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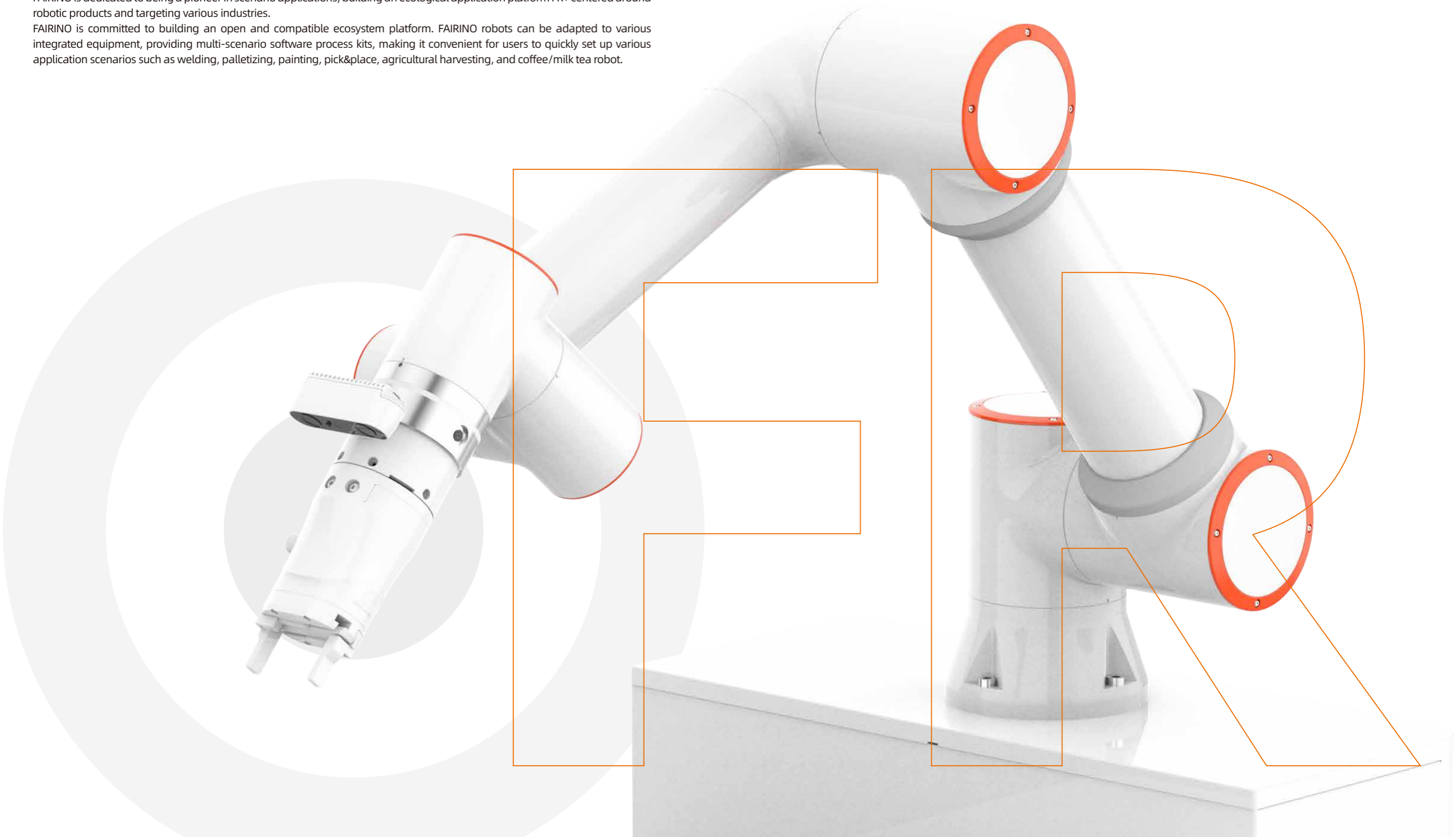
Accessories Ecosystem

FAIR Innovation (Suzhou) Robot System Co.,Ltd.

FAIRINO Eco FR+

FAIRINO is dedicated to being a pioneer in scenario applications, building an ecological application platform FR+ centered around robotic products and targeting various industries.

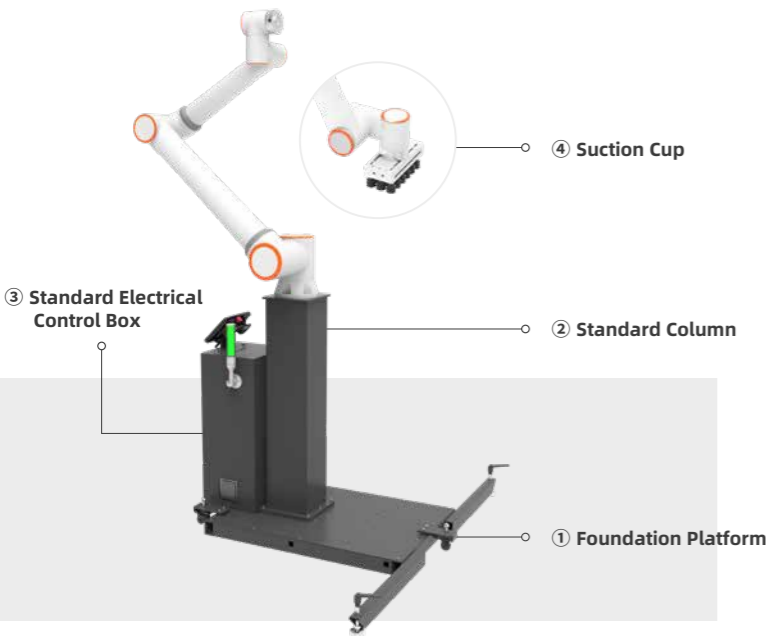
FAIRINO is committed to building an open and compatible ecosystem platform. FAIRINO robots can be adapted to various integrated equipment, providing multi-scenario software process kits, making it convenient for users to quickly set up various application scenarios such as welding, palletizing, painting, pick&place, agricultural harvesting, and coffee/milk tea robot.



Turnkey Palletizing Workstation

Complete palletizing automation tasks in three steps

Just three steps are needed to complete the overall programming work for FAIRINO turnkey palletizing solution. The graphical programming is convenient and efficient; plug and play allows for quick and easy switching, achieving production line flexibility and automation.



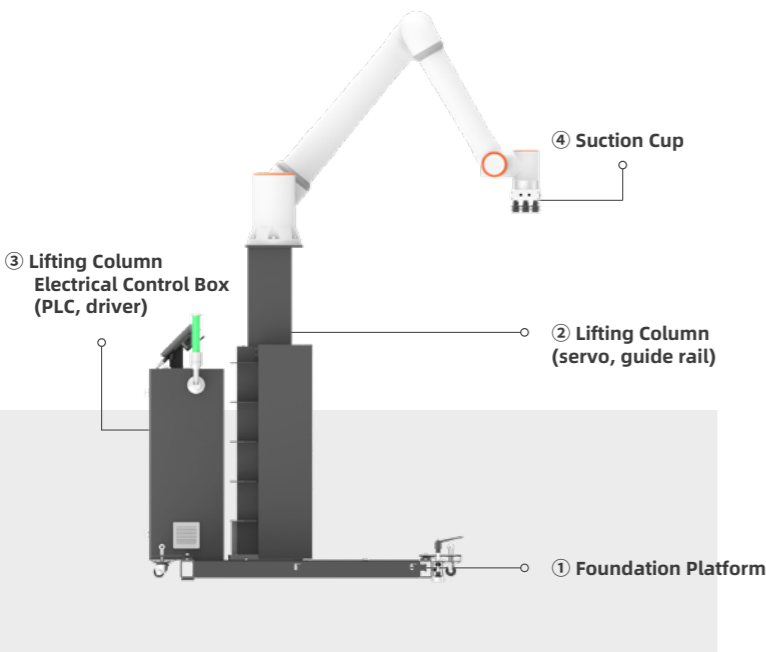
FR-Palletizing-Hardware

Using FR10

Column height: 1100mm
Pallet size: 1200*1000mm/1200*800mm
Mobility: Can be moved by one person
Total weight: Approx 190kg

Using FR20

Column height: 1100mm
Pallet size: 1200*1000mm/1200*800mm
Mobility: Can be moved by one person
Total weight: Approx 230kg
The column version of the palletizing package supports 1800mm

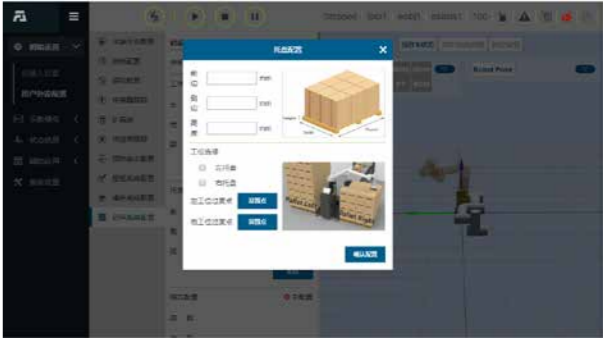
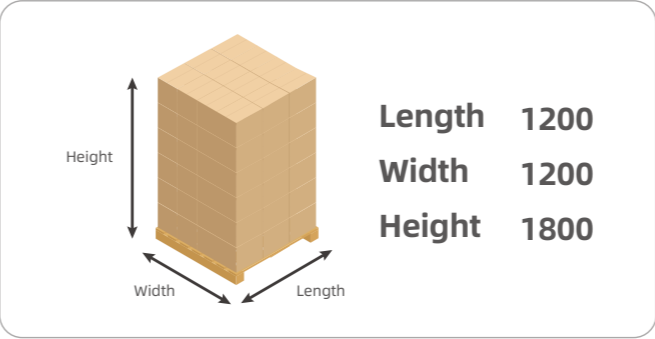
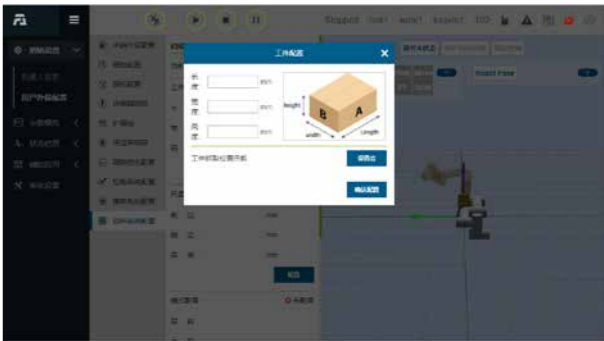
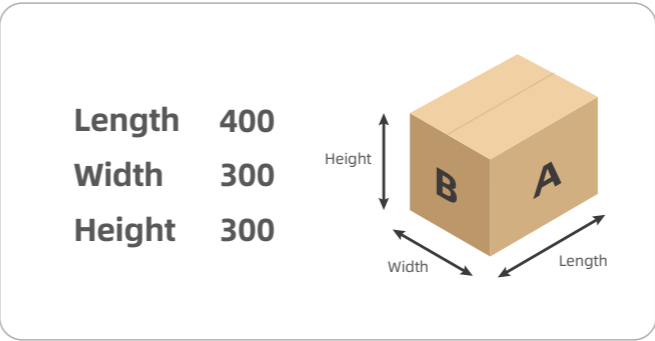


Using FR10

Lifting column height range:
1140-1670mm, lifting speed 45mm/s
Electrical specification:
AC220V, 400W, standard incremental encoder
Pallet size: 1200*1000mm/1200*800mm
Mobility: Can be moved by one person
Total weight: Approx 240kg

Using FR20

Lifting column height range:
1140-1670mm, lifting speed 45mm/s
Electrical specification:
AC220V, 400W, standard incremental encoder
Pallet size: 1200*1000mm/1200*800mm
Mobility: Can be moved by one person
Total weight: Approx 280kg
the lifting column version of the palletizing package supports 2370mm



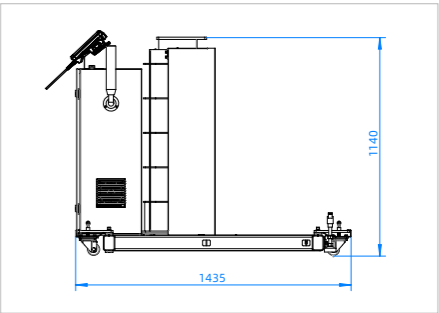
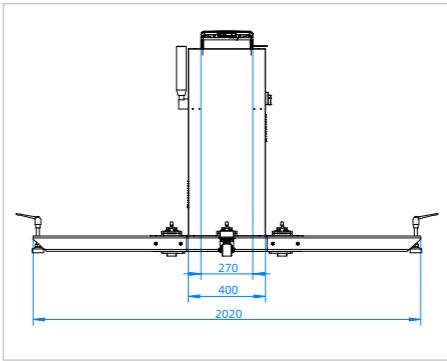
Web interface

Delivery Time 25 working days

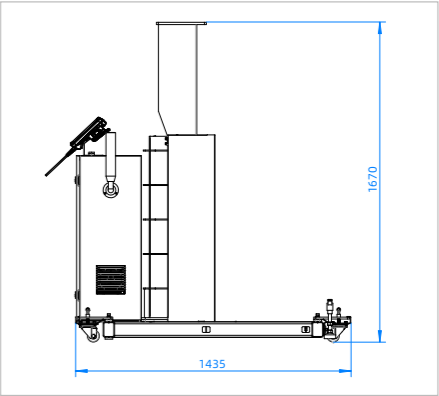
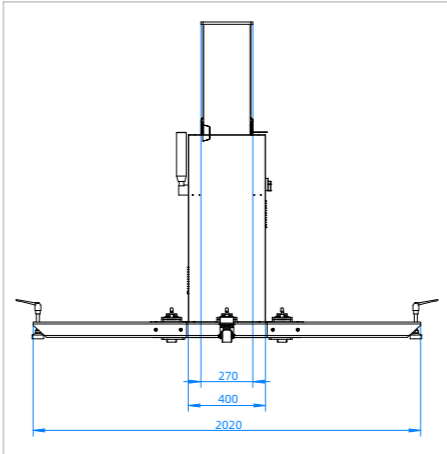


Code to get the accessory list including software & hardware accessories

Palletizing Solution



Unit : mm

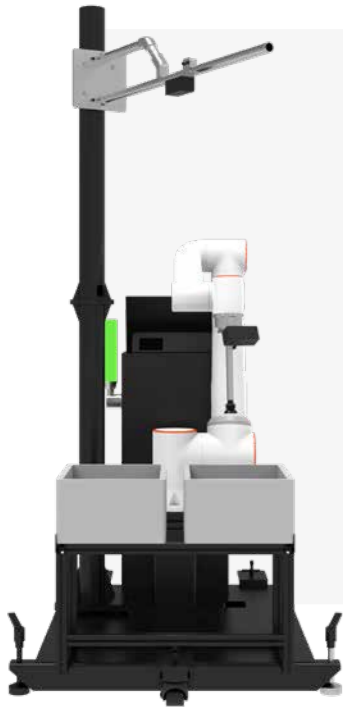


DRAWINGS

Intelligent Bin-picking Workstation

A revolutionary smart picking solution

The smart bin-picking solution combines the advantages of 3D cameras and collaborative robots, integrated with the enterprise's smart warehousing management platform, to achieve full-process automation of warehousing, inventory management, storage, transportation, and picking. It enables 24/7 intelligent sorting, creating a cost-saving and efficient "Dark Factory," and realizing automation of multiple product categories on a single production line.



FR-Bin-picking-Hardware

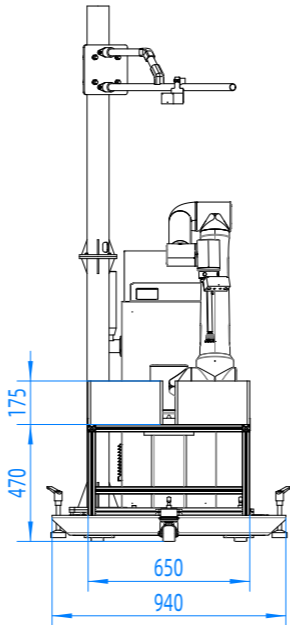
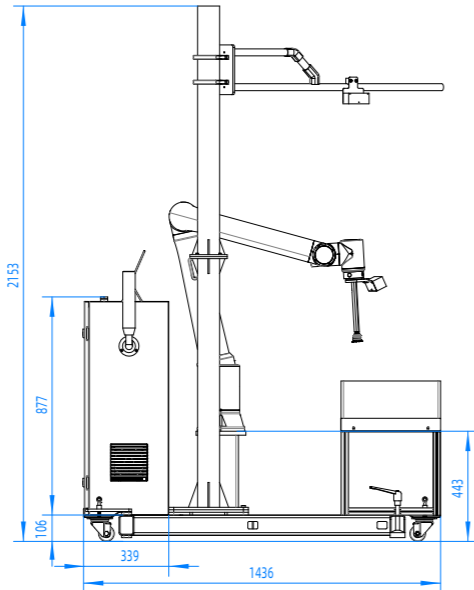
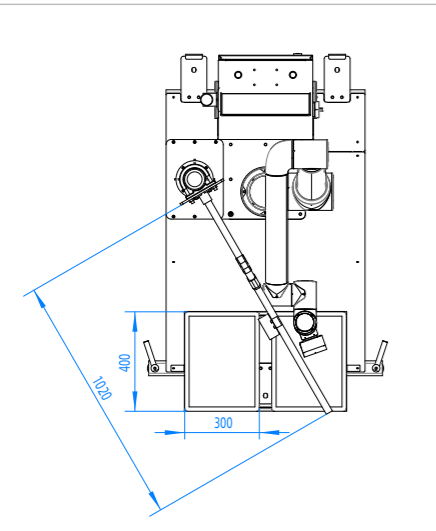
Solution

- ① Foundation Platform (small)
(standard platform + standard column)
- ② Electrical Control Box
- ③ Suction Cup Kit
- ④ PC: DELL3020T
- ⑤ Touch Screen Display: R12 pro
- ⑥ Camera: FS820-E1

Technical Specification

Sorting Speed 15s/pcs
Size 2000*1450*2200mm
Footprint 3m²
Weight 220kg

DRAWINGS Unit : mm



High efficiency



High compatibility



High storage capacity



Fast ROI

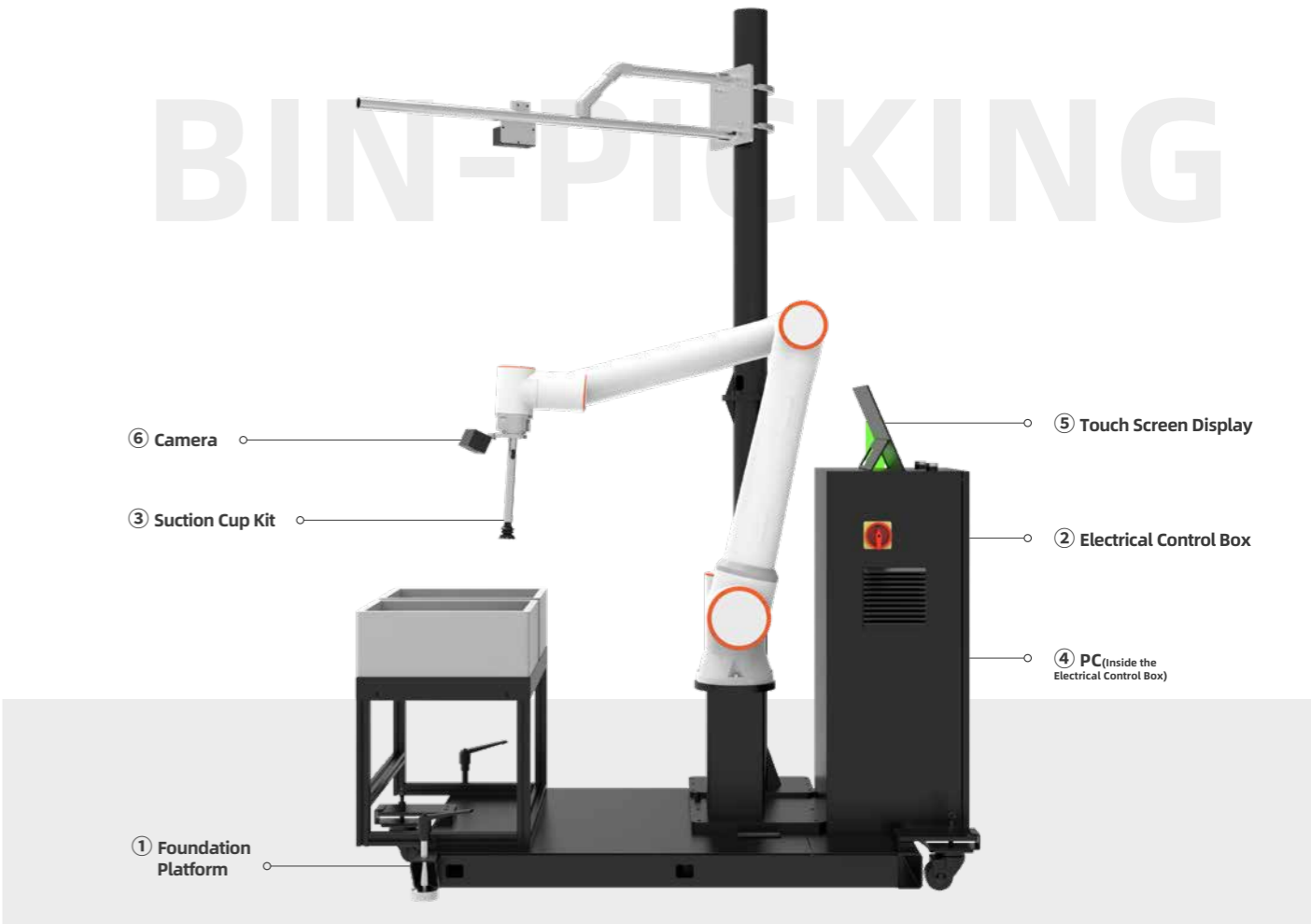
Delivery Time 25 working days

Qualification PC: CQC



Code to get the accessory list
including software & hardware
accessories

BIN-PICKING



Intelligent Welding Workstation

Open a new journey of convenient welding with one click

FAIRINO's digital welding process software kit supports various welding techniques, fully meeting the welding needs of different scenarios. The programming-free automatic welding platform developed by FAIRINO can automatically locate welding seam positions, conduct simulation rehearsals in advance, identify problems promptly, and mitigate risks. During the welding process, real-time welding seam deviation compensation is performed to ensure the consistency and precision of the welding operations.

FR-Welding-Hardware

Welding Hardware

Solution

- ① Welder (with water tank): Ehave2 CM500M
- ② Smart Tool: SMART TOOL V2.1
- ③ Switch Cabinet
- ④ Magnet (3 pcs)
- ⑤ Trolley
- ⑥ Router: TL-AP1201GP
- ⑦ Controller
- ⑧ Torch Extension Cable
- ⑨ Welding Torch

Technical Specification

Size 1449*750*1098mm

Magnetic base for fixation, can be easily moved around

Magnetic base size 382*331*121mm

The equipment is fixed on a trolley, which can be moved along with the trolley

The wire feeder can rotate 360° and can be detached from the trolley and placed freely

Robot Vision

Solution

- ① Camera: AL-M PND0700GB4
- ② IPC Industrial Processing Computer
- ③ IPC Graphics + Graphics Card Display Card
- ④ Vision Software

Technical Specification

Working Distance 350-800mm

Near Field of View 270mm * 200mm@350mm

Far Field of View 630mm * 450mm@800mm

Resolution 1440 * 1080

z-axis Repeatability 0.08mm@500mm

Fastest Acquisition Time 0.8s

Delivery Time 25 working days

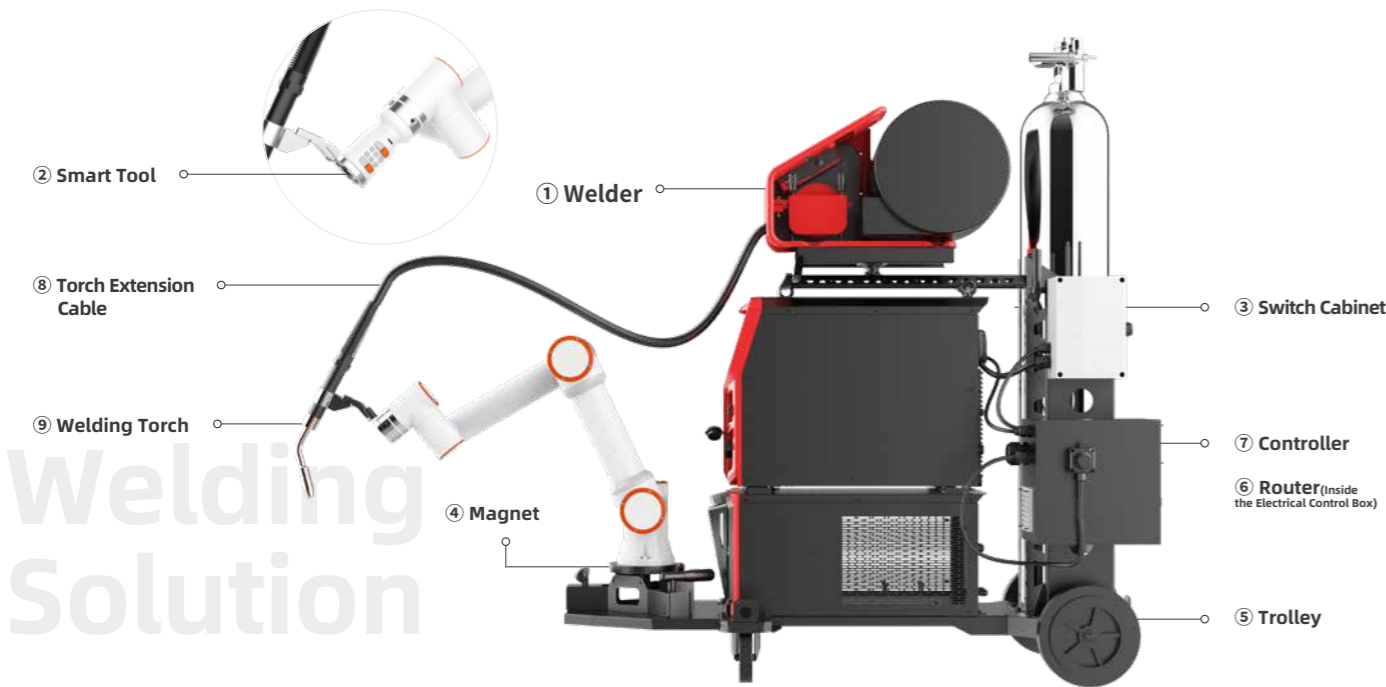
Qualification Magnet: GIG

Camera AL-M: SGS

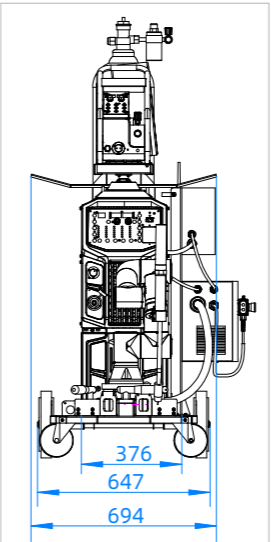
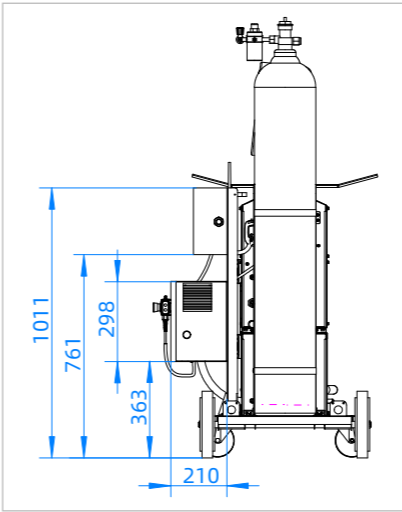
IPC Graphics + Graphics Card Display Card: CE、UL、RHOS



Code to get the accessory list Including software & hardware accessories

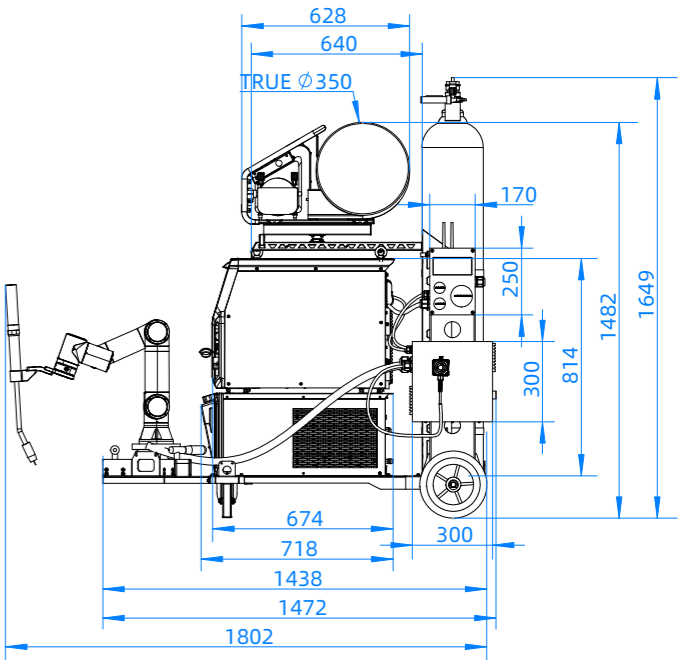


Welding Solution



DRAWINGS

Unit : mm



CNC Workstation

Robotic Ecosystem Application in the CNC Industry

FAIRINO's CNC pick & place solution, equipped with a six-axis collaborative robot, accelerates CNC automation upgrades with features like easy programming, fast deployment, and high safety. This helps manufacturing companies achieve flexible production capacity and quickly adapt to the diverse production needs of various products during the manufacturing process.

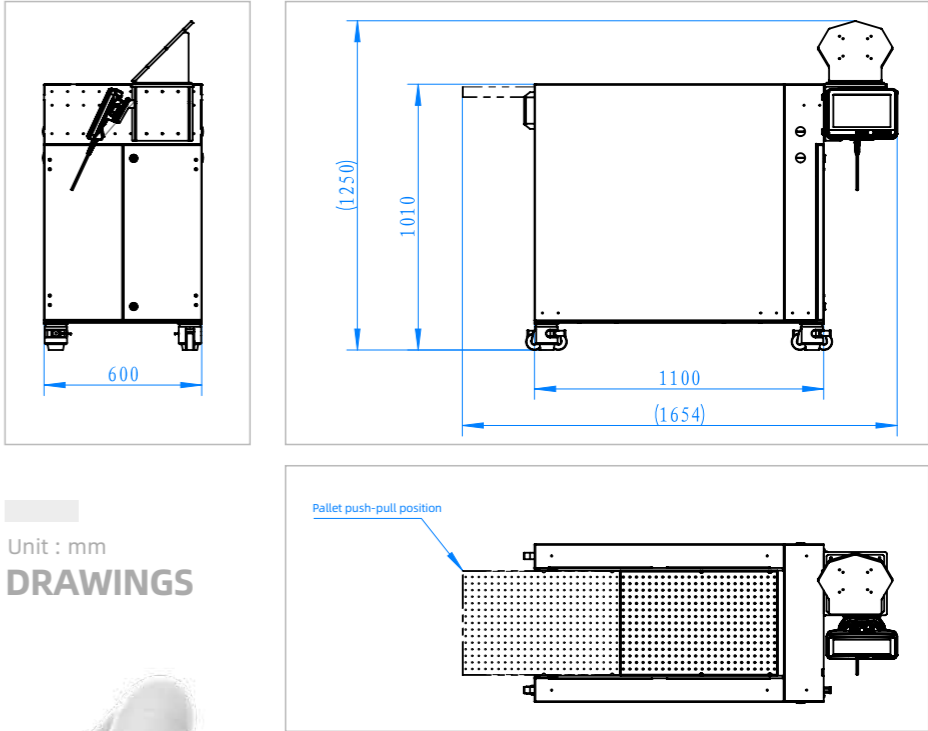
CNC Workstation Components

Main Components

- ① Drawer shelves
- ② Workstation frame
- ③ FR10 robot
- ④ 45-degree mounting adapter
- ⑤ Robot mounting base
- ⑥ Teach pendant
- ⑦ Controller box access port
- ⑧ Fixed table module

Technical Specification

Workstation dimensions 1100mm*600mm*1050mm
Fixed table dimensions 1100mm* W600mm
Weight 280kg (excluding robot)
Power specifications 110-220VAC
Operation methods Web-based teach pendant



Delivery Time 25 working days

CNC WORKSTATION



Spark Project Education Platform

Eco-level application of "Robot + N" in education field

By integrating visual systems, end effectors, torque sensors, mobile platforms, and other hardware and software components with robots, we achieve a "hand" + "eye" + "foot" + "brain" hardware combination, making our platform more open, user-friendly, , and with greater expandability.



Plug and play



Compatible with peripheral devices



Support secondary development

Integrated Modular Design

Open Hardware and Software Platform

Secure Innovative Application

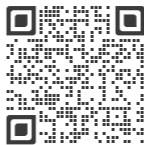


FR-Spark Project-Hardware

■ Gripper ■ Camera ■ Sensor

EDUCATIONAL WORKBENCH

Gripper	Model: EPG40-050	0-6mm Adjustable Stroke	40N Gripping Force	0.22kg Body Weight	Digital I/O Communication Protocol
Camera	Model: gemini2	Working Distance: 350-800mm Near Field of View: 270mm * 200mm@350mm Far Field of View: 630mm * 450mm@800mm		Resolution: 1440 * 1080 z-axis Repeatability: 0.08mm@500mm Fastest Acquisition Time: 0.8s	
Sensor	Model: GZCX-6F-75MM XJC-6F-D80-H28-A	Fx,Fy: 100N, Fz: 20N, Mx,My,Mz: 5Nm, Overload Level: 200%, Repeatability: 0.2%FS Comprehensive Accuracy: ≤1%FS, Sampling Frequency: 1000Hz, Power Supply Voltage: 12~24VDC			
Delivery Time	25 working days				
Qualification	Gripper: CE Camera: RoHS、Reach、CE、FCC、KC、Class 1				







*The parameters provided are for reference only. Actual accuracy may vary depending on the selected product configuration

Code to get the accessory list
Including software & hardware
accessories

Item	EPG40-050		Orbbec Gemini 2		GZCX-6F-75MM		XJC-6F-D80-H28-A	
Performance Parameters	Adjustable Stroke	0~40 mm	Applicable scenario	indoor/semi-outdoor	Fx,Fy(N)	100	Nonlinear	≤0.5%F.S.
	Single Finger Clamping Force	2~50 N	Depth measurement range	0.15m~10m	Fz(N)	200	Zero Output	±5%F.S.
	Repeatability	±0.02 mm	Ideal working range	0.2m~5m	Mx,My(Nm)	5	Repeatability	≤0.1%F.S.
	Open/Close Time	0.5 s	Camera drive	UVC	Mz(Nm)	5	Temperature compensation range	-10%~40°C
	Maximum recommended load	0.8 Kg	SDK	OrbbecSDK	Temperature Sensitivity Drift	≤3%F.S.	Safety overload	300%F.S.
	Operating Environment	5~40°C, Below85% RH	Operating Environment	5~40°C, 85% RH or less	Zero Temperature Drift	≤0.1%F.S./10°C	Temperature Sensitivity Drift	≤3%F.S.
			IR camera resolution @ frame rate	1280x800@30fps 640x400@60fps			Zero Temperature Drift	≤0.1%F.S./10°C
			Color Image Resolution @ Frame Rate	1920x1080@30fps 1280x720@60fps 640x480@60fps 640x360@60fps				

Dimension	40*24*87mm	90*25*30mm	75*30.5mm	75*28mm
Weight	360g	97g	200g(Cable weight included)	200g(Cable weight included)
IP classification	IP40	/	IP64	IP65
Communication Interface	Modbus RTU(RS 485)、Digital I/O	MIPI	RS485/422	RS485
Qualification	CE、RoHS	Class1、RoHS、FCC、CE、Reach、KC	/	/

Products				
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Scan to join
FAIRINO FR+ Ecosystem

01 Submit application documents
02 Customized software & hardware development, and functionality verification
03 Provide sample and user manual for our testing



FR + ACCESSORIES ECOSYSTEM

* FAIRINO only provides required components and does not offer complete solution

COMPANY PROFILE



FAIRINO ROBOT

FAIRINO is the collaborative robot company who has achieved independent R&D of all core components.

We focus on user experience and are dedicated to offering the industry with artificial intelligent robot system.

We provide customized components, complete machines and systems for industry customers, the open development platform provides more convenience and possibility for our partners.

FAIR, as always, provides values and grow together with customers and partners.

Welcome to the intelligent world of FAIRINO.

Lots of manufacturers have begun taking advantage of AIoT and human-machine collaboration. What can collaborative robots do for them?

Collaborative robots decrease manufacturing costs, increase the efficiency of production and enhance the skills of employees. They also offer better service quality and improve the customer experience. By providing the standardized functions and low deploying costs, cobots are widespread in commercial scenarios such as household chores, room cleaning and cooking.

Cobots are believed to have unlimited potential and would be introduced to more scenarios in the future.