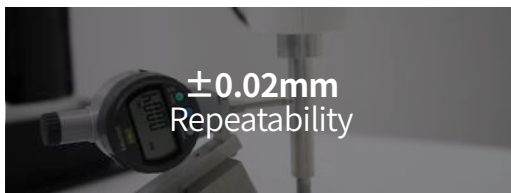
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What is DOBOT M1?

DOBOT M1 SCARA robotic arm is lightweight and safe to work alongside. M1 is now widely used to perform automation tasks in assembly line around the world such as pick and place, components separation, and quality inspection. The robotic arm is programmable on graphical programming language like Blockly and advanced language Python, making it perfect for programming, engineering and robotics learning in vocational schools and higher education.



Quick Facts



Features

Safe to Work Alongside

- The robot stops immediately when it hits a person or an object.
- No security fence is required.

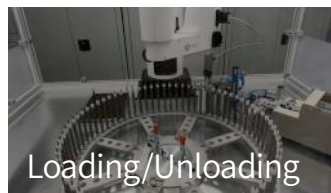
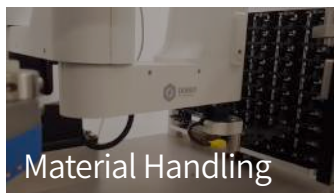
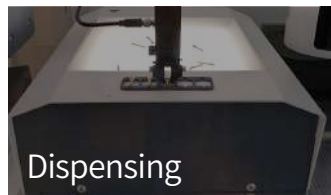


Easy-Use Software

- Blockly Graphic Programming
- Script Programming
- Teach & Playback



Applications for Different Teaching Scenarios



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Endless Possibilities for Development & Integration

DobotLink Development Software

- API
- Demo Code
- Support WebSocket compliant programming languages such as C(++), Python, PHP, JavaScript, HTML, etc.

Communication Interface

- Ethernet
- RS-232C

I/O

- 22 digital outputs
- 24 digital inputs
- 6 ADC inputs



What Can I Add On to Develop Further?



- Suction Cup
- Air Pump Kit
- Gripper

Pick & Place

Basic Suite



- DB15 Expansion
- 4-Channel Switch Kit
- DB62 Expansion & Cable

I/O Expansion

Expansion Suite



- HD Industrial Camera
- 6M 12mm Focus Lens
- White Auxiliary Light

Vision Inspection

Vision Kit



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