

# HEISHA CATALOG

2022.12

[www.heishatech.com](http://www.heishatech.com)





WE BUILD BOT-MANSIONS

# One Stop Provider

01

Solution

02

Hardware

03

For Developer

04

About Us

# Solutions

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## 1.1 Industrial Solutions

1.1.1 DSTATION - F135

1.1.2 DSTATION - F80

1.1.3 DSTATION - F50

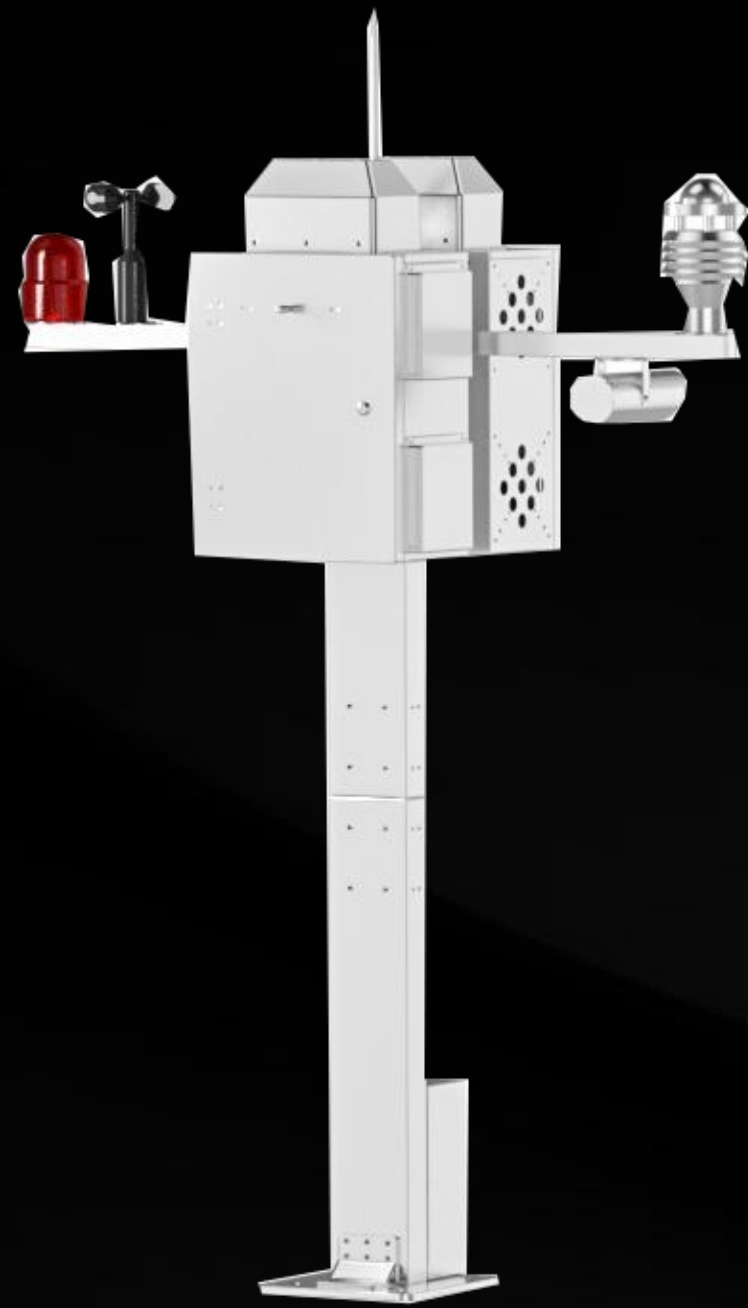
1.1.4 DTOWER

## 1.2 Consumer solution

1.2.1 DNEST3 - H50

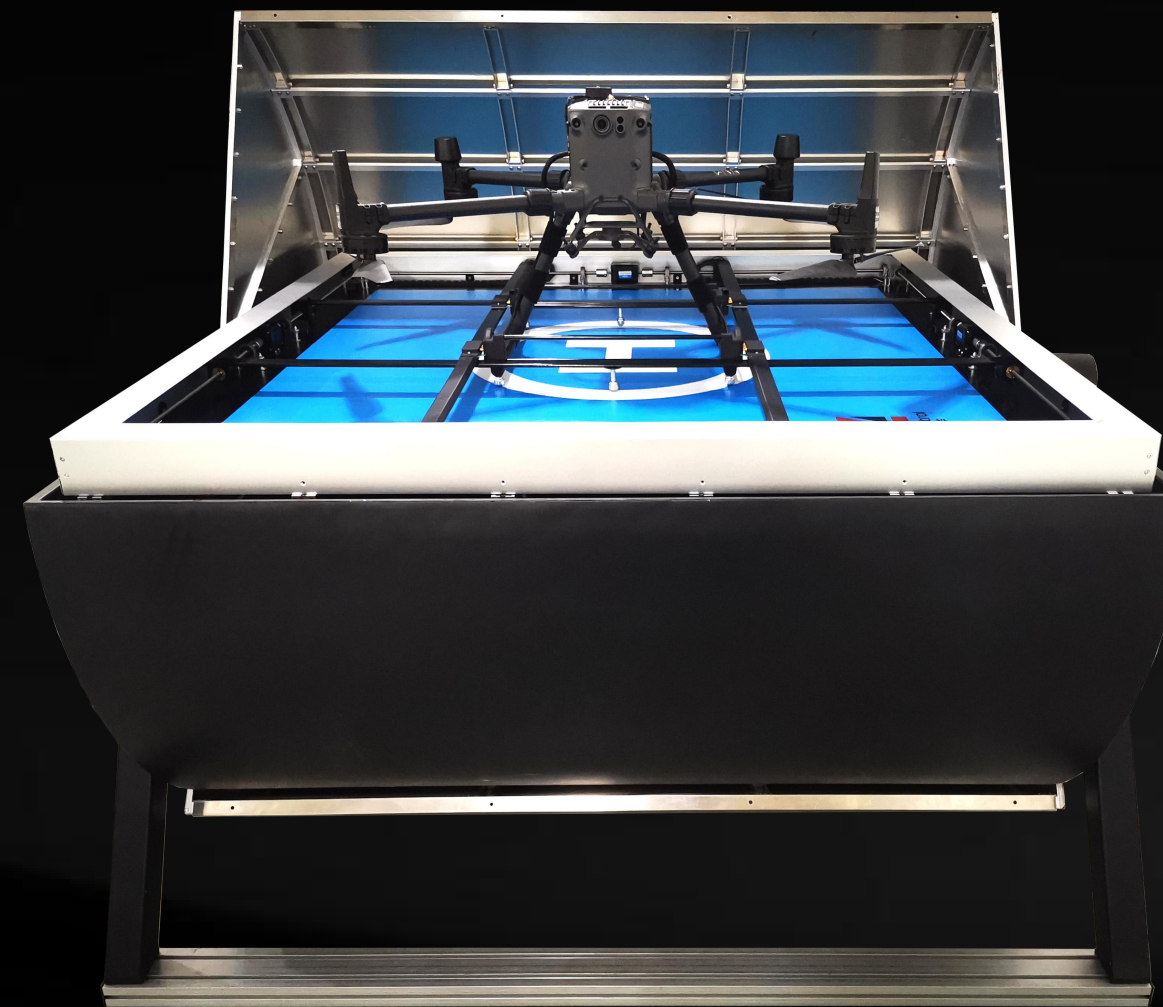
01

## 1.1.1 DSTATION - F135 For M300



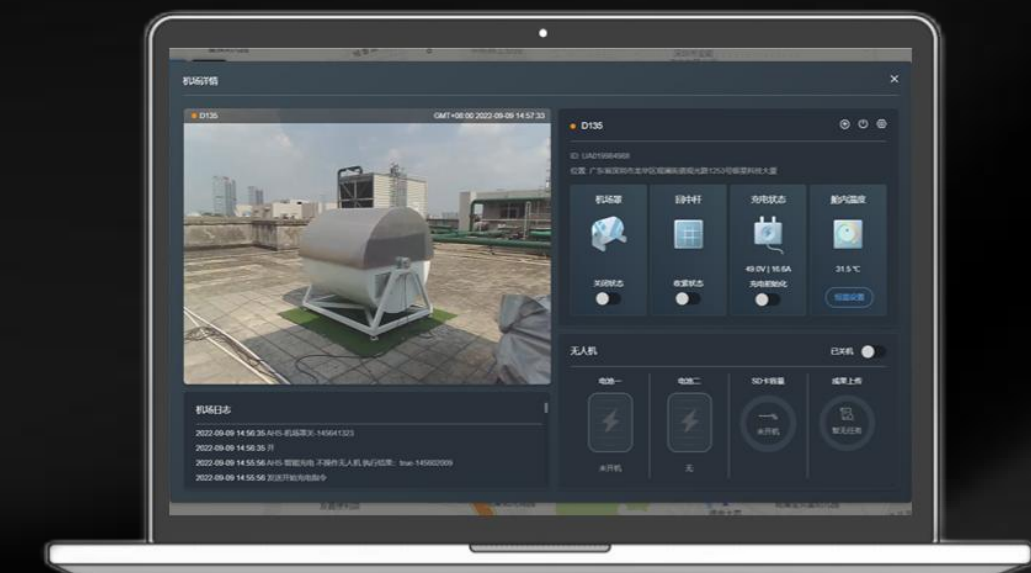
T3 Tower

- Multiple displays on command center screens
- Scheduled task
- Precision landing
- Team management



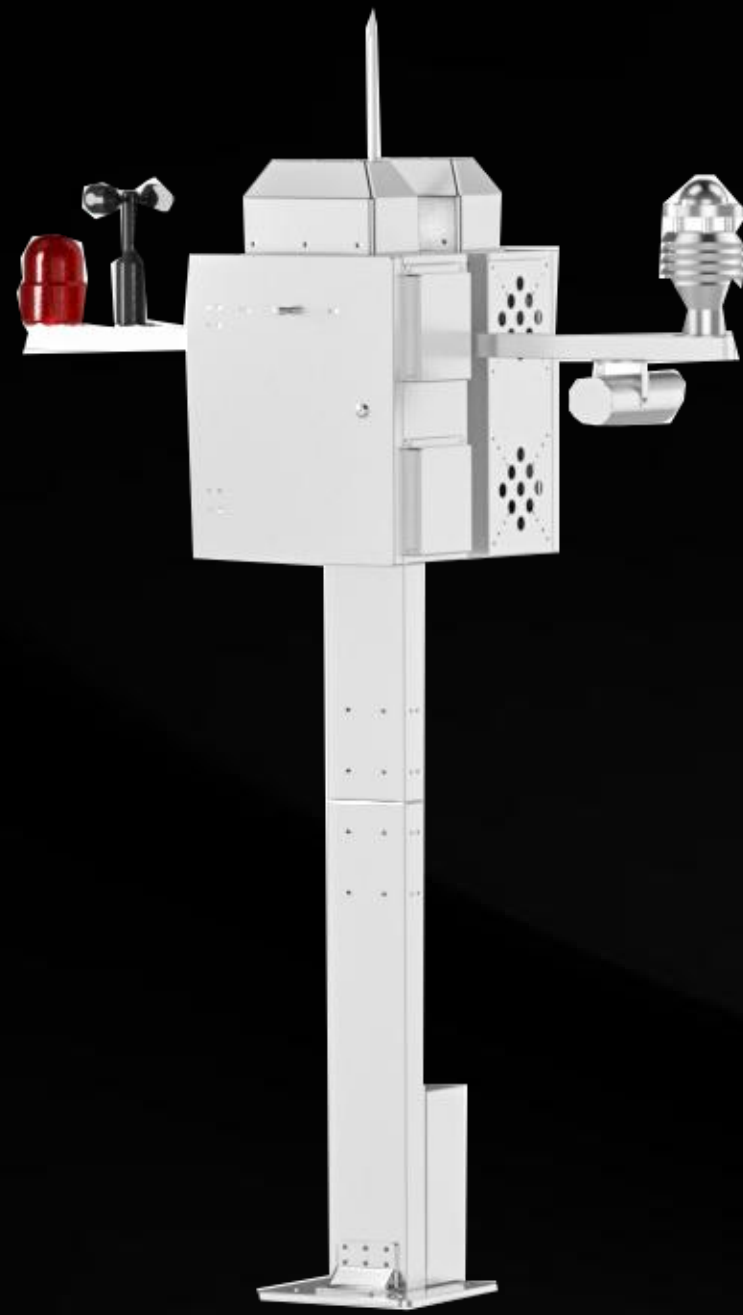
D135 Drone dock

- Drone auto powered-up
- Drone battery auto charged
- Perfect for inspection over mine sites, forest, electric tower, water body etc



Freesky Command Center

## 1.1.2 DSTATION - F80 For Mavic 2/Mavic 2 Enterprise



T3 Tower



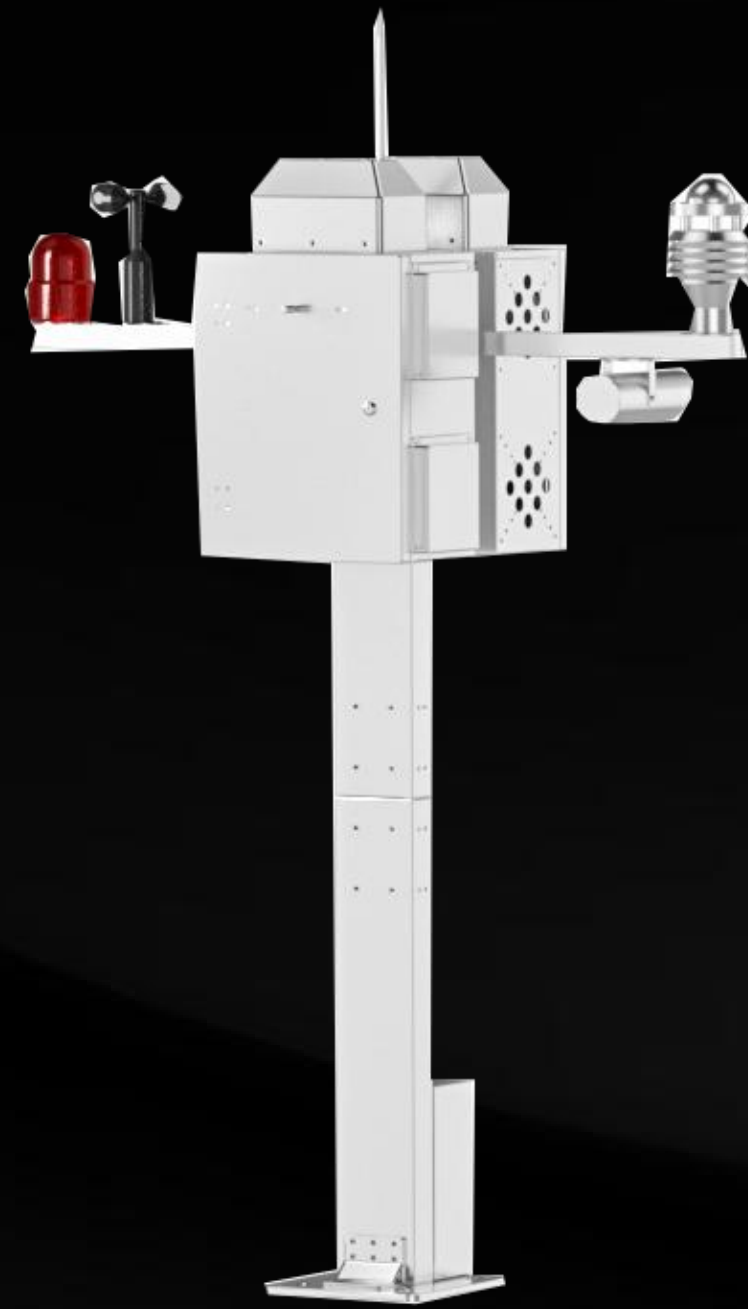
D80 Drone dock



Freesky Command Center

- Multiple displays on command center screens
- Scheduled task
- Precision landing
- Team management
- Drone auto powered-up
- Drone battery auto charged
- Perfect for inspection over mine sites, forest, electric tower, water body etc

## 1.1.3 DTower For Mavic 2/Air 2S/Enterprise



T3 Tower

- Remotely controll
- Way points missions
- Team management



Freesky Command Center

- For the sites with guards
- Cost effective

## 1.2.1 DNEST3 - H50 For Mini 3



D50 Drone Dock



Blackbox + Console



Mini 3

- Efficient patrols.  
Compared with traditional methods, UAVs can complete patrols and target searches in 2 square KM in 10 minutes.  
Significantly improves efficiency.
- Quick response.  
The drone 5 minutes' flight can cover the area of 2 square KM. More efficient and safer than traditional vehicles.
- Fast forensics data collecting  
Safer and simpler than traditional forensic methods

## 1.2.2 DNEST3 - H50 For Mavic 3



D50 Drone Dock



Blackbox + Console



Mavic 3

- Environmental Testing
- One-key for pre-flight checking
- One-key to charge
- Drone HD Video Live Streaming
- Manual control of drones
- Drone dock monitoring video streaming
- PTZ camera control
- Loudspeaker is compatible

# Comparison Between DSTATION And DNEST

	DSTATION	DNEST
Compatible drone models	DJI SDK required (M300/Mavic 2/Mavic 2 enterprise advanced)	No DJI SDK required (Mini 3/Mavic 3)
Coverage	More than 3 square KM	From 1 to 2 square KM
Applicable scenarios	Professional power tower patrol, mapping, etc.	Suitable for basic factory, estate patrol, etc.
Real-time video quality	Depending on the network condition	Ultra HD 1080P real-time video streaming
Flight control	Waypoint missions, precise landing, schedule missions	PS console, manual control
Deployment difficulty	Professional on-site deployment	A plat spot with network cable would suffice
Price difference	High price	For consumer market, more cost effective
Regulatory requirements	Need to apply for BVLOS permit	Applicable for consumer drone operation

# HW Platforms

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## 2.1 D Series

2.1.1 D50

2.1.2 D80

2.1.3 D135

## 2.2 R Series

2.2.1 R80

2.2.2 R50

2.2.3 R80S

## 2.3 V Series

2.3.1 V200- Multi-rotors

2.3.2 V200- Fixed-wing

2.3.3 V200- Logistic

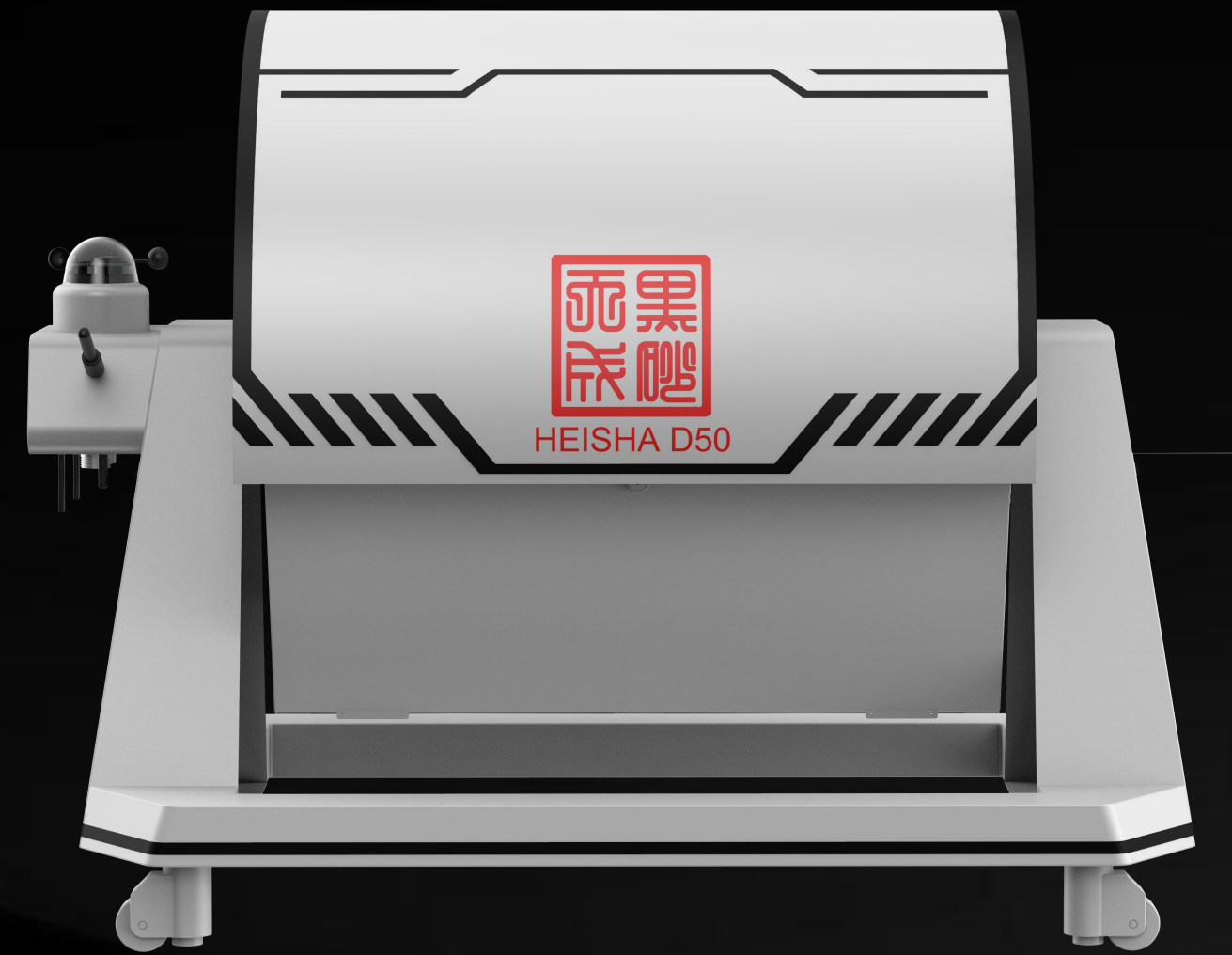
2.3.4 V200- Humanoid robots

## 2.4 Others

2.4.1 DCAP & DCAP Pro

2.4.2 B80

## 2.1.1 D50



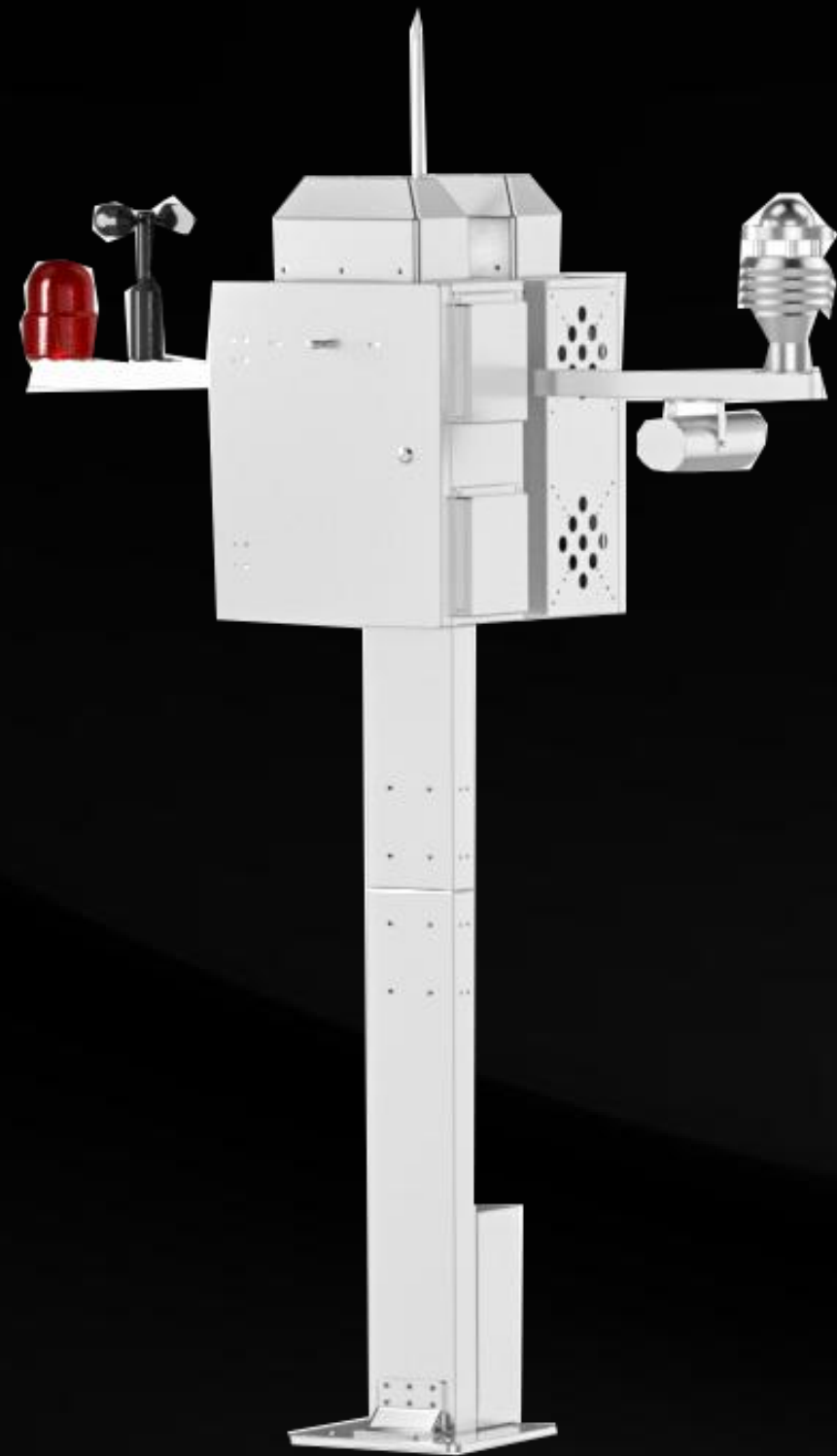
- Weight 55KG
- IP55
- 2S-4S compatible charging
- Fast charging 40 minutes (refer to Mavic series)
- Intelligent temperature control
- Remote Diagnosis
- Open SDK
- Dimensions.
  - Canopy open (without weather station)  
916mm×700mm×447 mm
  - Canopy closed (without weather station)  
916mm×700mm×685mm
- Safe autonomous charging
- Real-time monitoring of UAV status

## 2.1.2 D80

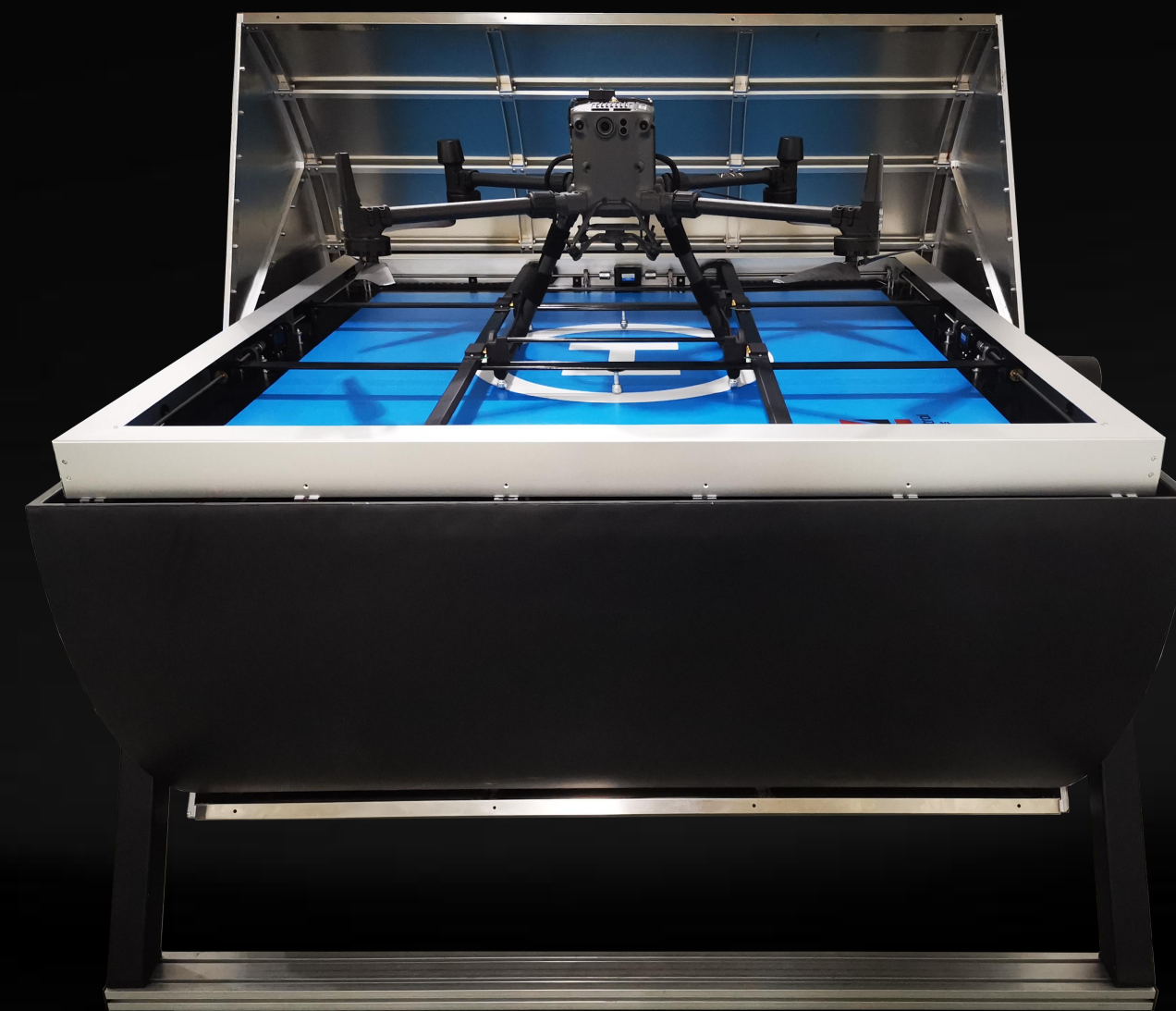


- Weight 85KG
- Compatible with multiple models: Autel EVO, Mavic 2, series, Mavic 2 Enterprise Advance
- IP55
- Intelligent temperature control
- Monitor the status of the dock in real-time
- Open SDK
- Includes audible and visual alarm, weather sensors
- Dimensions
  - (Closed): 1037\*874\*897 mm
  - (Open): 1037\*874\*510 mm

## 2.1.3 D135

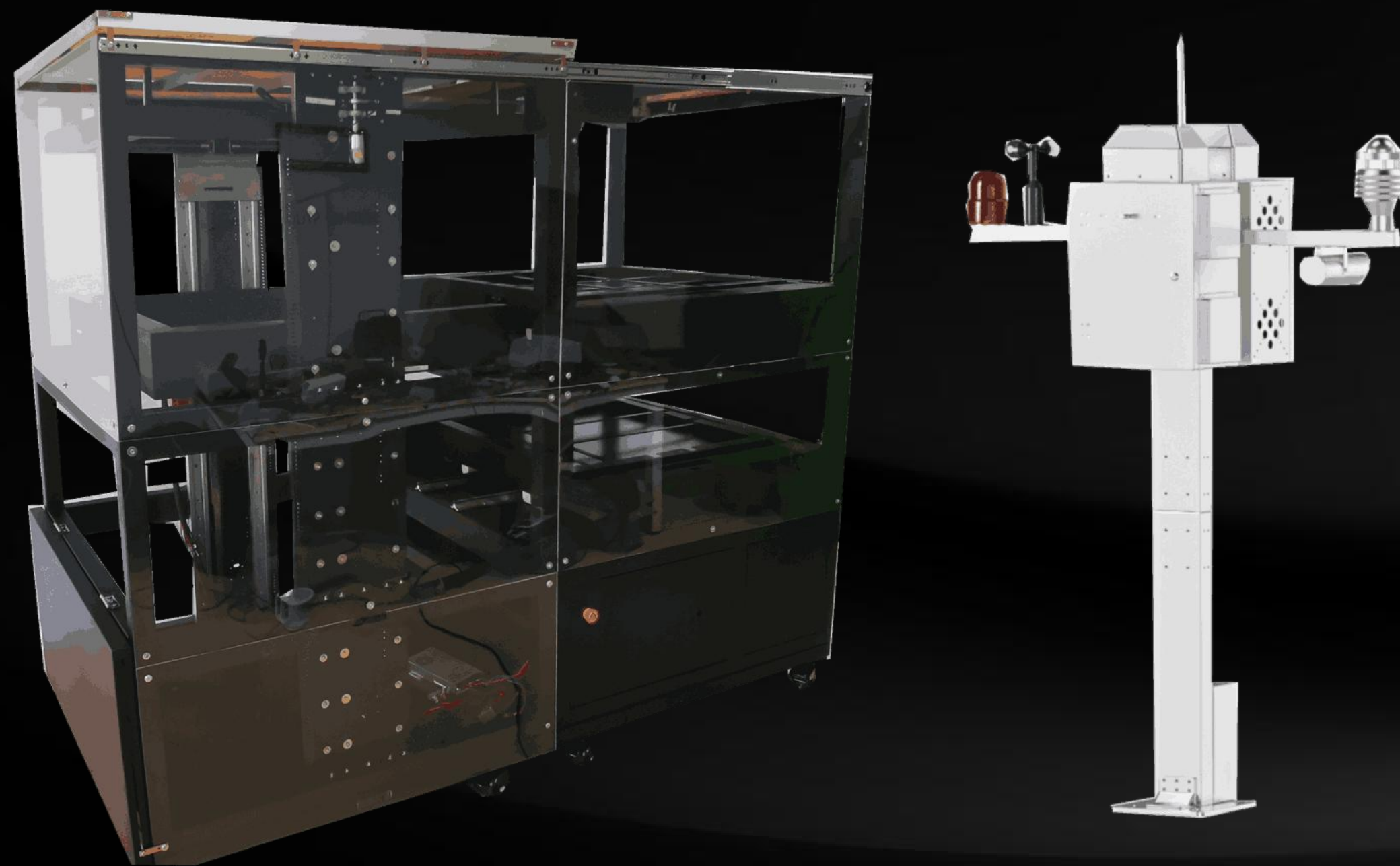


- Weight: 275kg
- Dimension:
  - (Close) 1645\*1290\*1575 mm
  - (Open) 1645\*1290\*962 mm
- IP54
- Intelligent temperature control



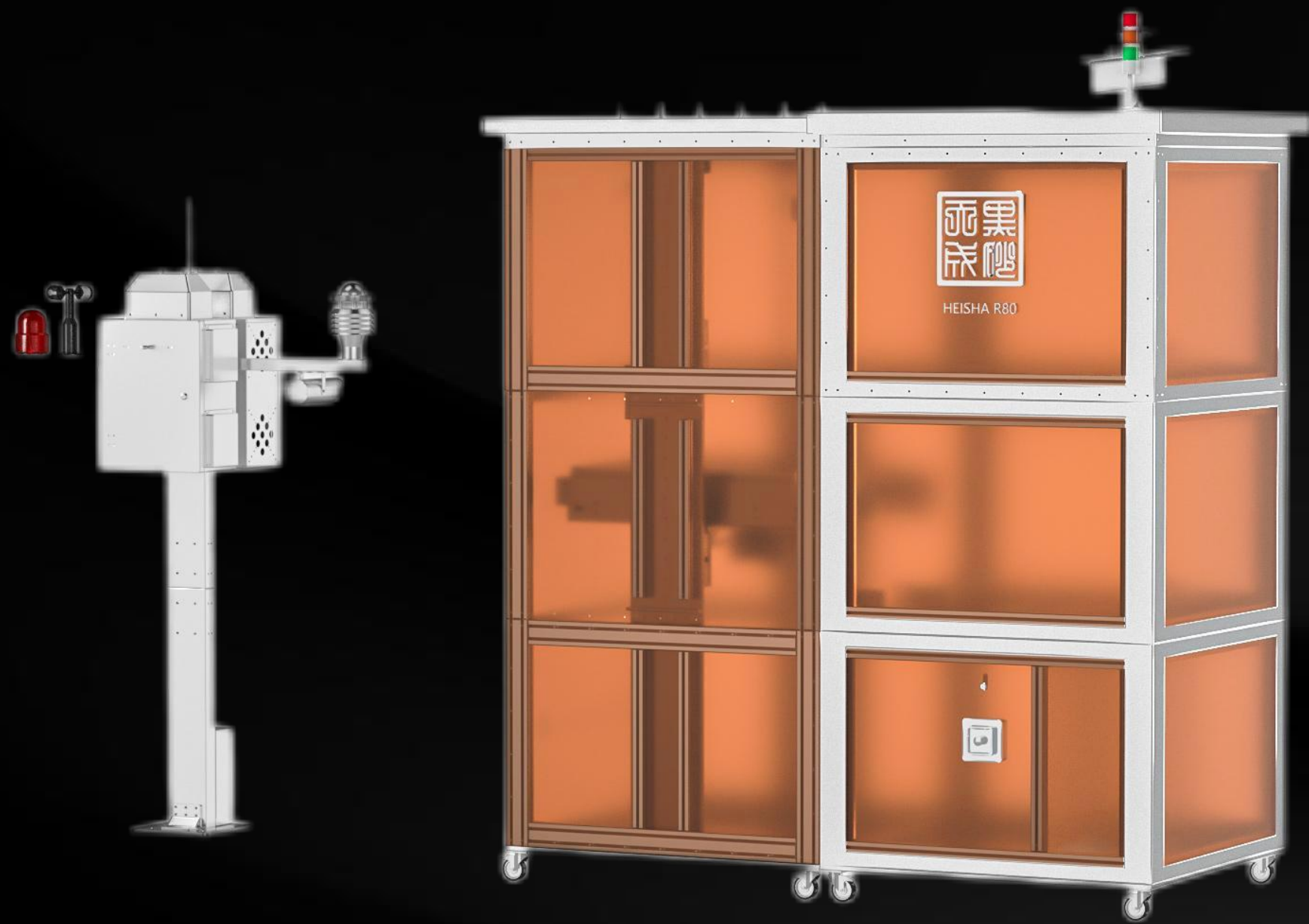
- Compatible with M300, M210, M30
- Monitor the status of the dock in real-time
- Includes weather sensors, sound and light alarm, night lights and other professional accessories

## 2.2.1 R80



- Charge protection
- Intelligent temperature control
- Multiple M300s can dock inside at the same time
- Compatible with both robots and drones
- Open SDK
- Multi-storey and highly expandable
- Enhanced signal reception

## 2.2.2 R50



- Charge protection
- Intelligent temperature control
- Compatible with both robots and drones
- Open SDK
- Multi-storey and highly expandable
- Enhanced signal reception

## 2.2.3 R80S



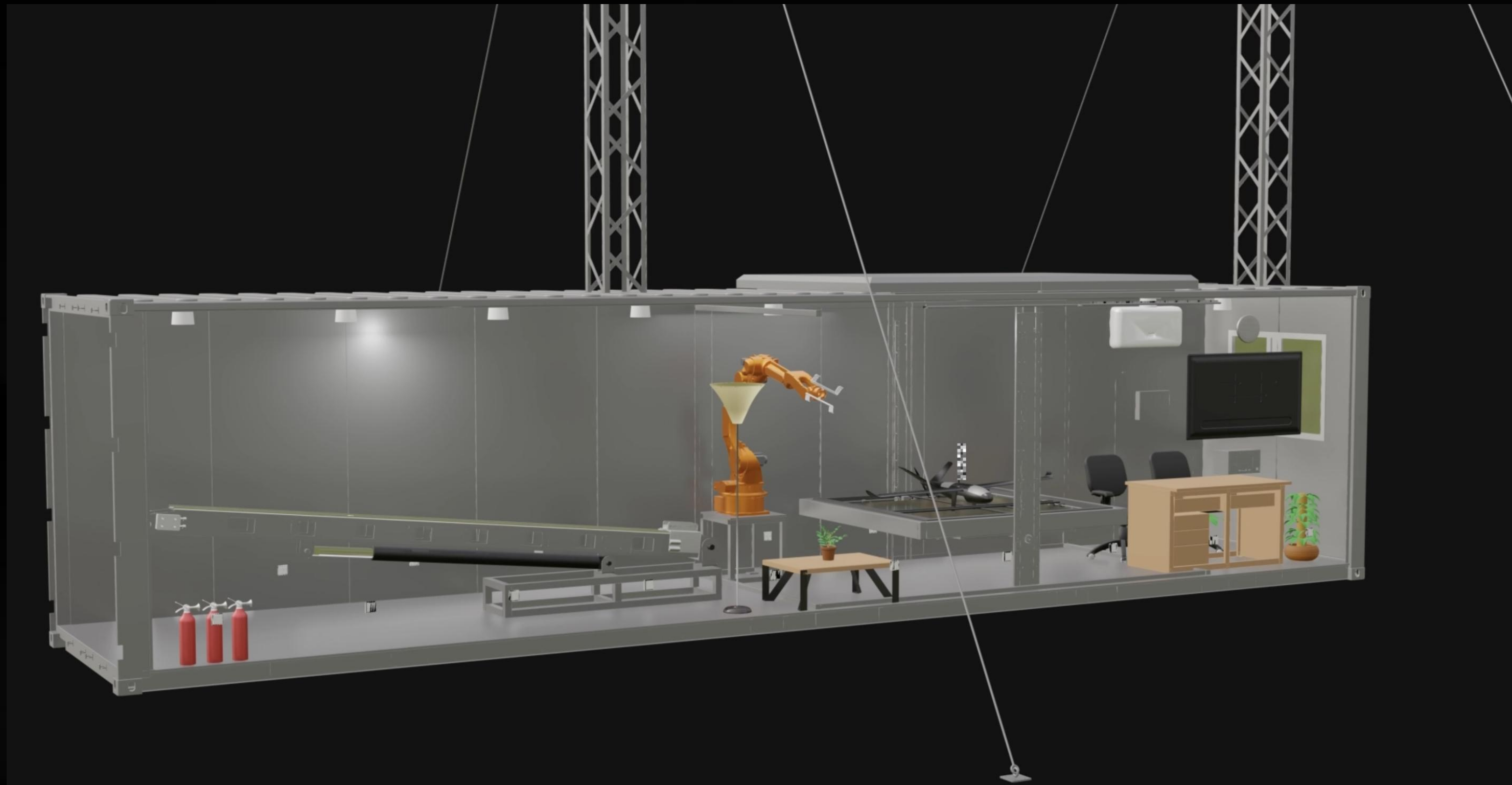
- Charge protection
- Compatible with M300 UAV and M30
- Intelligent temperature control
- Propeller folder
- Compatible with both robots and drones
- Open SDK
- Small footprint
- Weight: 75kg
- Highly cost effective

## 2.3.1 V200-VTOL



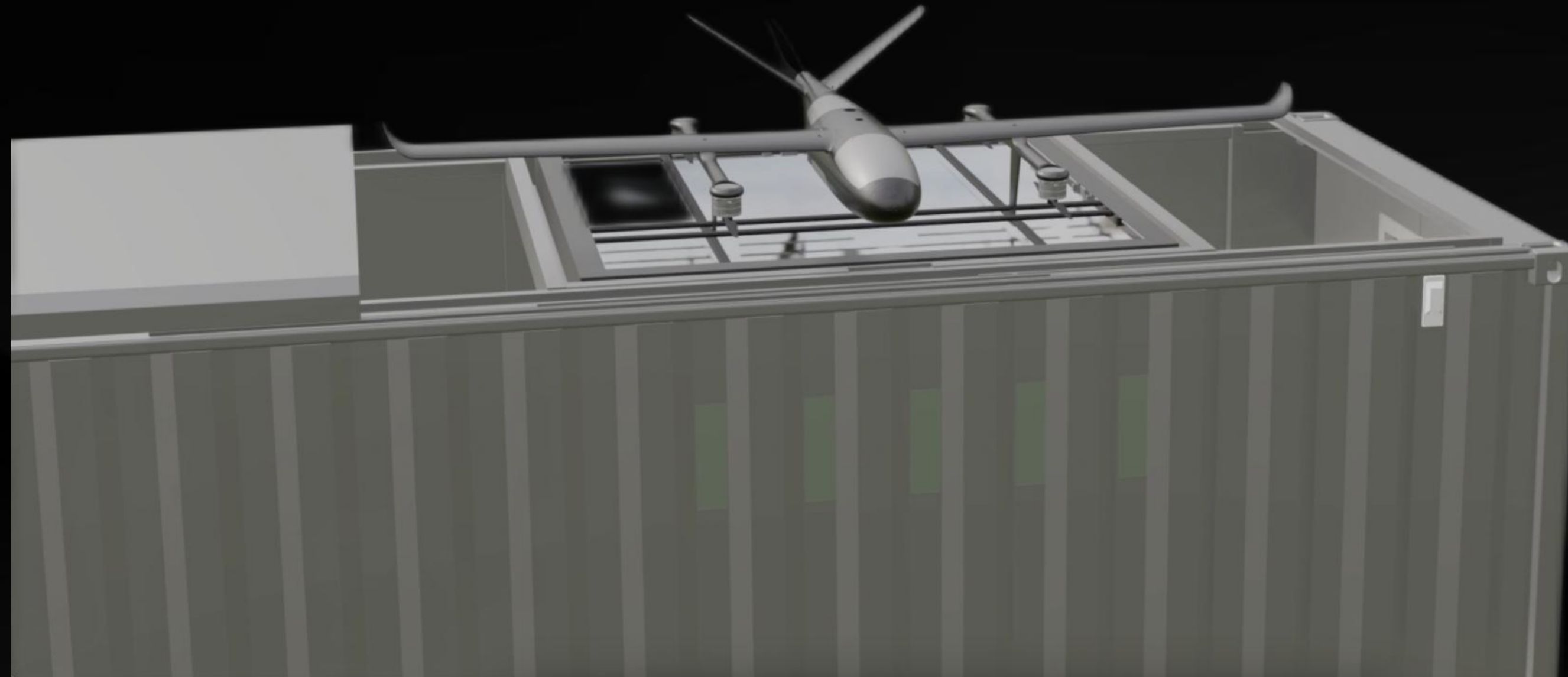
- Easy to transport
- Easy to deploy
- Fast charging (standard 120 minutes)
- Charge protection
- Open SDK
- Highly cost effective
- Containers are easily mass produced
- Suitable for sea transport mode

## 2.3.2 V200-FIXED WING



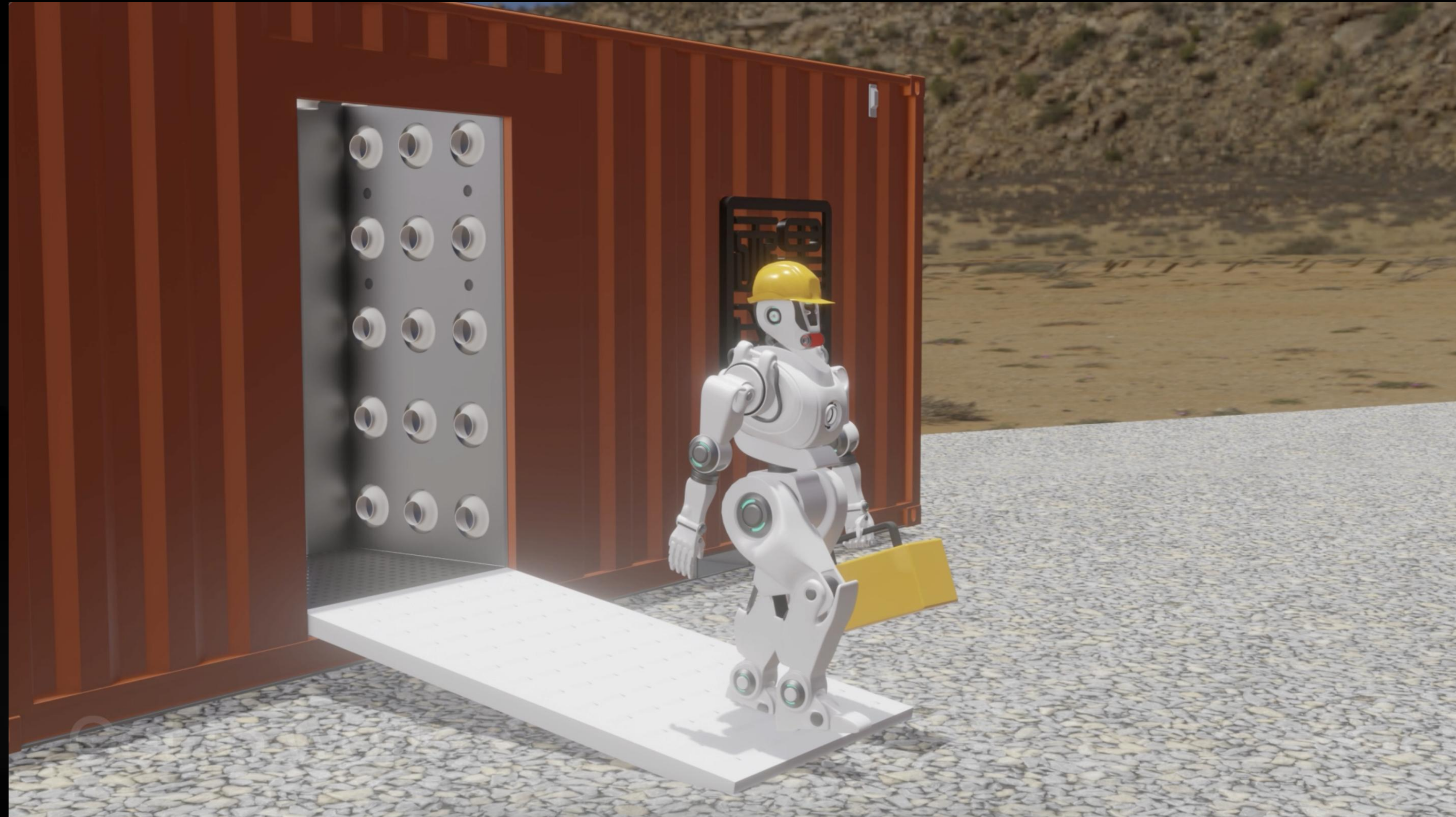
- Easy to transport
- Easy to deploy
- Charge protection
- Open SDK
- Highly cost effective
- Easy for mass production
- 40 feet standard container

### 2.3.3 V200-LOGISTIC



- Easy to transport
- Easy to deploy
- Charge protection
- Open SDK
- Highly cost effective
- Easy for mass production
- 20 feet standard container

## 2.3.4 V200-Humanoid



- Powered by solar panel
- Proven power storage box solutions
- Easy to transport
- Easy to deploy
- Charging protection
- Open SDK
- High value for money
- Easy for mass production
- Standard 20 Ft container

## 2.4.1 DCAP



- Size: 132\*80\*27cm
- Weight: 45kg
- Material: PC+ABS
- Power: DC 24V
- One-click to flight prep.
- One-click to charge
- Live stream HD video
- Manual control
- Gimbal camera control

## 2.4.1 DCAP Pro



- Size: 120\*95\*17cm customized for cars
- Self-adaptive for drone battery from 2S-4S
- Easy to deploy
- Free HW SDK
- Remote updateable firmware
- Material: Aluminum
- Weight: 70kg

## 2.5.1 B80



- Size: 136\*116\*200cm
- Weight: 250kg
- Deploy and charge drones and buoy
- Compatible with M300 or M30
- Compatible with drone of 2S-12S, self-adaptive charging
- Easy to deploy
- SDK for SW integration



# Developer Kit

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01

T100 Smart Gateway

02

Comm & Management

03

Hardware platform

03

# T100 Smart Gateway

Comm & Management  
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1.1 Smart gateway

1.2 Simulator

1.3 Charging management

1.4 Smart temperature control

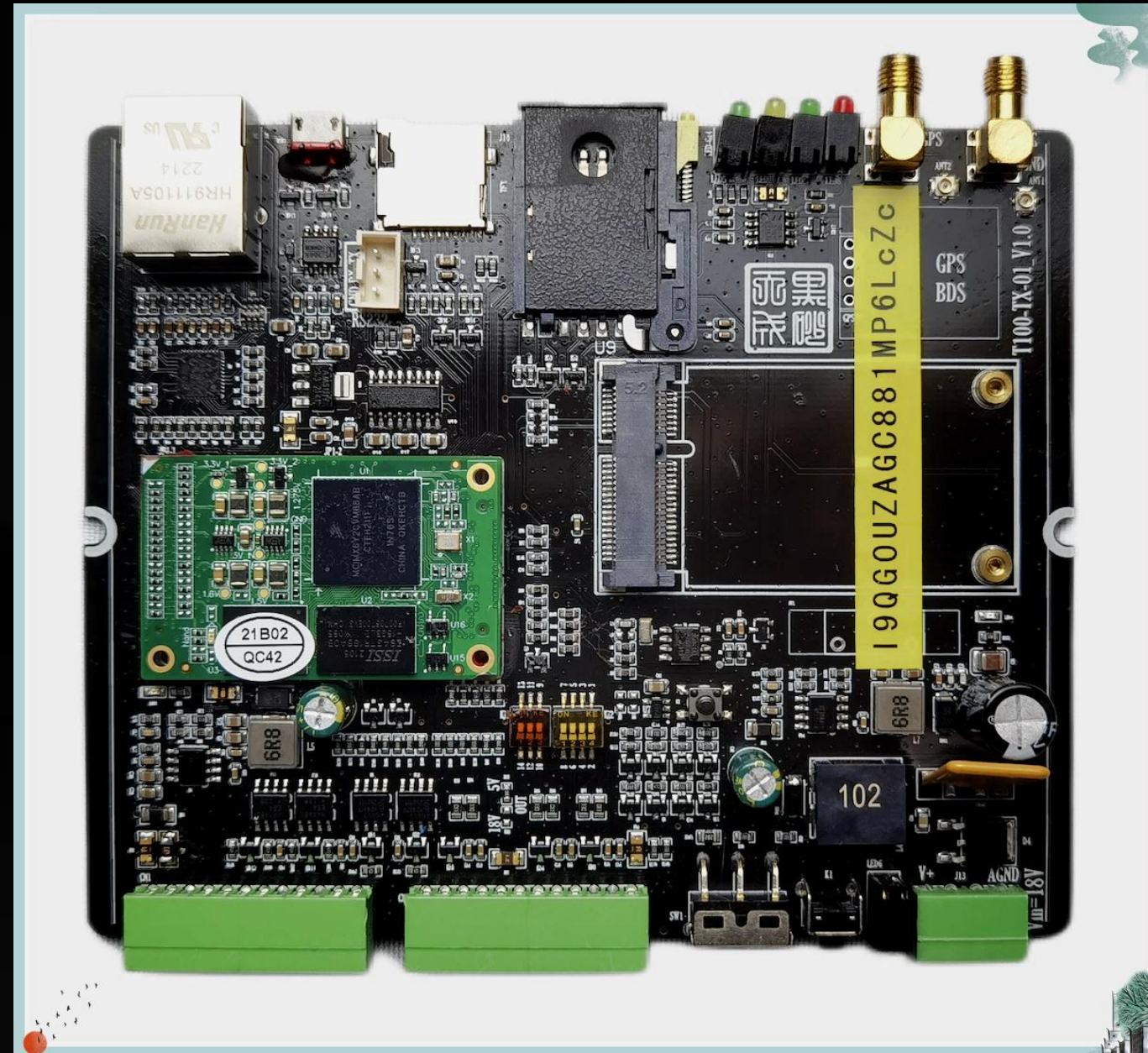
1.5 Shortcut commands

1.6 Standard HW management

1.7 SW adapters

01

## 1.1 T100 Gateway



- Input power: 12~24v DC
- Ports: CAN\*2; RS485\*2; UART\*1; Micro usb  
UART\*1; RJ45\*1; I/O\*4
- Internet: RJ45+4G LTE

### Functions:

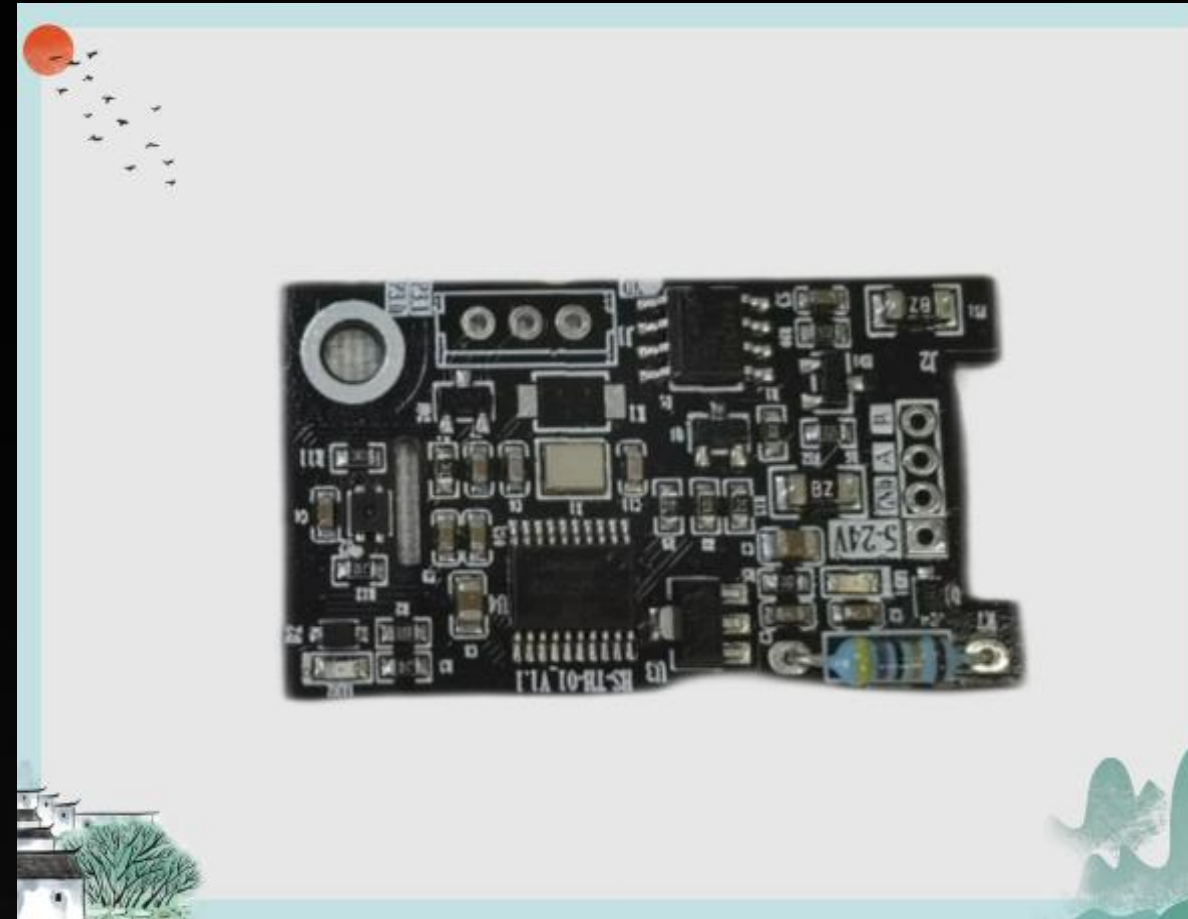
- HEISHA Q100 Cloud Platform Gateway
- Built-in simulator for developers
- Robot mansion device management module
- Robot mansion hardware simulator
- Intelligent charging management
- Intelligent temperature control management
- Robot mansion quick operation command library
- Third-party software platform adapter library
- Modbus RTU local protocol
- Support AT command configuration

## 1.3 Charging management



- Widely compatible with 2s-12s lithium drones
- Programmable current 0~15A
- Input voltage DC24V - programmable voltage 0~20V.
- Input voltage DC48V - programmable voltage 20~40V
- Input voltage DC60V--programmable voltage 40~55V
- Interface: CAN, 485, UART infrared temperature measurement, USB
- Compatible models: DJI M300, Mavic, Mini, Skydio, Parrot, Feimi, etc.

## 1.4 Temperature and humidity sensors



- Input Voltage: 5V
- Interface: CAN
- High precision temperature and humidity sensors, industrial grade chip
- Operating voltage: DC4-30v, (up to 30V)
- Maximum power: 0.2W
- Working temperature: temperature  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ , humidity 0%RH-100%RH
- Control accuracy: temperature  $\pm 0.3^{\circ}\text{C}$ , humidity  $\pm 3\%\text{RH}$
- Output interface: RS485

### Functions:

- High precision temperature and humidity collection
- Compact and easy to deploy

## 1.6 Standard HW management



- Input voltage: 12~24v DC
- Interface: CAN\*1; 485\*2; Micro usb UART\*1; I/O\*4

- Support remote firmware update
- Support AT command configuration
- Configurable as a canopyr controller
- Configurable as charge bars controller
- Configurable as a temperature controller
- Configurable as a weather station
- Configurable as a charge controller

# Controllers

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2.1 Canopy controller

2.4 A/C controller

2.2 Charge bars controller

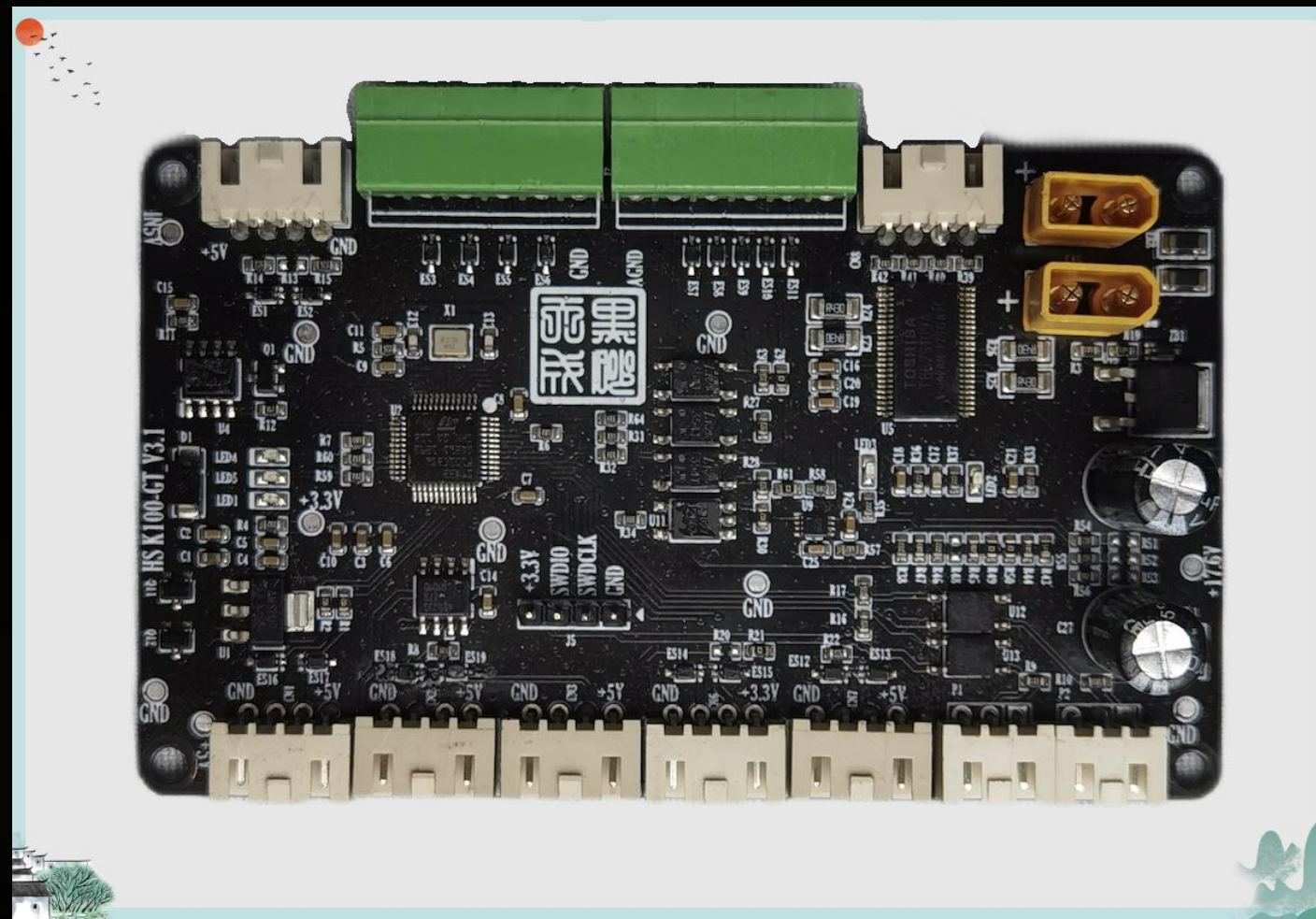
2.5 RC controller

2.3 Charging controller

2.6 Weather sensors controller

02

## 2.1 Canopy controller

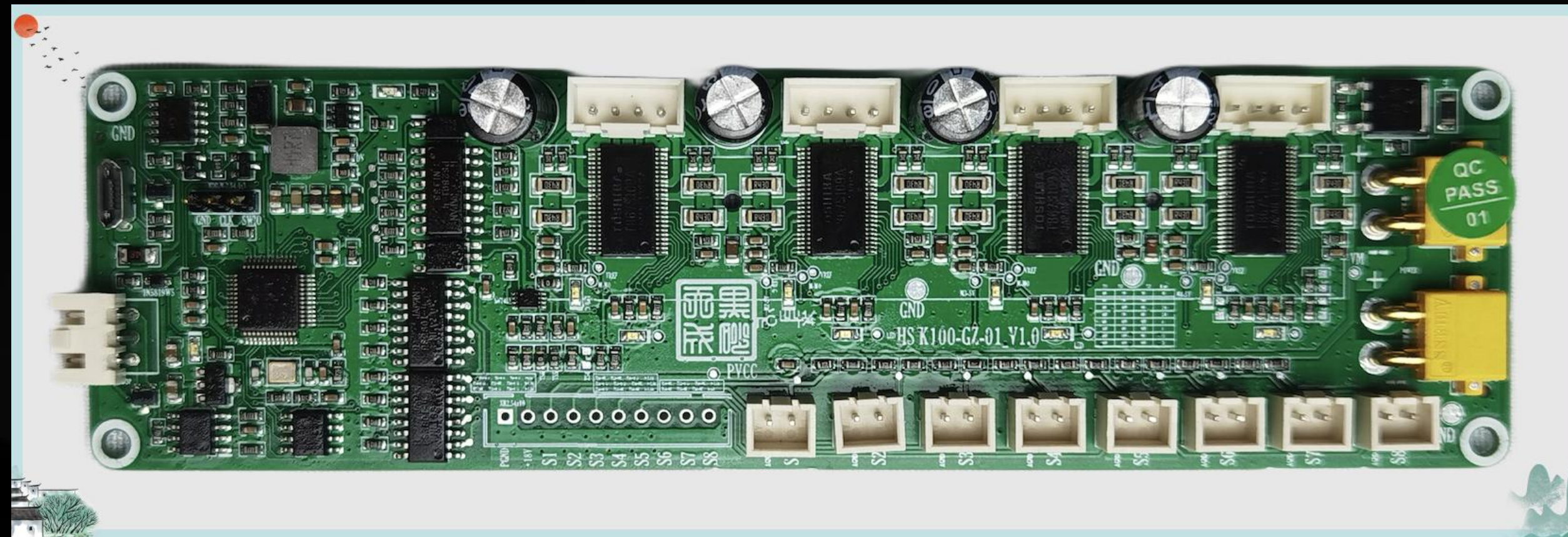


- Size: 60mm \* 100mm
- Weight: 36g
- Input Voltage: 12~24v DC
- Interface: CAN

### Functions:

1. Realize canopy control logic
2. Support multiple types of motor drives
3. Can dynamically configure the type of canopy driver
4. Emergency stop switch

## 2.2 Charge bars controller



- Size: 45mm \* 160mm
- Weight: 44g
- Input Voltage: 12~24v DC
- Interface: CAN

### Functions:

- Implementation of charge bars control logic
- Pre-supported for various types of motor drivers
- Dynamically configurable charge bars driver type
- Emergency stop switch

## 2.3 Charging controller



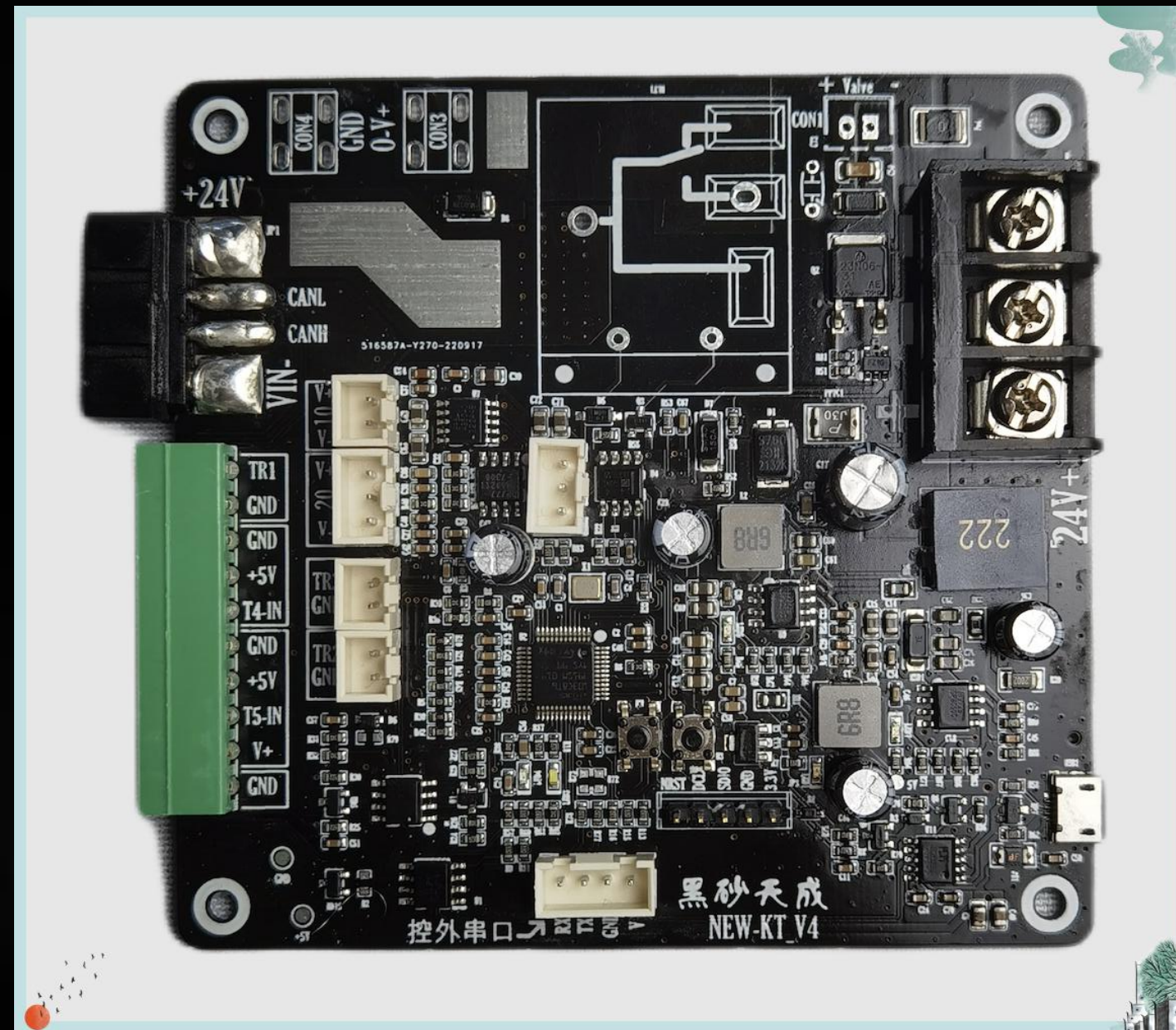
- Size: 48mm \* 160mm
- Weight: 79g
- Input Voltage:  
Input voltage DC24V - programmable voltage 0~20V.  
Input voltage DC48V - programmable voltage 20~40V.  
Input voltage DC60V--Programmable voltage 40~55V

- Ports:  
CAN, 485, UART infrared temp. sensor, USB
- Compatible drones: DJI M300, Mavic, Mini, Skydio, Parrot, Xiaomi etc.

Function:

Multiple chargers can be added dynamically

## 2.4 AC controller

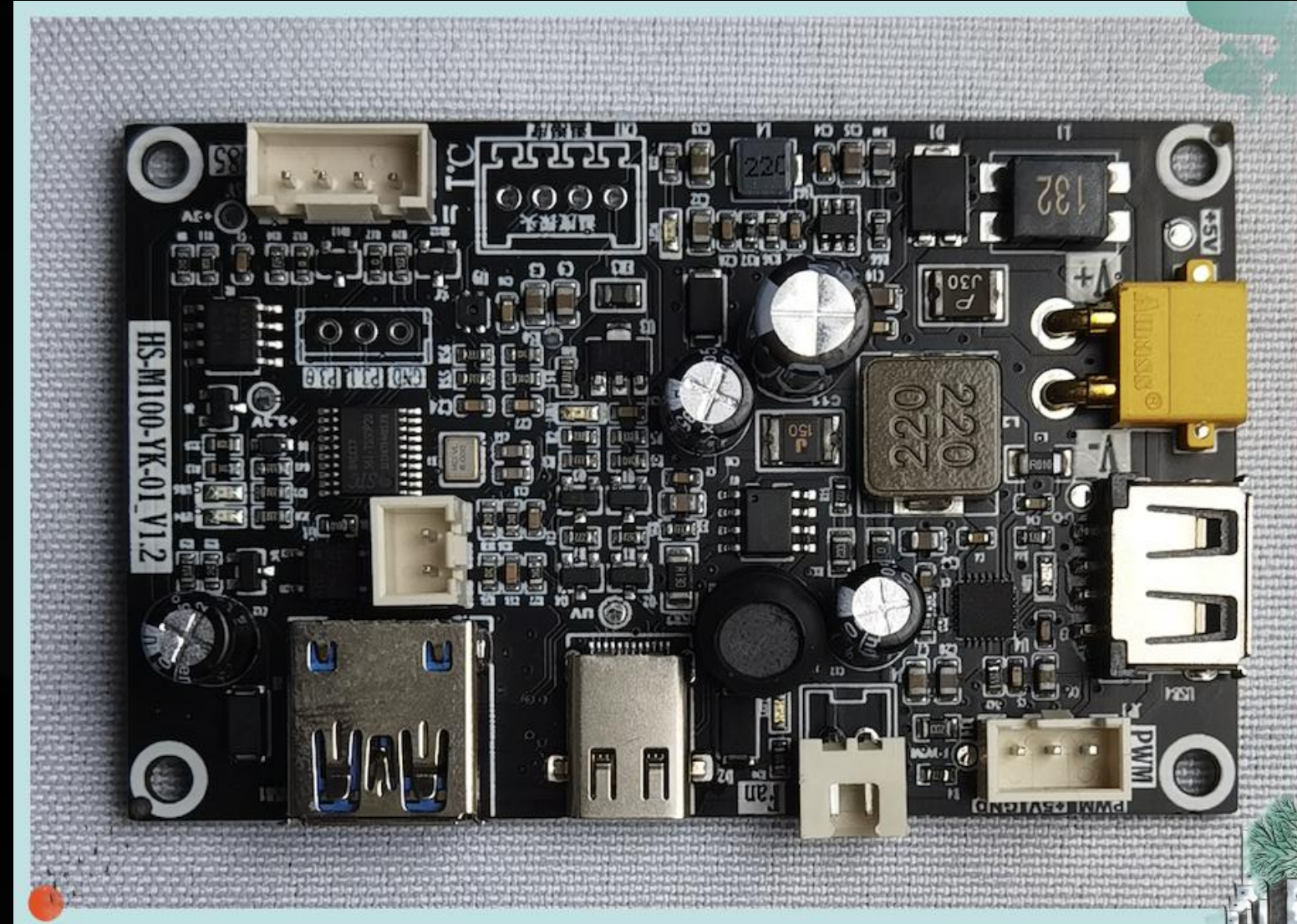


- Size: 95mm \* 100mm
- Weight: 66g
- Input Voltage: 12~24v DC
- Interface: CAN

### **Function:**

- Implement temperature control logic
- Support dynamic addition of compressor cooling air conditioner
- Support dynamic addition of PTC heater
- Support dynamic addition of cooling fans

## 2.5 RC controller



### Functions:

- Switching remote control
- Remote control switch status detection
- Remote control data communication line on/off control
- Remote control charging, support fast charging protocol
- Temperature and humidity collection
- Fan temperature control

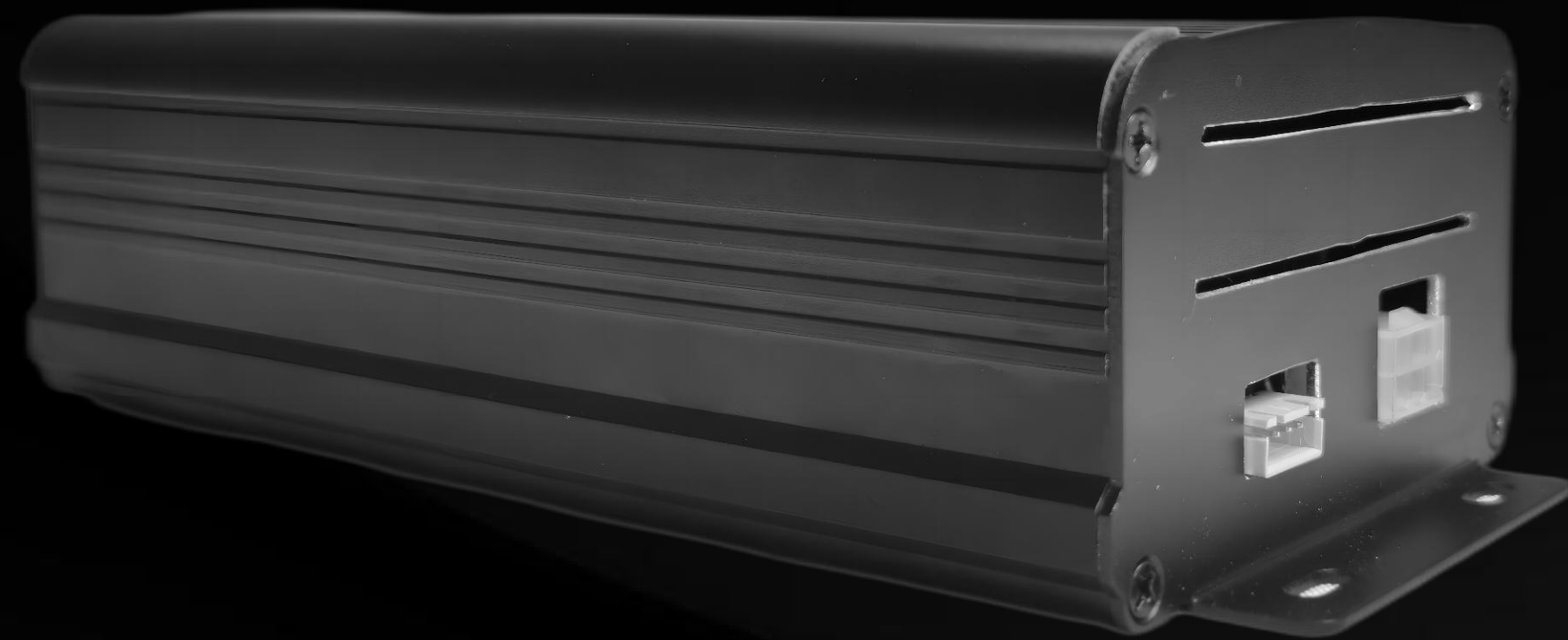
- Size: 50mm \* 80mm
- Weight: 29g
- Input Voltage: DC12~24V
- Interface.
- 485\*1
- Type-C\*1
- USB2.0 data port\*1
- USB2.0 charging port\*1
- Photo resistor interface\*1
- Fan interface\*1
- Servo interface\*1
- Network access.
- 485 connected to standard hardware controller

# Core Modules

...

- 3.1 Smart charger
- 3.2 Canopy
- 3.3 Charging pad
- 3.4 A/C
- 3.5 Smart landing gear
- 3.6 Landing gears
- 3.7 Mini rain meter

## 3.1 Smart charger



- Size: 175mm \* 95mm
- Weight: 350g
- Widely compatible with 2s-12s lithium drones
- Programmable current 0~15A
- Input voltage DC24V - programmable voltage 0~20V.
- Input voltage DC48V - programmable voltage 20~40V.
- Input voltage DC60V--Programmable voltage 40~55V

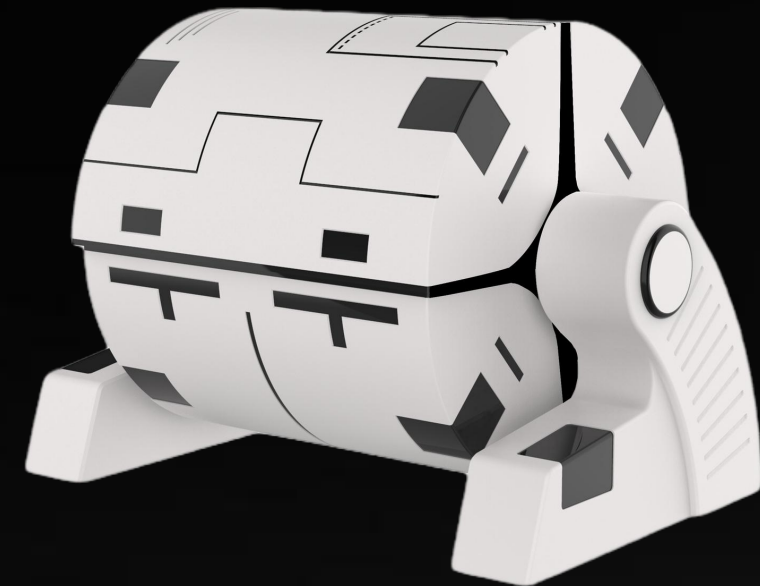
### Functions:

1. Automatic battery type detection
  2. Automatic battery type matching
  3. Charging voltage programmable
  4. Charge current programmable
  5. Infrared temperature sensor interface
  6. Over temperature protection
- Interface: CAN\*1, 485\*1, UART infrared temperature measurement\*1, USB\*1, CAN to T100, 485 to standard hardware controller
  - Compatible drones: DJI M300, Mavic, Mini, Skydio, Parrot, Xiaomi, etc.

## 3.2 Canopy



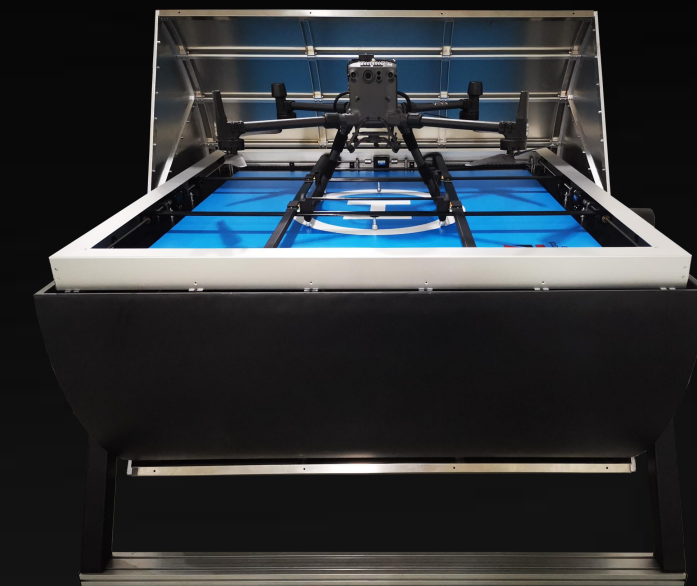
For D50



For D60



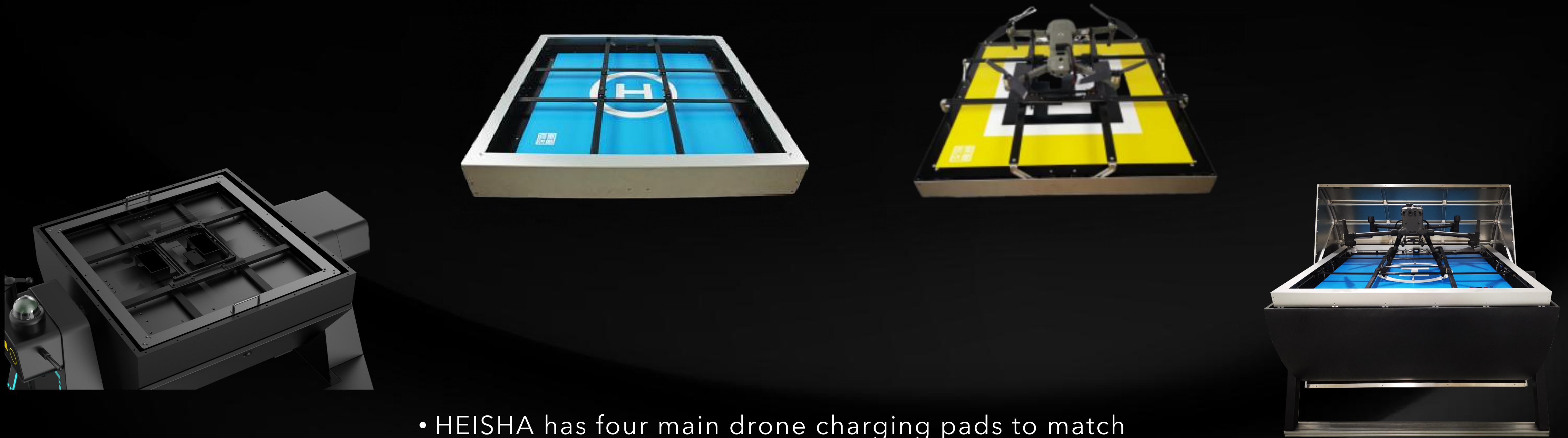
For D80



For D135

- HEISHA has four main canopy to match different size drone docks: D50, D60, D80, and D135

### 3.3 DPAD-Charging pad



- HEISHA has four main drone charging pads to match the different sizes of drones for charging: DPAD50, DPAD60, DPAD80, and DPAD135.
- Customized size:

DPAD200 200\*200CM

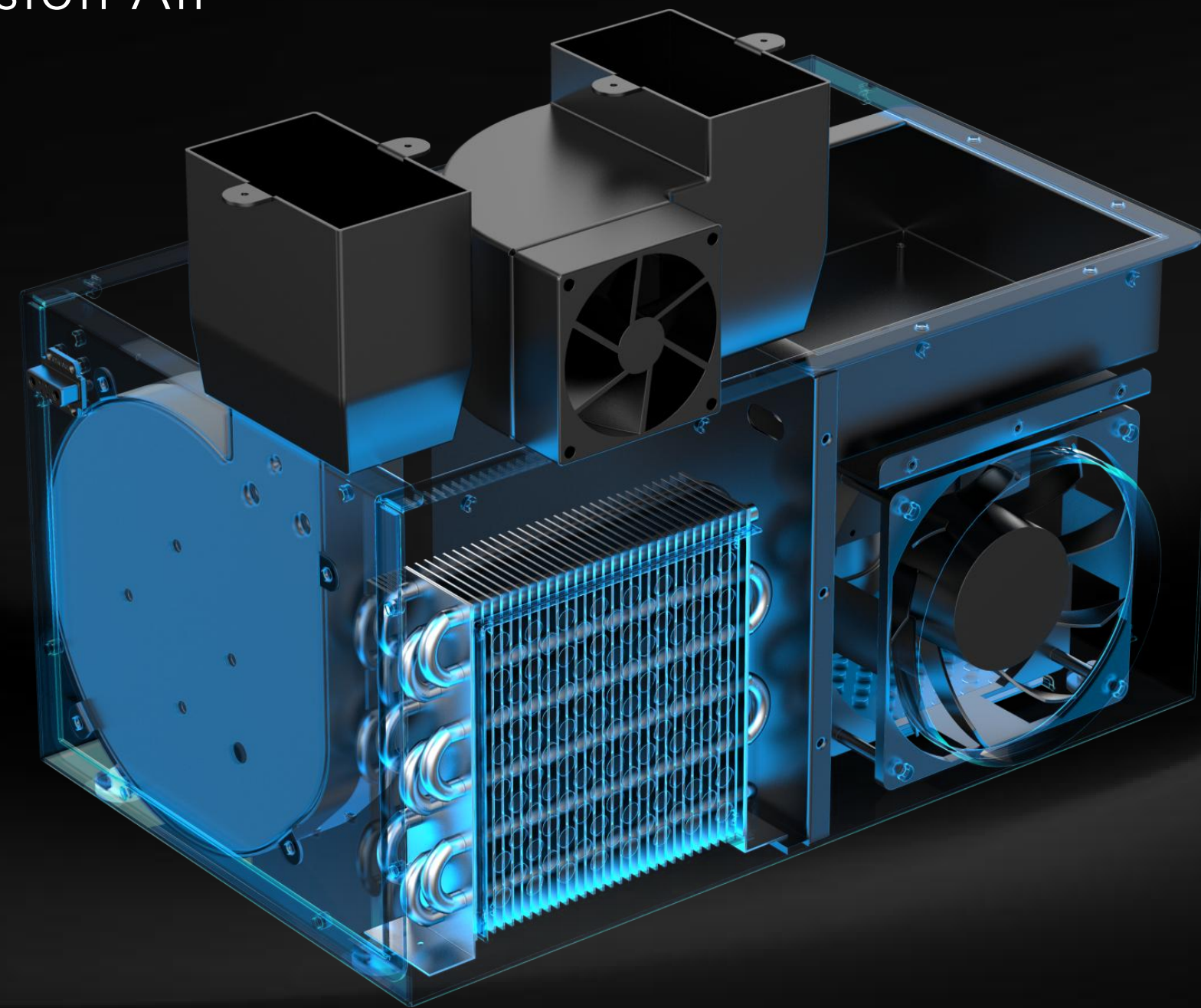
DPAD150 150\*150CM

DPAD40 40\*40cm

DPAD90 90\*90cm

### ●3.4 A/C (AC200)

- Air Conditioner Type: Variable Frequency Compression Air Conditioner
- Voltage: 24 VDC
- Cooling capacity (W):  $\leq 490 \times 95\%$
- Rated cooling input power (W):  $\leq 200$
- EER: 2.5
- EPM: 1800~4500
- Heating capacity (W): 400
- Rated heating input power(W): 250
- COP: 1.6
- Heating type: PTC heating (with temperature protection)



### 3.5 Smart landing gear



- Size: 180mm (L) \* 180mm (W) \* 110mm (H)
- Weight: 250g
- Operating voltage: DC 12-24V
- Interface: Type C\*1; general plug\*2; Servo\*1; 2pin\*1; 4 pin\*2; 5pin\*1; 6pin\*1
- Expandable mountings: parachute, smoke detector, 4G module, etc.
- Compatible drone models: DJI Mavic 3, Mavic 2, Autel, and other drones of the same size.

#### **Functions:**

1. support multi-mounted remote communication and separate power supply
2. Support decentralized structure of high-powered loud speaker

## 3.6 Landing gear



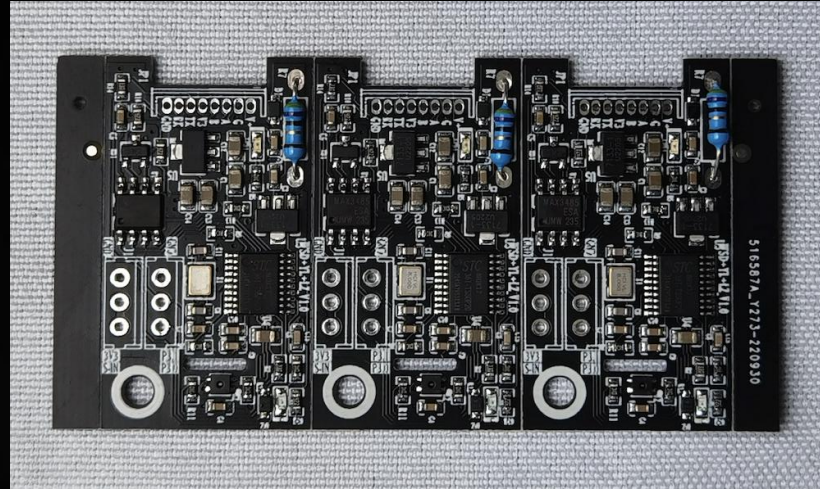
- Charging contact multi-redundant design
- Open-molded standard parts
- Includes dust and moisture resistant design
- Non-destructive mounting for drones
- Light weight, 400g



For wide range of models

LG-M300 LG-MAVIC2 LG-Mavic3 LG-Mini LG-Phantom LG-Autel EVO LG-YUNEEC LG-Skydio LG-Parrot

## 3.7 Mini rain meter



- Size: 46mm (L) \* 49mm (W) \* 43mm (H)
- Weight: 47g
- Working voltage: DC 5-24V
- Working temperature: -50~+90°C
- Operating humidity: 0%~100%
- Network access: RS485 standard ModBus RTU protocol

### Three in one

- HEISHA mini intelligent rainfall temperature and humidity three-in-one sensor.
- Detects temperature, humidity, rainfall in real-time
- Detectable rainfall: light rain, medium rain, heavy rain
- Detectable temperature: -50 ~ +90 degrees Celsius
- Detectable humidity: 0% to 100%

# About Us

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● HEISHA

● Production

● R&D

● Partners & Media

04

# About HEISHA



HEISHA is a hi-tech company that focuses on the development and production of mansions for robots. HEISHA's core business philosophy is to bring the value of technology to everyday life, and through continuous invest in research and innovation, to develop fine products that can truly improve human life.

As more and more robots are entering the era of autonomy, including drones, robot dogs, tracked robots, water robots, humanoid robots, etc. HEISHA focuses on becoming the world's leading one-stop solution provider in bot-mansions.

Patents

证书号第5424202号



发明专利证书

发 明 名 称：一种便携式无人机自动充电平台

发 明 人：黄伟;潘智明;廖秋雄

专 利 号：ZL 2019 1 0972514.6

证书号第13998652号



实用新型专利证书

实用新型名称：一种无人机电池

发 明 人：黄伟;廖秋雄;潘智明

证书号第5424202号



发明专利证书

发 明 名 称：一种便携式无人机自动充电平台

发 明 人：黄伟;潘智明;廖秋雄

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专 利 号：ZL 2019 1 0972514.6

证书号第13998652号



实用新型专利证书

实用新型名称：一种无人机电池

发 明 人：黄伟;廖秋雄;潘智明

证书号第13950539号



实用新型专利证书

实用新型名称：一种无人机的充电起落架

发 明 人：黄伟;廖秋雄;潘智明

证书号第6790746号



外观设计专利证书

外观设计名称：无人机充电站

设 计 人：黄伟;廖秋雄;孙姗姗;潘智明

专 利 号：ZL 2020 3 0761654.2

专利申请日：2020年12月11日

专 利 权 人：深圳黑砂科技有限公司

地 址：518000 广东省深圳市龙华区观澜街道新澜社区观光路1301号银星科技大厦C1102-2

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局长 申长雨

第1页 (共2页)

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证书号第6791050号



外观设计专利证书

外观设计名称：无人机防雨装置

设 计 人：黄伟;廖秋雄;潘智明

专 利 号：ZL 2020 3 0527877.2

专利申请日：2020年09月08日

专 利 权 人：深圳黑砂科技有限公司

地 址：518000 广东省深圳市龙华区观澜街道新澜社区观光路1301号银星科技大厦C1102-2

授权公告日：2021年08月20日 授权公告号：CN 306768292 S

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专利证书记载专利权登记时的法律状况，专利权的转移、质押、无效、终止、恢复权利人的姓名或名称、国籍、地址变更等事项记载在专利登记簿上。

局长 申长雨

第1页 (共2页)

其他事项参见背面

证书号第6790746号



外观设计专利证书

外观设计名称：无人机充电站

设 计 人：黄伟;廖秋雄;孙姗姗;潘智明

专 利 号：ZL 2020 3 0761654.2

专利申请日：2020年12月11日

专 利 权 人：深圳黑砂科技有限公司

地 址：518000 广东省深圳市龙华区观澜街道新澜社区观光路1301号银星科技大厦C1102-2

授权公告日：2021年08月20日 授权公告号：CN 306768576 S

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局长 申长雨

第1页 (共2页)

其他事项参见背面

证书号第6791050号



外观设计专利证书

外观设计名称：无人机防雨装置

设 计 人：黄伟;廖秋雄;潘智明

专 利 号：ZL 2020 3 0527877.2

专利申请日：2020年09月08日

专 利 权 人：深圳黑砂科技有限公司

地 址：518000 广东省深圳市龙华区观澜街道新澜社区观光路1301号银星科技大厦C1102-2

授权公告日：2021年08月20日 授权公告号：CN 306768292 S

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局长 申长雨

第1页 (共2页)

其他事项参见背面

证书号第6790746号



外观设计专利证书

外观设计名称：无人机充电站

设 计 人：黄伟;廖秋雄;孙姗姗;潘智明

专 利 号：ZL 2020 3 0761654.2

专利申请日：2020年12月11日

专 利 权 人：深圳黑砂科技有限公司

地 址：518000 广东省深圳市龙华区观澜街道新澜社区观光路1301号银星科技大厦C1102-2

授权公告日：2021年08月20日 授权公告号：CN 306768576 S

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局长 申长雨

第1页 (共2页)

其他事项参见背面

证书号第6791050号



外观设计专利证书

外观设计名称：无人机防雨装置

设 计 人：黄伟;廖秋雄;潘智明

专 利 号：ZL 2020 3 0527877.2

专利申请日：2020年09月08日

专 利 权 人：深圳黑砂科技有限公司

地 址：518000 广东省深圳市龙华区观澜街道新澜社区观光路1301号银星科技大厦C1102-2

授权公告日：2021年08月20日 授权公告号：CN 306768292 S

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局长 申长雨

第1页 (共2页)

其他事项参见背面

证书号第13959979号



实用新型专利证书

实用新型名称：一种无人机起降面积的充电平台

发 明 人：黄伟;廖秋雄;潘智明

专 利 号：ZL 2020 2 2082259.9

专利申请日：2020年09月22日

专 利 权 人：深圳黑砂科技有限公司

地 址：518000 广东省深圳市龙华区观澜街道新澜社区观光路1301号银星科技大厦C1102-2

授权公告日：2021年08月17日 授权公告号：CN 213973614 U

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局长 申长雨

第1页 (共2页)

其他事项参见背面

# Production Capacity

- 1700 Sq.Meters
- 200+ sets/Month

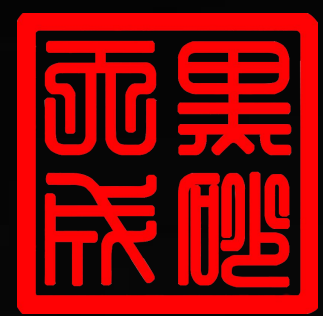


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