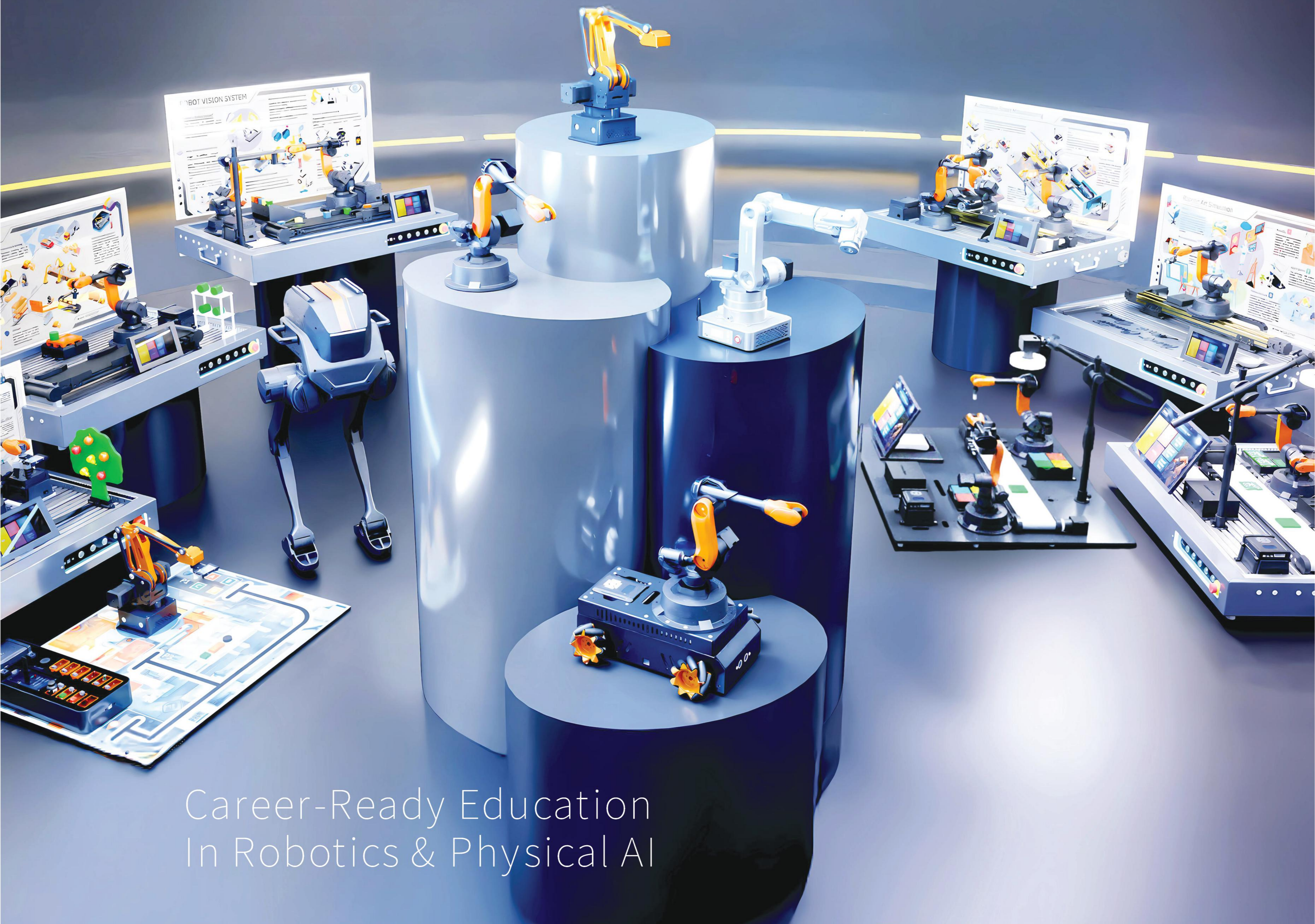


WLKATA[®]
ROBOTICS

Bluegrass
EDUCATIONAL TECHNOLOGIES, LLC

771 Corporate Drive, Suite 750
Lexington, KY 40503

Phone: 866.276.2457
Fax: 866.275.4660
Web: www.bluegrassET.com



Career-Ready Education
In Robotics & Physical AI

Product Selection Guide

www.wlkata.com

Wristline Inc.
140 Route 17 North Suite 313, Paramus, NJ USA
07652

Phone: +1 201-496-9009
Email: hello@wristline.com

Featured Products

1. Mini Robots

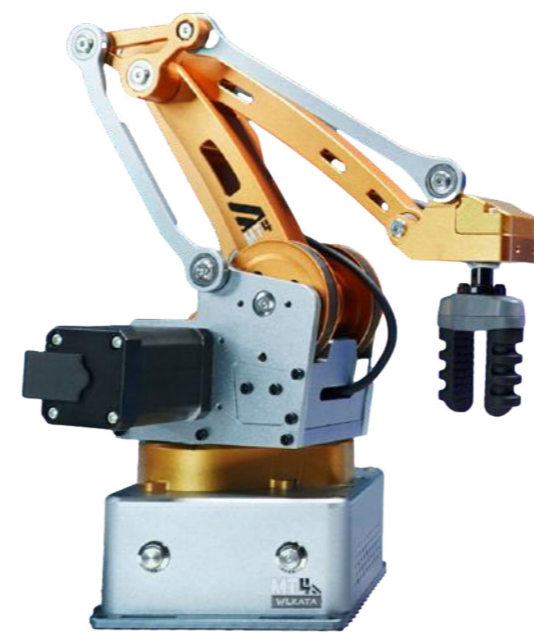
Robotic Arms



Mirobot 6-Axis



Haro380 6-Axis



MT4 4-Axis

Mobile Robot



AGV Rover

Walking Robots



Brave
Bipedal Robot



MarchX
Quadruped Robot

Additional Axis



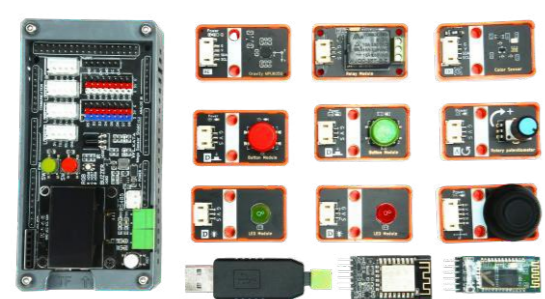
Sliding Rail



Conveyor Belt

2. XFactory Systems

Brain Control Series



AI-HUB
Development Kit



AI-HUB
Navigation Kit

AI Series

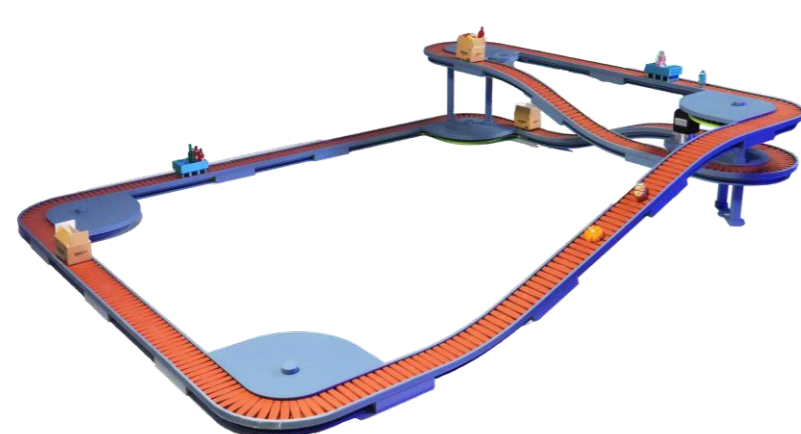


OpenCV
Advanced Vision Set



OpenMV
AI Vision Set

World Builder Series



Metal
OmniConveyor



Push
Feeder



Roller
Feeder



Sensor
Storage



Mini
AGV



MiniFrame Mini T-Slot
Beam (08 10 12 15)

3. Ready-to-use Workstations

Desktop Robotics Training Stations



Automobile Assembly Cell



Logistic Storage Cell



Robotic Art Cell

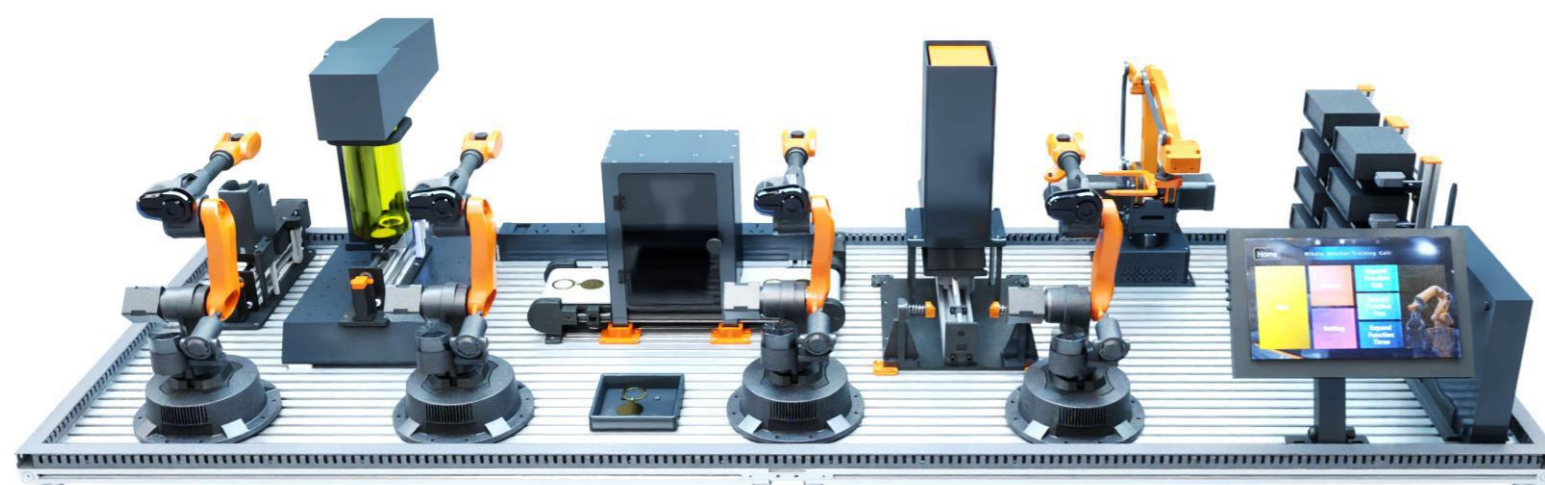


AI Sorting Cell

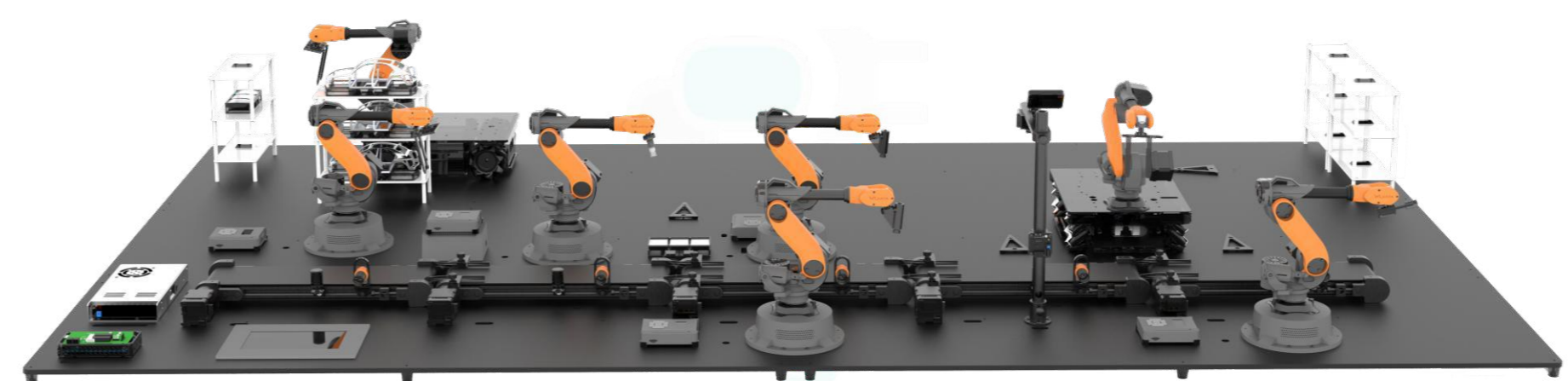


Fruit Picking Cell

Compact Manufacture Lines



Engraved Souvenirs Manufacturing Line



Automotive Manufacturing Line



Welcome to the Next-Gen Robotics Lab !



Our Solution

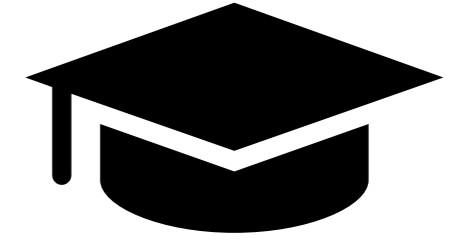
We help schools prepare students for AI and robotics.



MIC (Make It Center)
AUSTIN COMMUNITY COLLEGE
Texas, USA



Marathon Capstone
OHIO NORTHERN UNIVERSITY
Ohio, USA



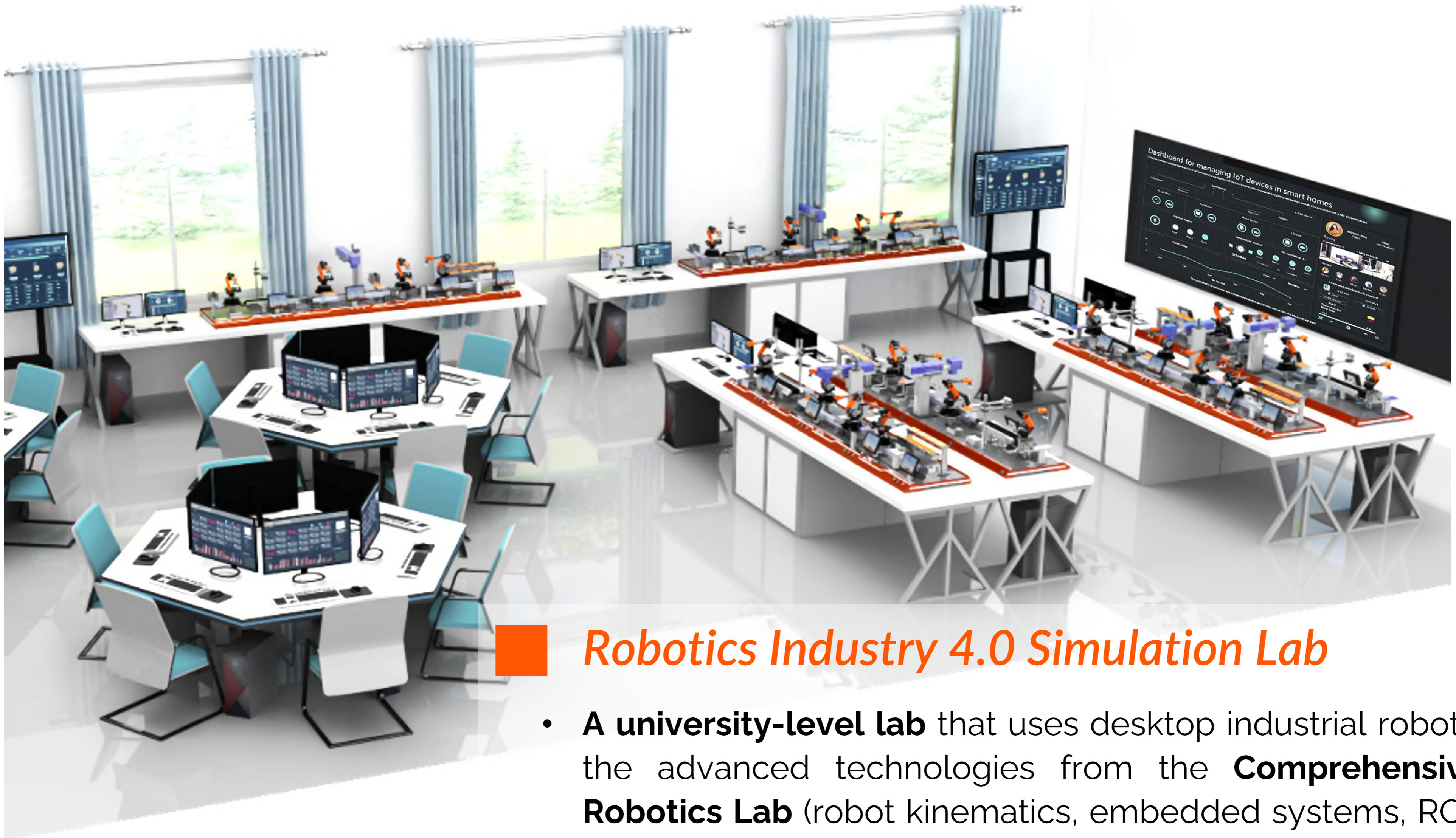
Solutions For Universities



Comprehensive AI Robotics Lab

- A **university-level lab** that blends theory and practice with staged learning modules in **robot kinematics & embedded systems, ROS & MATLAB, AI and perception** (machine vision, deep learning, reinforcement learning), and **Industry 4.0 applications** (smart factory, digital twin).
- It is supported by **university textbooks including experiments and a full set of teaching resources**—PPTs, videos, lab manuals, and source code—building a complete environment for robotics education and research.





■ *Robotics Industry 4.0 Simulation Lab*

- **A university-level lab** that uses desktop industrial robots, the advanced technologies from the **Comprehensive Robotics Lab** (robot kinematics, embedded systems, ROS & MATLAB, AI and perception), and an optional **digital twin with a PLC semi-physical platform**. Enhanced with a **mini smart factory** and **modular factory systems**, it provides a safe and immersive Industry 4.0 simulation environment.



■ *Robotics & Vision Lab*

- **A university-level lab** divided into a **fundamental training zone** and an **innovation & application zone**. The first focuses on **machine vision, programming, and robotic grasping**, while the second applies **robotics + vision** to industries such as **3C electronics, pharmaceuticals, automotive, and smart logistics**, supporting both practical training and innovation projects.

WLKATA

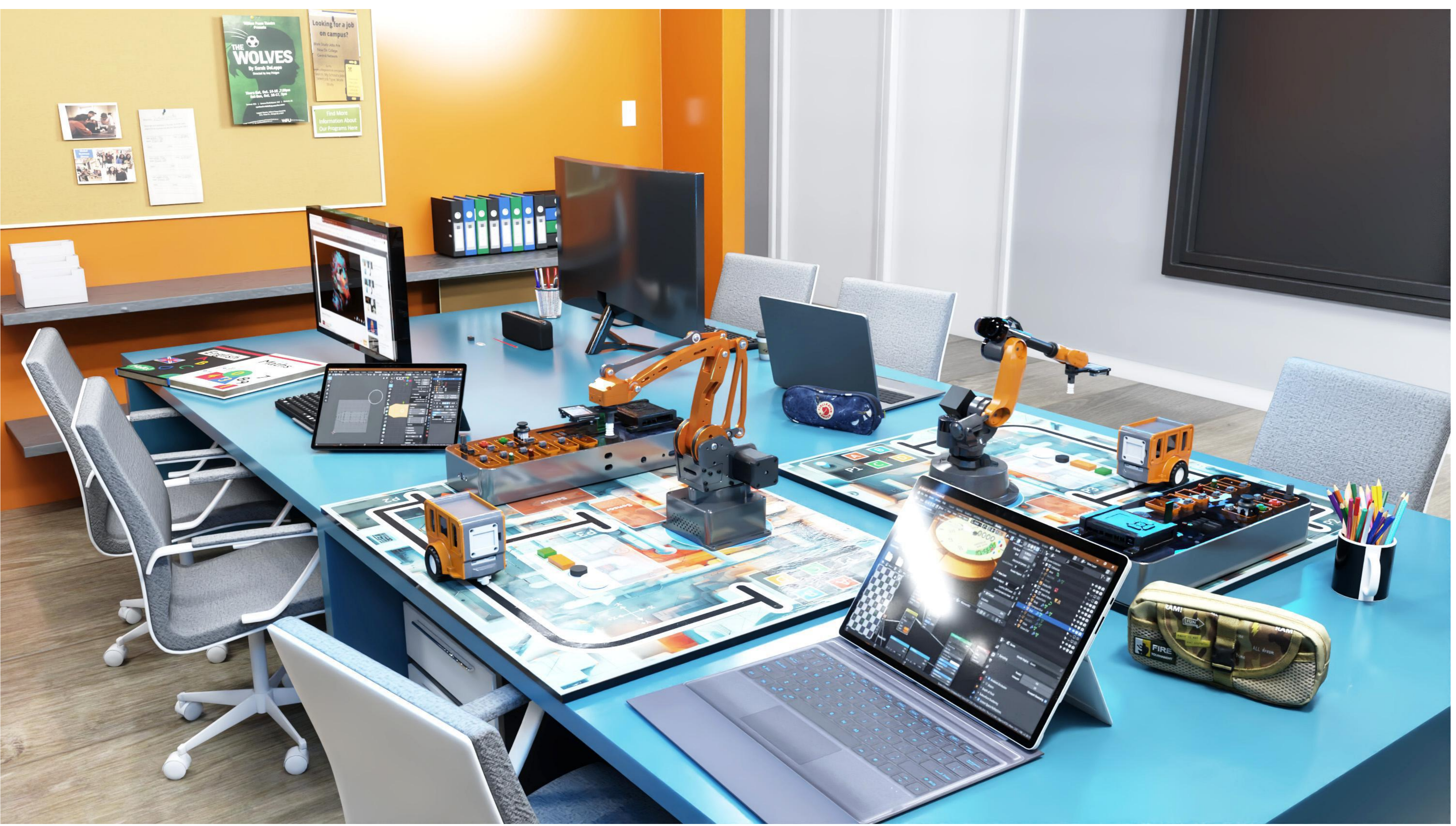
Next-Gen Robotics Lab



Solutions For Secondary Education (K7-K12)

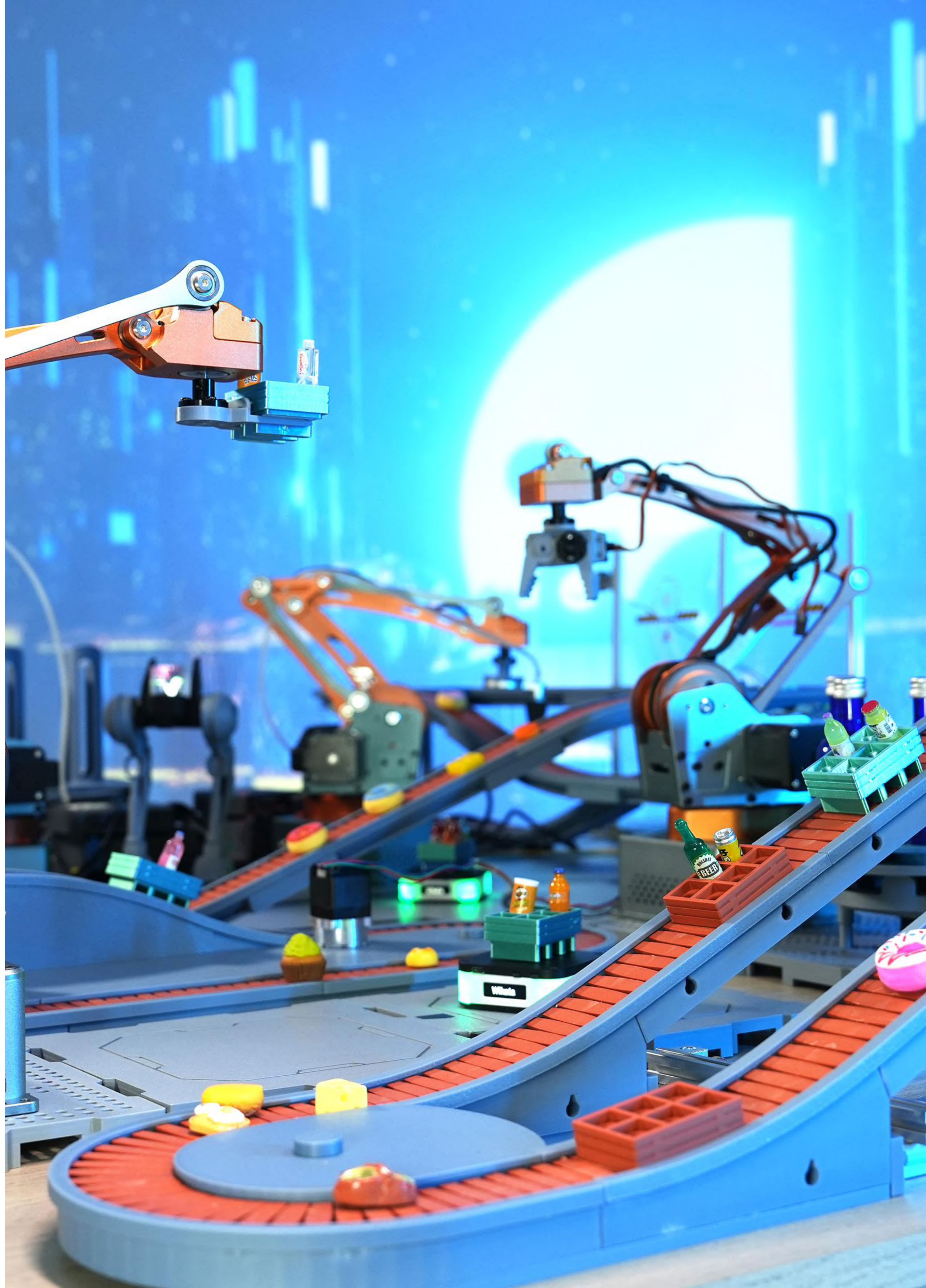
Robotics & STEM Lab for Secondary Education (Students age 12-18)

- A school-level lab that introduces students to robotics and STEM through **Arduino, AI vision, sensors, and smart factory/farming applications**. Accessible with **graphic programming (no-code) and low-code tools**, with progression to **C, C++, and Python**.
- Supported by **textbooks, curriculum, videos, teacher's guides, quizzes, and certifications**, it delivers a complete learning ecosystem.



Robotics & Modular Smart Factory Experience Lab

- A hands-on lab for students from secondary to university level (ages 12 and up) that introduces students to robotics operations, programming, and modular smart factory systems such as omni-conveyors, feeders, sensor storage, mini AGVs, and mini T-slot beams. Designed for interactive learning, it helps students explore automation, sensors, and intelligent manufacturing concepts through scalable modules, bridging theory with real-world applications.



1.

Mini Robots



Brave
Bipedal Robot



Mirobot
6-Axis



Multi

Robot
Types

Pro

Prof. and
Practice Use

Open API

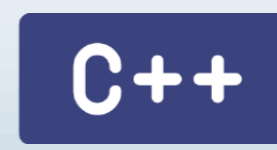
Interfaces

1:10 Mini Robots

Realistic and high-density setups

Open Interfaces

Open low-level control, full access



MT4
4-Axis



Haro380
6-Axis



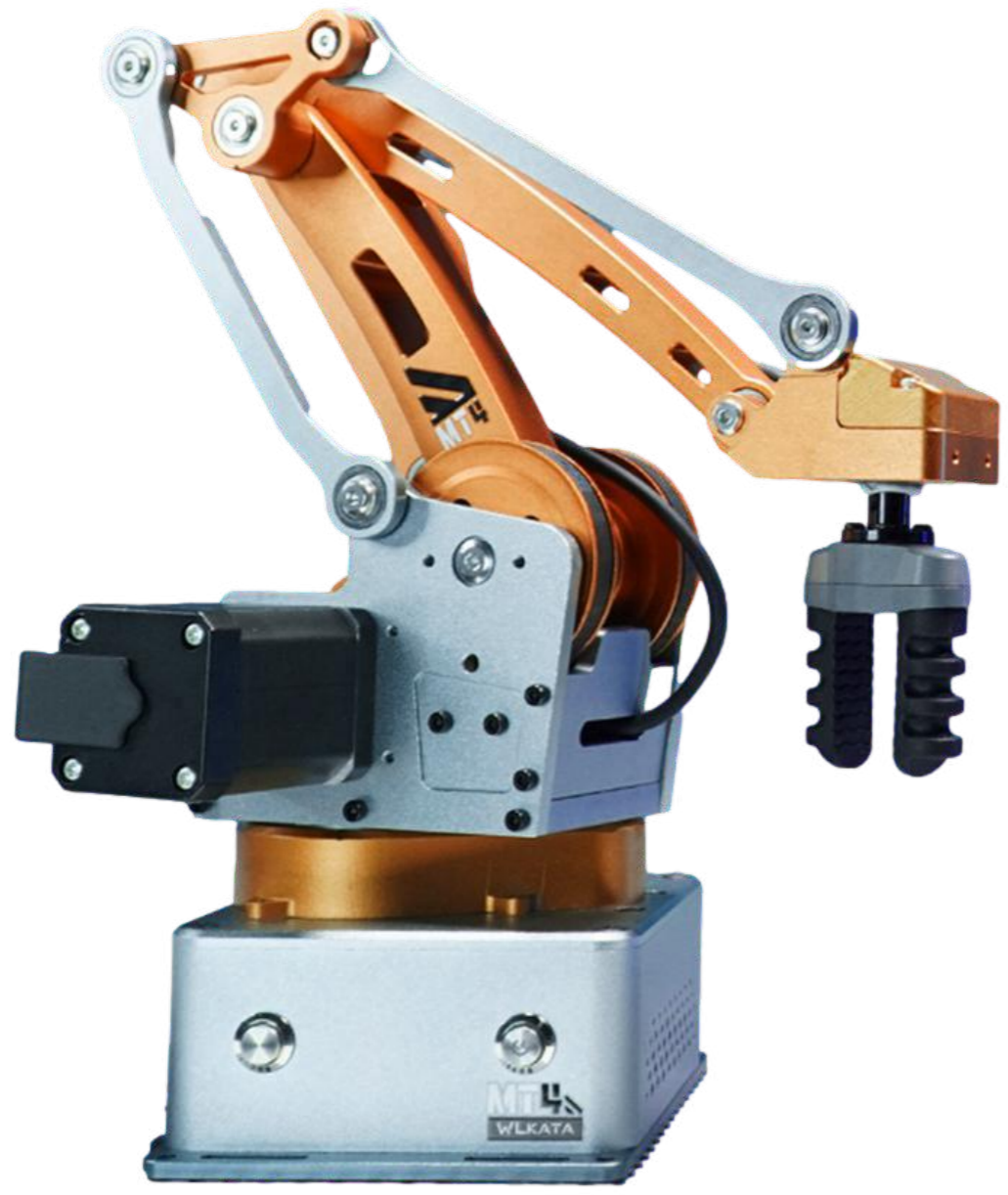
AGV
Rover



MarchX
Quadruped
Robot

NEW

MT4



4-Axis Desktop Metal Rebuildable Robotic Arm

K7-K12 | University Level

1:10 Scale Modular Rebuildable

Learn robot mechanical structures from 0 to 1

Open Interfaces

Open low-level ctrl with full command access



4+1

Axis

0.2mm

Repeatability

600g

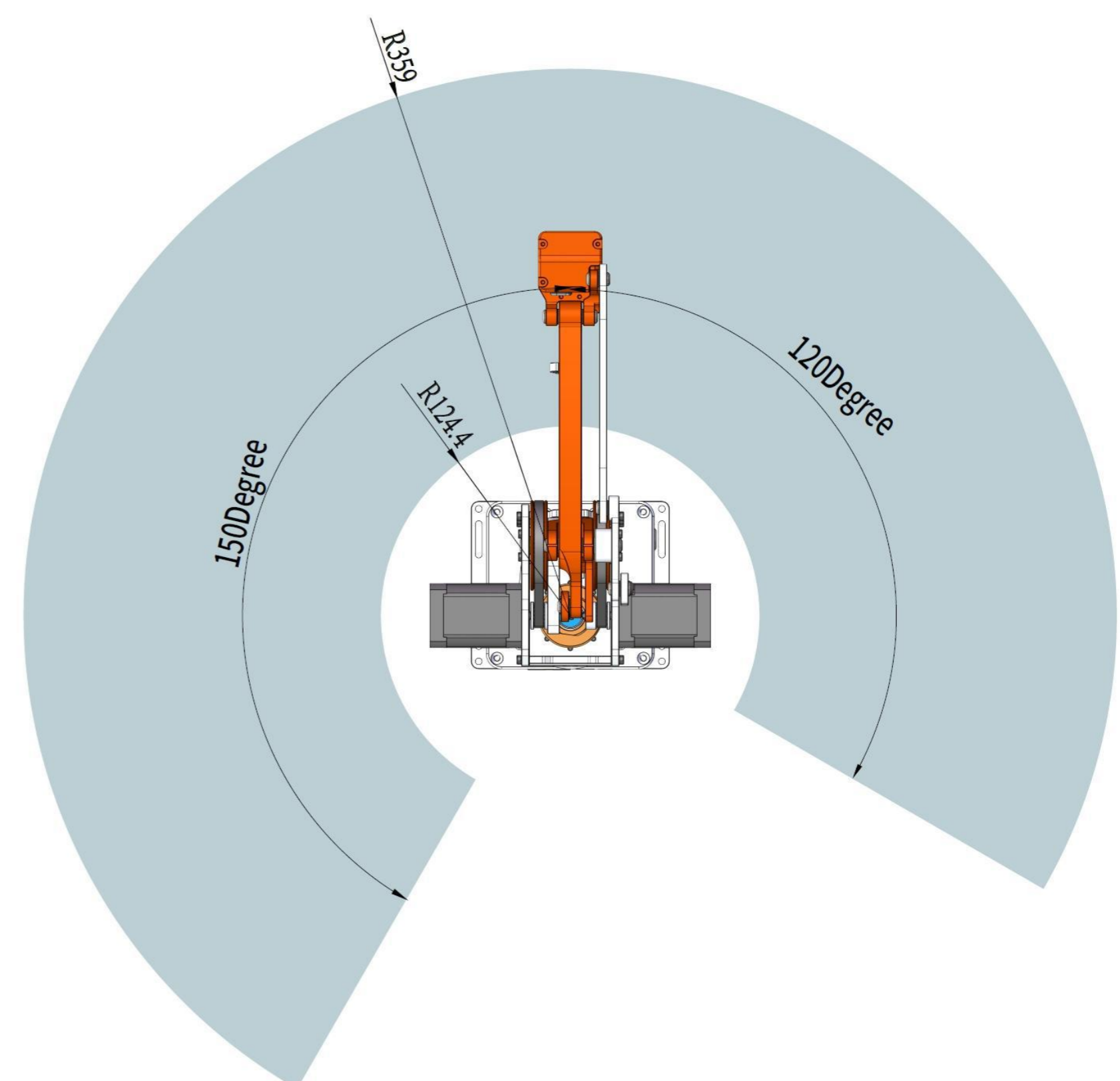
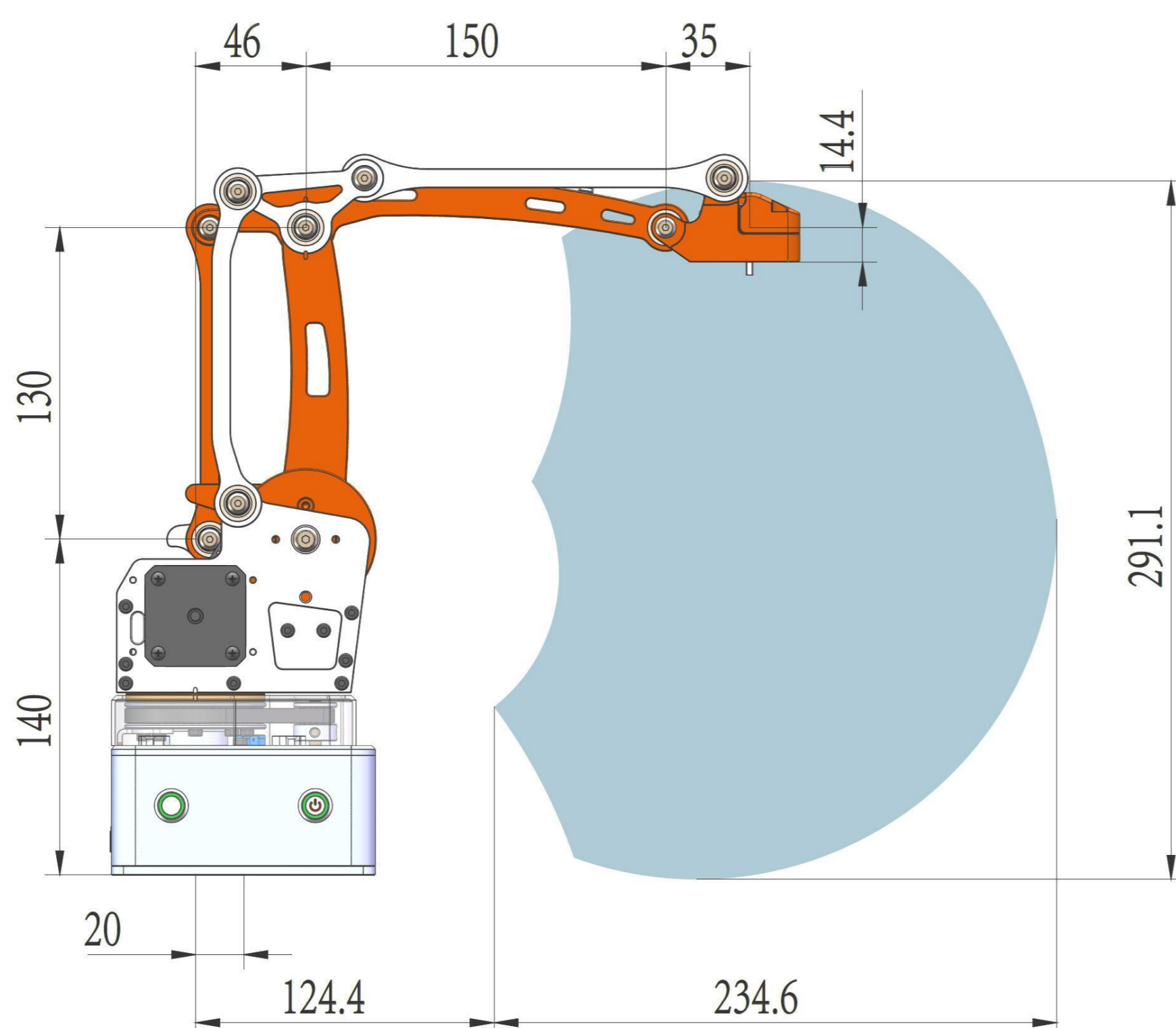
Payload

Specs

Axis	4+1	Net Weight	3.5Kg
Max Payload	600g	Communication	USB/Bluetooth/WIFI/RS485
Working Radius	350mm	Programming	Graphical, Python, C++
Supported Platforms	AVR microcontroller / AI processors / PLC / ROS / MATLAB / Omniverse / TensorFlow / PyTorch / YOLOv5 / OpenCV / OpenMV		

Functions

- The MT4 is a compact all-metal robotic arm with a footprint half the size of an A4 sheet, providing a safe, affordable, and versatile platform for **robotics, AI, automation, and intelligent manufacturing**.
- It supports **PC software, teach pendant, and vision control**, with functions such as **writing, laser engraving, and material handling**. Connectivity includes **Bluetooth, Wi-Fi, serial, and RS485**, with secondary development in **Python, C/C++, ROS, V-REP, and MATLAB**.
- Ideal for education and innovation in **robot programming, ROS, computer vision, smart sensors, deep learning, PLC, microcontrollers, and AI deployment**.

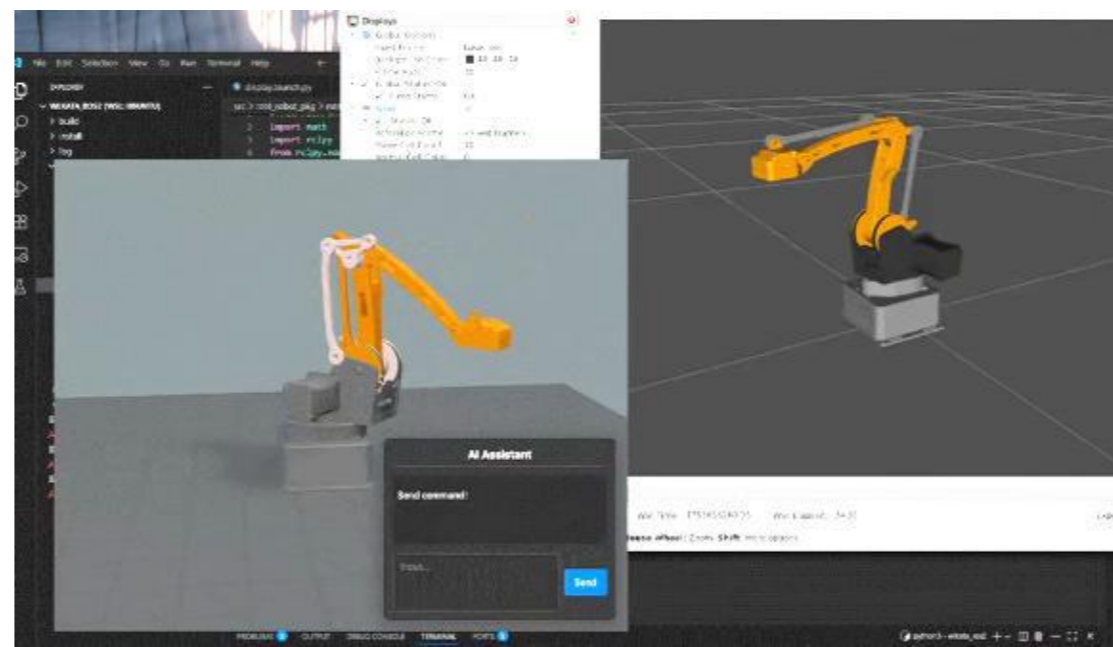


Applications

Modular Assembly

Digital Twin Simulation

Deep Learning Vision Sorting



Large Language Model Voice Ctrl

PLC Modular Smart Factory

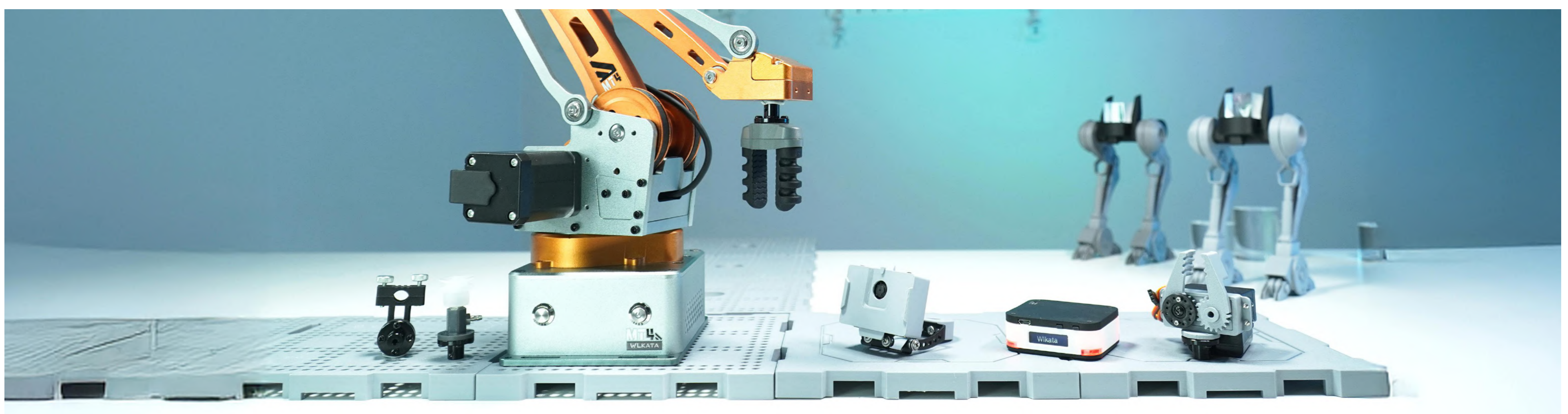
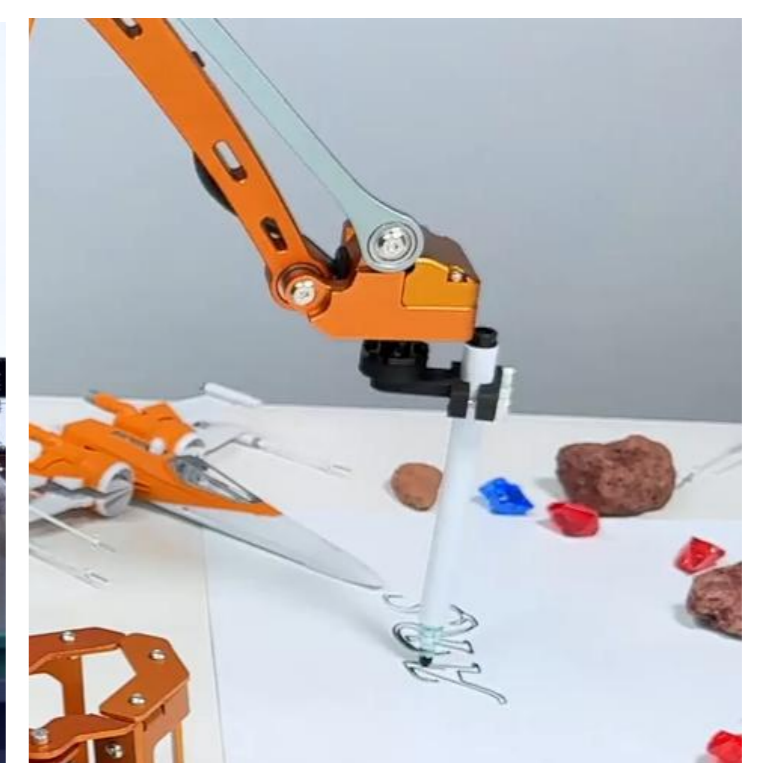
Fruit Picking

Soft Gripping

ROS Sync Mobile AGV

Palletizing

Writing & Drawing



Textbooks & Resources

WLKATA MT4 Robotic Arm Programming and Control

Textbook | [K9-K12](#) & [University Level](#)

1. Industrial Robot Systems
2. Robot Coordinate Systems
3. Robot DH Parameters
4. Motion Control Commands
5. Trajectory Planning
6. Programming (Graphical, Teaching, Python)
7. Material Handling & Palletizing
8. Writing & Drawing
9. Motion Simulation with ROS
10. Motion Control with Microcontroller (AVR)
11. Motion Control with PLC



Introduction To Robotics For Beginners

Textbook & Curriculum 50 Lessons | [Middle School & High School \(K7-K12\)](#)

- Ch. 1: Introduction
- Ch. 2: Robot Components and Systems
- Ch. 3: Position and Orientation
- Ch. 4: Robot Frames
- Ch. 5: Motions of the Robots
- Ch. 6: Community of Robots
- Ch. 7: Forces and Motions
- Ch. 8: Kinematics
- Ch. 9: Sensors
- Ch. 10: AI and Robotics

*Textbook Published by Wristline Institute, 2026 Available on Amazon.com



Mirobot



6-Axis Desktop Mini Industrial Robotic Arm

K9-K12 | University Level

1:10 Scale Industrial Robot Structure

Provides realistic operations for teaching

Open Interfaces

Open low-level ctrl with full command access



6+1

Axis

0.2_{mm}

Repeatability

400_g

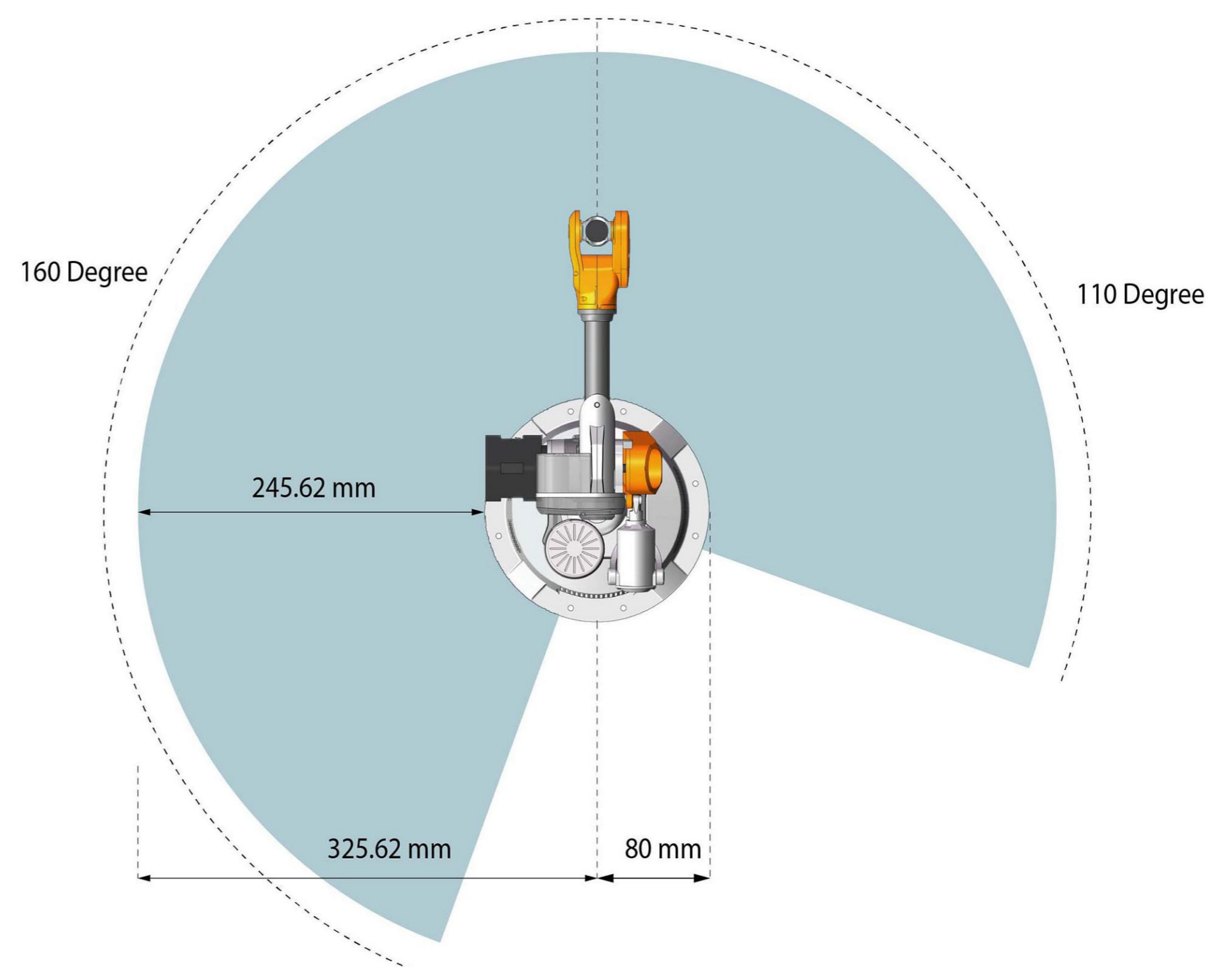
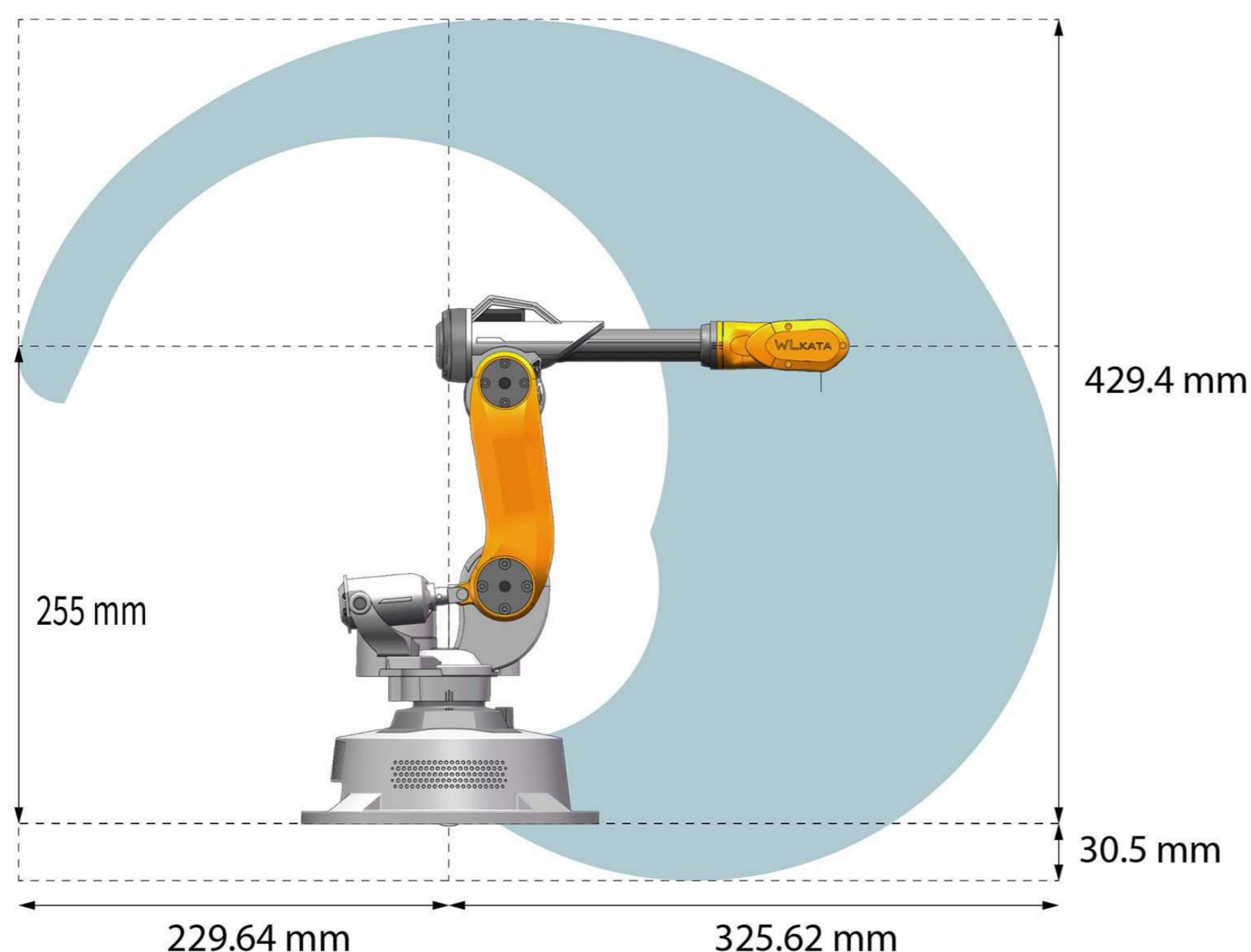
Payload

Specs

Axis	6+1	Net Weight	1.5Kg
Max Payload	500g	Communication	USB/Bluetooth/WIFI/RS485
Working Radius	315mm	Programming	Graphical, Python, C++
Supported Platforms	AVR microcontroller / AI processors / PLC / ROS / MATLAB / Omniverse / TensorFlow / PyTorch / YOLOv5 / OpenCV / OpenMV		

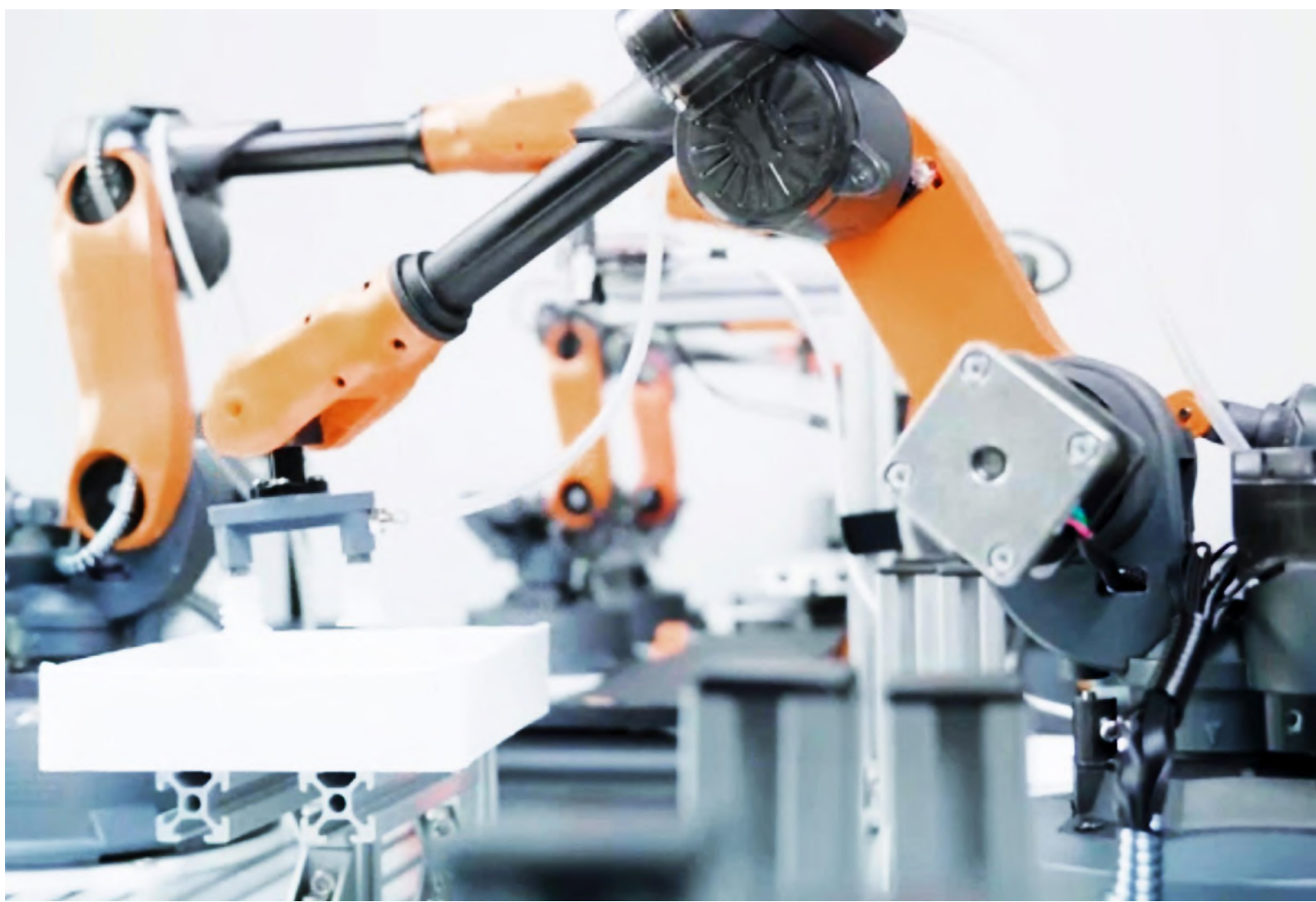
Functions

- The WLKATA Mirobot is a **safe and easy-to-use** desktop **six-axis robotic arm** designed for teaching and research. Based on an industrial robot structure, it offers realistic learning and an open AI robotics platform.
- It supports **PC software, teach pendant, and vision control**, with functions such as **writing, laser engraving, and material handling**. Connectivity includes **Bluetooth, Wi-Fi, serial, and RS485**, with secondary development in **Python, C/C++, ROS, V-REP, and MATLAB**.
- Ideal for education and innovation in **robot programming, ROS, computer vision, smart sensors, deep learning, PLC, microcontrollers, and AI deployment**.



Applications

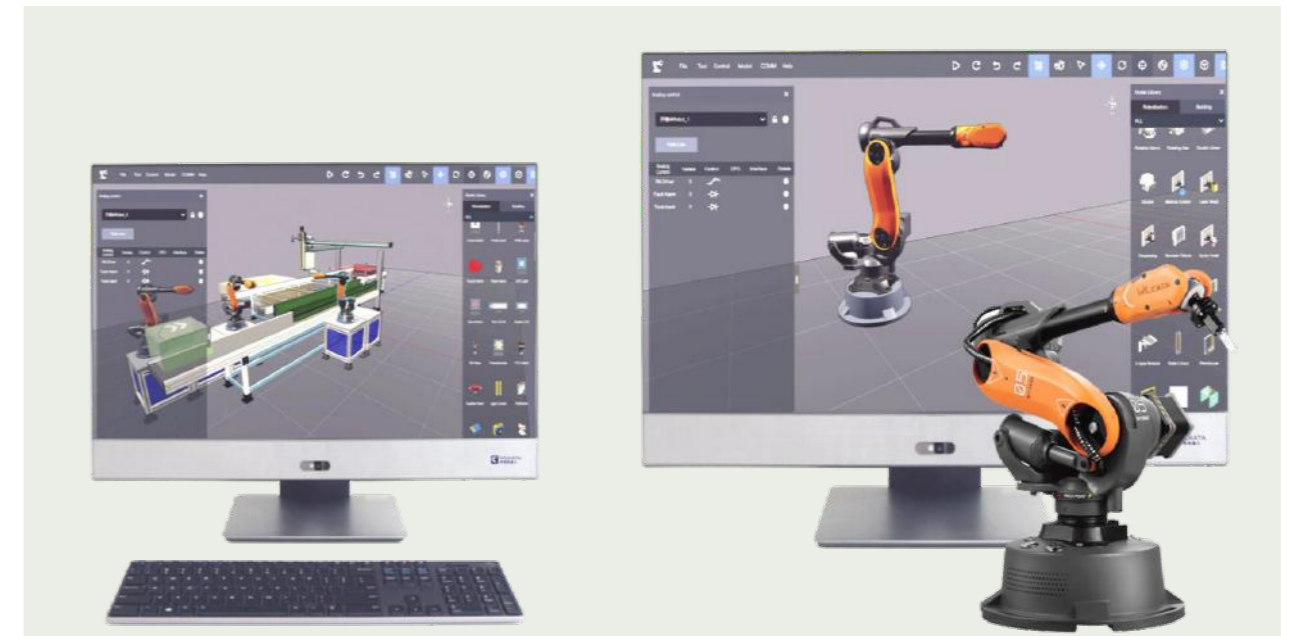
Automotive Manufacturing Simulation



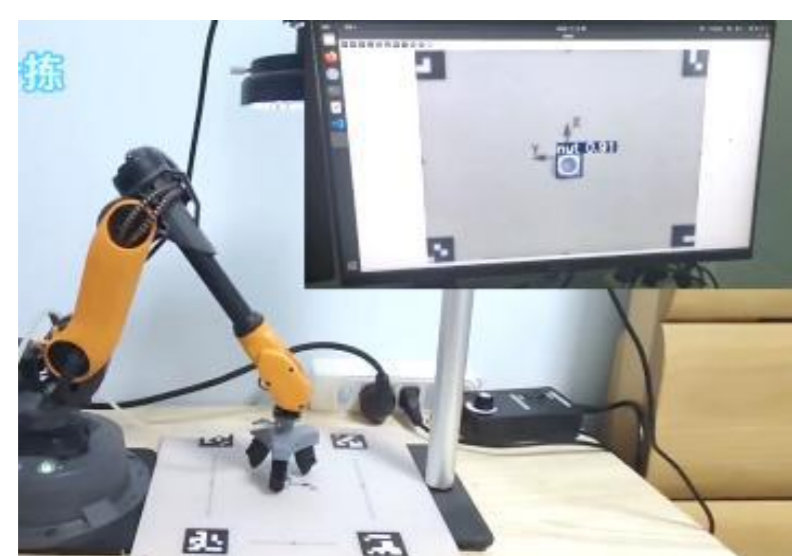
Mobile Grasping



Digital Twin Simulation



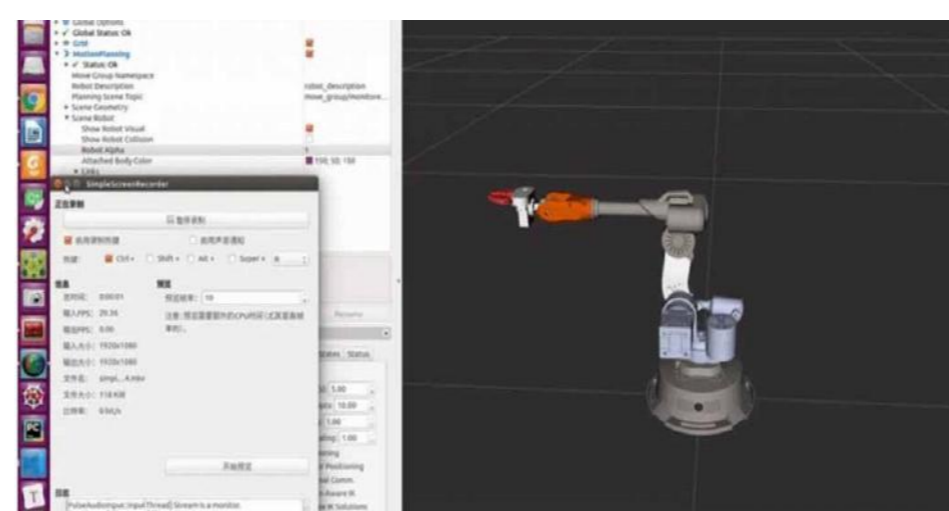
Vision-Based Sorting



ROS Simulation



MATLAB Simulation



Keyboard Testing



Vision-Based Sorting

ROS Simulation

Fruit Picking



PLC-Based Smart Packaging



Textbooks & Resources

WLKATA Mirobot Robotic Arm Programming and Control

Textbook | [K9-K12](#) & [University Level](#)

1. Industrial Robot Systems
2. Robot Coordinate Systems
3. Robot DH Parameters
4. Motion Control Commands
5. Trajectory Planning
6. Programming (Graphical, Teaching, Python)
7. Material Handling & Palletizing
8. Writing & Drawing
9. Motion Simulation with ROS
10. Motion Control with Microcontroller (AVR)
11. Motion Control with PLC



Robotics

Planning, Control and Innovation

Textbook | [University Level](#)

- Ch.1: Introduction
- Ch.2: Coordinate Transformation
- Ch.3: Forward and Inverse Kinematics
- Ch.4: Statics and Dynamics
- Ch.5: Motion Control
- Ch.6: Motion and Trajectory Planning
- Ch.7: Control Algorithms for 6-Axis Desktop Robots
- Ch.8: Practical Applications

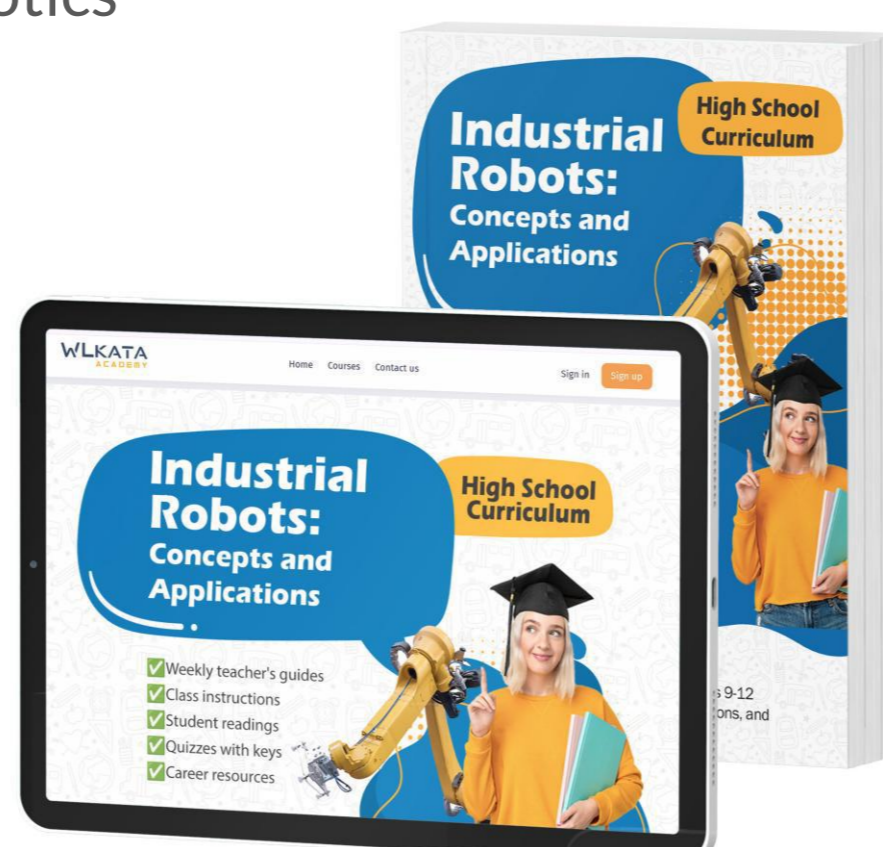
*Published by Wristline Institute, 2026 Available on Amazon.com



High School Curriculum: Industrial Robot Concepts and Applications

Curriculum 40 Lessons | [High School \(K9-K12\)](#)

- Week 1: Introduction to Industrial Robotics
- Week 2: Control & Safety
- Week 3: Manual Control
- Week 4: Teach Programming
- Week 5: End Effectors Precision Tools
- Week 6: Graphical Programming
- Week 7: Palletizing Applications
- Week 8: Robot Input and Output
- Week 9: Communication
- Week 10: Sorting and Sensors
- Week 11: Conveyor Belt Operations



Developing Robot With ROS Noetic

Textbook | [University Level](#)

- Ch.1: Introduction to ROS
- Ch.2: Installation of ROS and Ubuntu
- Ch.3: ROS Nodes Topics Services
- Ch.4: Modeling URDF and RViz
- Ch.5: ROS Control Mirobot
- Ch.6: MoveIt! and Gazebo
- Ch.7: MoveIt! Real Control
- Ch.8: Function Extensions

*Published by Wristline Institute, 2026 Available on Amazon.com



NEW

Haro380



6-Axis Desktop Metal Industrial Robotic Arm

K9-K12 | University Level

1:10 Scale Compact Industrial Robot

Realistic operations and high-density setups

Open Interfaces

Open low-level ctrl with full command access



6+1

0.05_{mm}

500_g

Axis

Repeatability

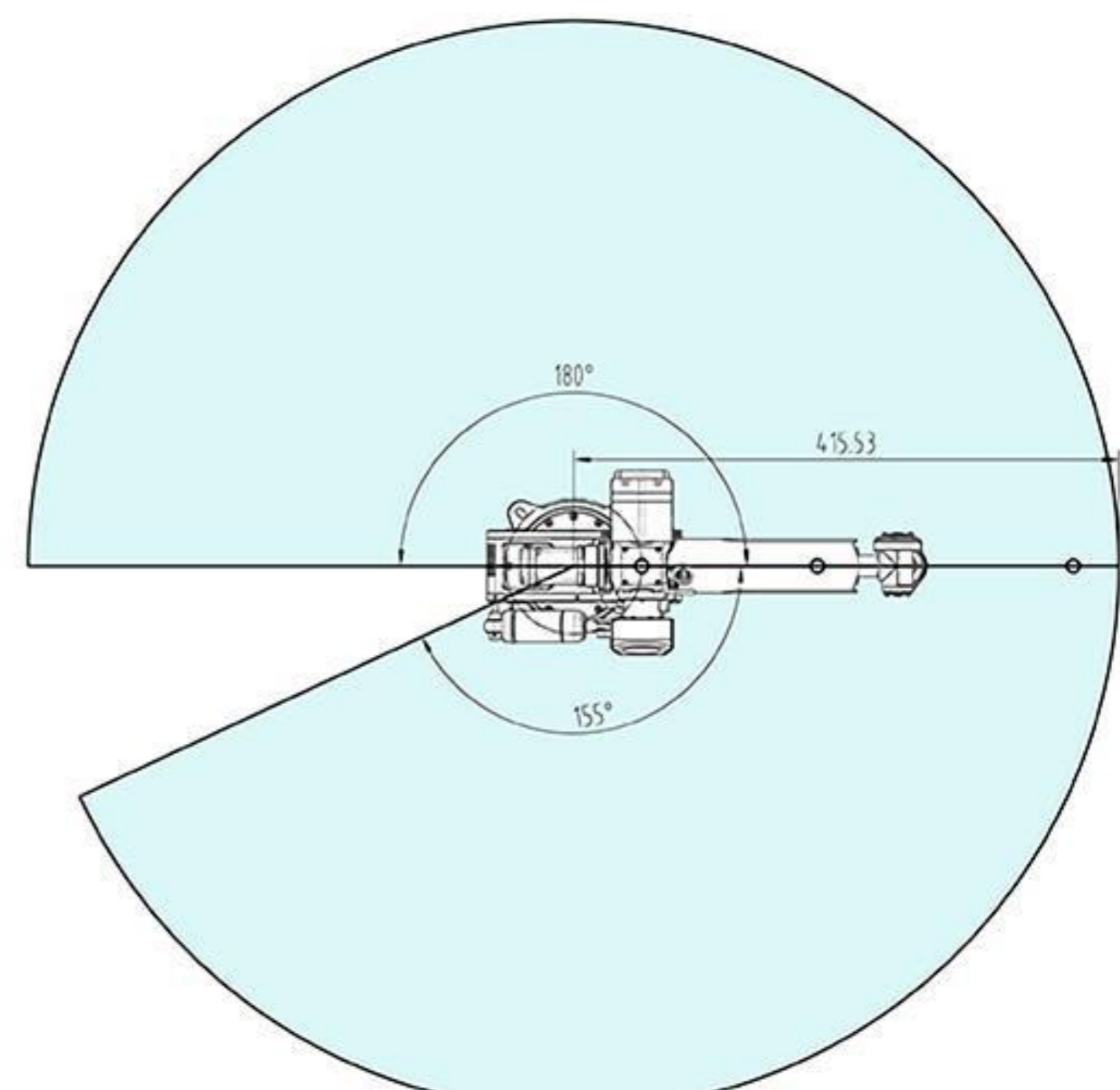
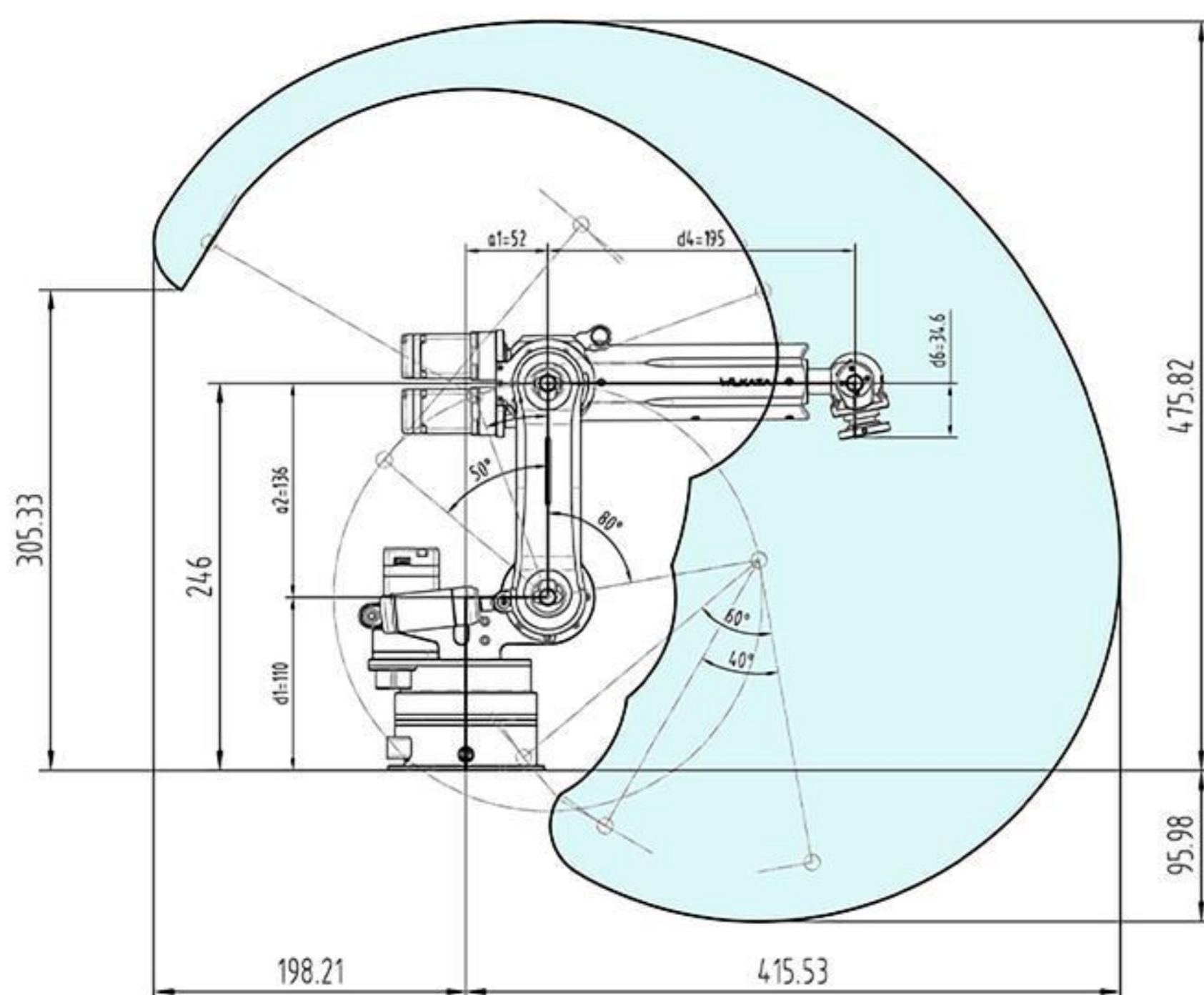
Payload

Specs

Axis	6+1	Net Weight	3.5Kg
Max Payload	500g	Communication	USB/Bluetooth/WIFI/RS485
Working Radius	380mm	Programming	Graphical, Python, C++
Supported Platforms	AVR microcontroller / AI processors / PLC / ROS / MATLAB / Omniverse / TensorFlow / PyTorch / YOLOv5 / OpenCV / OpenMV		

Functions

- Compact Industrial Design:** The WLKATA Haro380 is a high-precision 6-axis desktop robot built for high-density, flexible, and small-batch automation in education, research, and light industry. It features self-developed precision joints, closed-loop control, and customizable LED indicators, supporting various industrial-grade grippers.
- Easy to Use and Deploy:** With its compact size and simple setup, Haro380 can be easily integrated into classrooms, labs, or production cells, offering true industrial performance in a desktop format.
- Open Integration and Learning Applications:** Haro380 provides graphical programming software for tablets and PCs, open APIs, and supports industrial protocols. It can connect with PLCs, machine vision, and digital twin platforms—perfect for robotics programming, simulation, and smart manufacturing education.

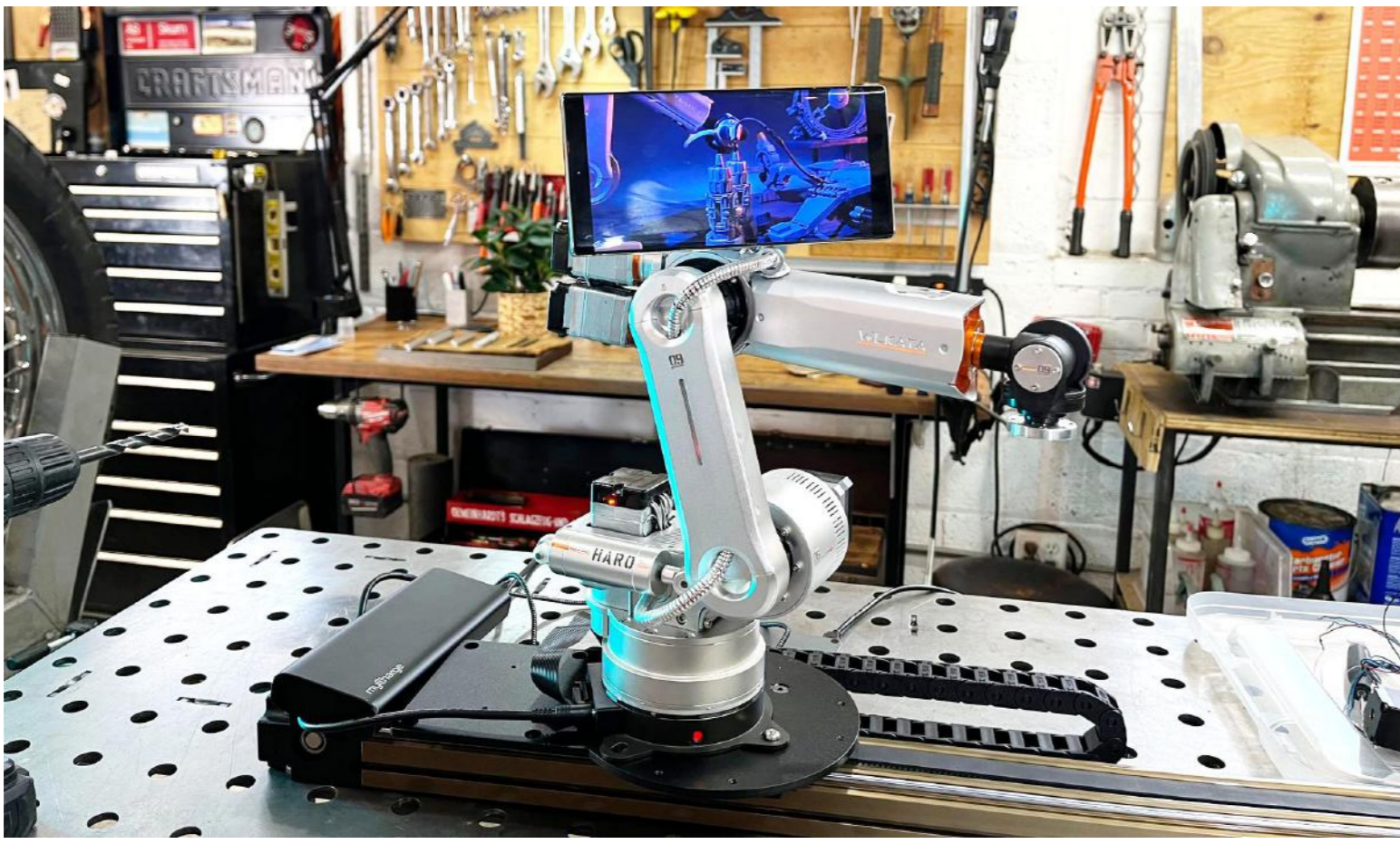


Applications

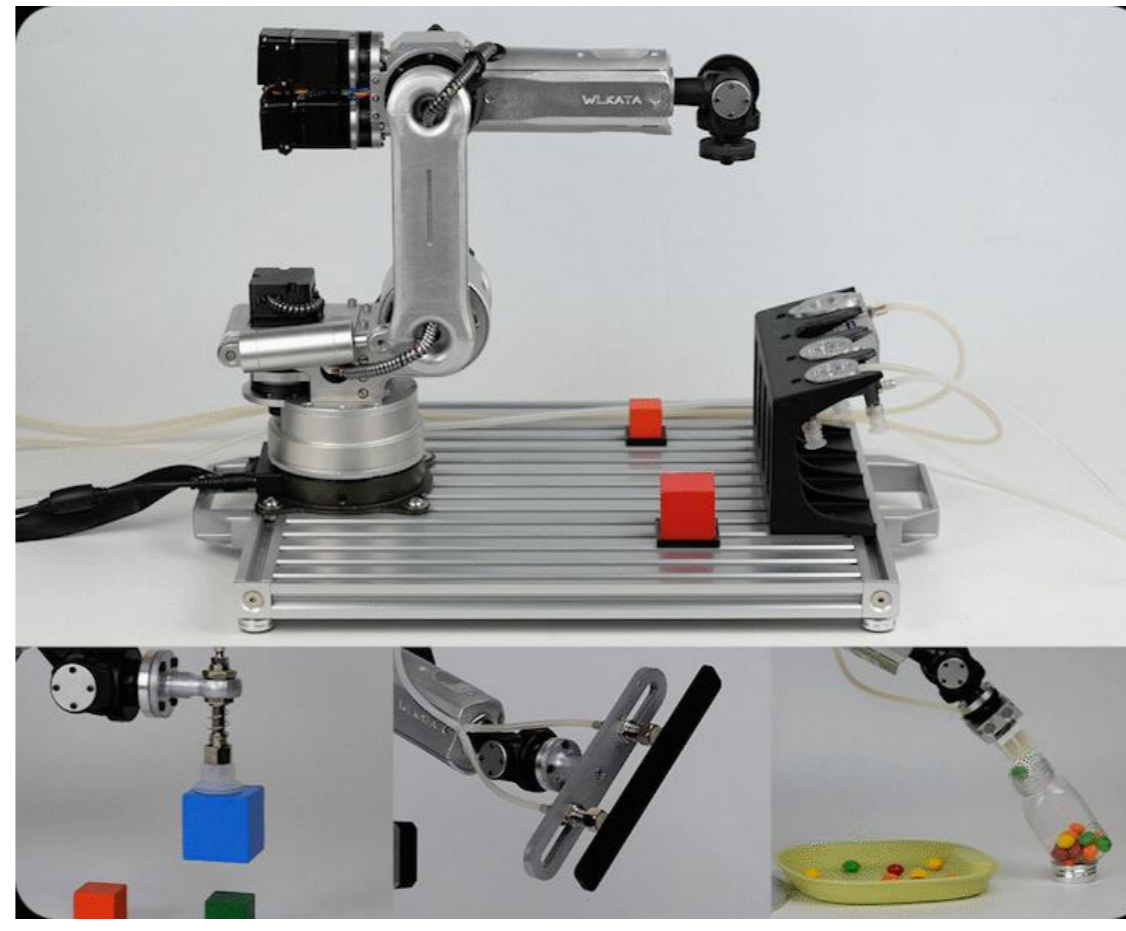
Automotive Applications

Vacuum Handling

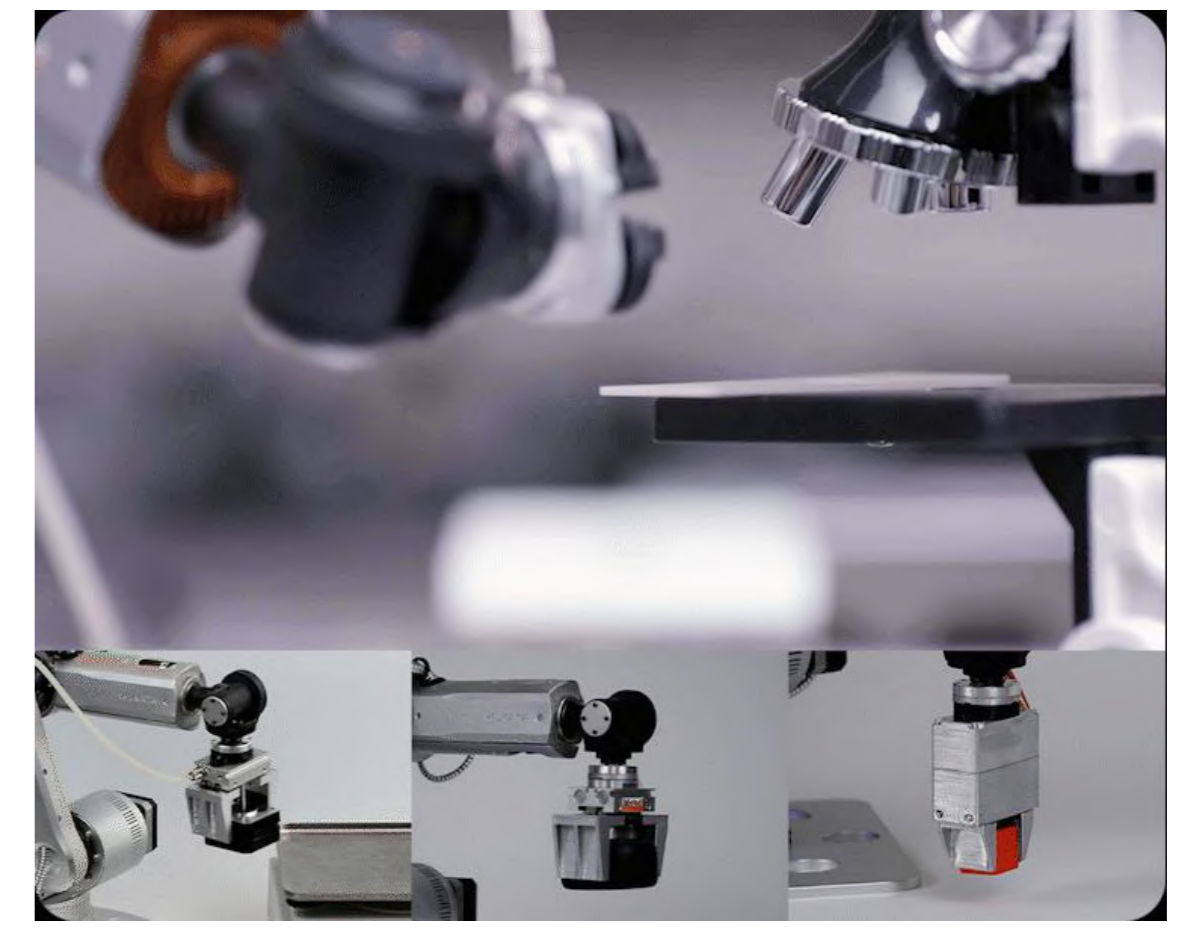
Mechanical and Flexible Gripping



Digital Twin Simulation

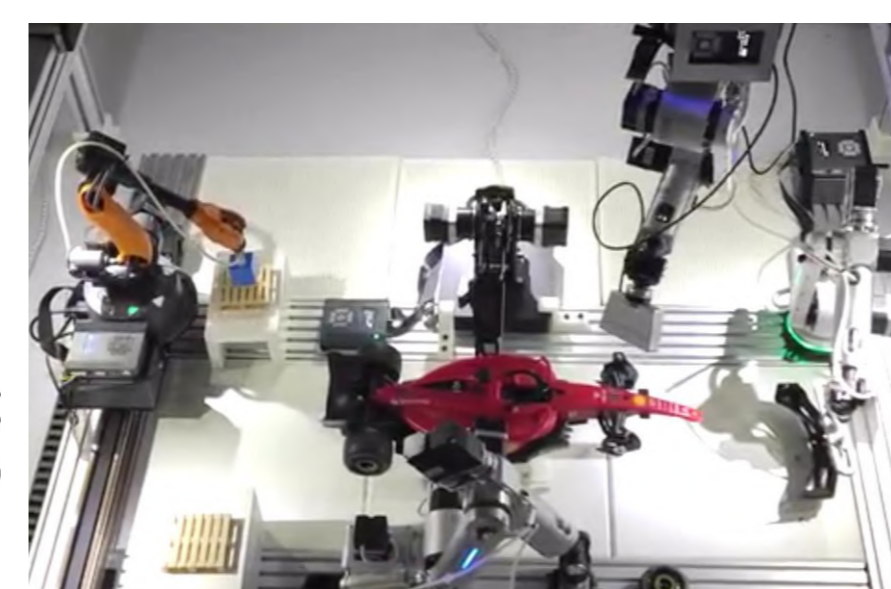


PLC Sorting



Welding Inspection

Biopharma Applications



Textbooks & Resources

WLKATA Haro380 Robotic Arm Programming and Control

Textbook | [K9-K12](#) & [University Level](#)

1. Industrial Robot Systems
2. Robot Coordinate Systems
3. Robot DH Parameters
4. Motion Control Commands
5. Programming (Graphical, Teaching, Python)
6. Material Handling & Palletizing
7. Writing & Drawing
8. Motion Simulation with ROS
9. Motion Control with Microcontroller (AVR)
10. Motion Control with PLC
11. Path Planning (Arc and Gantry Trajectories)
12. Digital Twin Simulation Applications



Robotic Vision with OpenCV

Textbook | [University Level](#)

- Ch.1: Camera Calibration & Distortion Correction
- Ch.2: Hand-Eye Calibration (Nine-Point)
- Ch.3: QR Code Recognition & Perspective Transform
- Ch.4: Color Sorting with OpenCV
- Ch.5: Shape Recognition & Sorting
- Ch.6: YOLO Screw & Nut Sorting
- Ch.7: YOLO Fruit Card Sorting
- Ch.8: License Plate Recognition & Sorting
- Ch.9: OCR Character Recognition
- Ch.10: ID Recognition & Robotic Grasping
- Ch.11: Tablet Sorting
- Ch.12: Tablet Defect Detection



NEW

Brave



Multi-Modal Biped Robot

K9-K12 | University Level

Advanced Robot for Sim2Real AI

AI-Driven Mobility, Hands-On Robotics

Open Interfaces

Open low-level ctrl with full command access



3

15°

15_{cm}

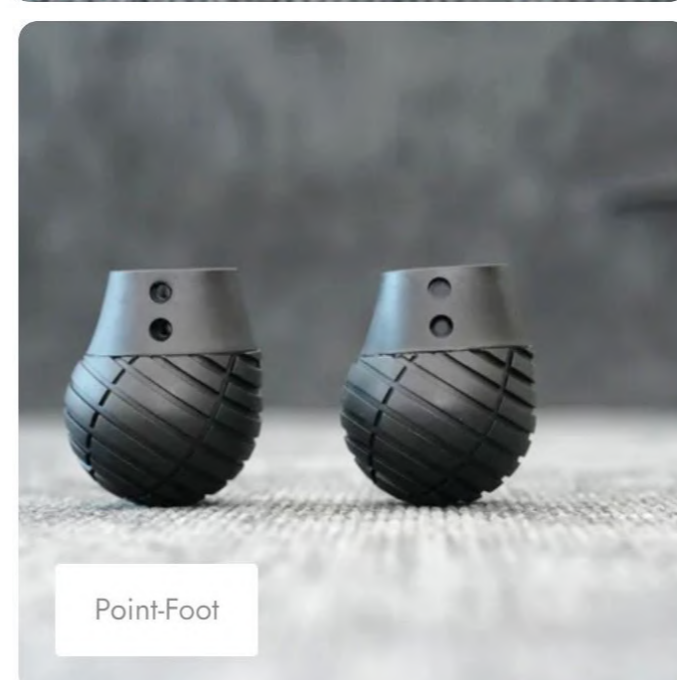
Feet Types Climbing Angle Climb Height

Specs

Dimensions	≤392mm x 420mm x 845mm	Movement Speed	Point-Foot: <1m/s Sole: <1m/s Wheeled ≥5m/s
Net Weight	≤20kg	Max Climb Angle	≥15°
Max Battery Power	1000W	RGBD Camera	Included
Computer Specification	12th Gen i3 / 16GB RAM / 512GB (CPU/Memory/Storage)		

Functions

- **Multi-Modal Mobility:** Switch between point-foot, sole-foot, and wheeled modes for versatile humanoid motion research.
- **RGB-D Vision:** Integrated RGB-D camera enables 3D perception, object detection, and spatial mapping — essential for AI vision, SLAM, and real-world navigation experiments..
- **Open SDK & API:** Easily integrate with Python, C++, and ROS for custom AI and control development.
- **Sim2Real & Education Ready:** Perfect for AI, robotics, and humanoid research in academic or lab settings.



NEW

MarchX



Pro LiDAR Quadruped Robot

K9-K12 | University Level

Advanced Robot for Sim2Real AI

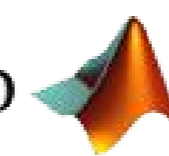
Realistic operation and high-density setups

Open Interfaces

Open low-level ctrl with full command access



Matlab



ROS

12

Axis

40°

Climbing
Angle

15_{cm}

Climb Height

Specs

Dimensions	610mm X 370mm X 50 3mm	Movement Speed	0~2.5m/s
Net Weight	13.7kg/30.2LB	Max Climb Angle	40°
Battery Operat. Time	1.5h	RGBD Camera	Included
Computer Specification	NVIDIA Jetson Xavier NX with Ubuntu		

Functions

- **LiDAR + RGB-D Vision:** Combines LiDAR and RGB-D depth sensing for precise 3D mapping, object recognition, and intelligent navigation.
- **12-Axis Quadruped Mobility:** Features 12 active joints for agile, stable, and realistic legged movement across varied terrains.
- **AI & Sim2Real Learning:** Supports reinforcement learning and Sim2Real workflows, bridging simulation with real-world robotics research.
- **Open SDK & ROS Support:** Compatible with Python, C++, and ROS for flexible AI, vision, and control development.



2. XFactory Systems

8+

Compatible
Robots

70+

Enriched
Accessories

Open
API

Interfaces

XFactory Compatible with:

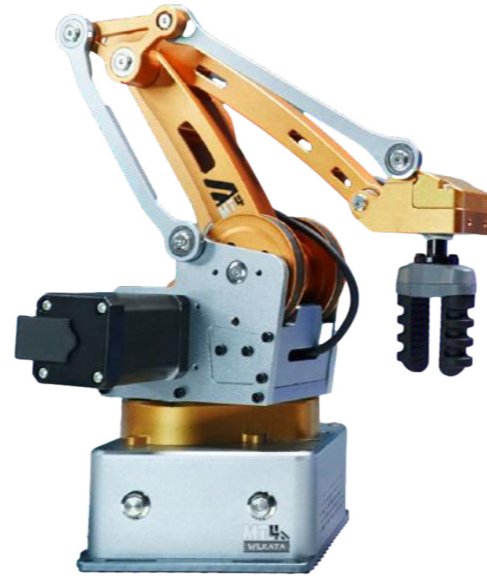
Robots



Mirobot
6-Axis Robot



Haro380
6-Axis Robot



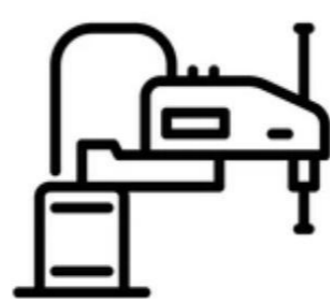
MT4
4-Axis Robot



MT6
6-Axis Robot
(Coming Soon)



Delta
3-Axis Robot
(Coming Soon)



Scara
3-Axis Robot
(Coming Soon)



AGV Rover



ROS Rover

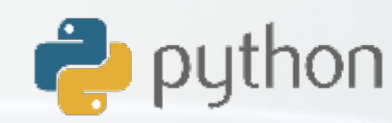
Modular Smart Manufacturing Training Systems

1:10 Industrial Mini Factory

Realistic and high-density setups

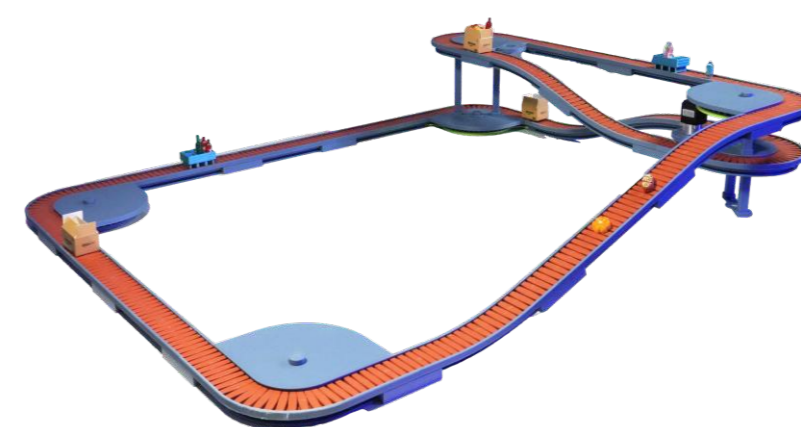
Open Interfaces

Open low-level ctrl with command access



XFactory Includes:

World Builder Series



Metal
OmniConveyor



Push
Feeder



Roller
Feeder



Sensor
Storage



Mini
AGV



MiniFrame
Mini T-Slot Beam
(0808 1010 1212 1515)



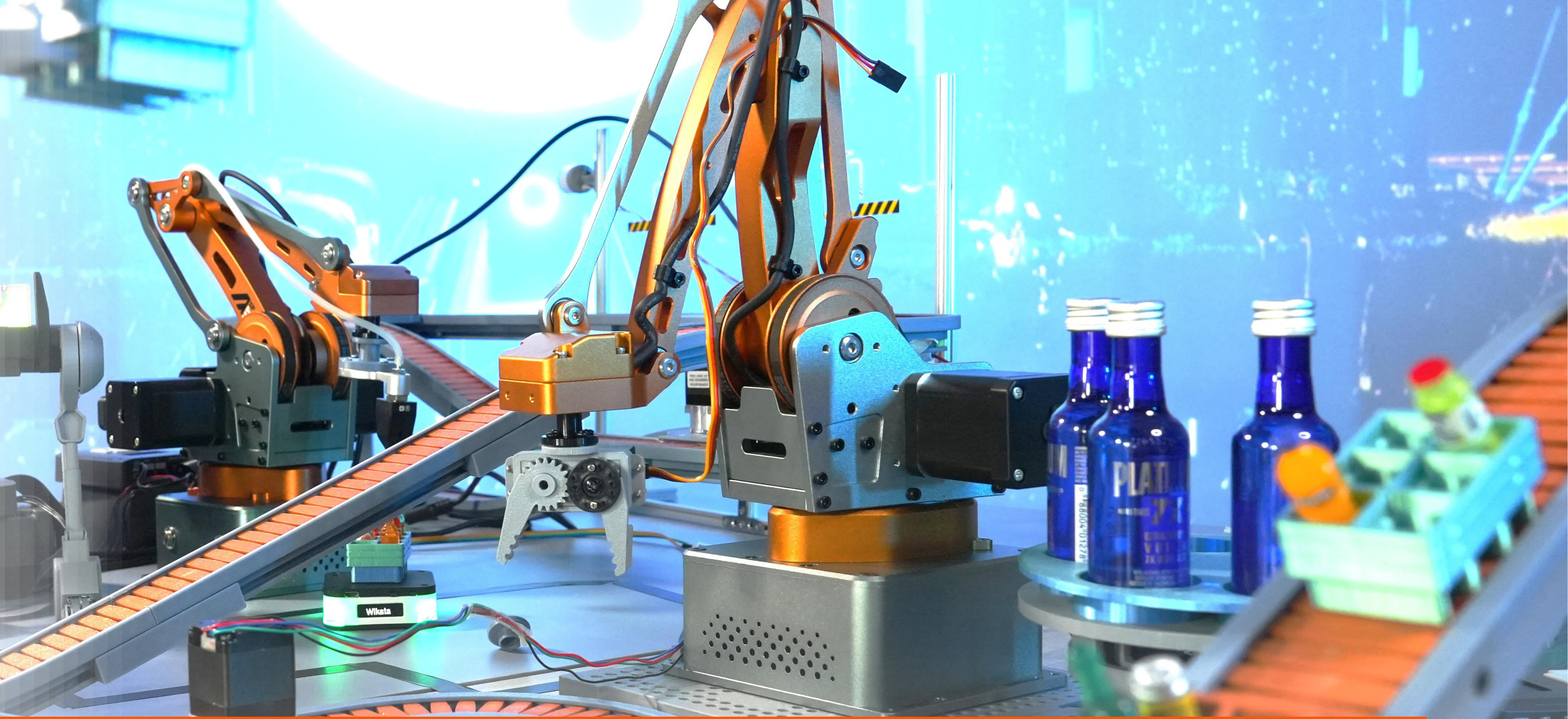
Sliding Rail
Set



Conveyor Belt
Set



Classic Mini
Conveyor



AI Series



OpenCV
Advanced Vision Set



OpenMV
AI Vision Set



Voice Ctrl
Assistant



LLM
Workstation



3D Depth Camera

End-Effectors



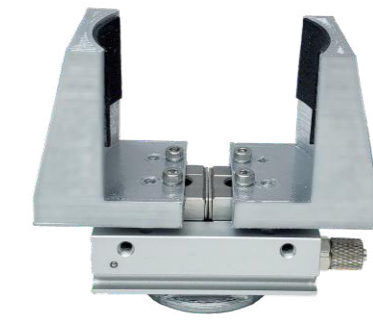
Basic AI
Camera



Magnetic
Gripper



Servo
Gripper



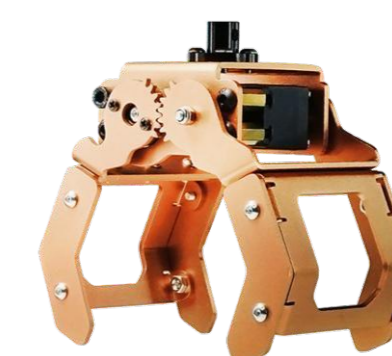
Electric
Gripper



Laser
Head



Beak
Gripper



Metal Servo
Gripper



Suction
Cup

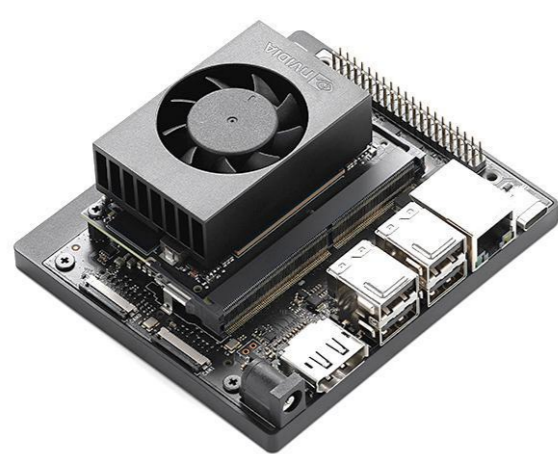


More Suction Cup
Options



More Soft Gripper
Options

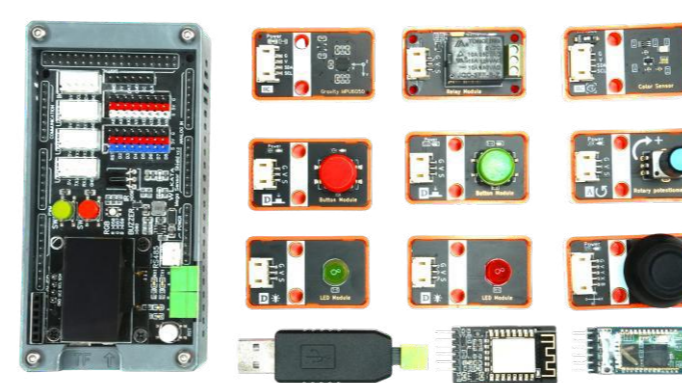
Brain Control Series



NVIDIA Jetson



Siemens PLC



AI-HUB
Development Kit



AI-HUB
Navigation Kit

| AI-HUB | AI Navigation Learning Suite

Industry
Automation

K9-K12 | University Level



Open Interfaces

Open low-level ctrl with command access



Functions

Model: WL-AC-AIDS-2560

- Integrated AI & Robotics Learning:**
 Combines sensors, robots, and vision to teach the full cycle of decision-making, and execution in one system.
- All-in-One Intelligent Control:**
 Integrates **AI Vision, Voice, Gesture, and Sensor Control** into a compact modular console. Allows seamless control of WLKATA robotic arms —**Mirobot, MT4, Haro** and more — with unlimited expansion potential.
- Smart Robotics & Mobility:**
 Includes **AI Vision + Suction Tool** for object recognition and precision grasping, plus a **Mini AGV Set** for autonomous navigation and interactive automation demonstrations.
- Education-Ready & Open-Source:**
 Built on **Arduino MEGA 2560**, supporting **RS485, Modbus**, and other protocols. Comes with a **comprehensive experiment textbook**, video tutorials for classrooms, labs, and maker spaces.

AI-HUB Console Module	Controller: • Processor: AVR chip; Operating voltage: 5V Intelligent Sensors: • Joystick Module: Operating voltage 5V; 2 analog inputs; 1 digital input • Gyroscope: Operating voltage 5V; • Color Sensor: Operating voltage 5V; detection distance 3–10 mm • LED Module: Operating voltage 5V • Button Module: Operating voltage 5V; colors red and green • Potentiometer: Operating voltage 5V; maximum rotation angle 270° Voice Module: • Supports user-defined editing of 50 keyword entries; Communication protocol: I ² C
Vision Module	Processor: RISC-V 64-bit dual-core processor Communication interfaces: I ² C, UART, USB Functions: face recognition, object tracking, object recognition, line tracking, color recognition, tag recognition, object classification, and AI identification



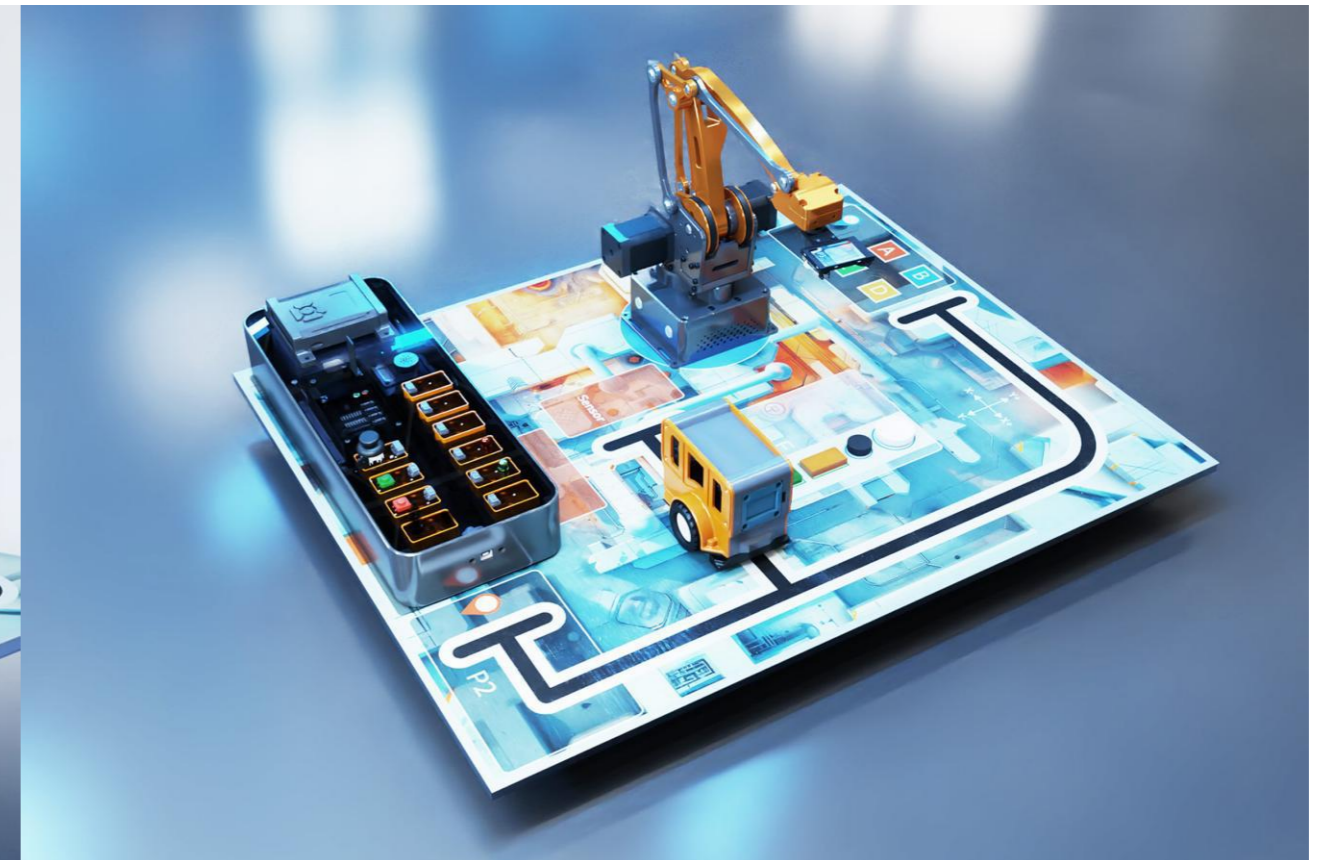
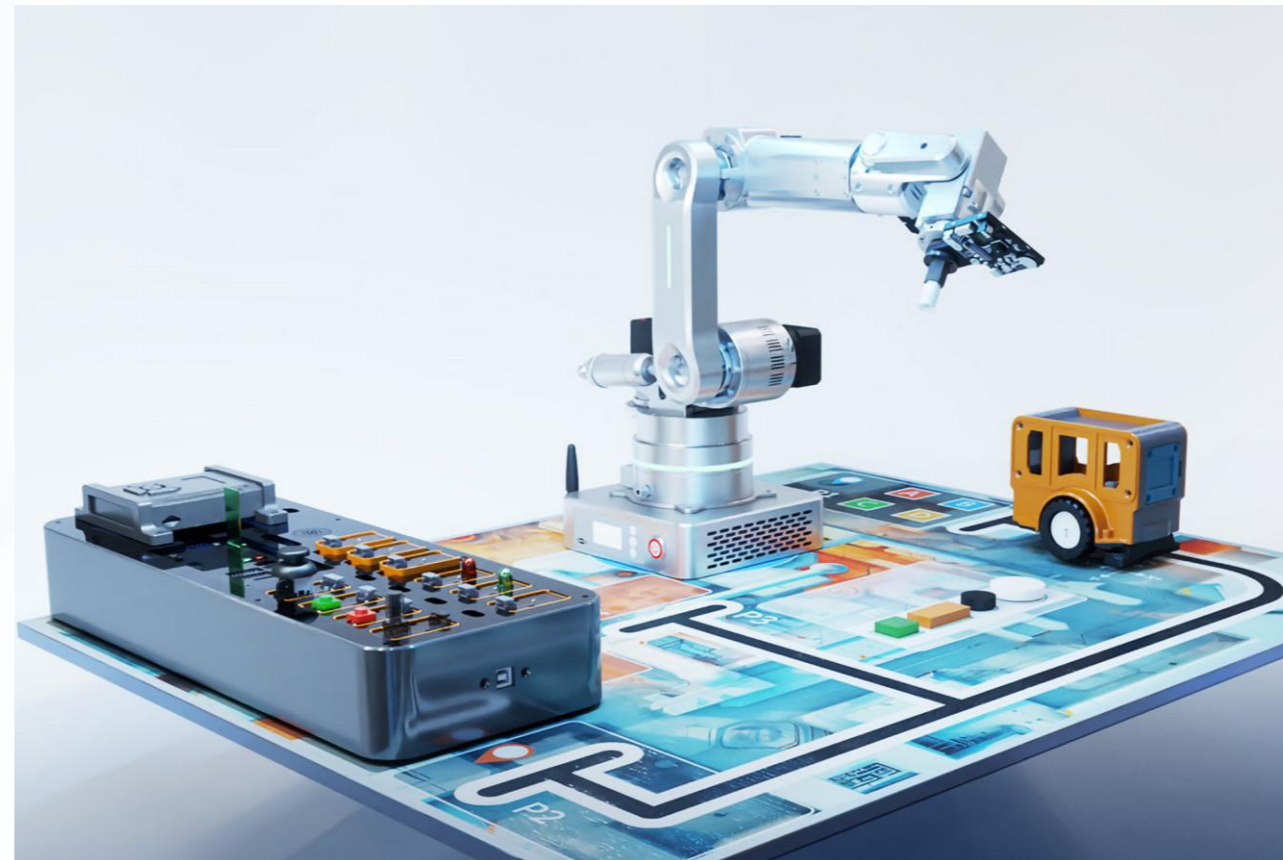
Scan to watch video



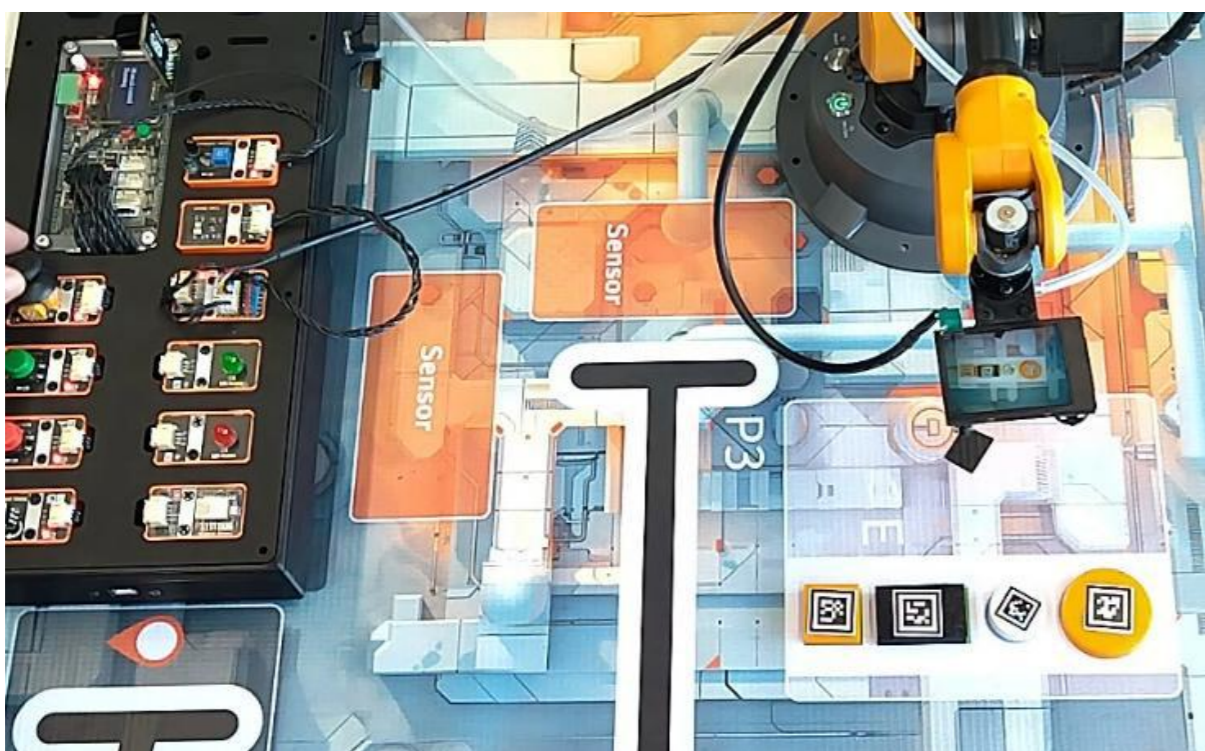
Multi-Robot Compatibility

Allows Seamless Control of WLKATA Robotic Arms – Mirobot, MT4, Haro380 etc

Applications



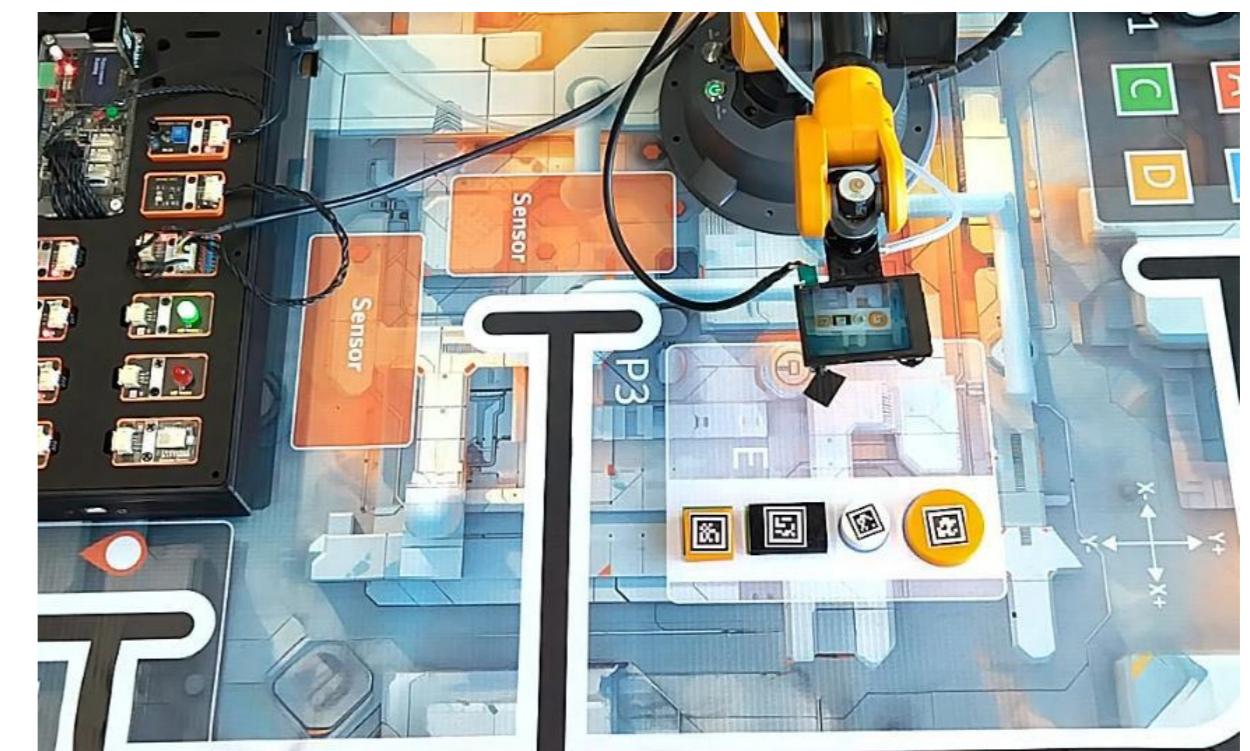
Integrated AI & Robotics Learning: Unites sensors, vision, and robots



Robot Telecontrol



Line-Following Car Transport



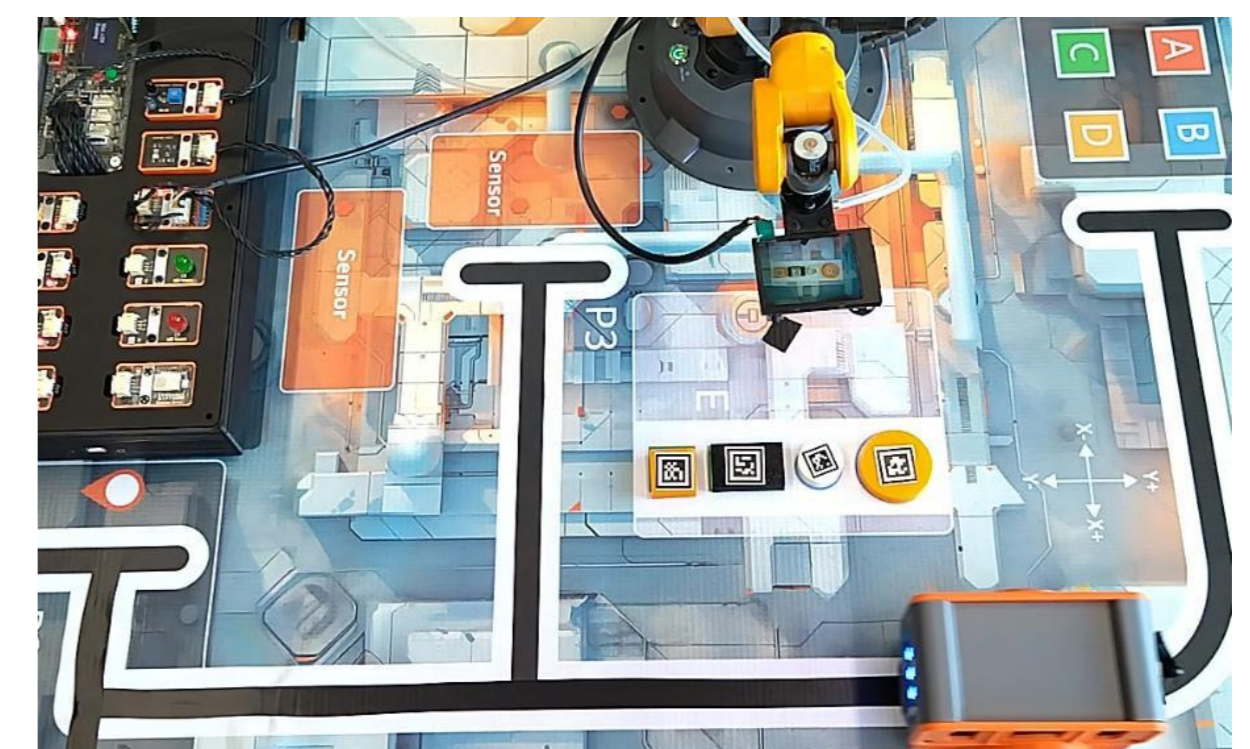
Vision-Guided Assembly



Robot Gesture Control



Color Recognition



Traffic Light Simulation and Button Control

Textbooks & Resources

AI-HUB and Robot Arm - Exploring AI, Robotics and Sensors with Arduino

Textbook | [High School \(K7-K12\)](#)

Foundations

- Introduction
- Functions of AI-HUB Components
- MEGA 2560 Fundamentals
- Standard Reference (CSTA)

Sensors & Tutorials

- Push Button Input and LED Control
- Rotary Potentiometer and LED Adjustment
- Six-Axis Gyroscope Motion Sensing
- Two-Axis Joystick Direction Control
- Color Sensor Detection
- Relay Control for External Devices
- Standard Reference (CSTA)

Robotic Arm Tutorials

- Homing and Status Query
- Angle and Coordinate Mode Control
- End Tool Operation
- File Execution and G-code Commands
- Dual Arm Control via RS485
- Standard Reference (CSTA)

Applications

- Color Recognition
- Manual, Voice, and Gesture Control
- Mini AGV Navigation
- Robotic Arm + Mini AGV Integration
- April Tag Visual Recognition



NEW

OpenCV Advanced Vision Set

Industry
Robot Vision
University Level



Open Interfaces

Open low-level ctrl with full command access

- ✓ Object Recognition
- ✓ Target Positioning
- ✓ Dimensional Measurement
- ✓ Feature Detection



OpenCV

YOLOv5



NVIDIA
JETSON



Functions

Model: WL-AC-AIVM-VM001

- **Powerful Vision Platform** – A Linux-based robotic vision system built with Python, PyTorch, and YOLOv5, integrated with the OpenCV library to perform visual positioning, measurement, detection, and recognition tasks.
- **Comprehensive Learning Support** – Includes an experiment textbook, covering Python scientific computing, robot kinematics, computer vision, deep learning object detection, Mask R-CNN segmentation, 2D pose estimation, hand-eye calibration, and software environment setup. It also offers hands-on projects such as ArUco tag grasping, and screw and nut sorting.
- **Education and Research Ready** – Provides a complete “theory-to-practice” platform for teaching and experimentation in machine vision, robotics, and image processing.



Multi-Robot Compatibility

Supports desktop 4-axis, 6-axis, and all WLKATA mini industrial robots.

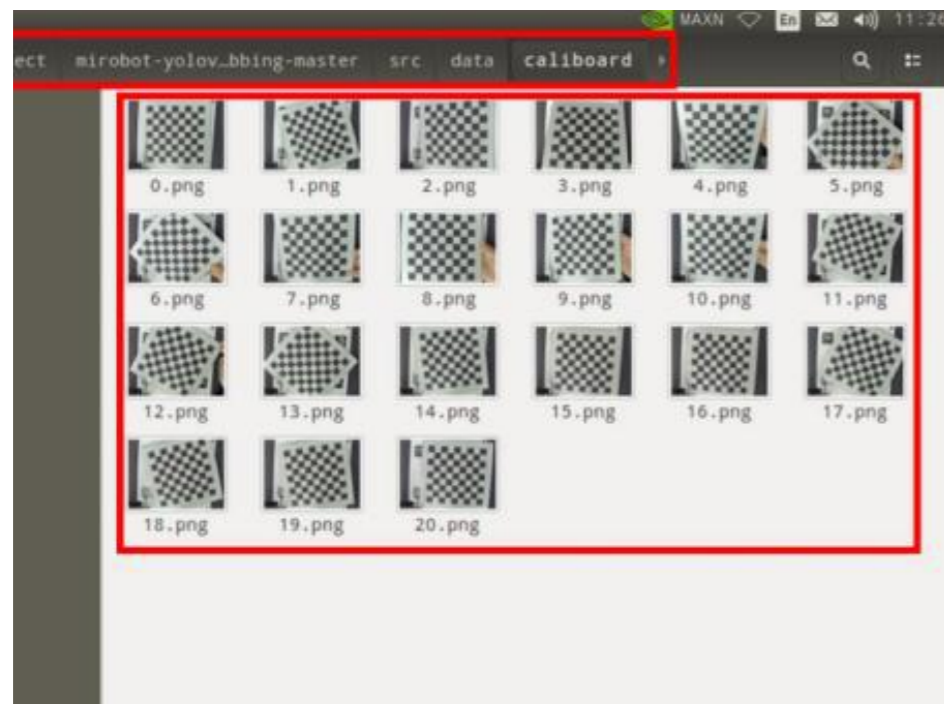
Specs

Color	Full Color	CPU/GPU	CPU: Quad-core ARM-A57 @ 1.43GHz GPU: 128-core Maxwell
Resolution	2952 × 1944	Adjustable Lens Parameters	Brightness, Contrast, Hue, Saturation, Sharpness, Auto Balance, Exposure
Voltage	3.6V ~ 5V	Communication Interfaces	4 × USB 3.0, USB 2.0 Micro-B, HDMI, DP
Display Resolution	1920 × 1080	Video Encoder	4K @ 30 fps or 4 × 1080p @ 30 fps
Display Interface	HDMI, AV, VGA	Display Size	B701-GM 7-inch

Five Vision Algorithms

Features colors, shapes, feature points, QR codes, and YOLOv5 detection for diverse needs.

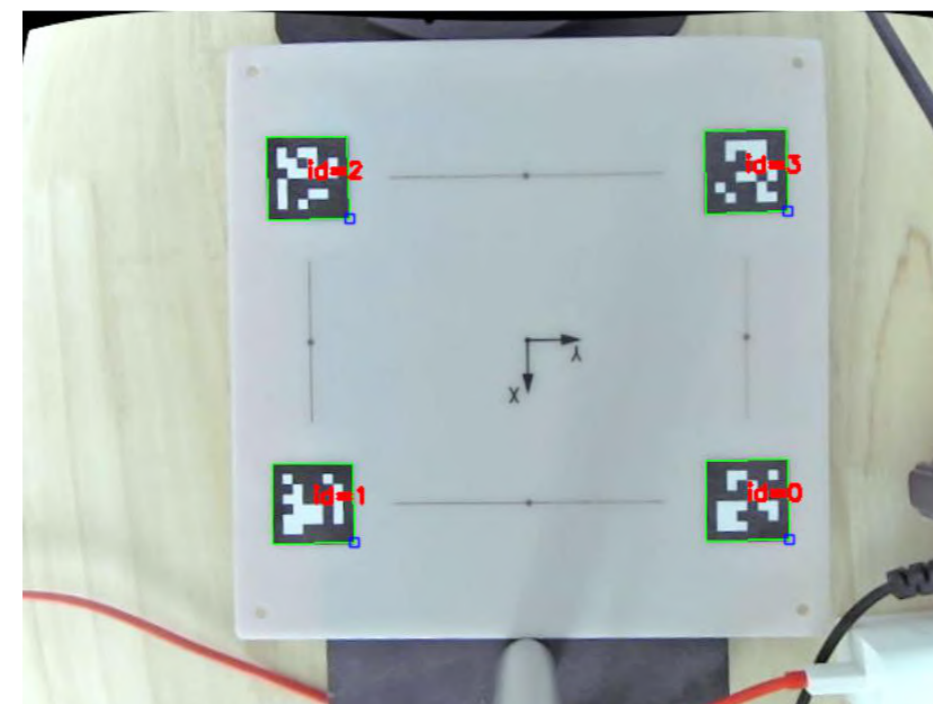
Applications



Camera Calibration



Hand-Eye Calibration



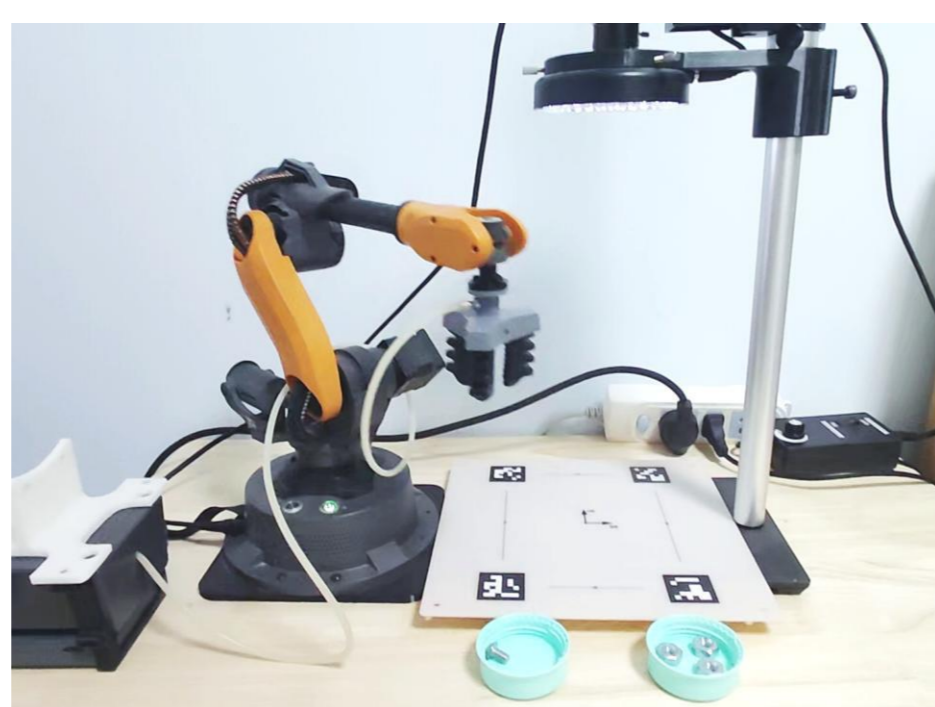
QR Code Recognition



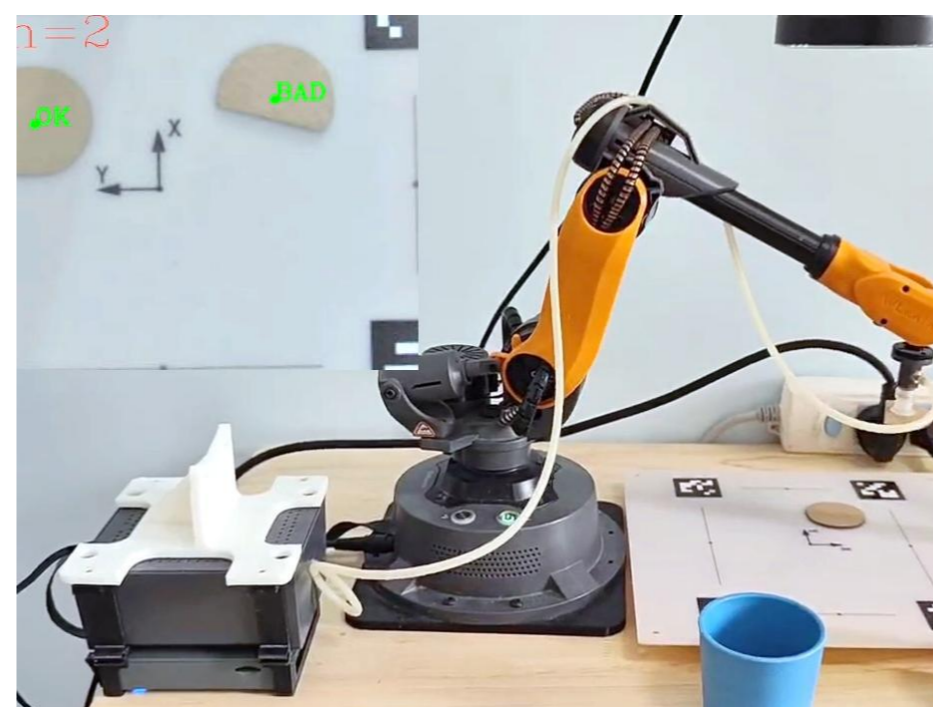
Color Recognition



Shape Sorting



Screw Sorting



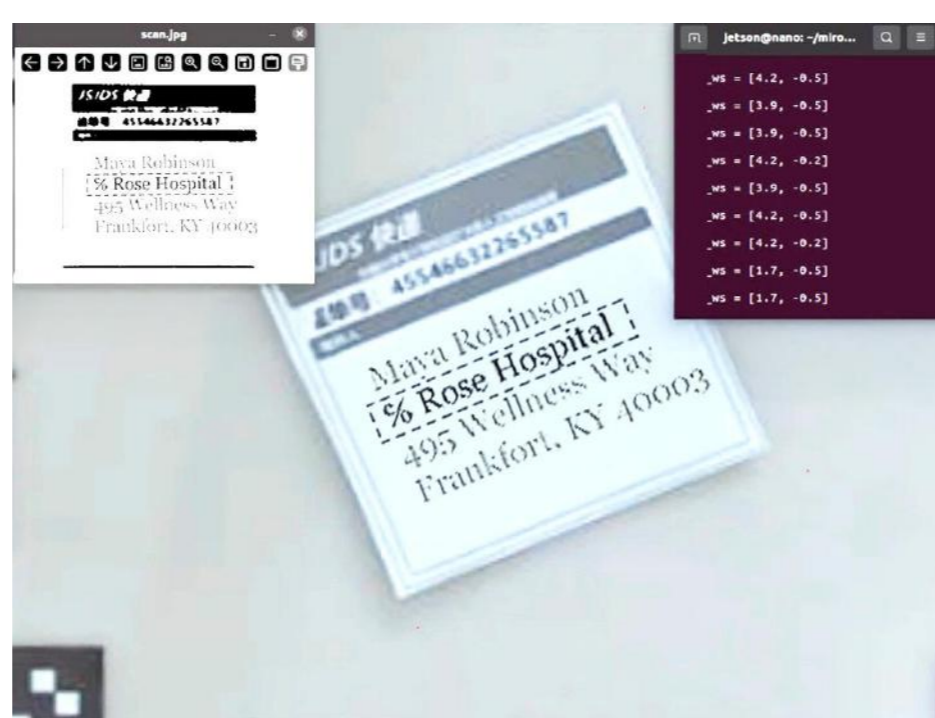
Defect Detection



Pill Recognition



Object Recognition



Character Sorting



License Plate Recognition



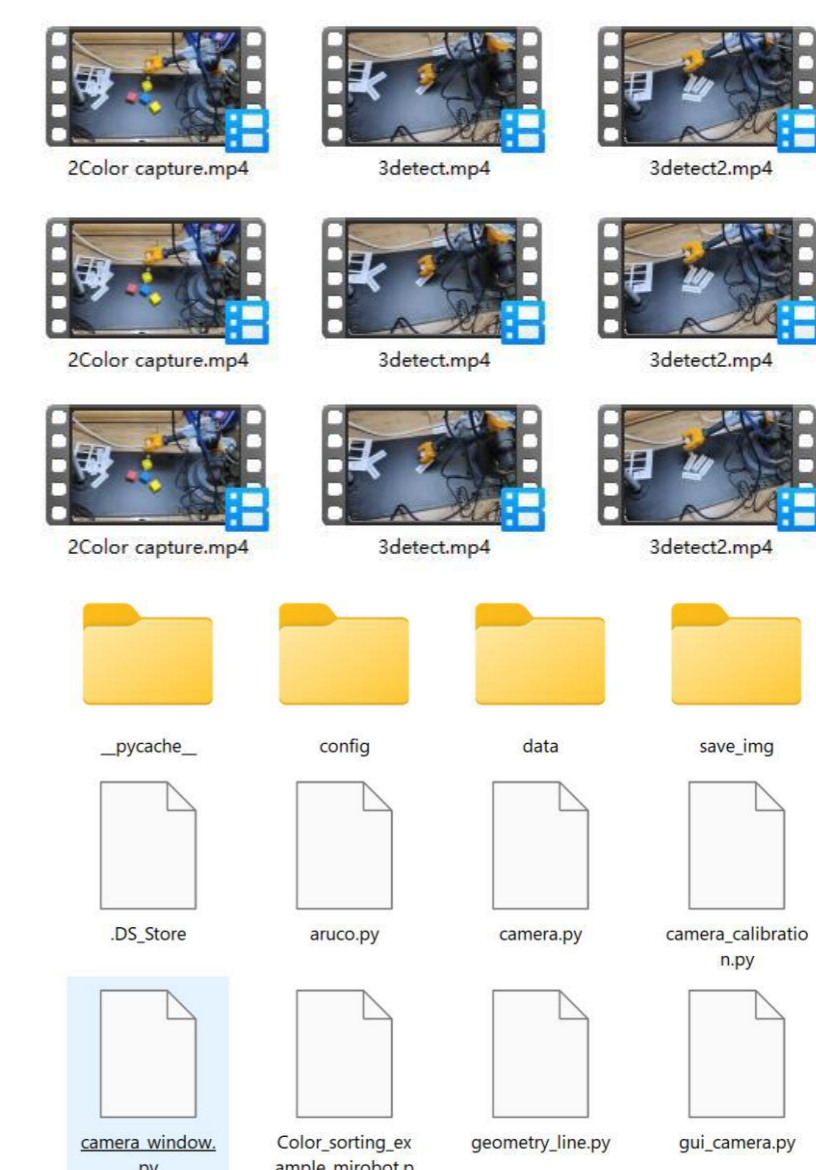
Document Recognition

Textbooks & Resources

Robotic Vision with OpenCV

Textbook | [University Level](#)

- Ch.1: Camera Calibration & Distortion Correction
- Ch.2: Hand-Eye Calibration (Nine-Point)
- Ch.3: QR Code Recognition & Perspective Transform
- Ch.4: Color Sorting with OpenCV
- Ch.5: Shape Recognition & Sorting
- Ch.6: YOLO Screw & Nut Sorting
- Ch.7: YOLO Fruit Card Sorting
- Ch.8: License Plate Recognition & Sorting
- Ch.9: OCR Character Recognition
- Ch.10: ID Recognition & Robotic Grasping
- Ch.11: Tablet Sorting
- Ch.12: Tablet Defect Detection



10+ Projects with Code & Videos

Textbook includes experiments guide, open-source code and video-guided experiments.

NEW

MiniFrame T-Slot Aluminum Beam

Industry
Construction

K7-K12 | University Level



High-quality aluminum build

Flexible mini T-slot system

- ✓ Rapid Prototyping
- ✓ Durable Structure
- ✓ Available in 0808, 1010, 1212, and 1515mm sizes

08x08mm Starter Kit

Aluminum Beam

**08X08
mm**



10x10mm Starter Kit

Aluminum Beam

**10X10
mm**



12x12mm Starter Kit

Aluminum Beam

**12X12
mm**

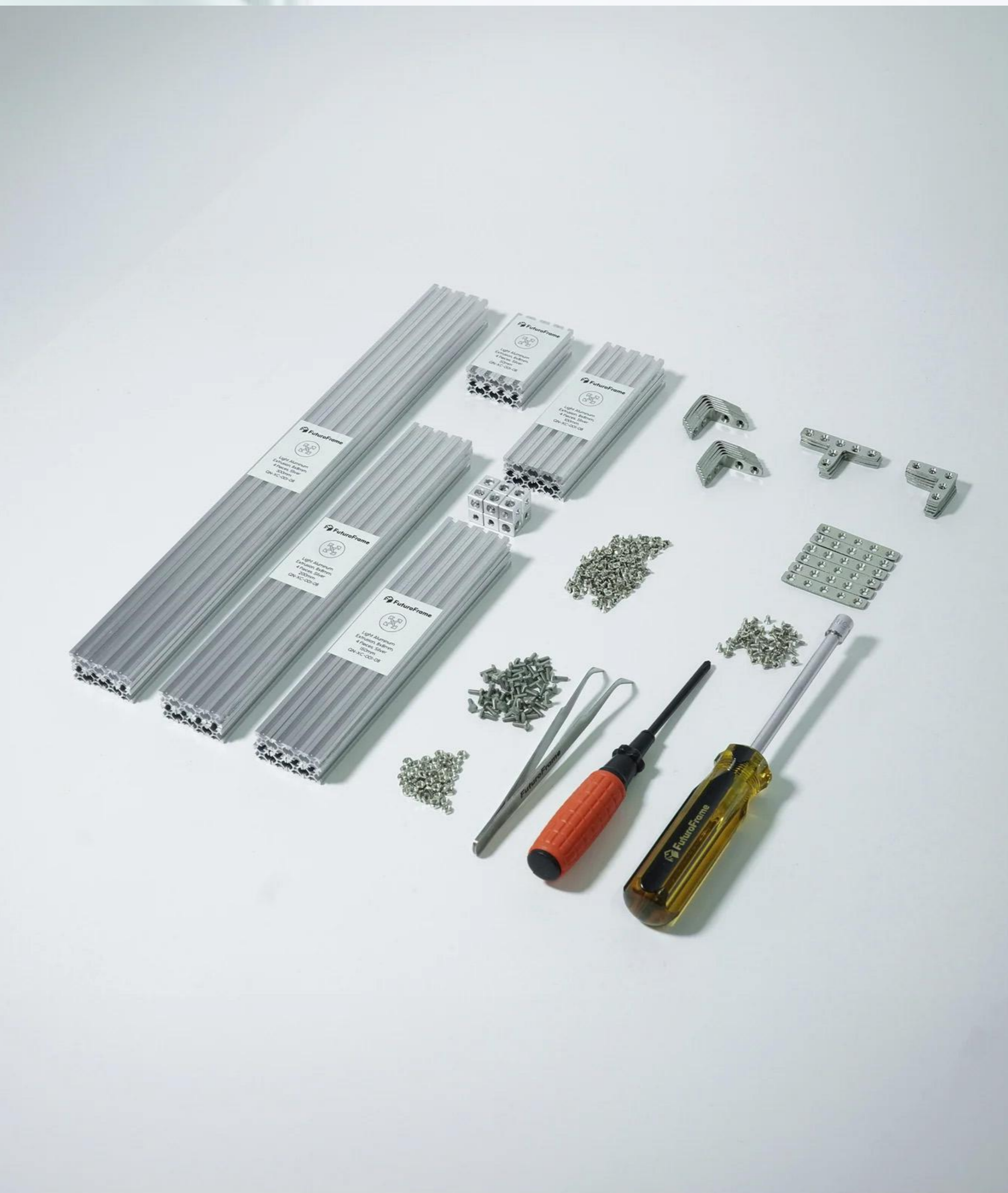
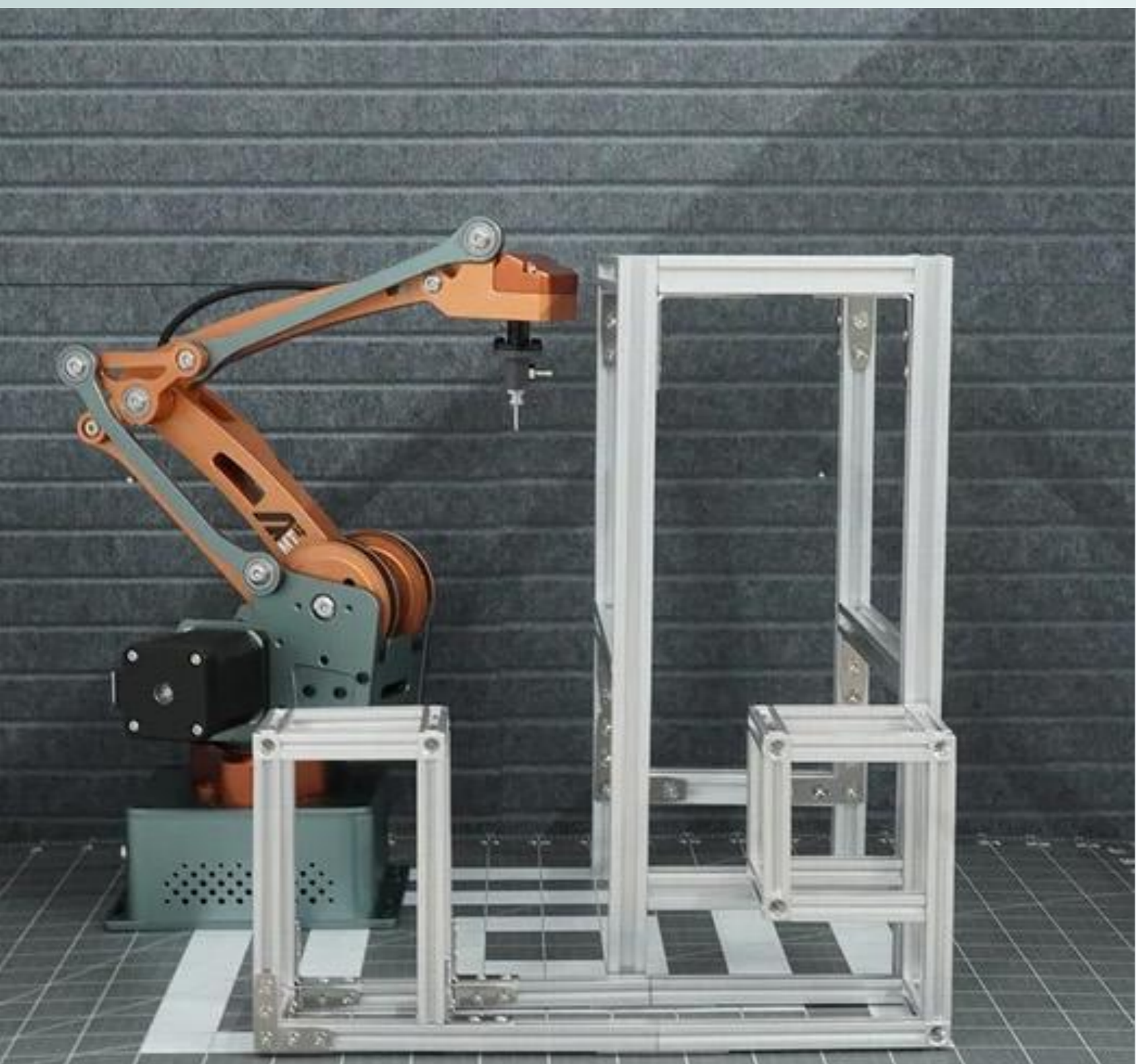
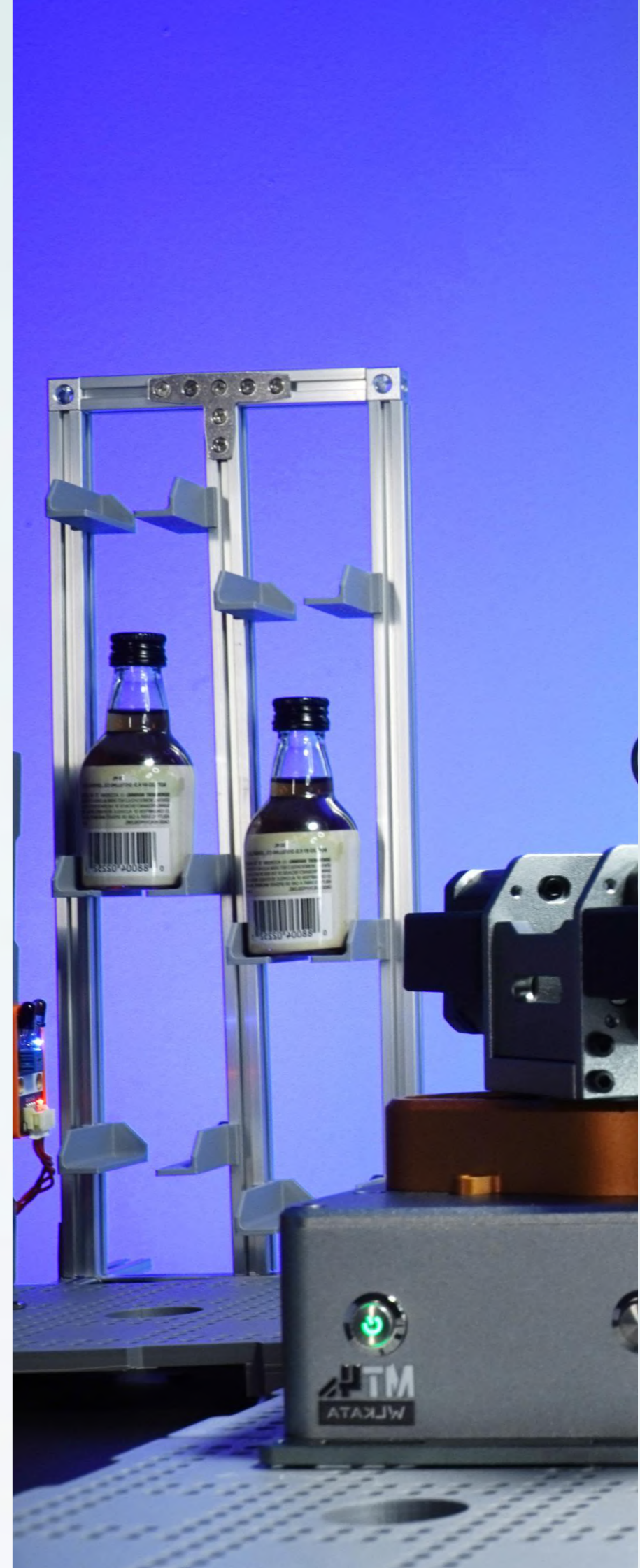
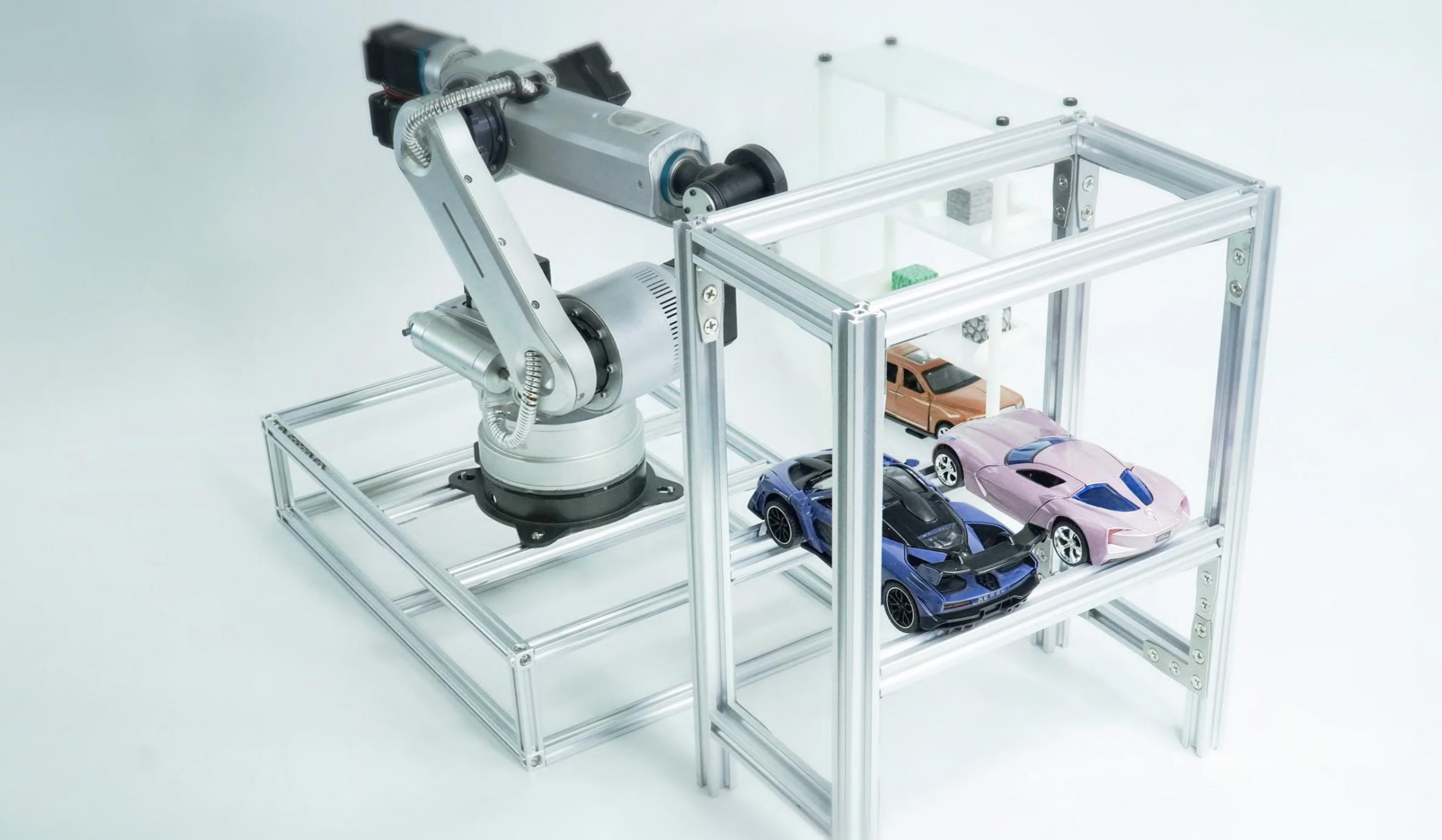


15x15mm Starter Kit

Aluminum Beam

**15X15
mm**





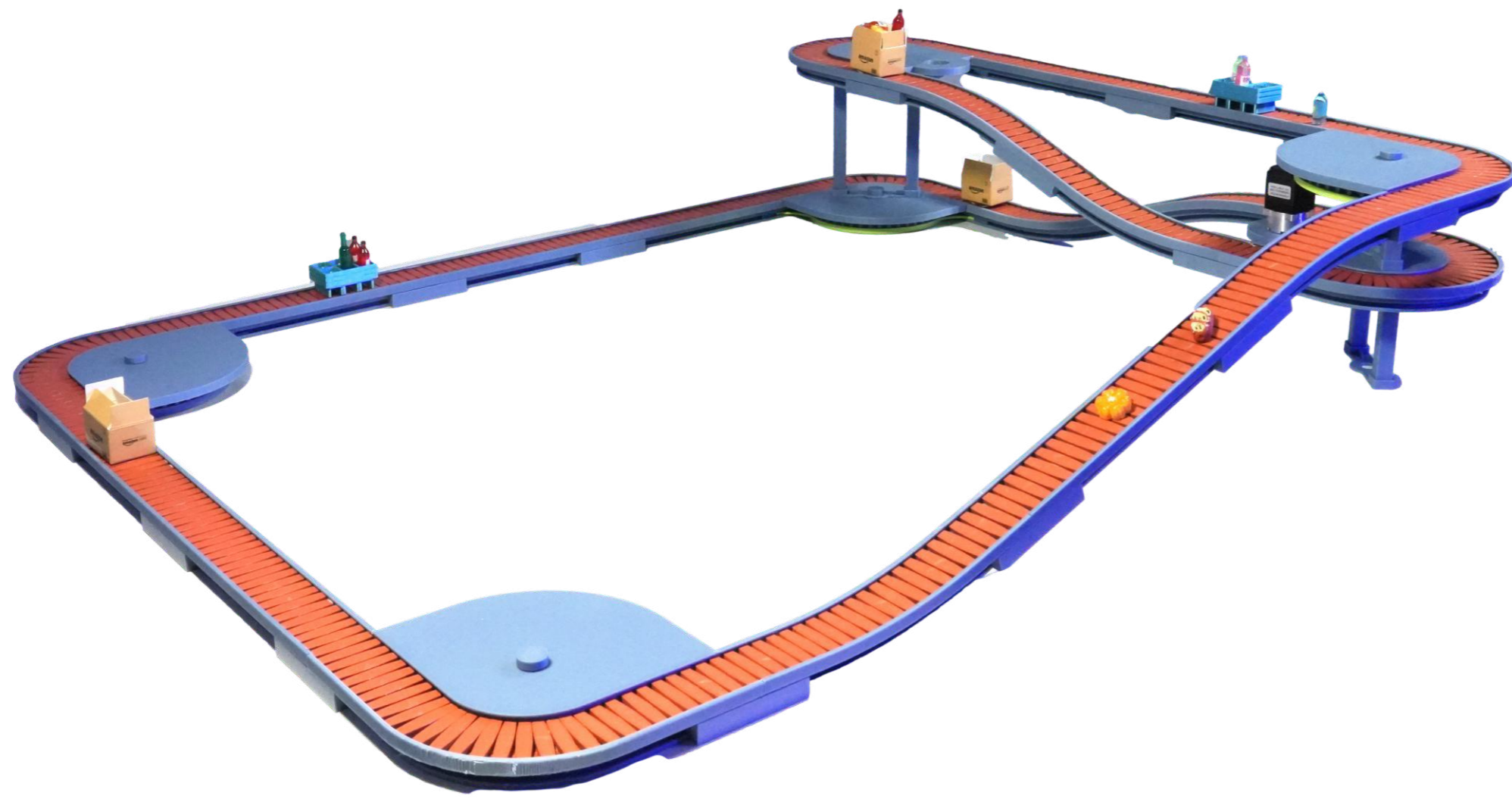
NEW

OmniConveyor

Metal . Scalable . Modular

Industry
Transportation

K9-K12 | University Level



Modular & Scalable

Combine multiple units — straight, 90°/180° turns, slopes, & belt plates

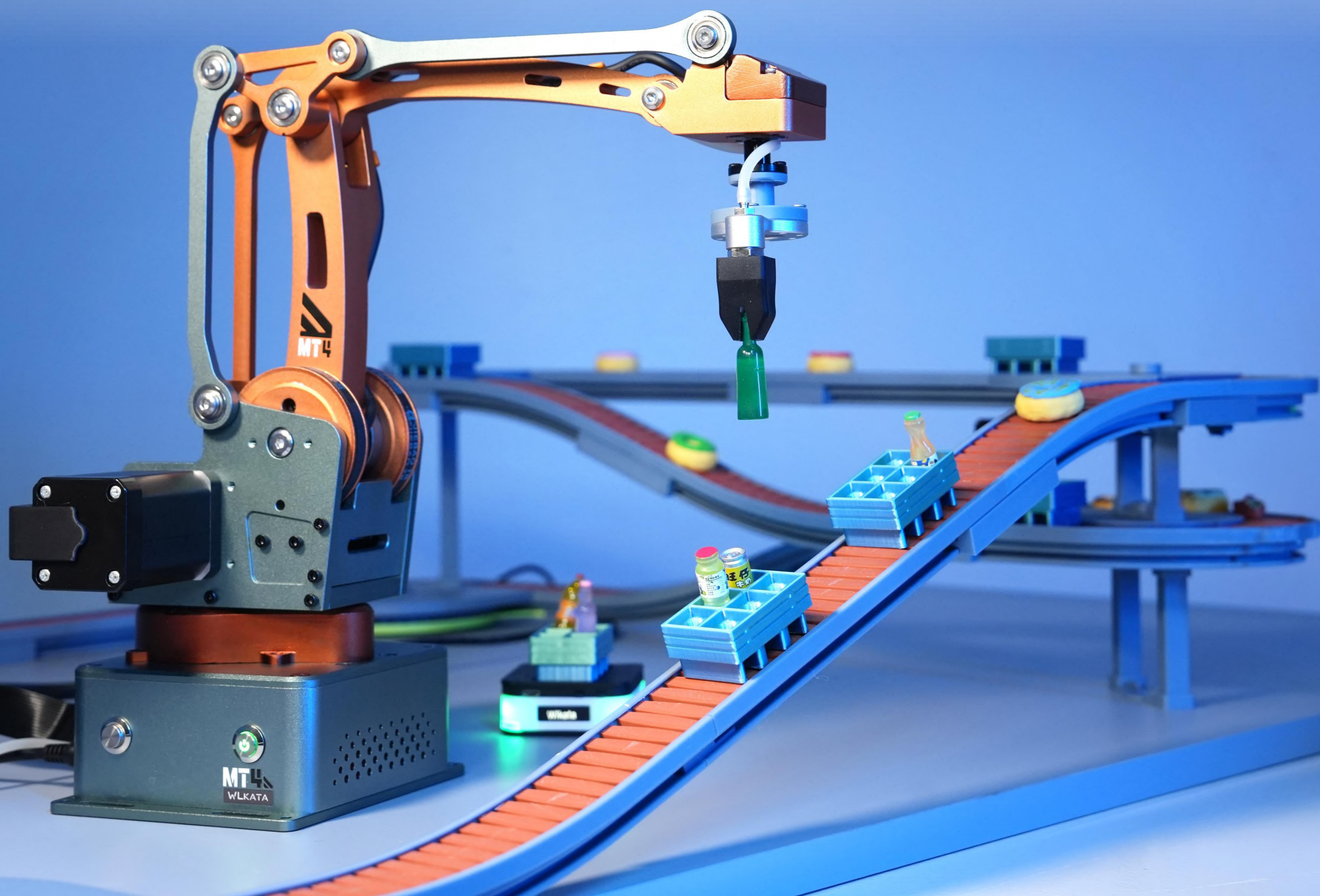
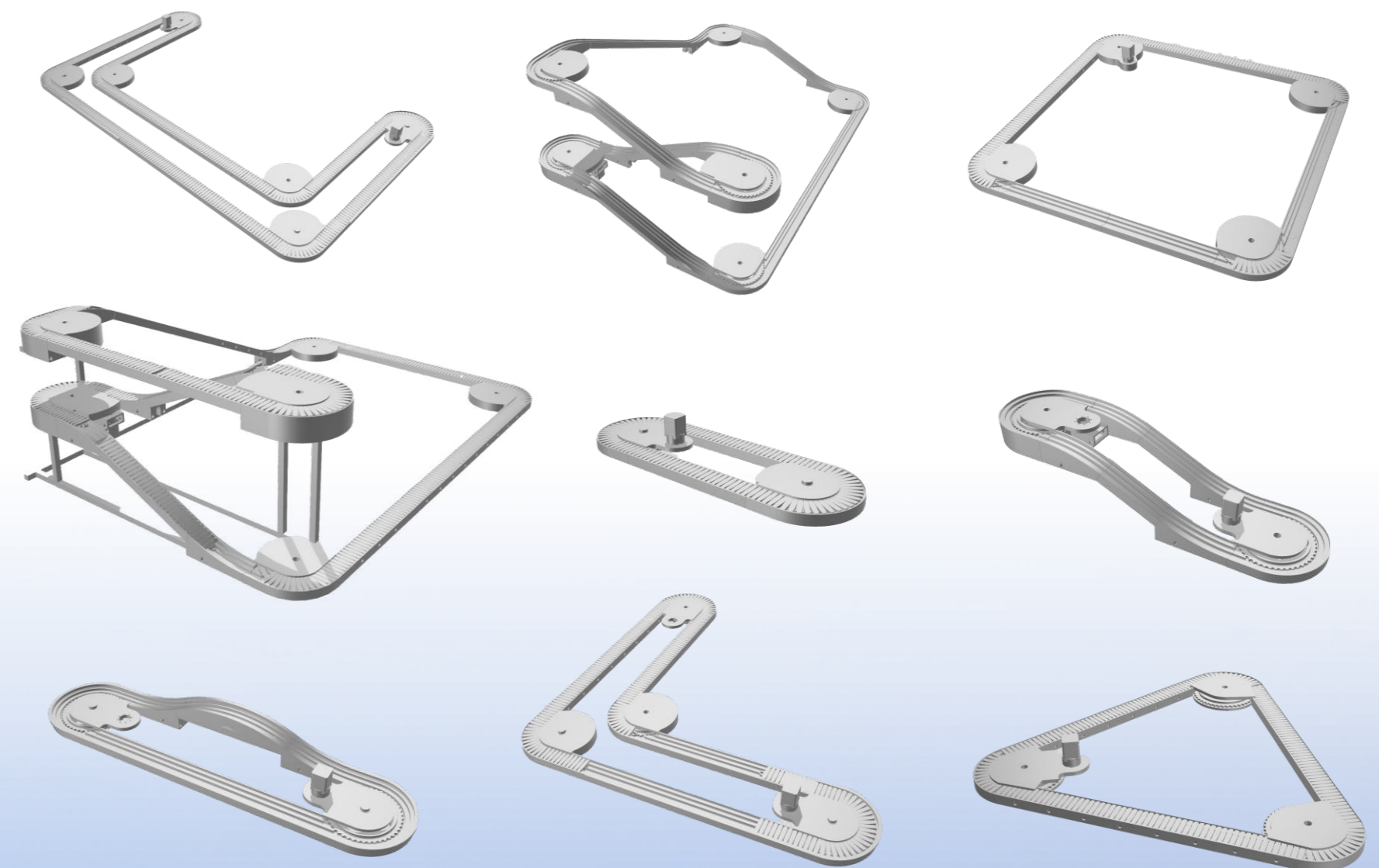
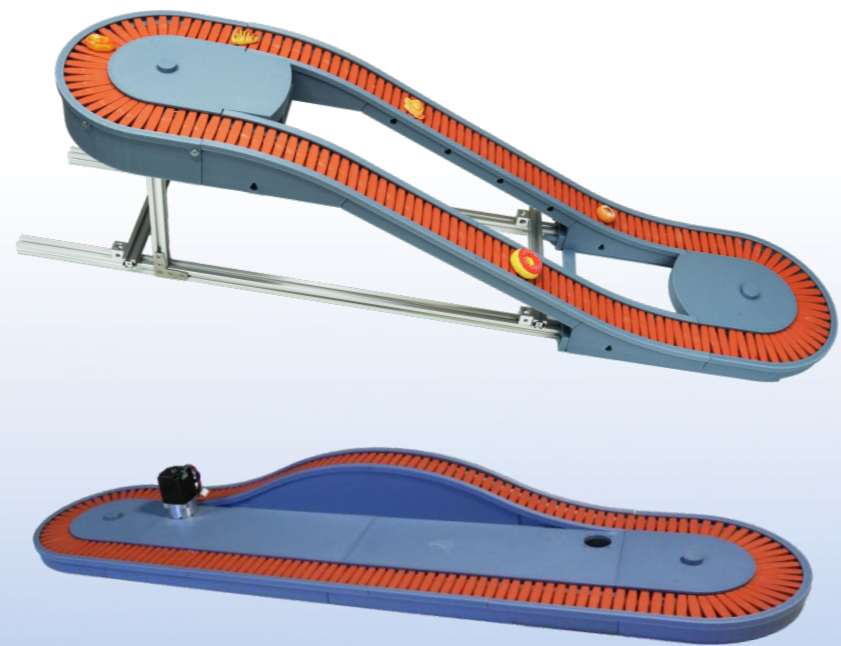
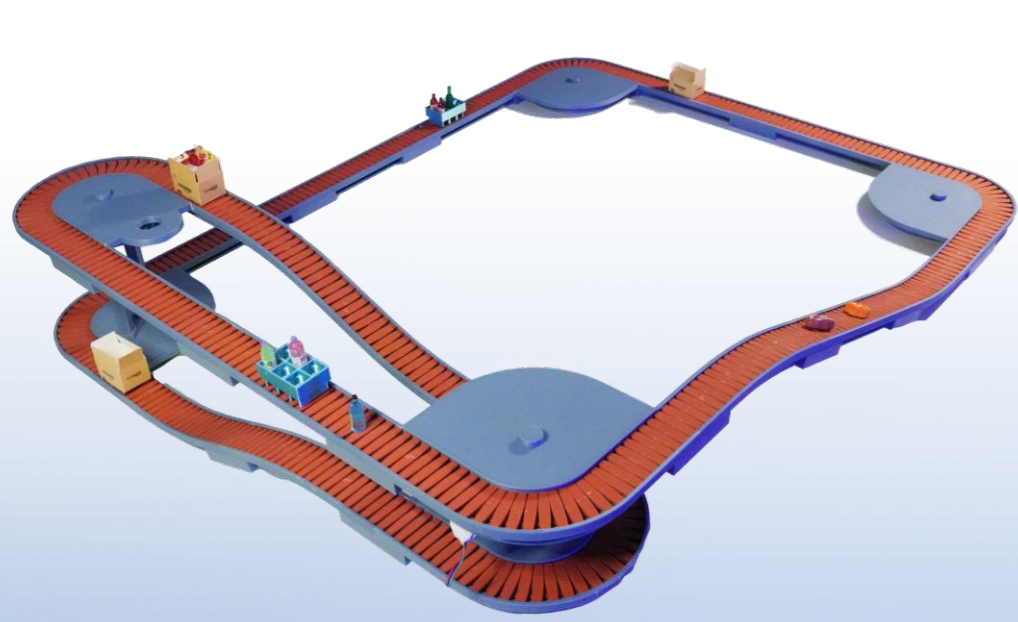
Open Interfaces

Open low-level ctrl with full command access



Endless Possibilities

Build, Connect, and Automate Any Way You Imagine.



NEW

... – And more ! – World Builder Series

Industry
Diverse Industries
K9-K12 | University Level



Push Feeder

Automatically pushes parts onto the line for continuous flow.



Roller Feeder

Uses rollers for smooth, low-friction material transfer.



Sensor Storage

Smart shelf with sensors for part detection and inventory tracking.



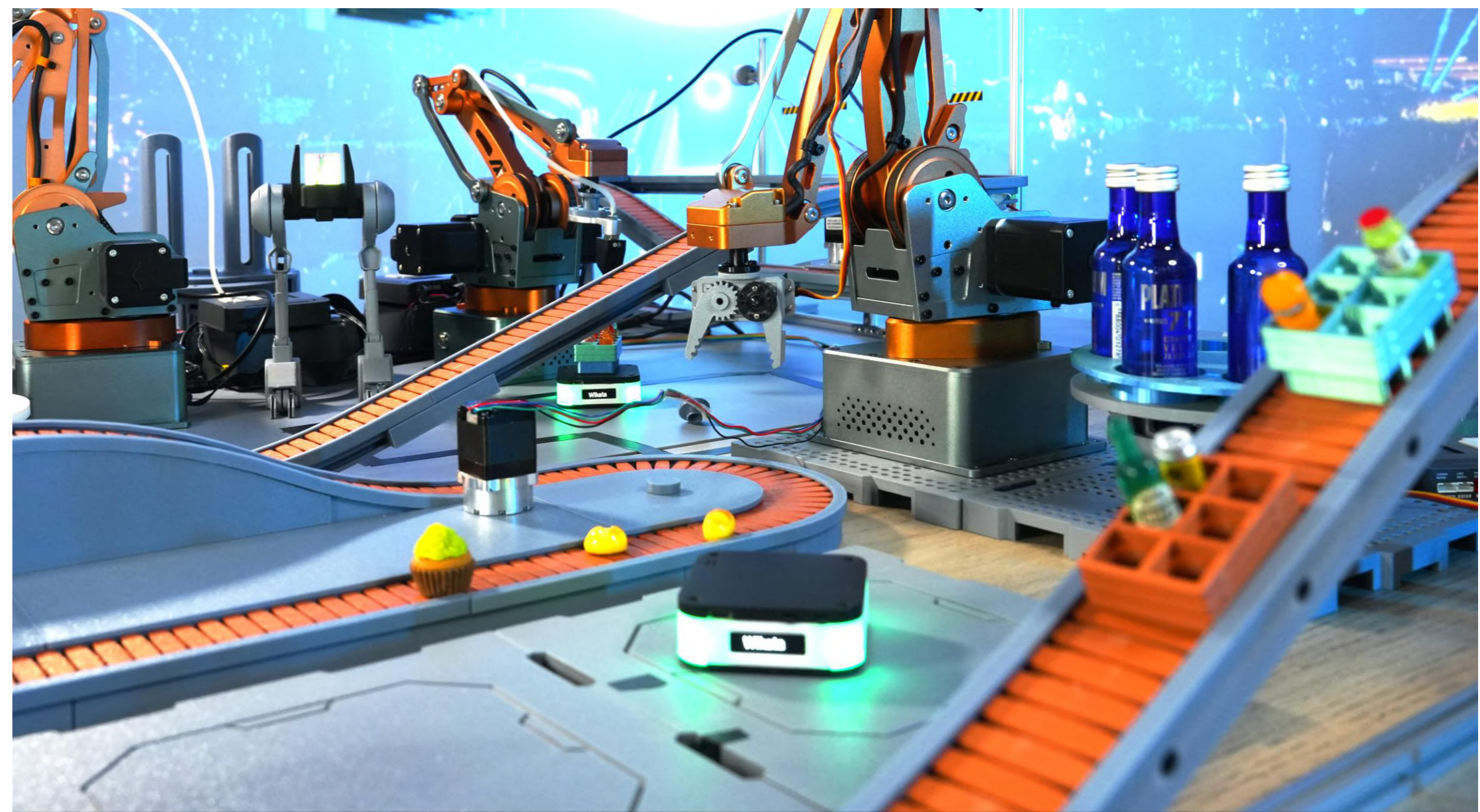
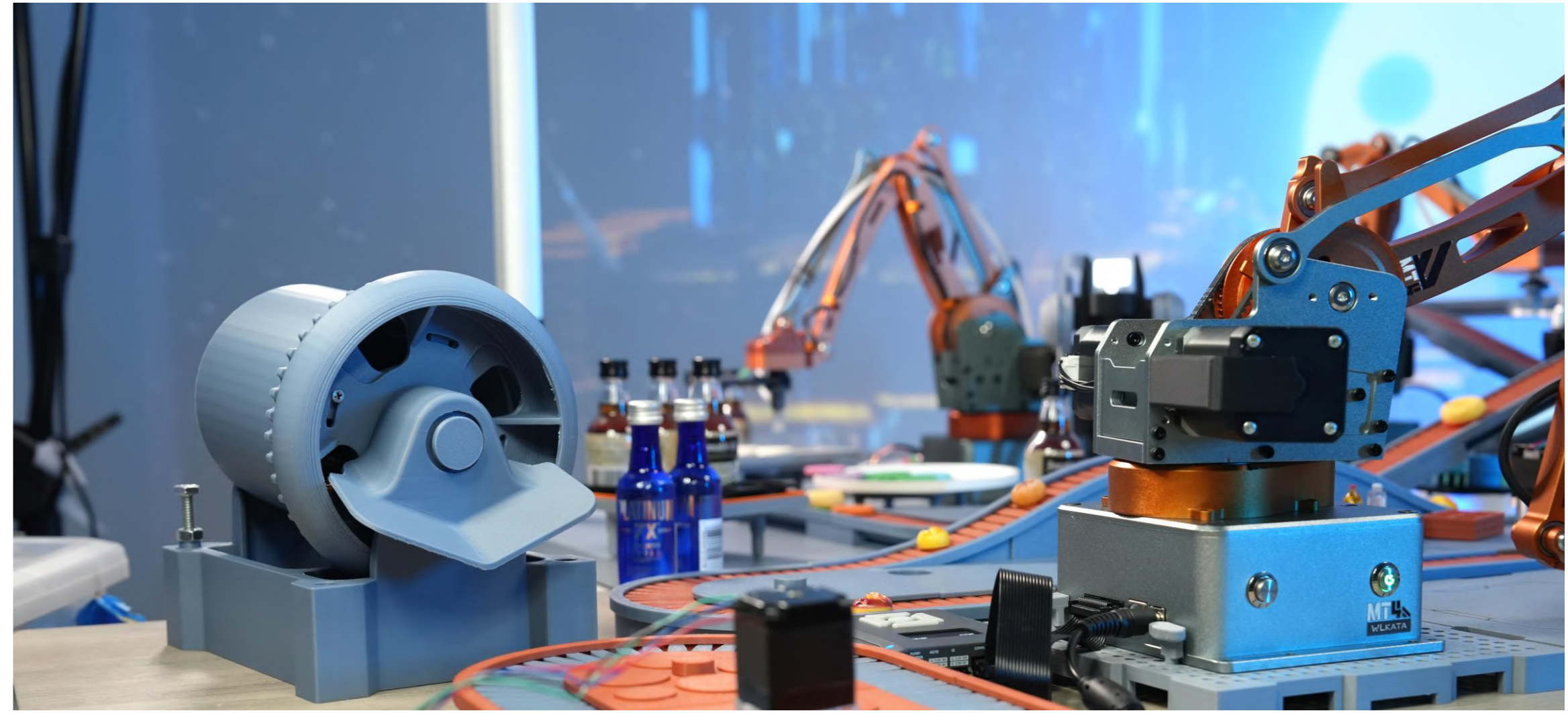
Mini AGV

Super compact mobile robot for autonomous transport and delivery.



Classic Mini Conveyor

Lightweight narrow conveyor for simple, reliable motion transfer.



3.

Ready-to-use Workstations

Scaled-Down Industrial Training Workstation

10+

Unique
Stations

20+

Customizable
Accessories

**Open
API**

Interfaces

1:10 Industrial Mini Factory

Realistic and high-density setups

Open Interfaces

Open low-level ctrl with full command access



OpenCV

SIEMENS





MIC (Make It Center)
AUSTIN COMMUNITY COLLEGE
Texas, USA



NEW

Calligraphy Simulation Cell (Mirobot)

Industry:
Creative

K9-K12 | University Level

WLKATA Workstations



Specs

Smart Base – Size Medium:	<ul style="list-style-type: none"> • Dimensions: 880mm X 500mm X 80mm (height) • Structure: Aluminum alloy panel, sheet metal frame, ergonomic design • Power: Built-in 220V to 12V power module • Front Panel Buttons: Emergency stop, restart, power switch, customizable function buttons
Six-Axis Robotic Arm:	WLKATA Mirobot X 1
Sliding Rail:	WLKATA Sliding Rail Set X 1

Functions

Model: WL-PL-PRO-Ca-50MM



- **Innovative Robotic Pen Writing System:** The WLKATA Mirobot Art Simulation Cell is an innovative educational system that integrates robotic technology with artistic pen writing. Equipped with a soft-tip writing pen, the robot accurately performs smooth and expressive strokes to write English letters, showcasing precise control and graceful movement.
- **Educational and Creative Applications:** The system helps students develop programming and spatial thinking skills while inspiring creativity in both robotics and artistic expression. It is ideal for technology exhibitions and practical courses in robotics, simulation, and creative writing applications.



Fruit Picking Cell (Mirobot)

Industry:
Agriculture

K9-K12 | University Level



Specs

Smart Base – Size Small:	<ul style="list-style-type: none"> • Dimensions: 500mm X 400mm X 80mm (height) • Structure: Aluminum alloy panel, sheet metal frame, ergonomic design • Power: Built-in 220V to 12V power module • Front Panel Buttons: Emergency stop, restart, power switch, customizable function buttons
Six-Axis Robotic Arm:	WLKATA Mirobot X 1
VisionSoft Grip:	<ul style="list-style-type: none"> • Processor: RISC-V 64-bit dual-core processor • Communication interfaces: I²C, UART, USB • Functions: face recognition, object tracking, object recognition, line tracking, color recognition, tag recognition, object classification, and AI identification

Functions

Model: WL-PL-PRO-FP-RGB3



- **Intelligent Agricultural Robot System:** The system combines robotic programming and smart sensor recognition to simulate fruit picking, identification, and sorting. It can be upgraded with a vision module for research on robotics and machine vision in agriculture.
- **Educational Applications:** Ideal for courses in robotics, AI engineering, intelligent control, automation, and computer science, offering practical training in smart agriculture and robotic innovation.
- Supplied with a **complete Digital Resource Kit** featuring manuals, an experiment handbook for educators, code samples, and demonstration videos.



Visual Recognition



Robot Picking



Sorting

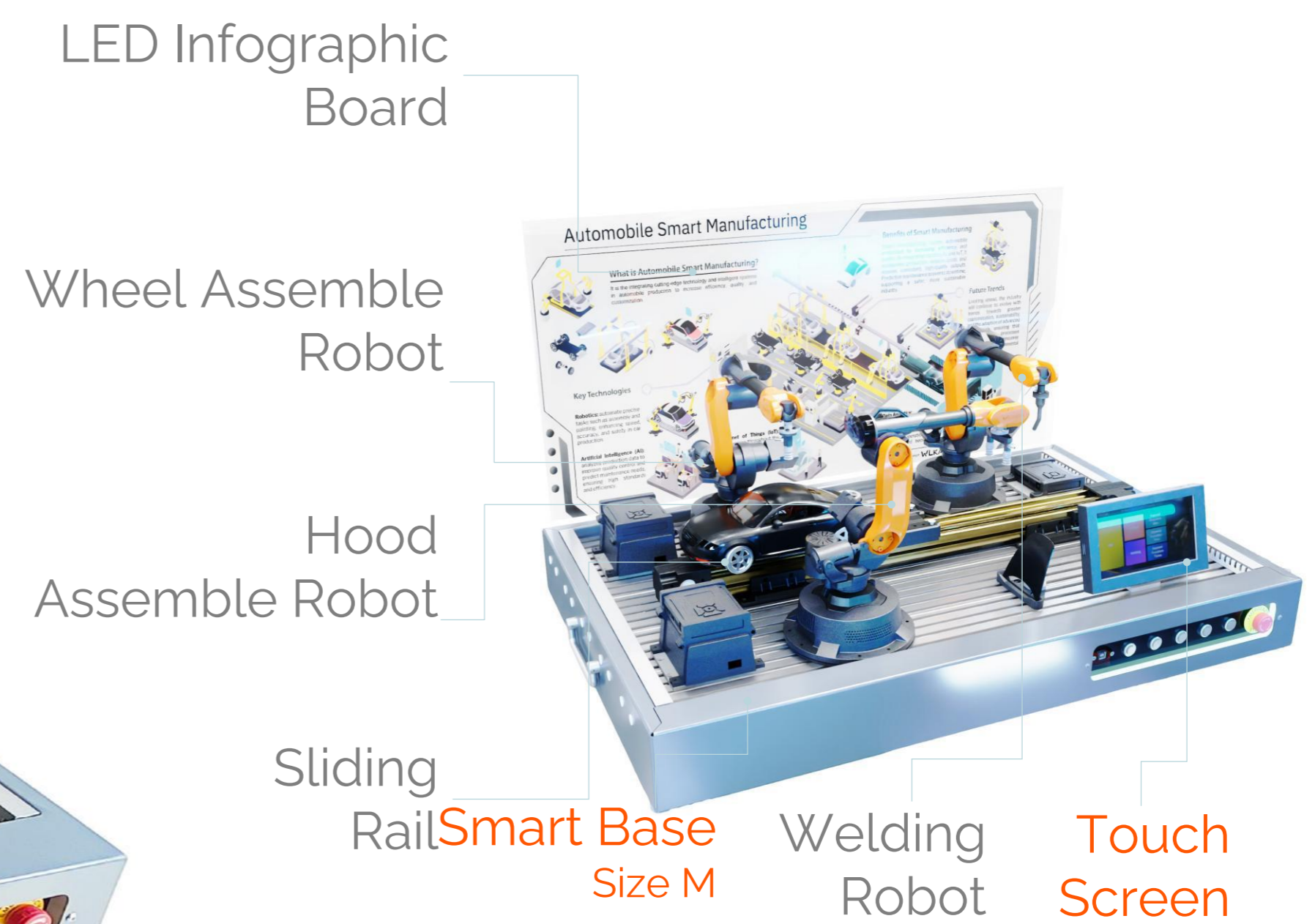


NEW

Automobile Assembly Cell (Mirobot)

Industry:
Automobile

K9-K12 | University Level

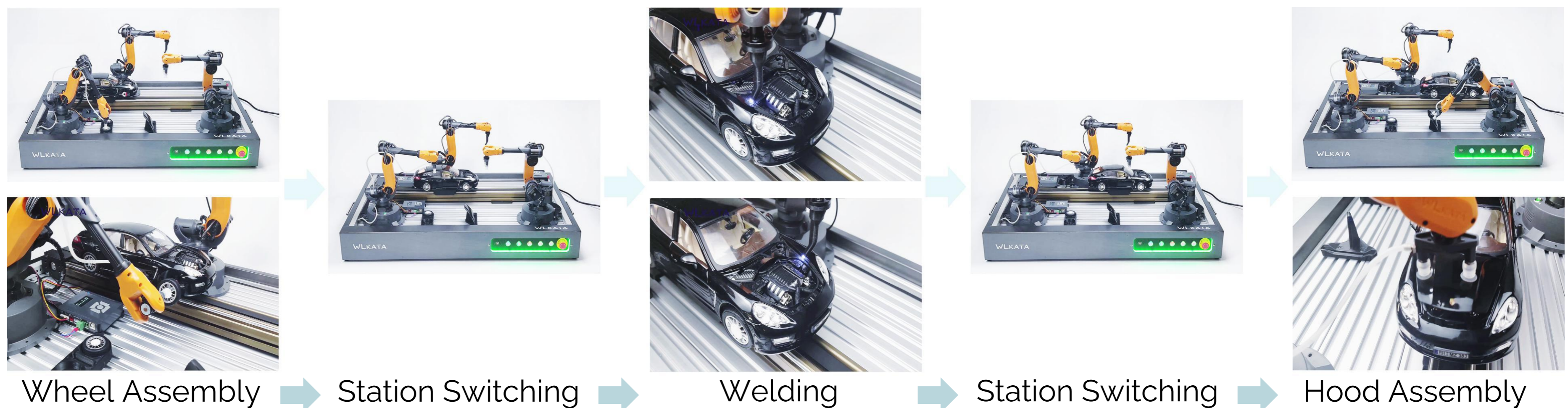


Functions

Model: WL-PL-PRO1-Aa-Tec3



- This robot cell simulates key processes in automotive manufacturing such as assembly, welding, and integration. It features **three six-axis robots** and a **linear transport unit** with a car model, demonstrating human-robot collaboration on an assembly line. Additional features include a **smart base**, a **touch-screen control interface**, and an **LED infographic board** that provides both illumination and visualized knowledge display. Ideal for training and research in **mechatronics, robotics, intelligent manufacturing, and automation technologies**.
- Supplied with a **complete Digital Resource Kit** featuring manuals, an experiment handbook for educators, code samples, and demonstration videos.



Specs

Smart Base – Size Medium:	<ul style="list-style-type: none"> • Dimensions: 880mm (width) X 500mm (depth) X 80mm (height) • Structure: Aluminum alloy panel, sheet metal frame, ergonomic design • Power: Built-in 220V to 12V power module • Front Panel Buttons: Emergency stop, restart, power switch, customizable function buttons
Six-Axis Robotic Arm:	WLKATA Mirobot X 3
Sliding Rail:	WLKATA Sliding Rail Set X 1



Scan to watch video

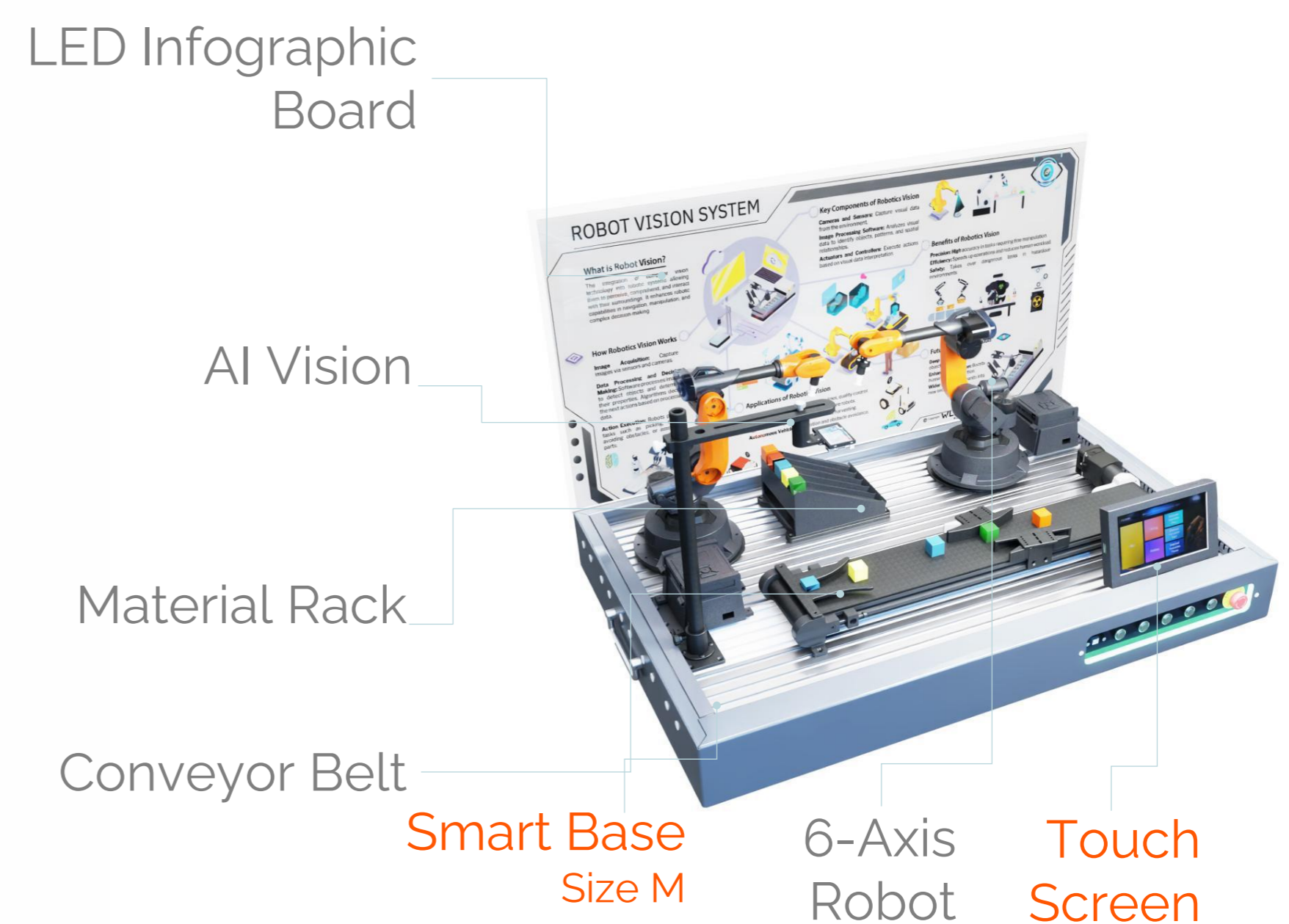


NEW

AI Automatic Sorting Cell (Mirobot)

Industry:
Vision Sorting

University Level

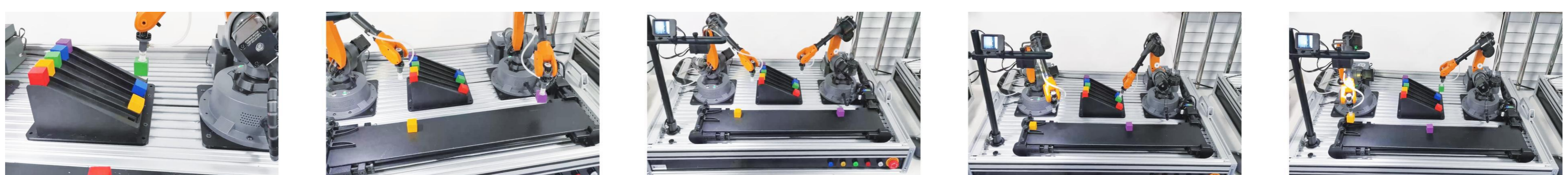


Functions

Model: WL-PL-PRO1-AiGS-RGB3



- The **AI Automatic Sorting Training Platform** replicates real-world applications in **food, pharmaceutical, and industrial part sorting**. It combines **robotics and machine vision** to achieve **intelligent, automated sorting**, one of the most common uses of AI in modern manufacturing.
- Learners can explore key technologies such as **industrial automation, robot motion control, vision recognition, and programming algorithms**. The system also supports **process analysis and optimization**, helping improve productivity and product quality.
- It is ideal for **education and research in robotics, artificial intelligence, machine vision, mechatronics, and computer technology**.



Robot Loading → Robot Unloading → Conveyor Belt Transfer → Vision Recognition → Robot Sorting

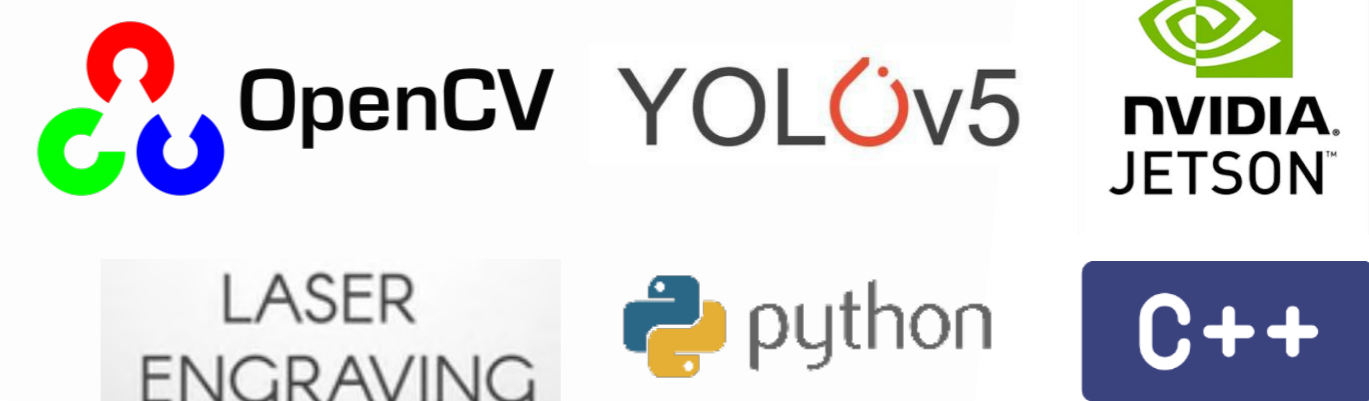
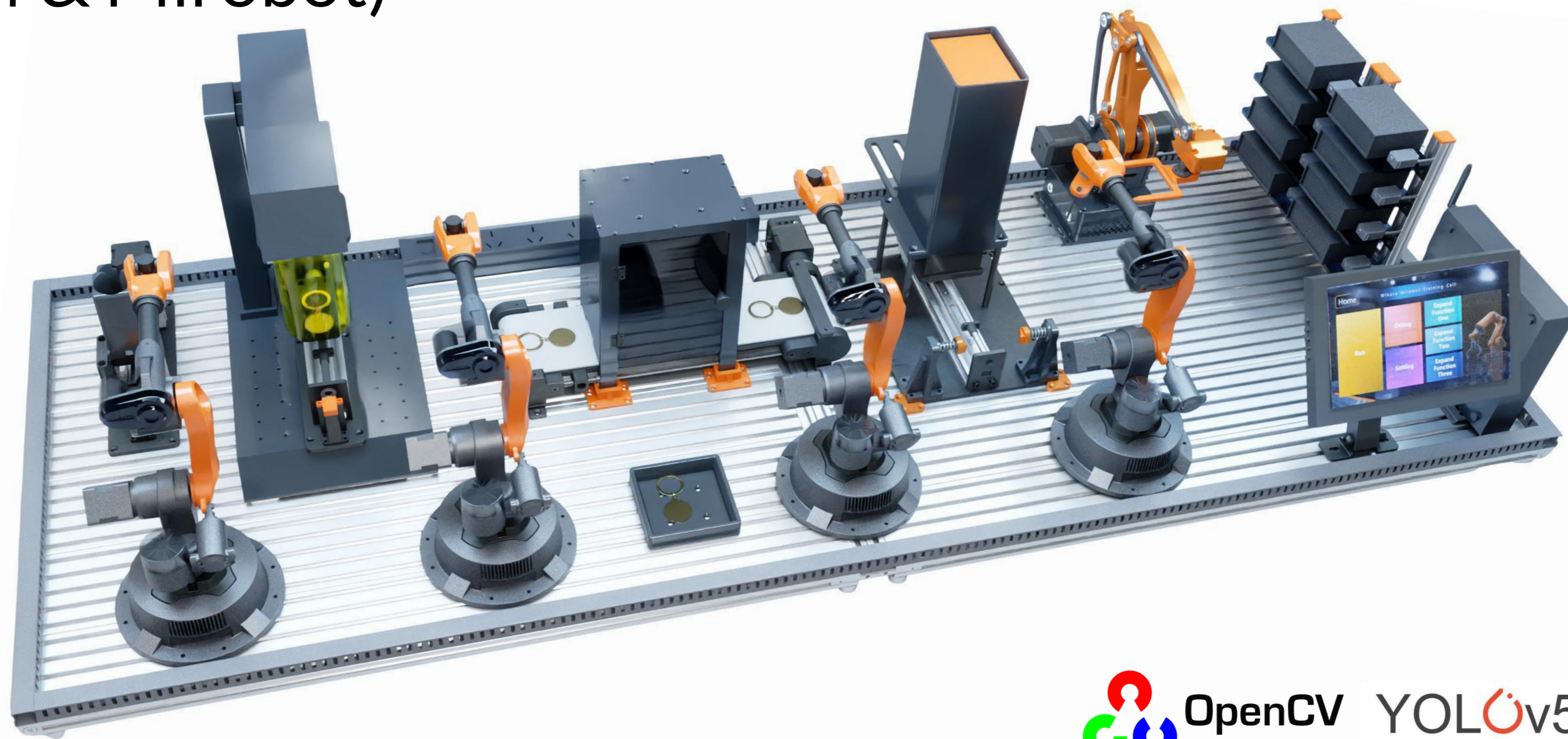
Specs

Smart Base – Size Medium:	<ul style="list-style-type: none"> • Dimensions: 880mm (width) X 500mm (depth) X 80mm (height) • Structure: Aluminum alloy panel, sheet metal frame, ergonomic design • Power: Built-in 220V to 12V power module • Front Panel Buttons: Emergency stop, restart, power switch, customizable function buttons
Six-Axis Robotic Arm:	WLKATA Mirobot X 2
Conveyor Belt:	WLKATA Conveyor Belt Set X 1
AI Visions:	<p>WLKATA AI Vision Set X 1</p> <ul style="list-style-type: none"> • Processor: STM32H7, 480 MHz; • Communication Interface: UART / RS485 • Resolution: 4 Megapixels; • Functions: Face recognition, object tracking and detection, shape recognition, etc. <p>WLKATA Camera Sensor X 1 (Image Sensor: OV2640 (2.0Megapixel Camera))</p>

NEW

Engraved Souvenirs Manufacturing Line (MT4 & Mirobot)

Industry:
Manufacture
University Level

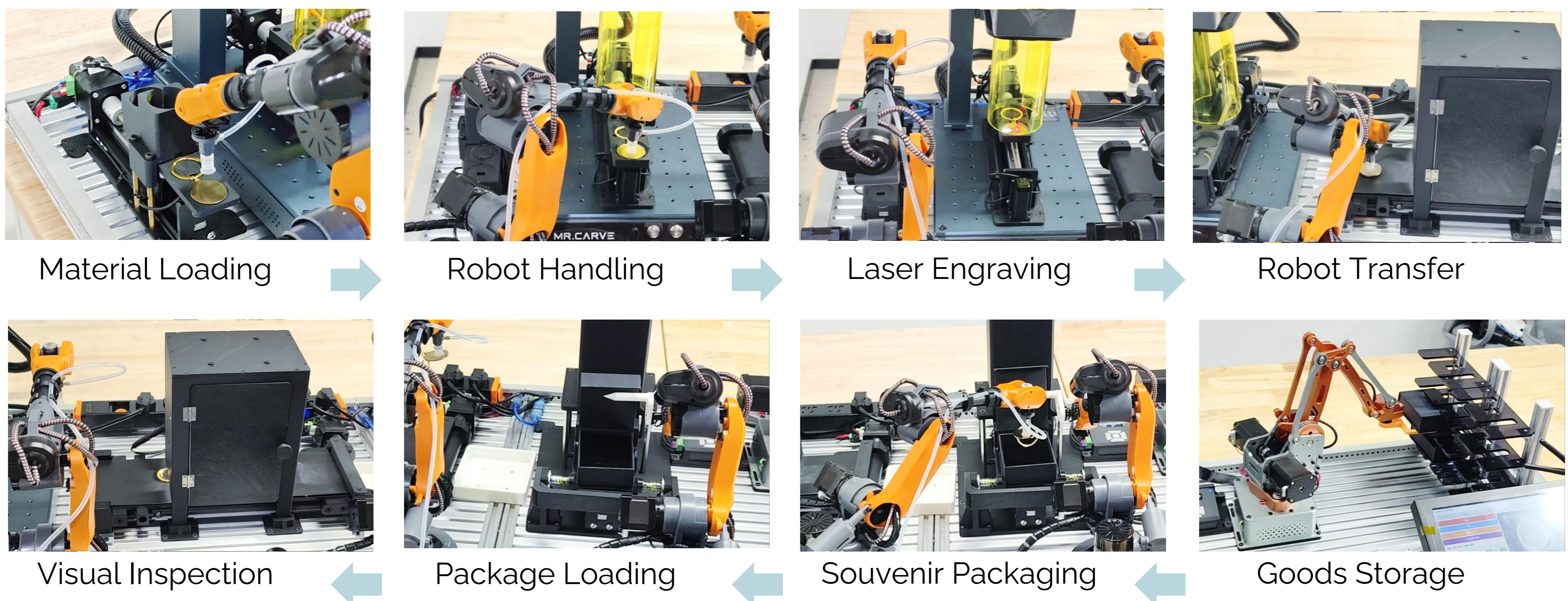


Functions

Model: WL-PL-CM-CD24

The Engraved Souvenirs Manufacturing Line is a compact, modular smart factory designed for teaching and research in robotics, artificial intelligence, and intelligent manufacturing. Scaled down from real industrial lines, it offers a realistic Industry 4.0 learning environment.

- **Technology Integration:** Combining robotics, AI vision, sensors, and motor control, the line enables training in robot programming, machine vision, defect detection, and system integration—all within a easy-to-use setup.
- **Flexibility and Applications:** The reconfigurable system supports production of bookmarks, nameplates, chess pieces, and seals. With a footprint of only 1700×600mm, it fits easily into labs and classrooms, making intelligent manufacturing practical and accessible.



Main Devices:	<ul style="list-style-type: none"> • Micro Engraving Unit: 2 W laser, ± 0.001 mm accuracy, 9500 mm/s speed, 70 × 70 mm area, supports metal, wood, leather, plastic. • Automatic Discharge Unit: Stepper motor, 100 mm travel, 80 mm/s speed, ± 0.03 mm precision, 12 kg horizontal / 5 kg vertical load. • Camera System: 5 MP color, 2952 × 1944 resolution, auto exposure/white balance/gain.
Control & Display:	i5 CPU, 16 GB RAM, 10.1" touch screen, Studio software, supports graphical + Python programming and digital twin integration.
Robotic Arm:	WLKATA Mirobot X 4 ; WLKATA MT4 X 1



Turn Your Desk into a Smart Souvenir Factory!

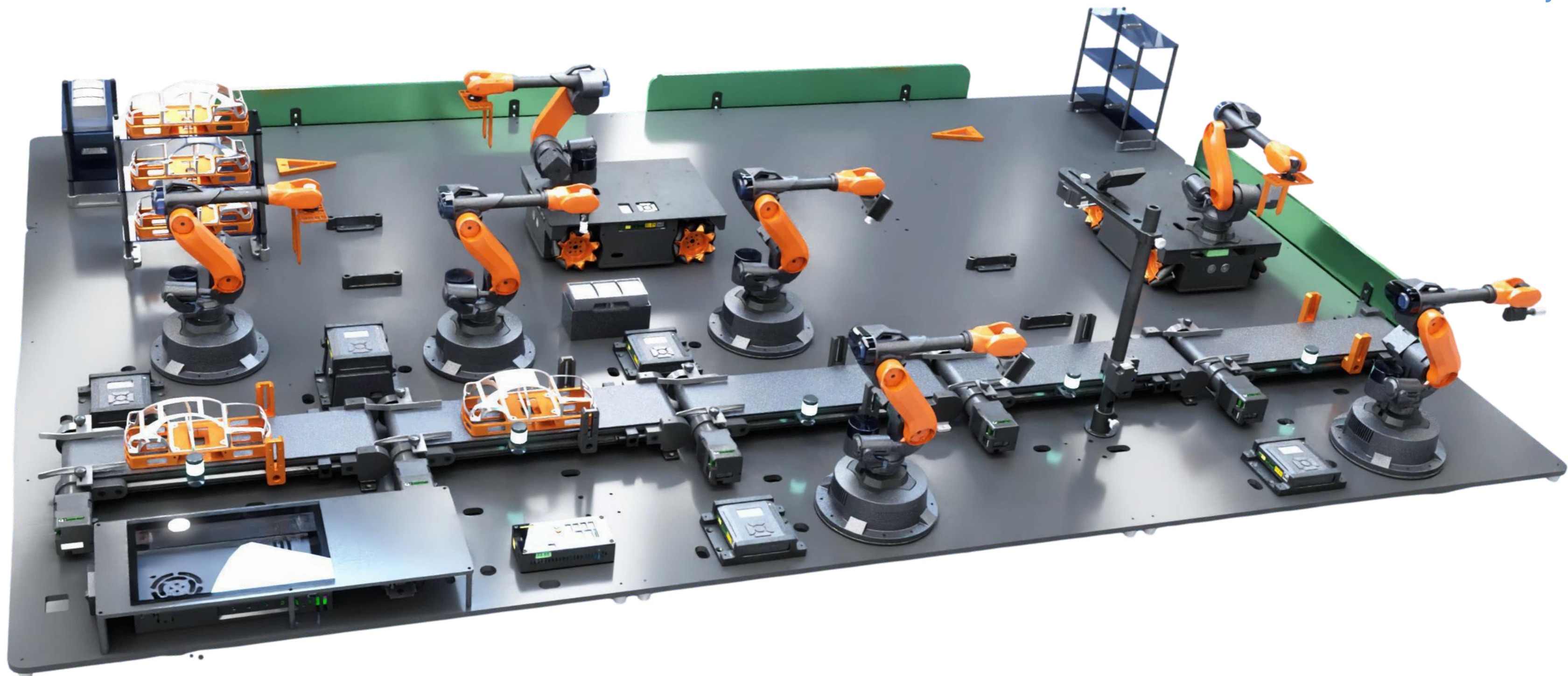
— Craft Real Bookmarks, Keychains, Nameplates, Chess Pieces, and Seals!



NEW

Automotive Manufacturing Line (AGV Rover & Mirobot)

Industry:
Automobile
University Level



Functions

Model: WL-PL-EDU5-AS-Tec5



Experience a real automotive factory—scaled to your desktop. This compact smart manufacturing line integrates six-axis robotic arms and AGVs to simulate key industrial processes including handling, assembly, welding, inspection, and polishing. Designed around flexible production concepts, it delivers a complete miniature car-making workflow in one coordinated system.

- **Integrated Robotics & Automation:** Unified control of robotic arms, AGVs, and vision systems enables synchronized, intelligent production.
- **Learning Through Real Applications:** By simulating real-world scenarios such as target positioning, logistics handling, path planning, and autonomous navigation, the system deepens students' understanding and application of AGVs, robotics, and intelligent manufacturing concepts—ideal for courses in robotics, AI, mechatronics, and smart manufacturing.



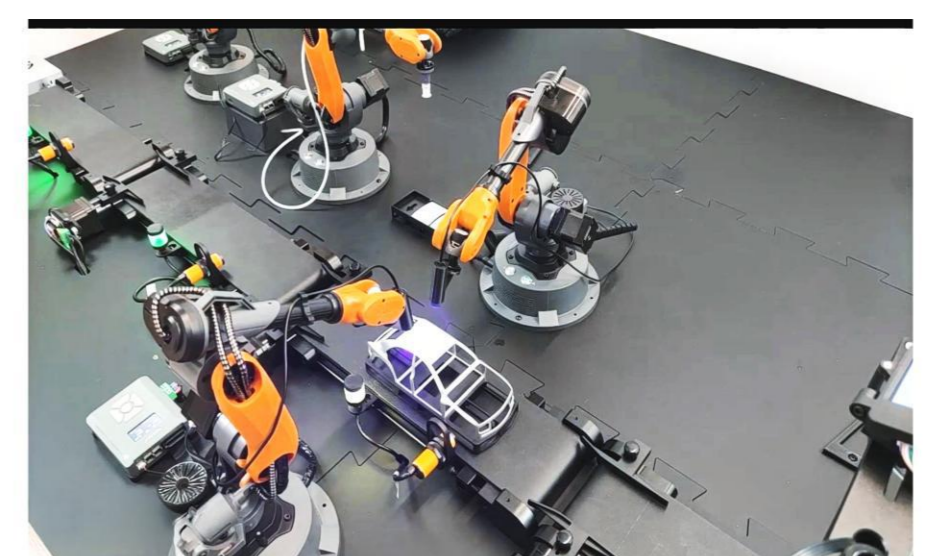
Robot Handling



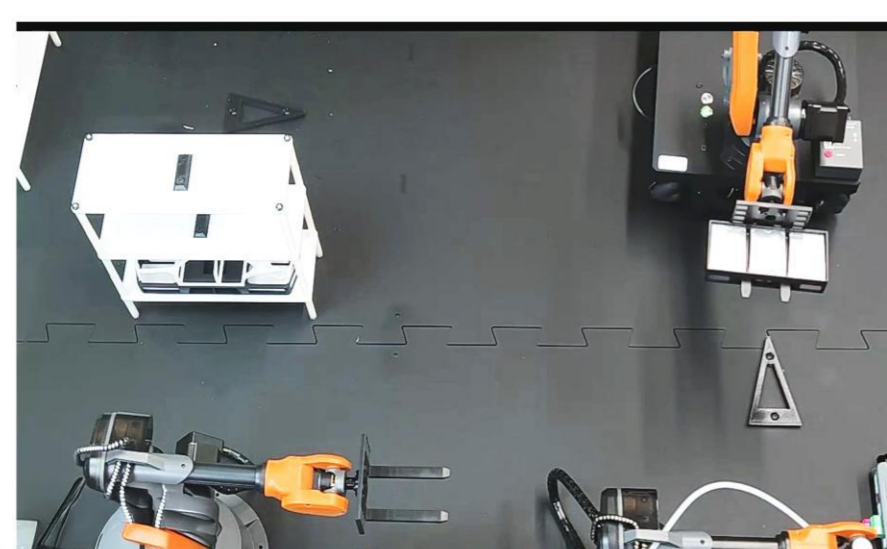
Isolated Conveyor Transfer



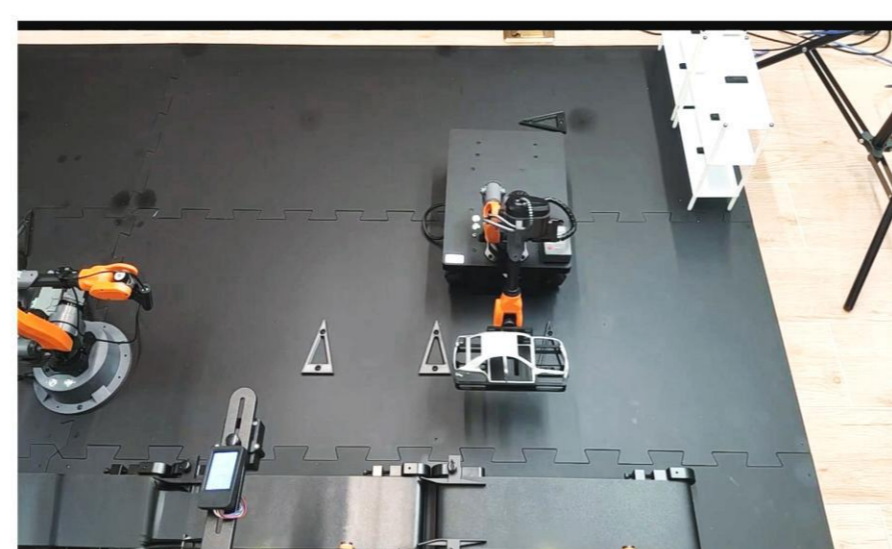
Robot Assembly



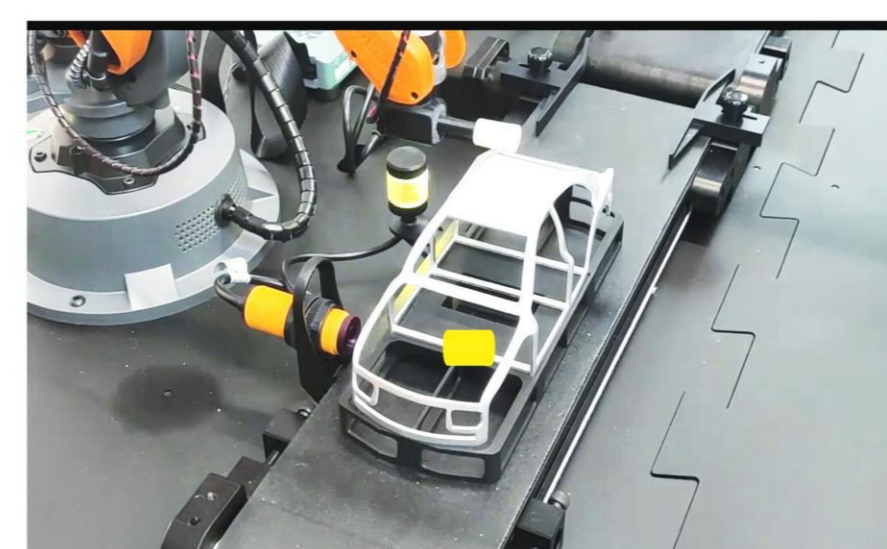
Robot Welding



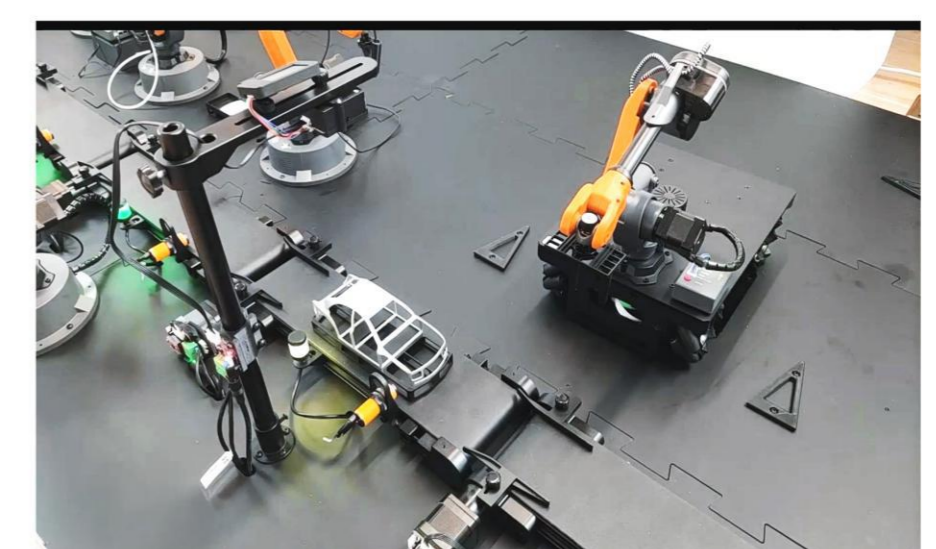
Mobile Robot Material Supply



Mobile Robot Storage Entry



Robot Polishing



Weld Spot Inspection

Overall Dimensions:	2400 × 1400 × 350mm
Control & Display:	i5 CPU, 16 GB RAM, 10.1" touch screen, Studio software, supports graphical + Python programming and digital twin integration.
Robots:	WLKATA Mirobot X 7 ; WLKATA AGV Rover X 2 ; Car models X 6 sets (minimum) ; Storage racks X 2 sets ; AI vision set X 1 ; Conveyor units X 5 ; HMI touch screen X 1 ; Accessory kit X 1



Experience Automotive
Manufacturing in the
Classroom!

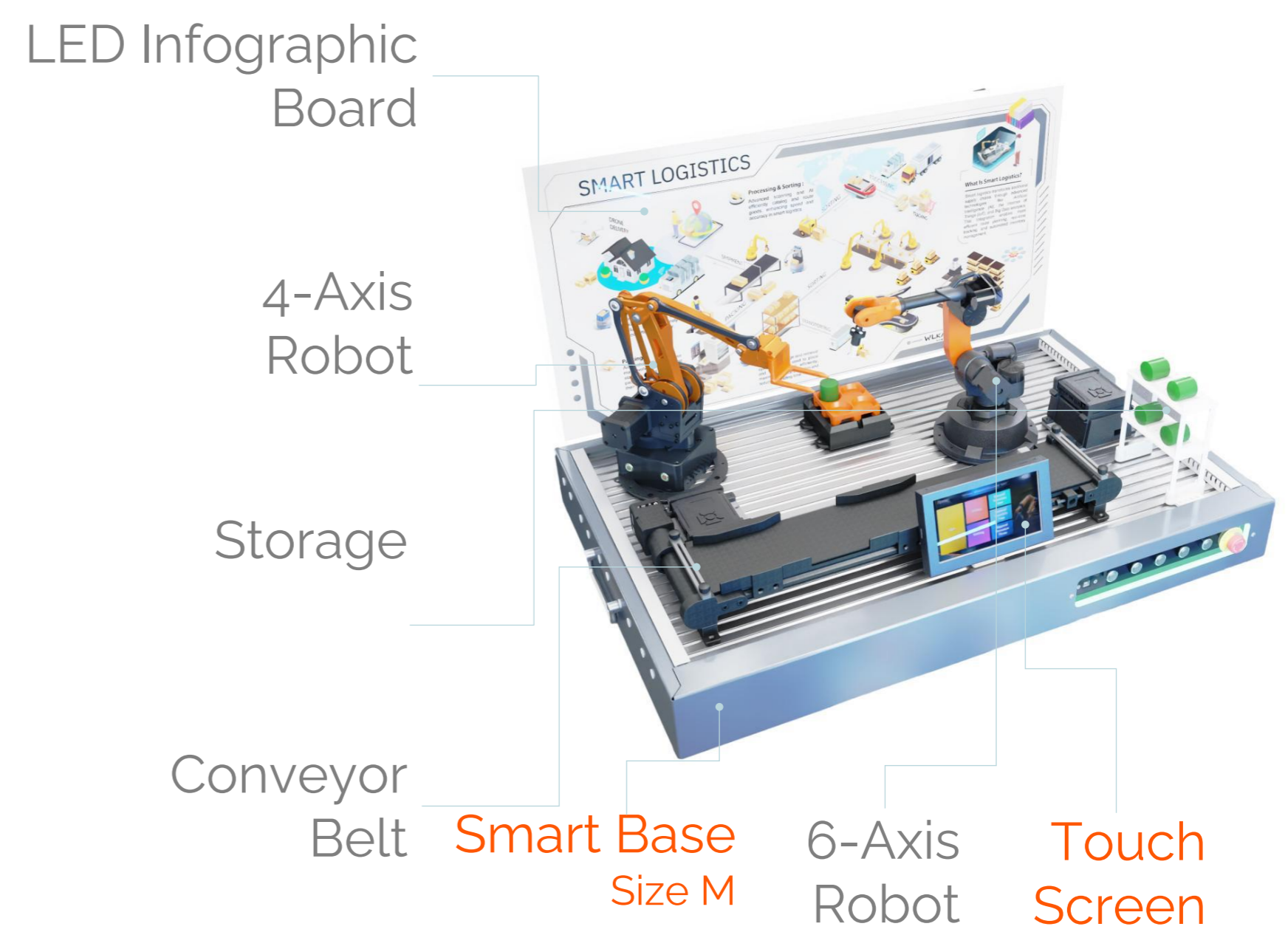
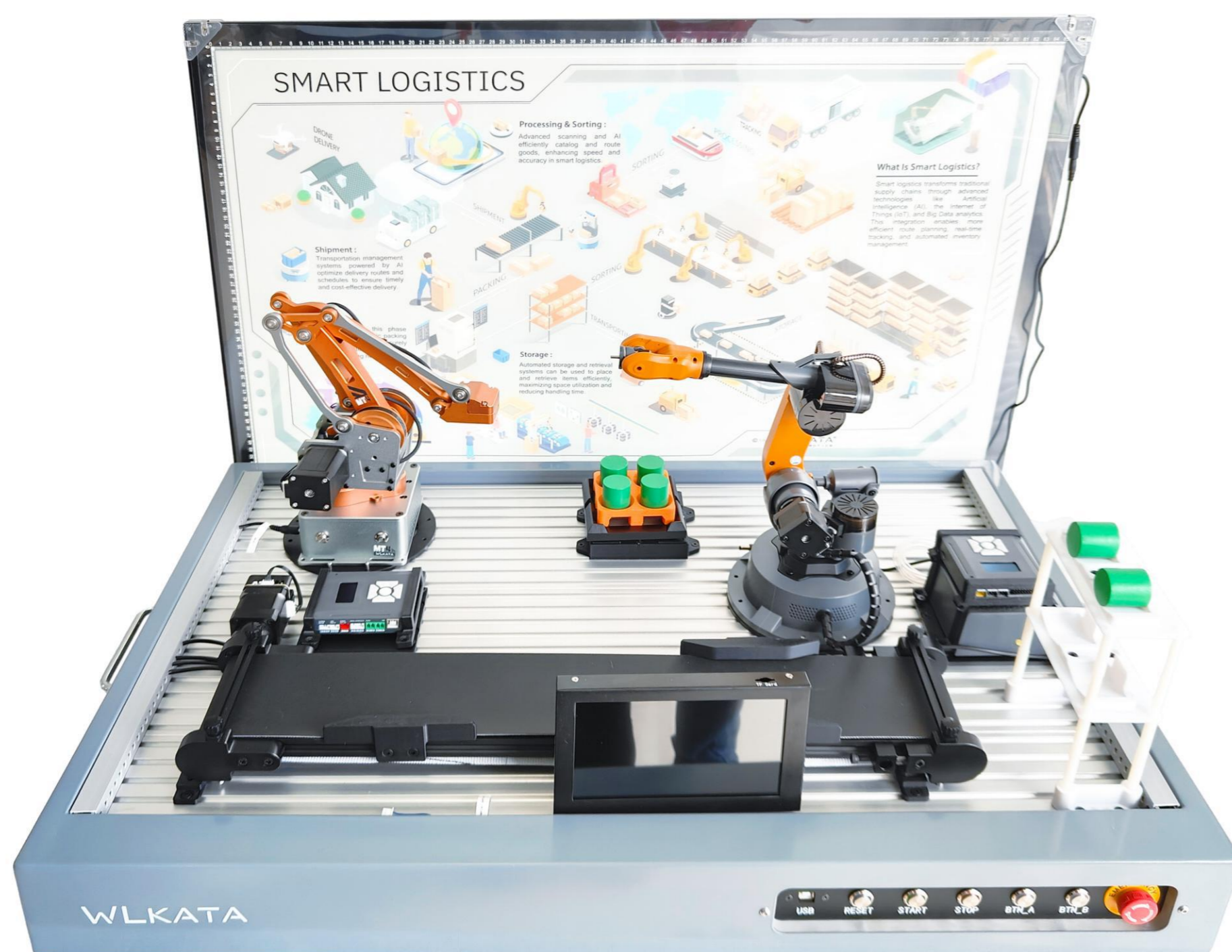
NEW

Logistic Warehouse Cell (MT4 & Mirobot)

Industry:

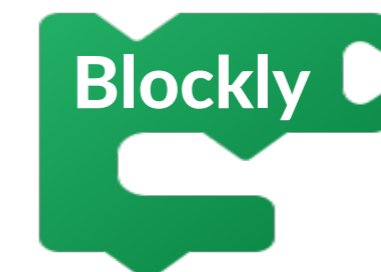
Warehouse

K9-K12 | University Level

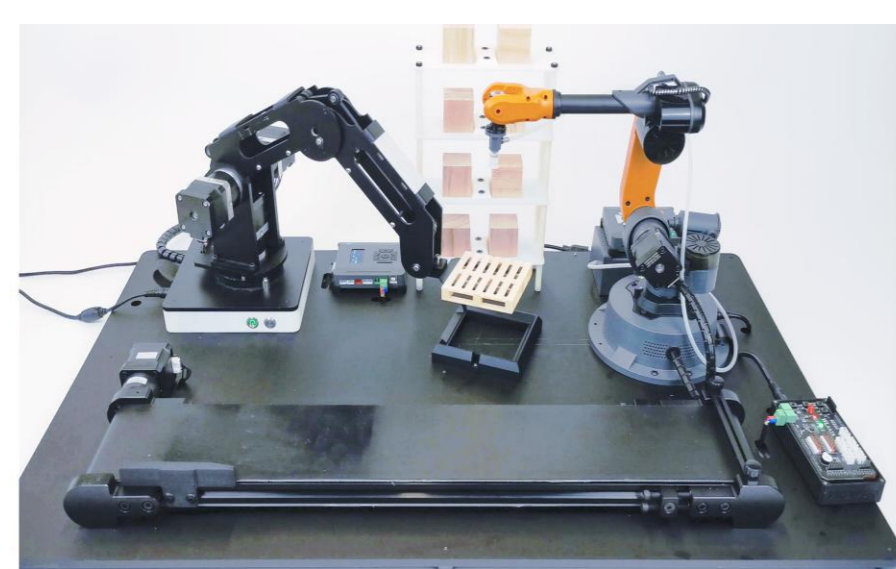


Functions

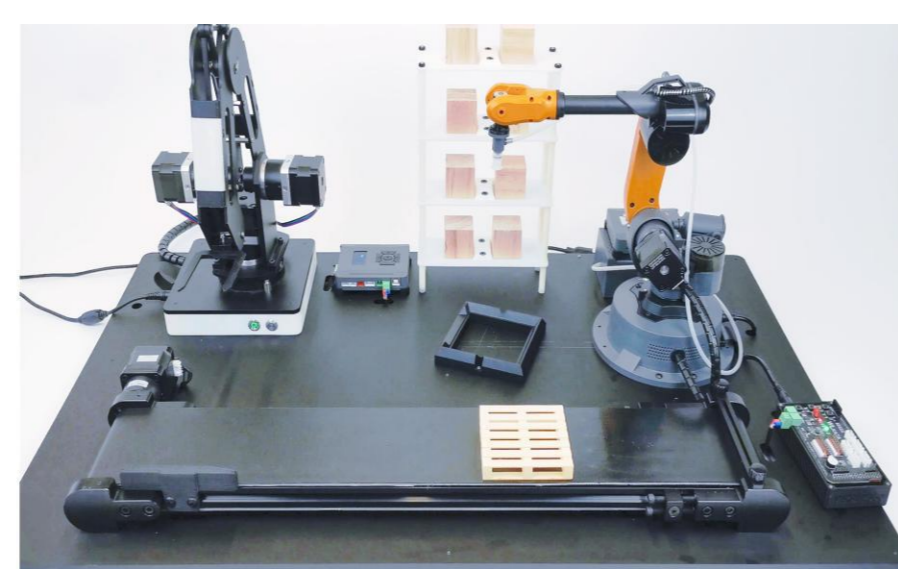
Model: WL-PL-PRO-LW-Miro1



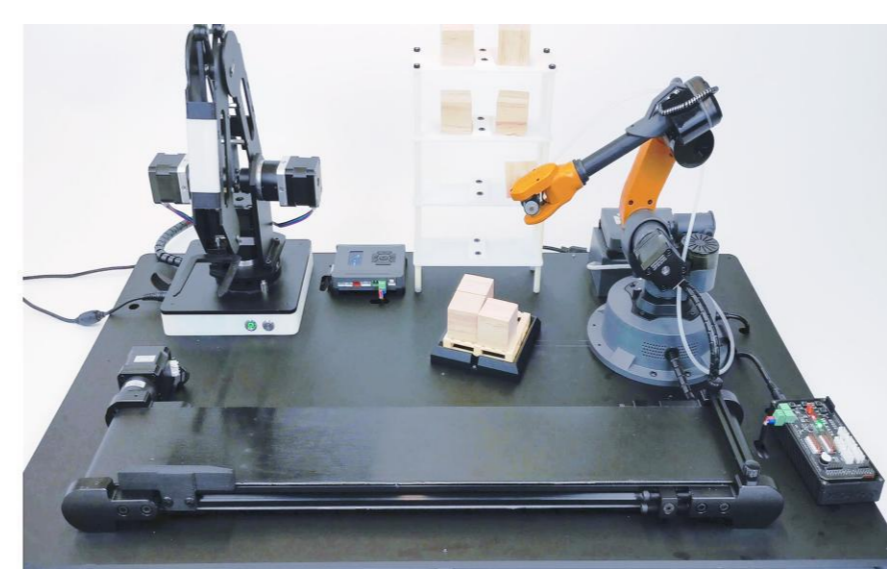
- **Comprehensive Smart Warehousing Simulation:** The Wlkata Logistic Warehouse Cell replicates real-world logistics operations such as loading, palletizing, and sorting. It provides a complete training platform for learning robotic handling, coordinate control, and multi-robot collaboration in intelligent warehousing scenarios.
- **Versatile Educational and Research Platform:** Supports training and research in robotics, intelligent manufacturing, mechatronics, and smart logistics. The system enables hands-on learning and research in modern automation and intelligent storage technologies.
- Supplied with a **complete digital Resource Kit** featuring manuals, an experiment handbook for educators, code samples, and demonstration videos.



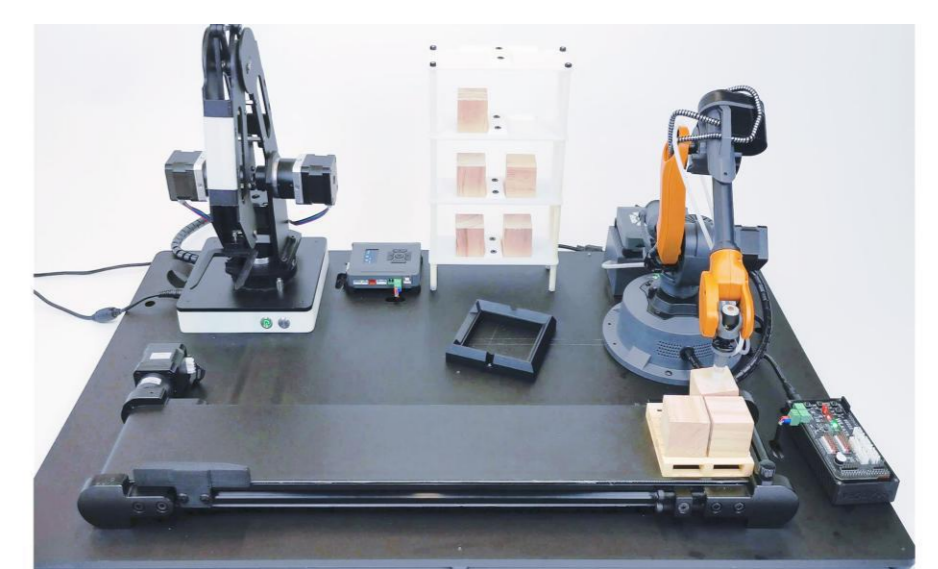
Pallet Placement



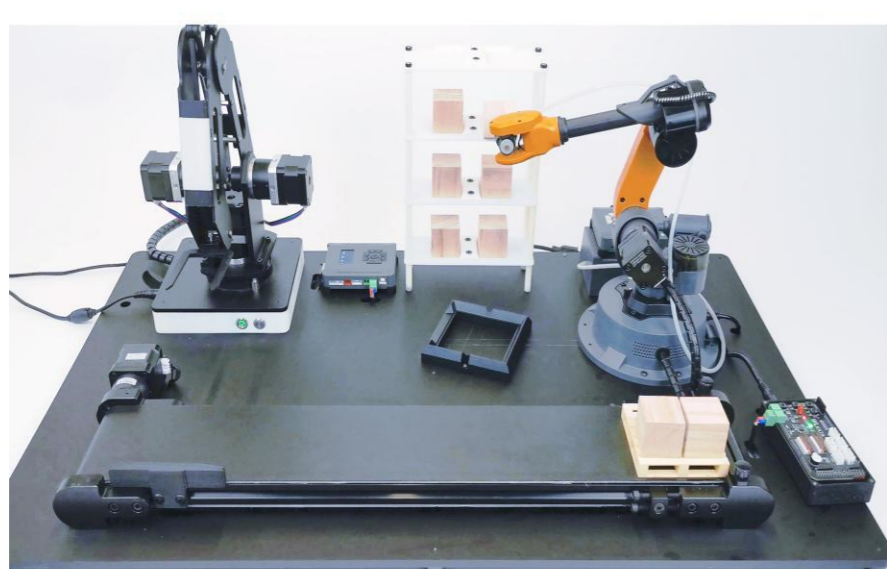
Pallet Conveying



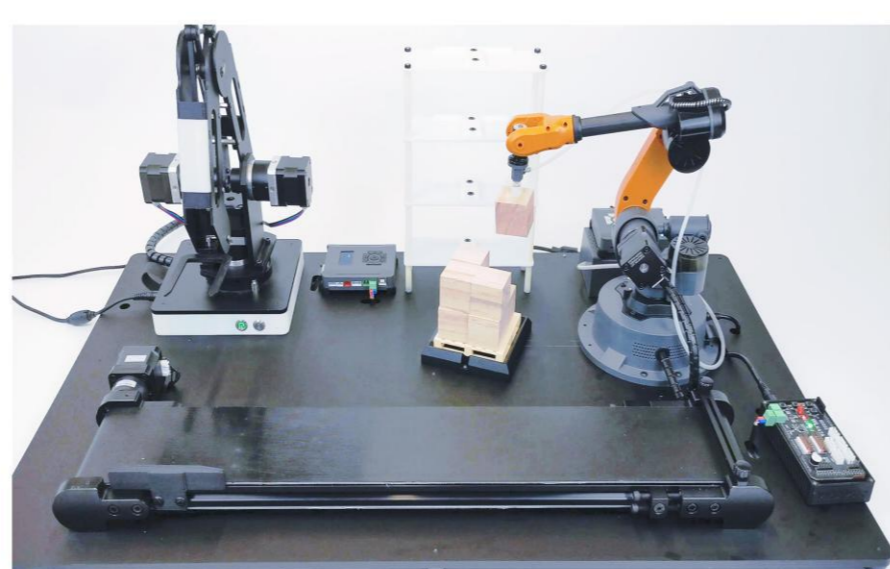
Robot Warehousing



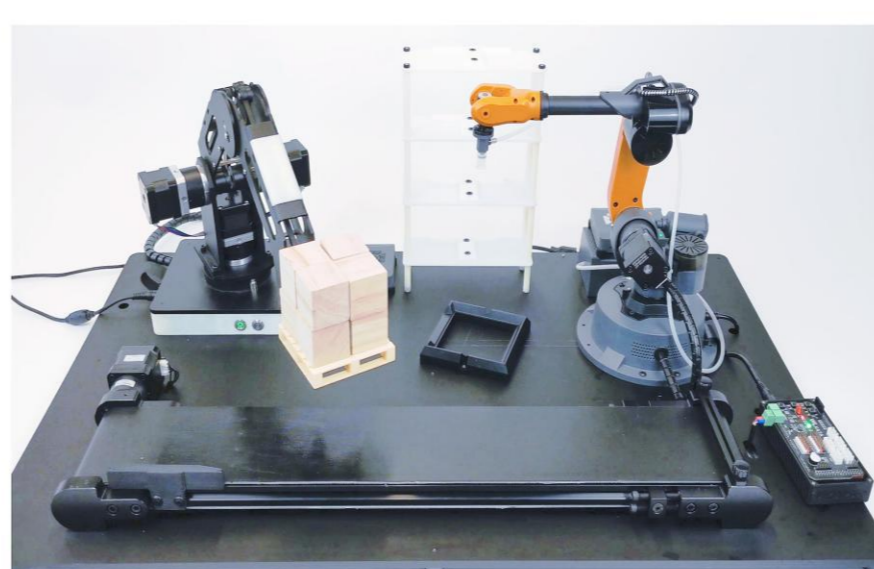
Robot Storage Entry



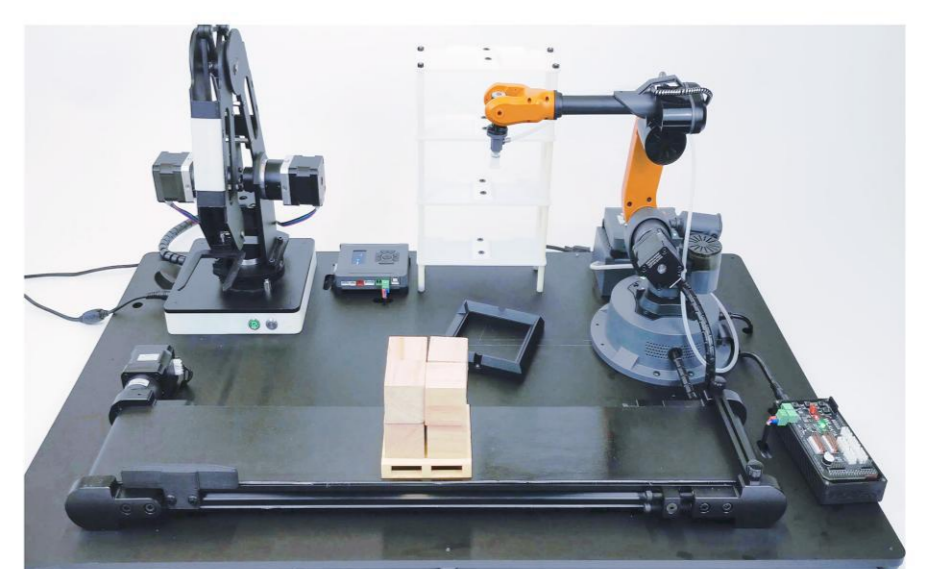
Robot Storage Entry



Robot Unloading

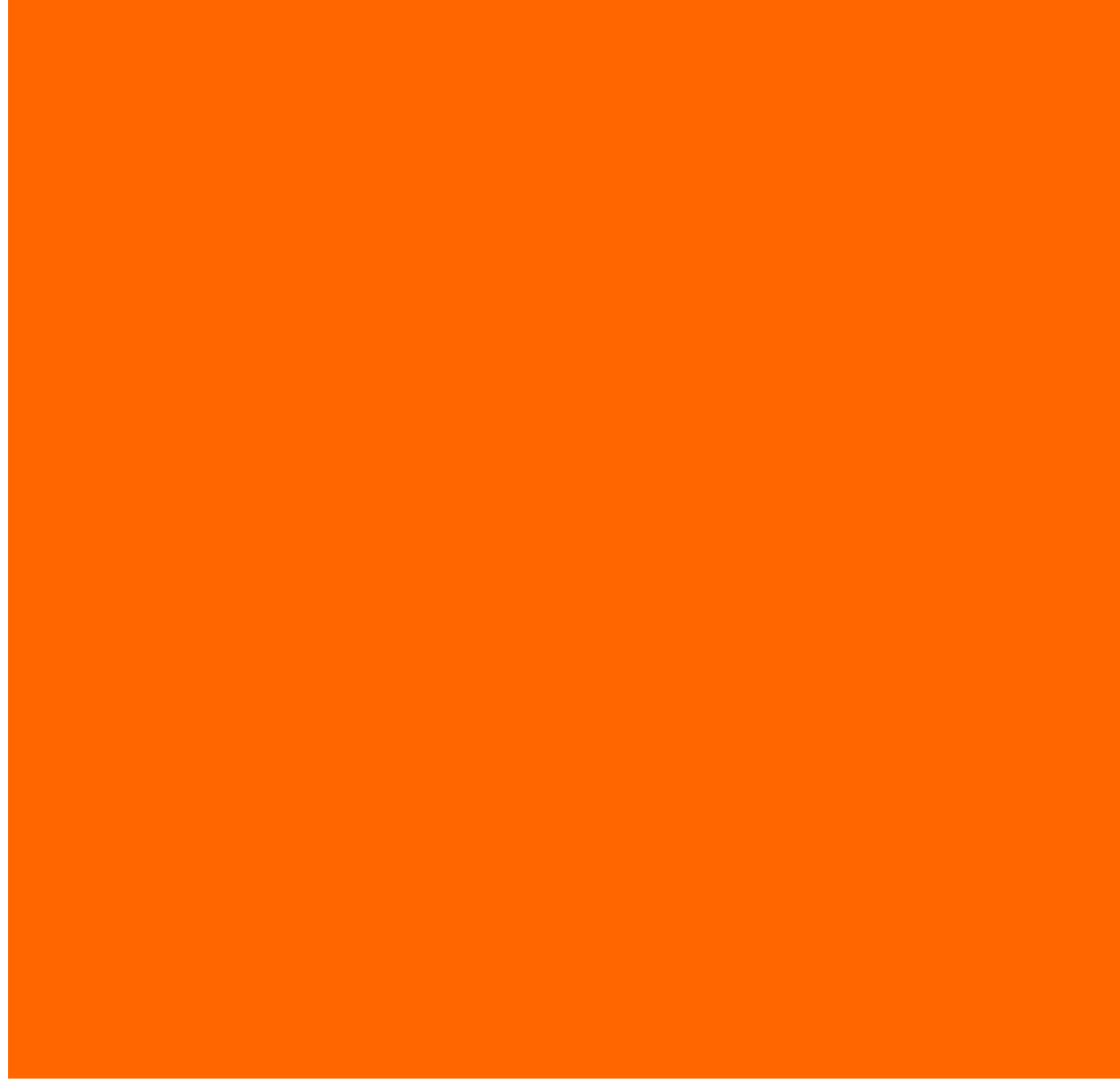


Material Handling



Material Conveying

Smart Base – Size Medium:	<ul style="list-style-type: none"> • Dimensions: 880mm (width) X 500mm (depth) X 80mm (height) • Structure: Aluminum alloy panel, sheet metal frame, ergonomic design • Power: Built-in 220V to 12V power module • Front Panel Buttons: Emergency stop, restart, power switch, customizable function buttons
Six-Axis Robotic Arm:	WLKATA Mirobot X 1
Four-Axis Robotic Arm:	WLKATA MT4 X 1
Conveyor Belt:	WLKATA Conveyor Belt Set X 1



WLKATA Robotics

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