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Unihawk80E

Electric Heavy-duty UAV

EFY Intelligent Control (Tianjin) Technology Co., Ltd.

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Electric Heavy-duty UAV

Product Introduction

Unihawk80E is an electric heavy-duty UAV platform newly released by EFY Technology, which can be equipped with different payloads to meet customer needs and provide customized solutions. It can be used in scenic areas, forests, mountains, islands, deserts, disaster areas, outposts and ships, as well as in fire fighting of super high-rise buildings. The coaxial design of 6 axis&12blade supports blade fracture protection, which can assure flight even if any 2 blades breakdown. Optimized FOC motor drivers are adopted to make the UAV cope with 7 level wind in full load. Unihawk is equipped with Finix3000, an independent-developed triplex flight control system whose modules have redundancy design in order to ensure the safety and reliability of avionics system.



Logistics version



Firefighting Version



Handheld ground station



Photoelectric Pod (optional)

Product Features



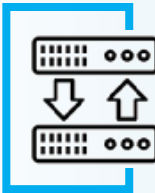
Simple & Easy

Electric drive for easy to maintain
One-click autonomous flight
Fully autonomous night flight
Portable ground station design



80KG Heavy Load

Heavy load design
Larger mounting space available



Safe & Reliable

Blade fracture protection
Triplex flight control system
Multiple redundant backupsof dual satellite navigation
Redundancy backup of dual-course positioning system
Double link redundancy backup



Remote Monitoring

BAS cloud platform supports real-time and whole-process monitoring of material delivery, online inspection and fault warning



Cost Saving

Low comprehensive operating cost
Low maintenance cost for modular design

Safe & Reliable



The avionics architecture design of triplex flight control & Mission scheduling computer



Double link redundancy backup (4G & Digital link)



Redundancy backup of dual-course positioning system (RTK dual-antenna direction & Magnetic compass)



Heterogeneous redundancy backup of dual satellite navigation system (RTK positioning system & Single point positioning system)



Blade fracture protection assure flight even if any 2 blades breakdown

Solutions

▼ Logistics transportation solutions

Logistics transportation still have great difficulties in rugged mountainous areas, coastal areas, unmanned areas, etc. Unihawk80E is committed to reducing operating costs and improving transport efficiency.

2. Autonomous flight

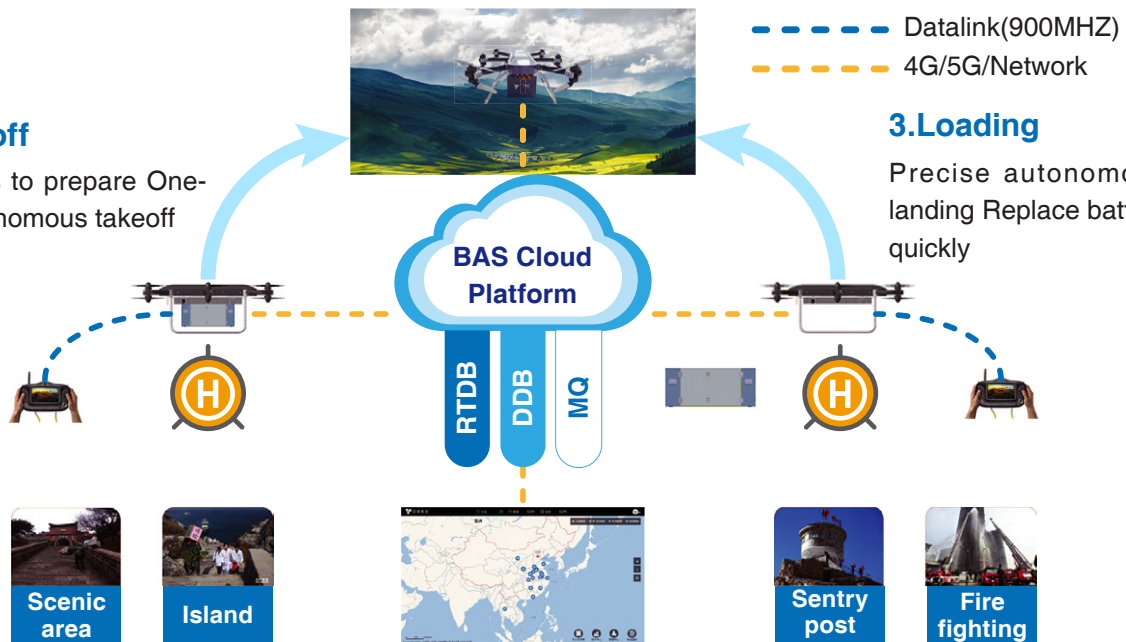
RTK Precise positioning Autonomous firing

1. Take-off

3 minutes to prepare One-click autonomous takeoff

3. Loading

Precise autonomous landing Replace battery quickly



▼ Emergency relief supplies transport solutions

The transportation of emergency relief supplies is characterized by timeliness, suddenness and non-routine. Ground transportation vehicles are always difficult to play their roles and rely heavily on air transportation. Unihawk80E which has large payload is a cost-effective choice.

2. Fire-fighting equipment delivery

Transport 80kg of fire-fighting equipment to the fire site or the roof of the high-rise
Autonomous transport distance 30km

1.Take-off

3 minutes to prepare
One-click autonomous takeoff



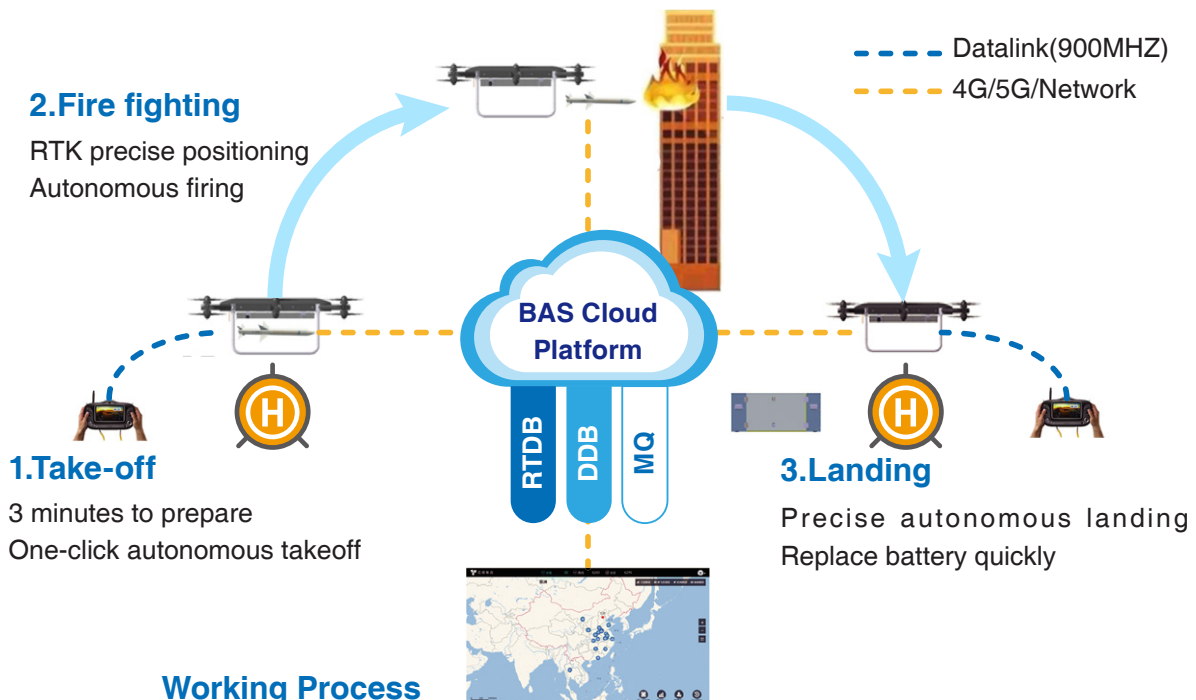
3.Fire fighting

Fire fighting apparatus assistance



▼ Super high-rise building fire fighting solutions

Unihawk80E can carry fire extinguishing bomb, which is not restricted by height and road traffic, and has multiple advantages such as flexibility, rapid deployment and accurate firing. It is mainly used in the fire fighting scene of 100-meter high-rise buildings. Compared with fire ladder and manned helicopter, Unihawk80E has more cost advantage and shorter system response time. It can support the professional pod load, also can achieve fire monitoring, fire investigation and fire detection.



Product Parameters

UAV Parameters	
Rotor layout	6-axis-12-blade
Machine Dimensions(L×W×H)	3.7m×2.4m×1.2m
Body material	Carbon fiber composite; Aviation aluminum
Empty weight	245kg
Maximum Payload	80kg
Maximum take-off weight	325kg
Max flight time	32min
Maximum range	30km
Cruising speed	54km/h
Maximum speed	72km/h
Maximum ceiling	3500m
Positioning mode	RTK
Wind resistant	Level 7
Operating temperature	-15~+50 °C
IP level	IP54
Flight control system	Finix3000
Cargo hold	
Volume	390L
Length x width x height	1.2m×0.65m×0.5m
Fire-extinguishing bullet	
Extinguishant	5kg
Range	40m³
Battery	
Type	LiPo
Fast/slow charge	60/120min
BMS	Support
Handheld ground station	
Working frequency	900M
Control distance	5-30km
Service time	4H
Channel	23
Power	1W
Operating temperature	-10~+60 °C
Network type	4G/WIFI+Bluetooth (optional)
External interface	USB3.0 / 4G / LAN / HDMI , etc.
Sketch map	
Photoelectric pod (optional)	
Camera type	Double light camera
Zoom range	30x optical zoom
Thermal infrared	640×480
HD image	1080P
Sketch map	

