Multi-functional supply drop system-MONOCEROS MT30

The MT30 is our proprietary multi-functional load module, incorporating multiple foundational industry capabilities including rope descent, projectile delivery, public address, audio pickup, strobe lighting, and illumination. Compact in form yet versatile in function, it features straightforward installation with plug-and-play operation. Its flexible quick-release module design enables efficient amplification loading. The proprietary intelligent locking hook incorporates audio pickup capability, facilitating remote control and enabling air-ground communication when paired with the public address function. The entire series comes standard with intelligent material delivery management software. Leveraging IoT technology, it supports remote backend operation, real-time monitoring, task scheduling, statistical analysis, and more. Through integrated hardware and software, the MT30's innovative design unlocks drone applications across diverse complex scenarios.

Abseiling drop	Megaphone announcement	Quick-release installation	Microphone pickup
Red and blue warning	25-meter pay-off	Emergency rope-breaking	Accurate weighing

Product Parameters

◎ Device host

Name	Multi-functional Supply Drop System
Model	MT30
Dimensions	120*120*110mm
Weight	775g±10g
Material	Aluminum alloy, ABS
Power	≤50W
Input	DC13.6-24V 4A
Electrical interface	DJI SkyPort 、E-Port 、OSDK
Control distance	Consistent with the drone link
Rope length	30 metres
Speed	20±0.2 m/min
Conversation in an Empty Space	Supported (Requires pairing with a pickup lock and amplification module)
warning light	Red and blue strobe lights
Power of police lights	12W
Lighting power	48W
Electronically controlled projectile launch	Support
Unlocking mode	Unlocking upon landing, electronic unlocking, manual unlocking

Anti-tangle measures	Automatic winding
Weight monitoring	Support
Limit switch	There is
Communication Module	4G
Storage	SD card
Mounting weight	≤2.5kg, subject to the aircraft's actual load capacity
Maximum load capacity	4kg
Operating Mode	Fully manual, semi-automatic
Advertising Control	One-touch lift/lower, tap-to-lift/lower
Other features	Automatic disengagement, ground-level parking, water collection (requires water collector attachment)
Emergency measures	One-touch rope release
Installation method	Quick-release
Ingress Protection Rating	IP55
Supported models	Matrice 350、Matrice 400
Limit bracket	Support (optional)
Transport crate	Support
Operating temperature	-25°C to 55°C
Storage temperature	-30°C to 60°C

O Functional Module

Dimensions	63mm*59mm*129mm
Weight	122g±5g
Swinging head angle	0-30°
loudspeaker	30W
Public address system	Live announcements, recorded uploads, audio files, text-to-speech
Maximum sound pressure level	120dB (at 1 metre)
Broadcast range	300m
Materials	ABS
Installation method	Hand-tightened screw

○ Electric Lock Hook

Dimensions	79mm*70mm*27mm
Weight	96g±5g
Mount hook position	2-stage
Microphone	omnidirectional
Battery capacity	100mAh
Battery life	2–3 hours
Material	ABS
Charging	5V/2A

○ Transport Case（optional）

Dimensions	325mm*205mm*200mm
Weight	600g
Material	PC
Ingress Protection Rating	IP66

○ Limit Support（optional）

Bracket Dimensions	406x380x230mm
Weight	400g
Material	Carbon fibre, aluminium alloy
Installation method	Hand-tightened screw

Product Characteristics

○Combination of multiple functions

Features multiple functions including rope descent, throwing, public address, audio pickup, strobe lighting, illumination, and wireless connectivity. The device is simple to install and operates on a plug-and-play basis.

○Brand-new open-ground dialogue mode

The innovative smart lock hook design incorporates audio pickup

functionality, enabling not only remote control but also two-way communication across open spaces when paired with the intercom feature.

○ **Hook-and-lock electronic control Multiple applications Worry-free delivery**

Radio-controlled grappling hook design enables deployment and rappelling with a single button press, eliminating the need for on-site personnel assistance.

○ **Original design, anti-winding protection and double redundancy**

The original active anti-winding induction algorithm and special harness mechanism can carefully protect every lift.

○ **Precise weighing, overload protection and emergency rope-breaking**

Featuring a built-in high-precision weighing system, it continuously monitors and calculates the weight of payloads, implementing overweight flight restrictions to guarantee flight safety. Instant fusing at a single press, with rapid response times – every moment counts in emergencies.

○ **Multiple transport modules enabling the delivery of various items**

Multiple customized goods transport cases, limit supports, and other related accessories can be selected to meet the needs of various scenarios.

○ **Standard supply drop cloud platform one-click call for help**

Fully equipped with an intelligent supply drop cloud platform, leveraging IoT (Internet of Things) technology, it facilitates front-end remote call for

help,back-end remote operation, real-time monitoring, task scheduling, and statistical analysis.

○ **Quick upgrade of water intake operation**

Optional dedicated water intake apparatus can be equipped to enable drone-based water sampling operations – versatile functionality in one machine for efffcient and convenient operation.
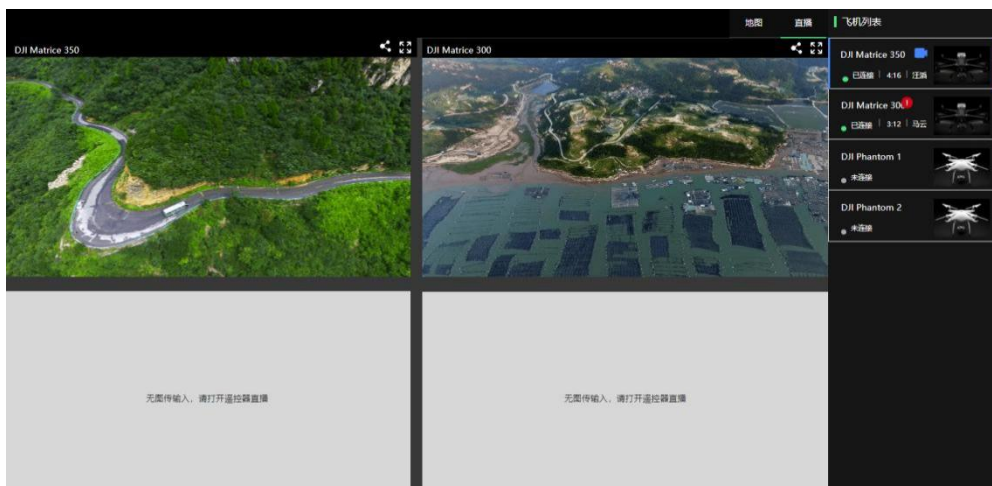
Logistics Delivery Cloud Platform

○ **One-touch call Rapid dispatch**

Users may initiate delivery requests with a single tap via mobile platforms such as mini-programs or official accounts. Upon receiving the request in real time, the backend system automatically dispatches and assigns a drone operator, swiftly fulfilling urgent supply delivery requirements. Utilising the audio pickup capability of the multi-functional rappelling equipment, two-way voice communication is established between the drone operator and the requesting party at the site, ensuring precise and efficient completion of supply delivery tasks.

小程序发起呼叫

后台任务调度

空中物品运输

飞手端操作飞行

⊙ Multi-screen monitoring Remote control

Through the system's video integration capabilities, real-time remote monitoring of multiple background tasks is achieved. In response to sudden anomalies, the backend can remotely control load-bearing equipment to maximise the fulfilment of material delivery requirements.

⭘ Multi-dimensional Statistics Intelligent Early Warning

The system supports multi-dimensional flight data queries and statistics, including item analysis, flight overviews, flight duration analysis, mission analysis, pilot rankings, flight record queries, and replays, providing a clear overview of operational performance.