

NONEAD Shelf Carrier System CB5

Brochure



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苏州拓德机器人科技有限公司
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Technical parameters are subject to change without notice, The download address
of the new version: https://www.nonead.com/hardware_content/20803.html

ICS CODE: NH0211
NO.

NONEAD Shelf Carrier System CB5

MiR-robots is a kind of indoor industrial cooperative autonomous mobile robot, which can realize the automation of material transportation in the factory, improve the speed of internal logistics, and liberate the employees from the repetitive and dangerous transportation work, so as to ensure the safety and efficiency of employees and robots, and improve productivity.

MiR-robots has the characteristics of rapid arrangement, simple programming, safety and reliability, and does not need to change the working environment layout.

The fifth generation of NONEAD Shelf Carrier System is a multi-functional bottom traction system customized by NONEAD technology for MiR-robots. As the top standard module of MiR-robots, this system has the characteristics of fast installation, no need for additional programming, safety and reliability. NONEAD technology has designed a series of modular standard vehicles for the bottom traction system. These vehicles can be directly connected and used to adapt to different product sizes and weights in various industries. In addition, we also provide base carts so that users can design the upper loading platform at will, match with the NONEAD power supply signal module, and can synchronously provide power and signal for the upper platform.

nMiRBTS CB5 is powered by MiR batteries and equipped with a control system internally. It interacts with MiR through internal Ethernet. When MiR reaches the attached position, the controller can extend the attaching mechanisms on both sides the control of the internal electric push rod, actively locking the cart. NONEAD's Shelf Carrier System features autonomous attaching control, providing a large contact area for stronger traction force and torque, thereby enhancing the stability and reliability of the entire traction system. With its modular design, it can be conveniently installed on MiR by through using quick connectors. The front and rear panels provide two safety emergency stops and include a programmable button, allowing operators to interact with the mobile robot during actual operations.



Standby



Operating State

NH0211 NONEAD Shelf Carrier System CB5

Features: Modular installation, simple; MiR-robots can be directly controlled without additional programming; double emergency buttons at the front and back sides to ensure safety; manual automatic switching, convenient inspection; programmable button to increase HCI for MiR-robots; optional power supply module to supply power and signal interaction for the carts; standard modular carts that customers can deploy independently.



MiR250 + nMiRBTS_CB5 Standby



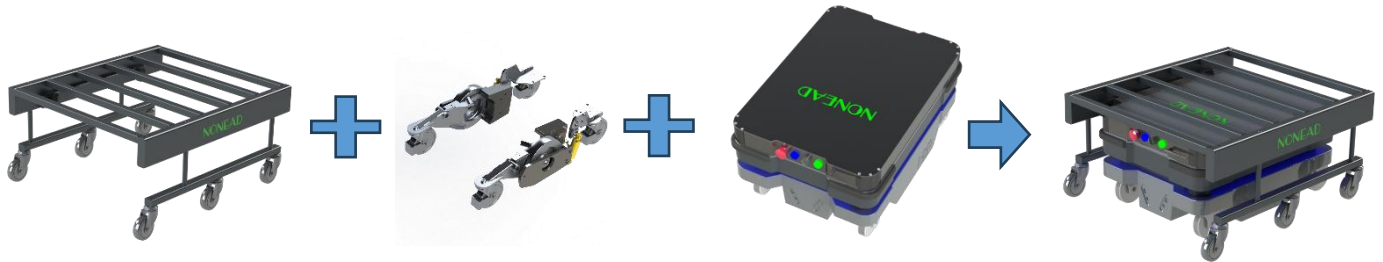
MiR250 + nMiRBTS_CB5 Operating State

NONEAD Shelf Carrier System CB5

Tested on a standard epoxy floor, compatible with the Base Cart (maximum load = Cart weight + cargo weight).

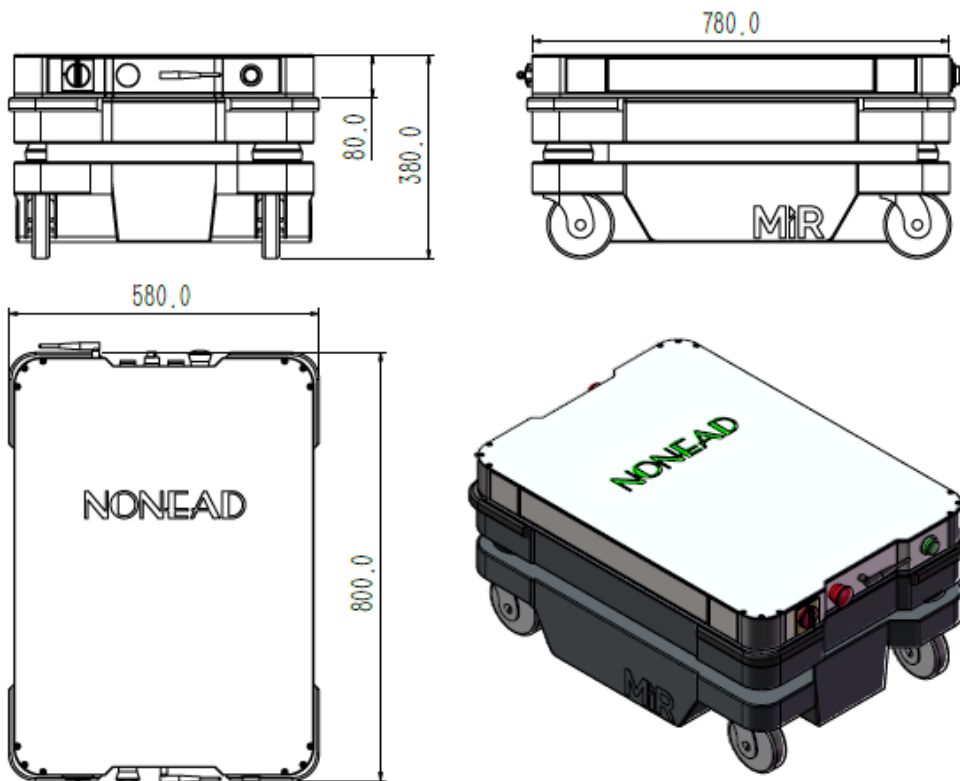


MiR250 + NH0211_nMiRBTS + NH0292_Base Cart. Maximum load 200KG.



MiR250 + NH0211_nMiRBTS + NH0260_Loading Mechanism Kit + NH0293_Heavy-loading Base Cart. Maximum load 500KG.

Dimensional drawing



Installation the MiR250 of the NONEAD Shelf Carrier System CB5

unit: mm

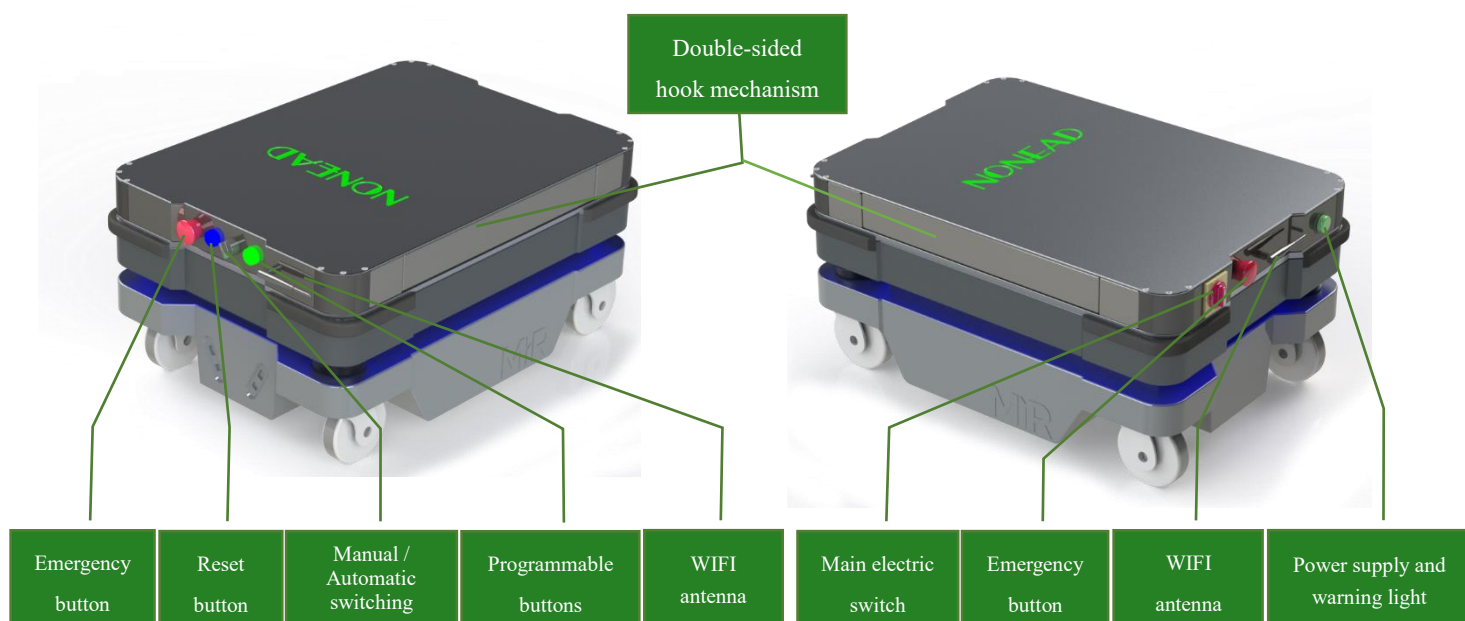
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NONEAD Shelf Carrier System CB5

Appearance



Standard Vehicles



NH0302 Gravity Cart



NH0303 Heavy-loading Gravity Cart



NH0304 Standard Site Gravity Shelf



NH0305 Standard Cart



NH0306 Heavy-loading Standard Cart



NH0307 Three-layer Cart



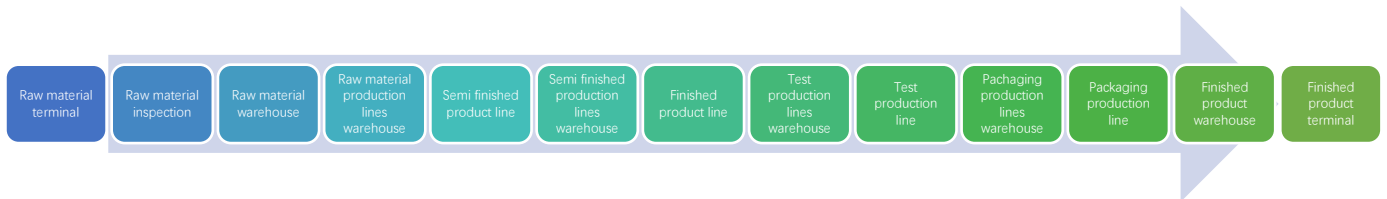
NH0308 Heavy-loading
Three-layer Cart

NONEAD Shelf Carrier System CB5

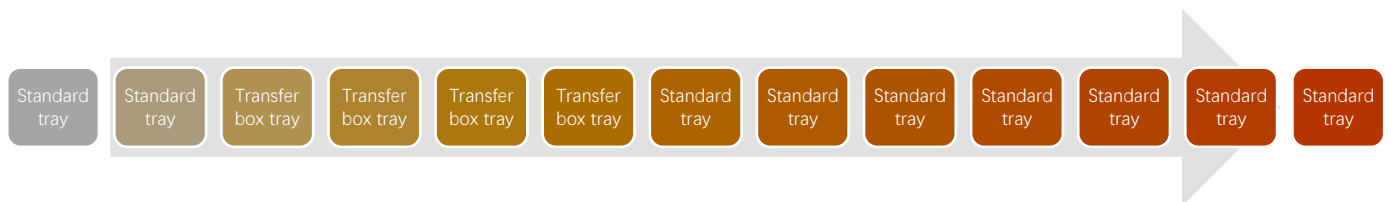
Fully automatic closed-loop transfer scheme for manufacturing enterprises



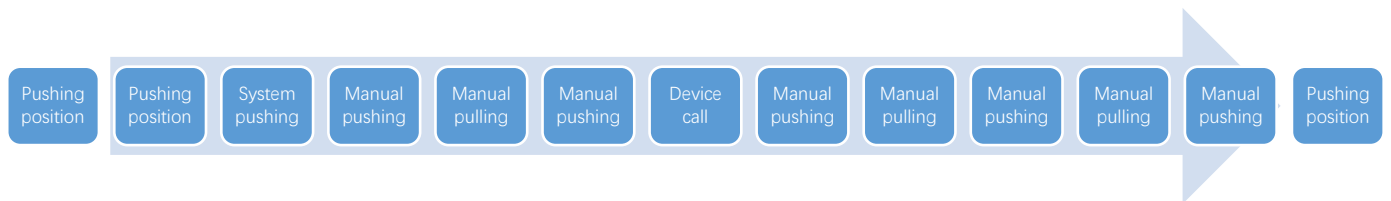
Customer demands: automatic transfer of materials in the factory of manufacturing enterprises, as follows:



Mode of transportation: due to different product packaging in each process, different carts will be used as means of transportation:



Calling mode: manual pulling, manual pushing, MES system pushing, equipment calling, position pushing



Executive system: MiR-Robots (body & charging station), all vehicles adapted nMiRBTS CB5



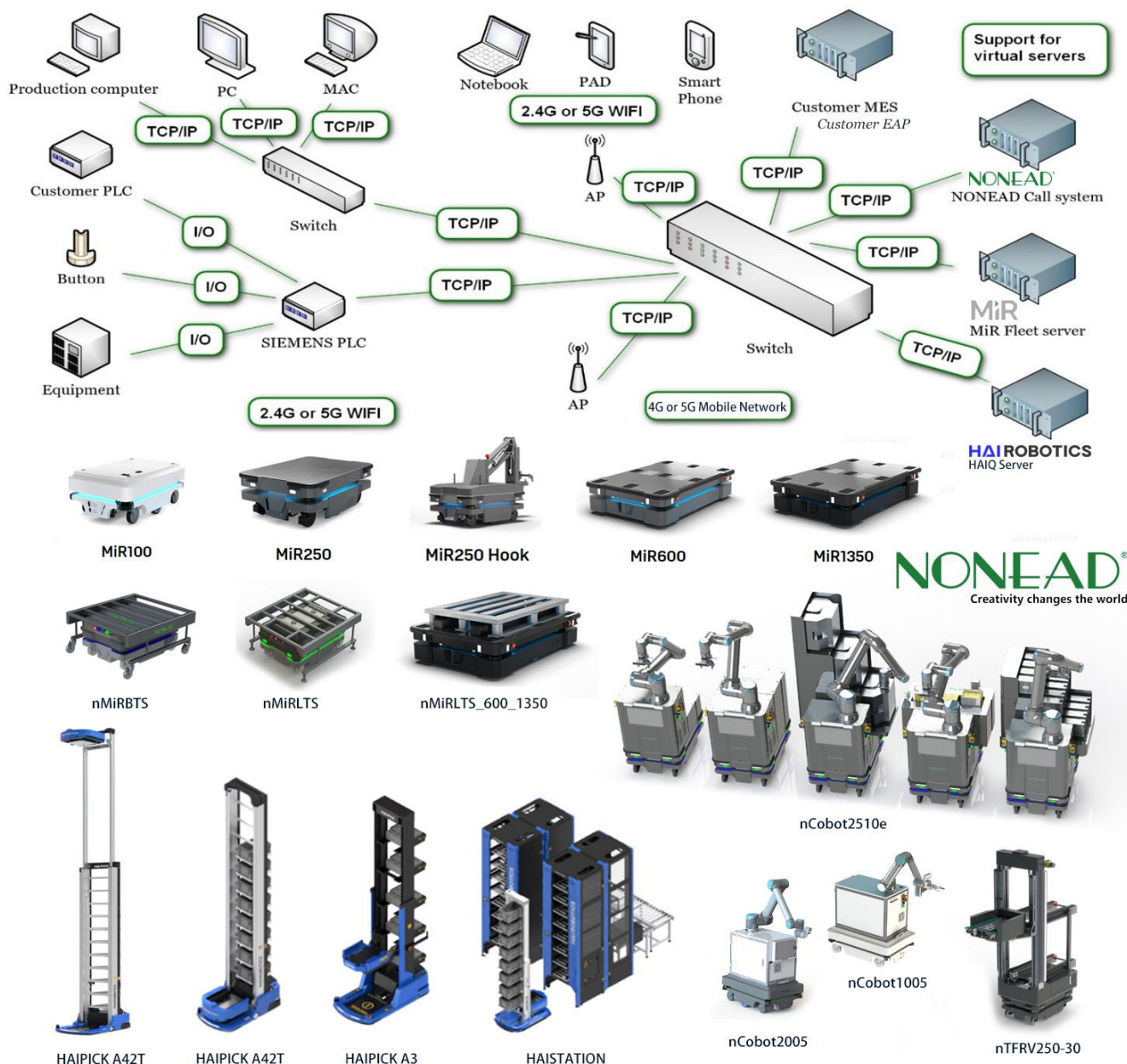
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NONEAD Shelf Carrier System CB5

System architecture: NONEAD call system, MiR dispatching system, HAI Robotics dispatching system, secondary development of customer MES interface



Raw material warehouse, electronic warehouse, fixture warehouse, line side warehouse, semi-finished product warehouse, finished product warehouse recommend HAI ROBOTICS Box Storage Robot



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NONEAD Shelf Carrier System CB5

Give full play to your imagination

NH0211 NONEAD Shelf Carrier System CB5

NH0260 NONEAD Mobile Robot Loading mechanism kit -MiR250_CB1

NH0292 nMiRBTS_CB5_MiR250 Base cart

NH0293 nMiRBTS_CB5_MiR250 Heavy-loading Base cart

If none of NONEAD's existing cart & accessories is suitable for you, you can purchase our base carts. The upper carrier can be designed independently according to the site situation and product size. If you need precise positioning ($\pm 0.5\text{mm} \leq \text{accuracy} \leq \pm 3\text{mm}$) or power supply to the carrier is required after positioning, please contact NONEAD sales: sales@nonead.com.



NH0292_nMiRBTS_CB5_MiR250 Base Cart



MiR250+nMiRBTS_CB5 Shelf Carrier Base Cart



NH0293_nMiRBTS_CB5_MiR250 Heavy-loading Base Cart

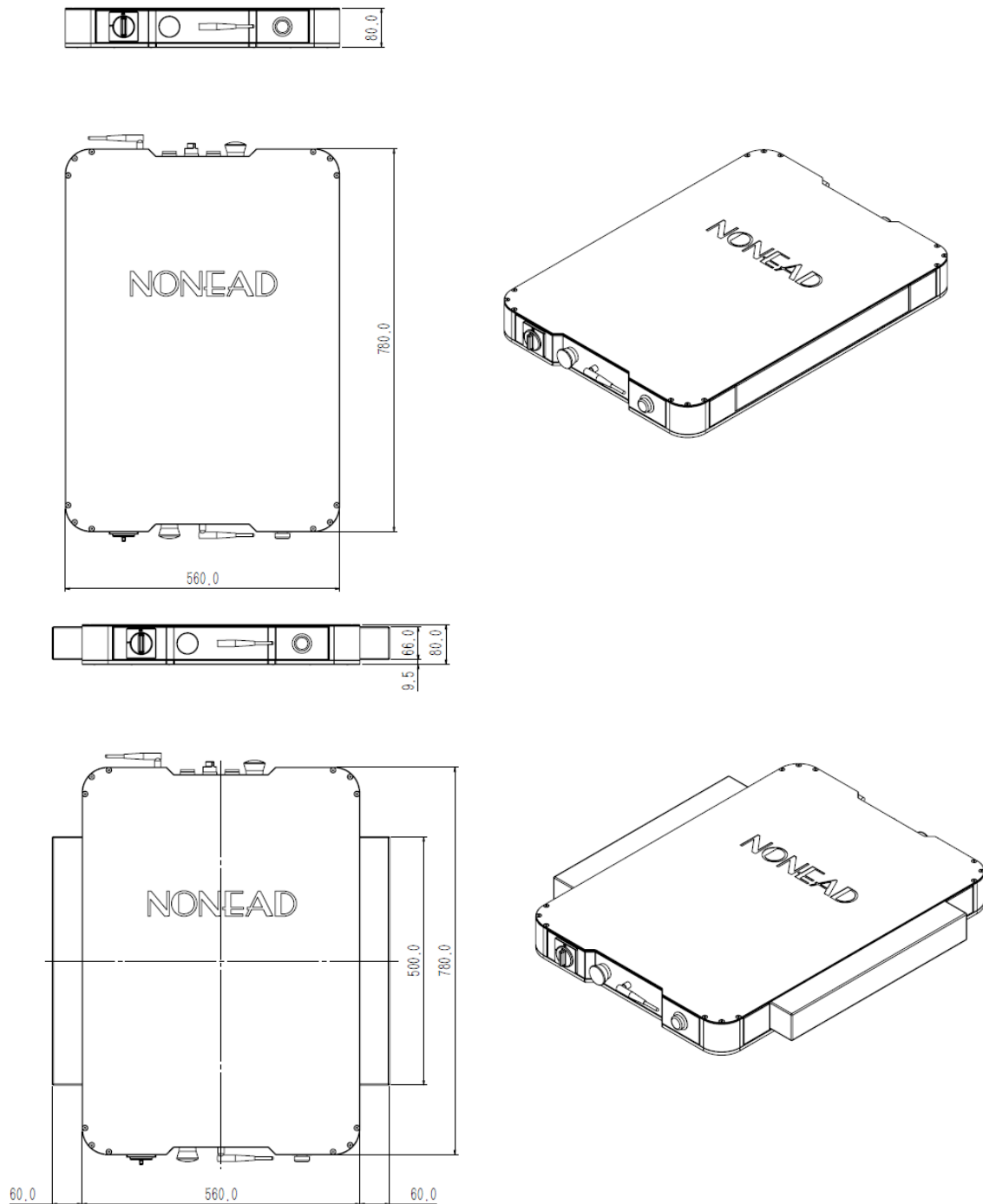


MiR250+nMiRBTS_CB5 Shelf Carrier Heavy-loading Base Cart

NONEAD Shelf Carrier System CB5

Technical parameters

NH0211 NONEAD Shelf Carrier System CB5



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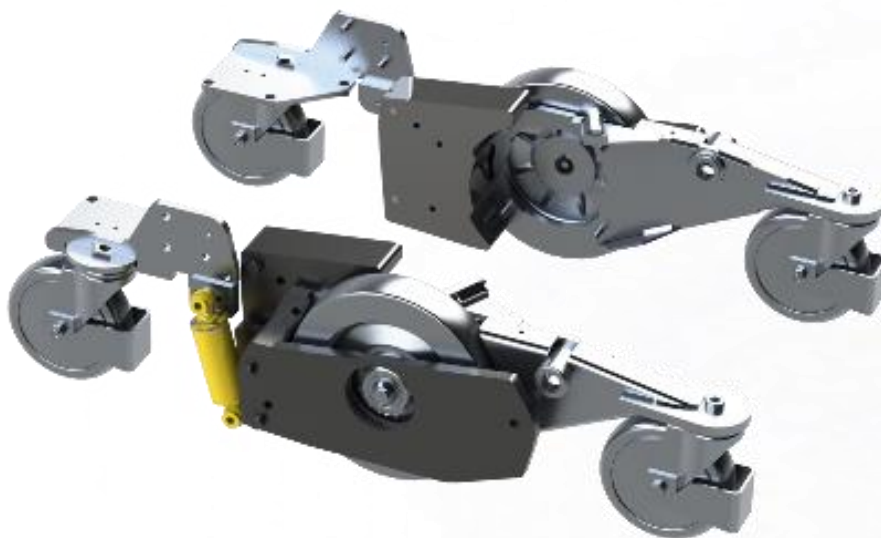
NONEAD Shelf Carrier System CB5

NH0211 NONEAD Shelf Carrier System CB5

Product name	NONEAD Shelf Carrier System CB5
ICS CODE	NH0211
Picture	
Abbreviation	nMiRBTS_CB5
L x W x H	780mm x 560mm x 80mm
Height above floor	380mm
Weight	38KG
Material	Stainless steel, aluminum
Power consumption	Maximum power consumption DC24V 56W, standby power consumption DC24V 20W
Maximum traction load	The standard version of the Base Cart 200KG, and the increase of Loading mechanism kit + Heavy-loading Base Cart 500KG,
IP	IP20
Security system	An emergency stop button on the front and rear, and a reset button on the front
Certification	CE, FCC
Protection Function	Automatic protection of overloaded motors
Control system	NONEAD nUC-S_CB4.6 MCU: <u>Cortex-M7</u> 216MHz
Control mode	A two-speed button on the front to switch between automatic/manual mode
Multi-function button	A multi-function button on the front to set the required function in MiR-Robots
Switch	A main switch at the rear
Visualization	A power supply light on the rear, which also doubles as an error alarm light
Antenna	One feeder extension cable at the front and rear, equipped with 2.4G & 5G Wi-Fi antenna
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

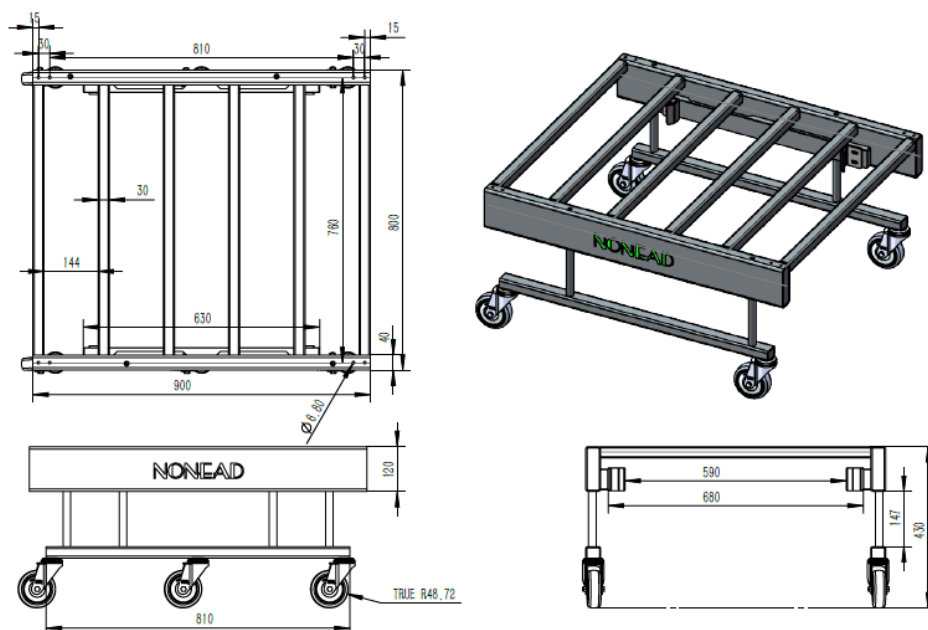
NH0260 MiR250 Loading Mechanism Kit



Product name	MiR250 Loading Mechanism Kit
ICS CODE	NH0260
Picture	
Abbreviation	MiR250 Loading kit
L x W x H	Irregular
Installation location	Inside the MiR250, left and right drive wheels
Weight	12KG x 2
Material	Stainless steel, iron
Function	Increased MiR250 drive wheel-to-ground friction for improved load capacity
Maximum traction load	After the bottom traction system is installed, the MiR250 load can be increased from 200KG to 500KG
IP	IP20
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

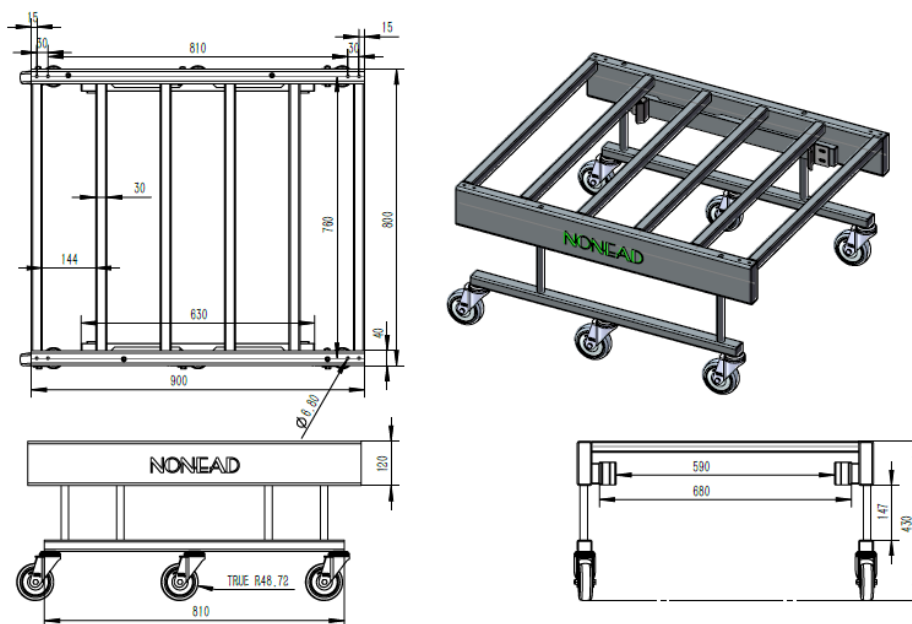
NH0292 nMiRBTS_CB5_MiR250 Base Cart



Product name	nMiRBTS_CB5 Base Cart
ICS CODE	NH0292
Picture	
Abbreviation	Base Cart
L x W x H	900mm x 800mm x 430mm
Height above floor	430mm
Weight	30KG
Material	Iron
Maximum load	Base Cart Standard Version 200KG
Upper mechanical interface	8 x M10, used to connect various upper mechanisms
Docking mechanical interface	Adapt to nMiRBTS_CB5
Wheels	German Blickle casters x 4
Extensibility	Can be equipped with a high-precision positioning device, a docking power supply module and a top power supply/signal/control module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

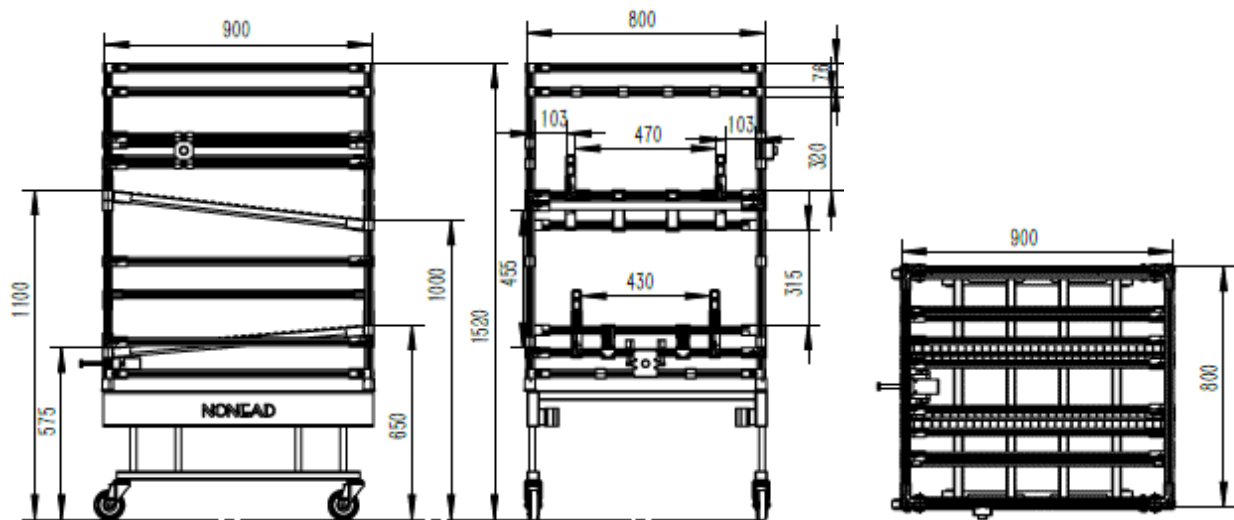
NH0293 nMiRBTS_CB5_MiR250 Heavy-loading Base Cart



Product name	nMiRBTS_CB5 Heavy-loading Base Cart
ICS CODE	NH0293
Picture	
Abbreviation	Heavy-loading Base Cart
L x W x H	900mm x 800mm x 430mm
Height above floor	430mm
Weight	32KG
Material	Iron
Maximum load	Heavy-loading Base Cart 500KG
Upper mechanical interface	8 x M10, used to connect various upper mechanisms
Docking mechanical interface	Adapt to nMiRBTS_CB5
Wheels	German Blicke casters x 6
Extensibility	Can be equipped with a high-precision positioning device, a docking power supply module and a top power supply/signal/control module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

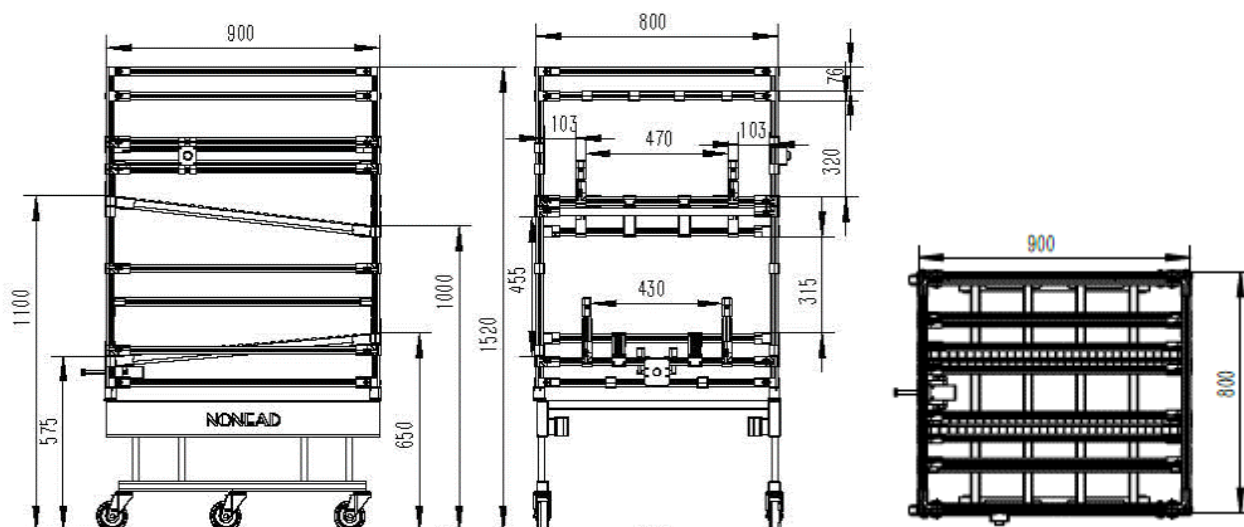
NH0302 nMiRBTS_CB5 Gravity Cart



Product name	nMiRBTS_CB5 Gravity Cart
ICS CODE	NH0302
Picture	
Abbreviation	Gravity Cart
L x W x H	900mm x 800mm x 1520mm
Height above floor	Under layer 575mm, upper layer 1000mm, top storage 1450mm
Weight	65 KG
Material	Aluminum, stainless steel, iron
Maximum load	Maximum load 200KG, single layer load 80KG, top layer load 40KG
Transfer box size	Single-layer maximum cargo size 600mm x 400mm x 280mm x 2 boxes
Docking mechanical interface	Adapt to nMiRBTS_CB5
Wheels	German Bickler casters x 4
Extensibility	Can be equipped with a high-precision positioning device and a docking power supply module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

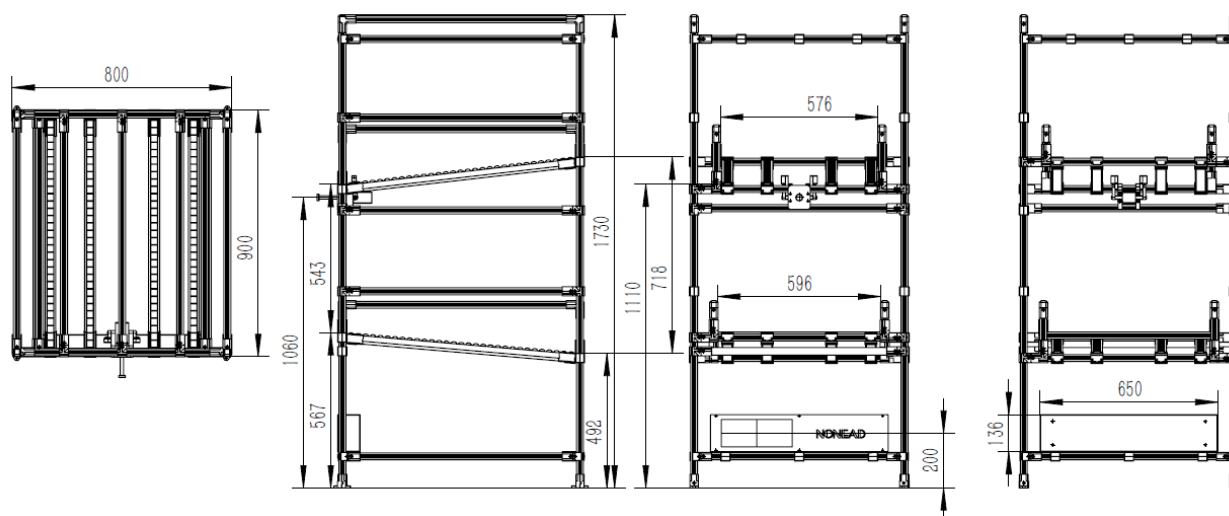
NH0303 nMiRBTS CB5 Heavy-loading Gravity Cart



Product name	nMiRBTS_CB5 Heavy-loading Gravity Cart
ICS CODE	NH0303
Picture	
Abbreviation	Heavy-loading Gravity Cart
L x W x H	900mm x 800mm x 1520mm
Height above floor	Under layer 575mm, upper layer 1000mm, top storage 1450mm
weight	67KG
Material	Aluminum, stainless steel, iron
Maximum load	Maximum load 500KG, single layer load 200KG, top layer load 100KG
Transfer box size	Single-layer maximum cargo size 600mm x 400mm x 280mm x 2 boxes
Docking mechanical interface	Adapt to nMiRBTS_CB5
Wheels	German Blicke casters x 6
Extensibility	Can be equipped with a high-precision positioning device and a docking power supply module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

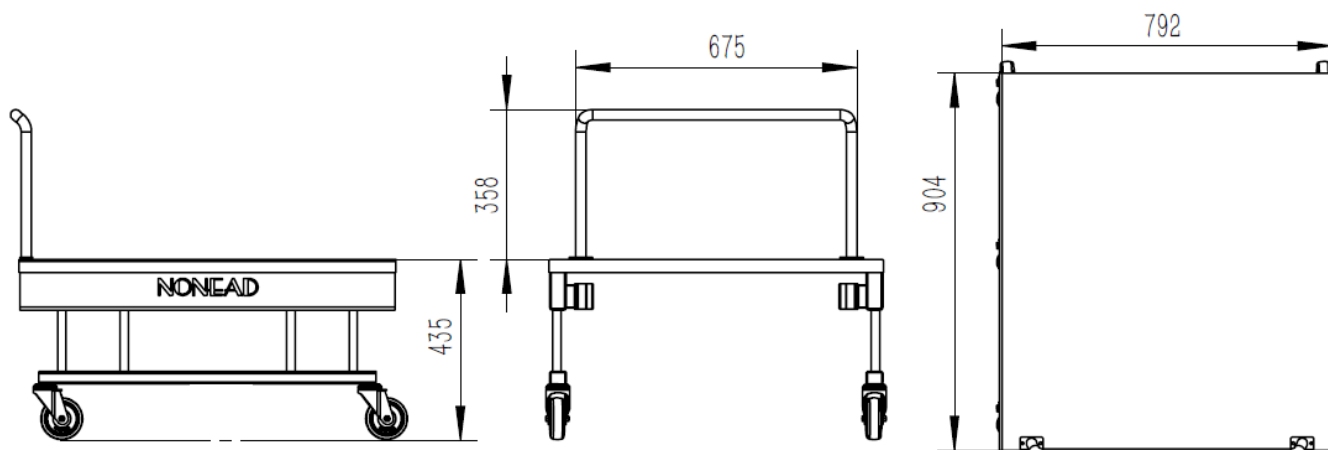
NH0304 nMiRBTS_CB5 Standard Site Gravity Shelf



Product name	nMiRBTS_CB5 Standard Site Gravity Shelf
ICS CODE	NH0304
Picture	
Abbreviation	Standard Site Gravity Shelf
L x W x H	900mm x 800mm x 1730mm
Height above floor	Lower docking port from ground 567mm , lower artificial port from ground 492mm, the upper docking port from ground 1060mm, and the upper artificial port from ground 1210mm
Weight	80 KG
Material	Aluminum alloy, iron, stainless steel
Maximum load	300 KG
Docking mechanical interface	Adapt to nMiRBTS_CB5
Extensibility	Can be equipped with a high-precision positioning device and a docking power supply module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

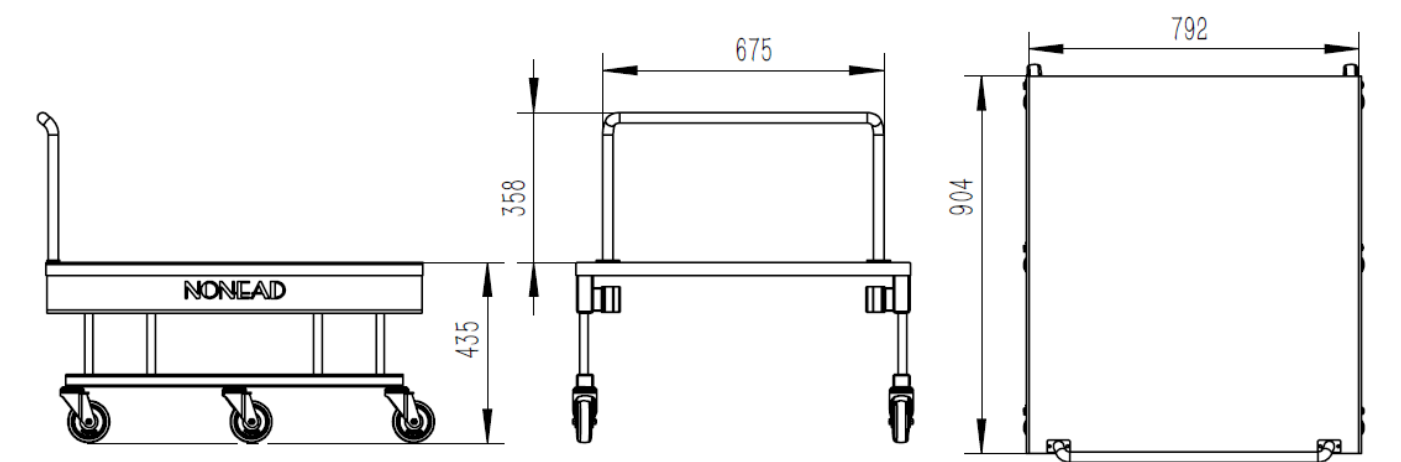
NH0305 nMiRBTS_CB5 Standard cart



Product name	nMiRBTS_CB5 Standard cart
ICS CODE	NH0305
Picture	
Abbreviation	Standard cart
L x W x H	904mm x 792mm x 435mm
Height above floor	435mm
Weight	45 KG
Material	Stainless steel, iron
Maximum load	200 KG
Docking mechanical interface	Adapt to nMiRBTS_CB5
Wheels	German Bickler casters x 4
Extensibility	Can be equipped with a high-precision positioning device and a docking power supply module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

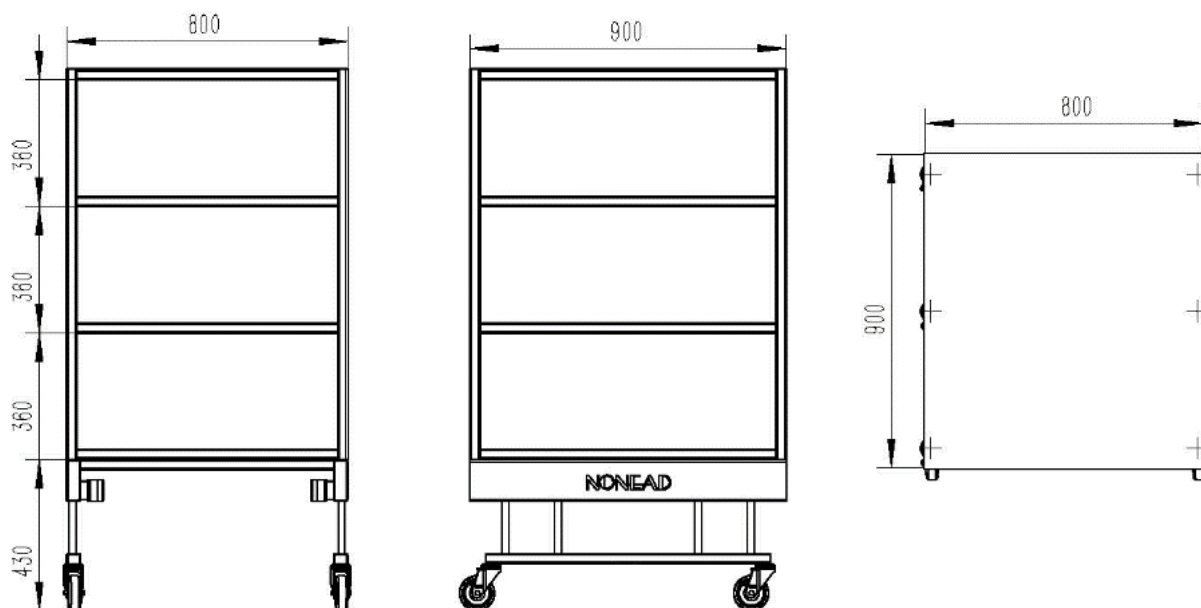
NH0306 nMiRBTS_CB5 Heavy-loading Standard Cart



Product name	nMiRBTS_CB5 Heavy-loading Standard Cart
ICS CODE	NH0306
Picture	
Abbreviation	Heavy-loading Standard Cart
L x W x H	904mm x 792mm x 435mm
Height above floor	435mm
Weight	47 KG
Material	Stainless steel, iron
Maximum load	500 KG
Docking mechanical interface	Adapt to nMiRBTS_CB5
Wheels	German Blickle casters x 6
Extensibility	Can be equipped with a high-precision positioning device and a docking power supply module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

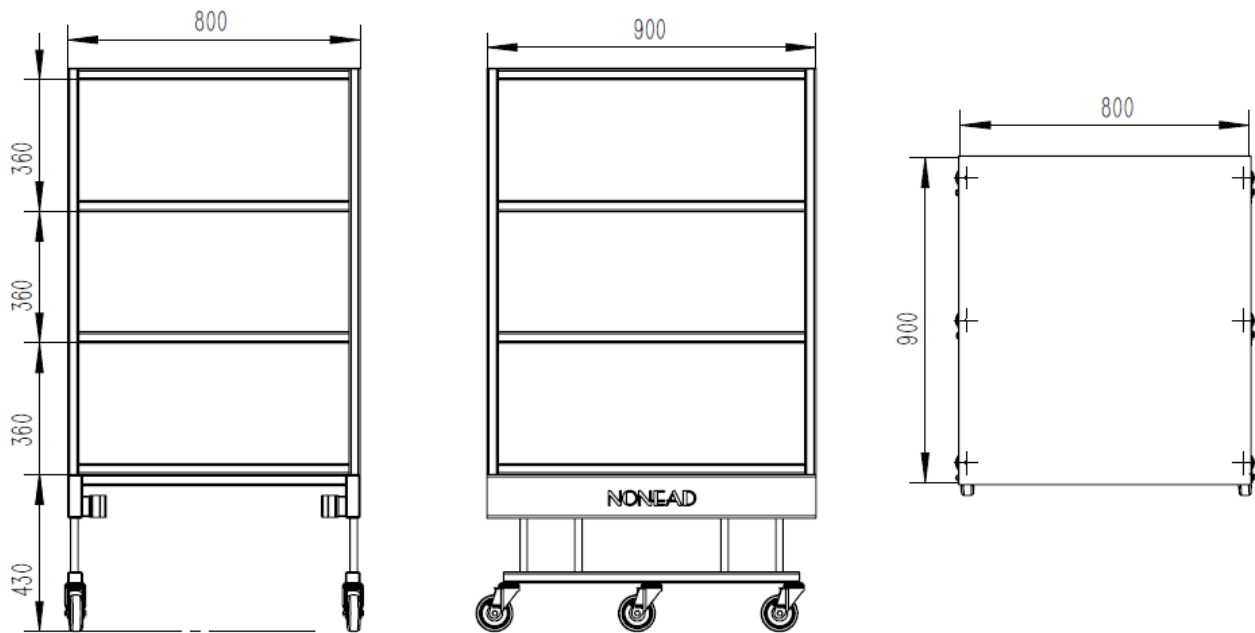
NH0307 nMiRBTS_CB5 Three-layer Cart



Product name	nMiRBTS_CB5 Three-layer Cart
ICS CODE	NH0307
Picture	
Abbreviation	Three-layer Cart
L x W x H	900mm x 800mm x 1510mm
Height above floor	Bottom layer 430mm, second layer 790mm, third layer 1150mm, top layer 1510mm
Weight	50 KG
Material	Iron, stainless steel
Maximum load	Each layer 60 KG
Docking mechanical interface	Adapt to nMiRBTS_CB5
Wheels	German Blicke casters x 4
Extensibility	Can be equipped with a high-precision positioning device and a docking power supply module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.

NONEAD Shelf Carrier System CB5

NH0308 nMiRBTS_CB5 Heavy-loading Three-layer Cart



Product name	nMiRBTS_CB5 Heavy-loading Three-layer Cart
ICS CODE	NH0308
Picture	
Abbreviation	Heavy-loading Three-layer Cart
L x W x H	900mm x 800mm x 1510mm
Height above floor	Bottom layer 430mm, second layer 790mm, third layer 1150mm, top layer 1510mm
Weight	52 KG
Material	Iron, stainless steel
Maximum load	Each layer 120 KG
Docking mechanical interface	Adapt to nMiRBTS_CB5
Wheels	German Blickle casters x 6
Extensibility	Can be equipped with a high-precision positioning device and a docking power supply module
Remark	Maximum traction load test environment, standard epoxy floor, flat ground, different ground materials and uneven ground may lead to load reduction, the actual load is subject to the customer's on-site test.