

# Product Brochure

Leading Provider of Lightweight Collaborative Robots  
Main Products: Robot arms | Robot grippers | Electric actuators





## HITBOT Z-Arm 6142

Leading Provider of Lightweight Collaborative Robots

### Compact and Precise

Flexible to deploy in various application scenarios

### Simple but Versatile

Easy to program and use, hand-held drag teach, support SDK

### Collaborative and Safe

Collision detection supported, smart human-machine collaboration

#### High precision

Repeatability  
 $\pm 0.03\text{mm}$

#### High speed

1255.45mm/s  
(with 1.5kg payload)

#### High payload

3kg

#### Extended arm reach

J1 220mm  
J2 200mm

#### Extended work range

J1 rotation  $\pm 90^\circ$   
J1 rotation  $\pm 164^\circ$   
Z-axis 610mm

#### Cost-effective

Industrial quality  
Consumer-grade price tag

#### Collaboration

Human-machine collaboration supported

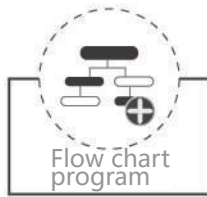
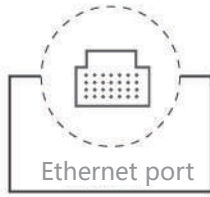
#### Communication

Ethernet

# / Inverted installation

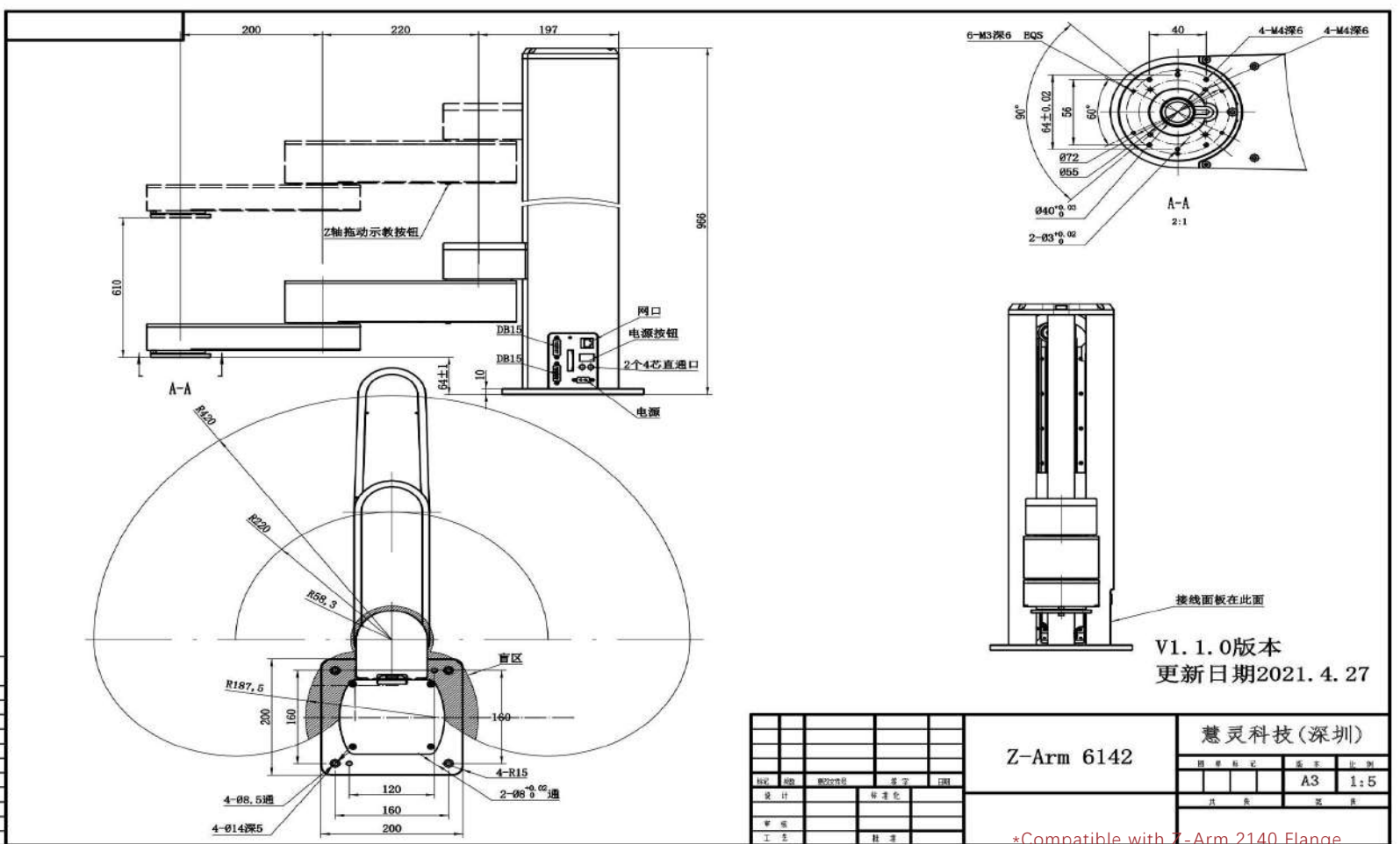


How to use



Work range and size diagram

Z-Arm 6142



Specifications

Specification		Model Number	
		Z-Arm 6142C collaborative version	
Basic information	J1 Axis	Arm reach	220mm
		Rotation range	±90°
	J2 Axis	Reach	200mm
		Rotation range	±164°
	Z axis	Reach	610mm (Customized)
R axis (Optional)	Rotation range	±1080°	
Maximum average linear velocity		1255.45mm/s (with 1.5kg payload)	1023.79mm/s (with 2kg payload)
Repeatability		±0.03mm	
Rated payload		2kg	
Max payload		3kg	
Number of axis		4	
Voltage		220V/110V 50-60HZ DC 24V /Power 500W	
Communication		Ethernet	
Extensibility		Built-in motion controller; with 24 I/O ports; extensibility for adding one more arm	
Customizable Z-axis height		0.1-1 meter	
Z axis Drag to teach		OK	
Reserved electrical interface		Standard:	
		Optional:	
Supportable HITBOT Grippers		Z-EFG-8/Z-EFG-20/Z-EFG-12 (EFG-100-Optional 485 module)	
J2 arm travel range		Standard: ±164°	
		Optional: 15-345°	
Optional accessories		Grippers/ 5-th axis /485 board / 3D printing kit	
Working Environment		Temperature: 0-55°C Humidity: RH85	
I/O ports	Digital input (isolated)		9+3+arm extensibility
	Digital output (isolated)		9+3+extensibility for one more arm
	Analog input (4-20mA)		/
	Analog output (4-20mA)		/
Height		966mm	
Weight		19kg	
Machine base size	Footprint		200mm*200mm*10mm
	Machine fixing holes spacing		160mm*160mm (with 4 M8*20 screws)
Collision detection		√	
Drag to teach		√	
Footprint compatibility		/	
Flange compatibility		Compatible with Z-Arm 2142	



**HITBOT**

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