

APPLICATION-ORIENTED DRONE SYSTEM CUSTOMIZATION

THE LEADER OF INTELLIGENT INDUSTRIAL UAS

Application-oriented drone system customization introduction

Product Introduction

The integrated avionics system (including flight control system) independently researched and developed by EFYI can be customized as required to match different types of drones . It can also be used for the unmanned transformation of manned aircraft and helicopters for firefighting and reconnaissance, Inspection, logistics and other industries quickly provide customized plans for drone systems.

Adhering to the "basic + on-demand" customization, it can provide a variety of loads, perform multiple tasks, independently develop a ground control station platform, an on-site operation assistant, and an operation management platform, which can simultaneously support multiple personnel, multiple projects, multiple equipment, and big data Perform 360° management to realize one-stop management and control solutions for software, equipment, scenes, and data.

Solutions Introduction

Drone customized solutions



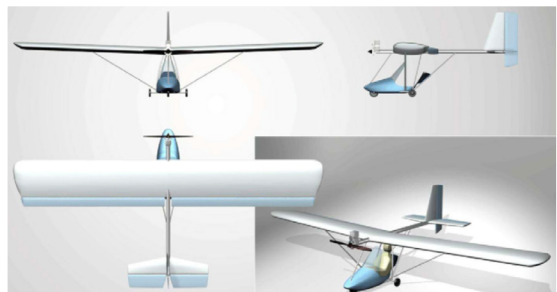
Single-rotor helicopter



Tandem dual-rotor helicopter



Large electric multi-rotor drone



Fixed wing



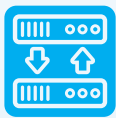
SOLUTION 1

Customized transformation of heavy-duty drones



SOLUTION 2

Platform-based solutions



Safe and reliable:

dual navigation, dual heading, dual link



Precise control:

high-precision take-off and landing, control precision sub-meter



Full verification:

verification of multiple configurations, mature applications on dozens of platforms, 100,000+ hours of flight



AI intelligence:

health monitoring and early warning, online fault diagnosis, real-time management and control

Single-rotor helicopter

MQ300

The Canadian light single-seat manned helicopter platform MQ300 was transformed into a mature technology. From the structure to the avionics system, it supports a full range of customized development of functions, a multi-functional vertical take-off and landing drone, a single rotor + tail rotor configuration, and a maximum take-off weight of 330Kg.

Equipped with self-developed Finix3000 Triple redundancy flight control
Highly reliable electric drive rudder surface driver
Support online health detection and fault diagnosis
Flexible choice of task load



Important parameters
Power mode: petrol
Weight: 200kg
Max load: 130kg
Tank capacity: 45L
Effective endurance: 25h
Flight distance: 200km
Cruising speed: 80km/h
Wind resistance: level6
Hovering position control accuracy: $\pm 1m$
Accuracy of autonomous landing position: $\pm 1m$

Main function
1. Airplane mode
Manual mode
Autonomous route mode
2. Main control methods
Take off and landing autonomously
Autonomous routes
Return home autonomously
Circling around the point
3. Instant troubleshooting
The remote control signal is interrupted
Data link signal is interrupted
4. Health Monitoring
Vibration monitoring
Voltage monitoring
Temperature monitoring
Current monitoring
Speed monitoring
Oil level monitoring

Application scenario

Fire extinguishing, to solve the needs of super high-rise buildings, hazardous areas, and forest fire extinguishing over 100 meters. Large-duty drones can mount fire extinguishing bombs or other fire extinguishing devices, which play an important role in specific fire scenarios.

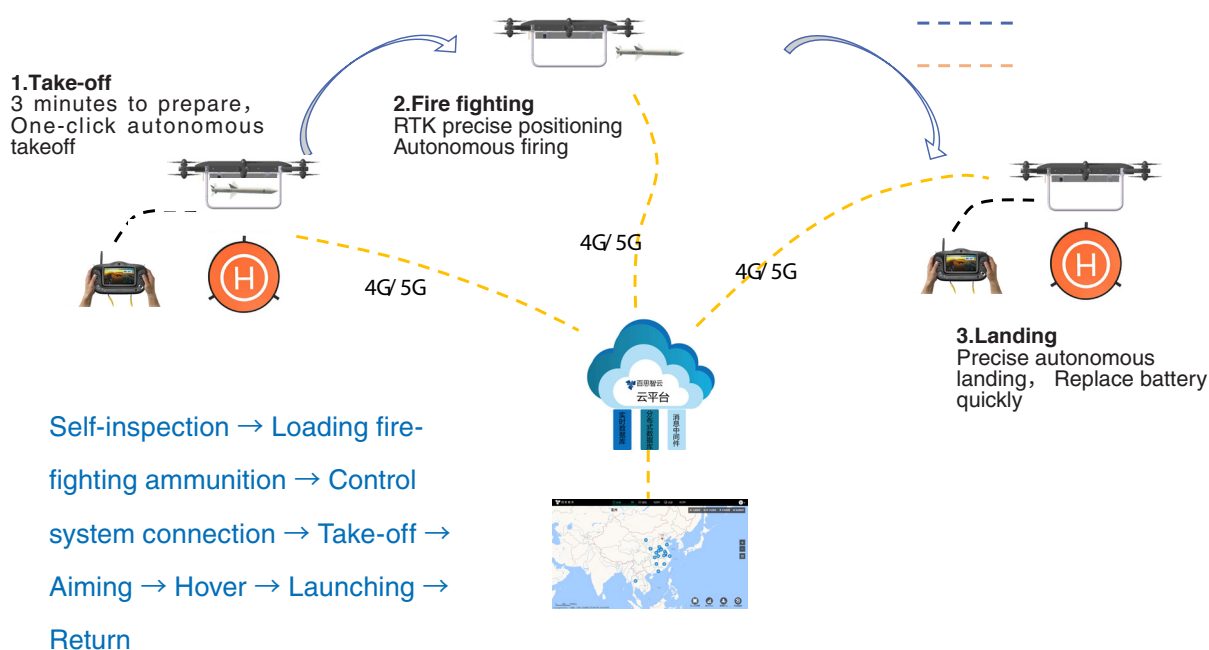


Large electric multi-rotor drone

Unihawk 80E

Unihawk 80E is an electric heavy-duty drone platform which can be matched with different mounts to meet the individual needs of customers and provide industry-customized solutions. This model can be used to supply bulk materials such as scenic spots, forest areas, mountains, islands, deserts, disaster areas, outposts and ships, and it can also be used to extinguish super-high-rise buildings in the field of fire protection.

- 6-axis 12-propeller coaxial layout
- Adopt optimized FOC motor driver
- Equipped with self-developed Finix3000 three-degree flight control
- Modular design of the whole machine



Tandem dual-rotor helicopter

Unihawk 240

A multifunctional vertical take-off and landing drone adopts a tandem double-rotor configuration with a wide range of allowable center of gravity changes. The maximum take-off weight is 640Kg, and the load can reach 240Kg.

-  Excellent cargo performance
-  Large cargo space
-  Large center of gravity
-  Optional task load



Important parameters

Weight: 400kg

Max load: 240kg

Allowable center of gravity range: $\pm 0.3\text{m}$

Effective endurance: 3h

Max flight distance: 300km

Max level flight speed: 150km/h

Cruising speed: 120km/h

Cruising fuel rate: 25L/h

Wind resistance: level 7

Hovering position control accuracy: $\pm 1\text{m}$

Accuracy of autonomous landing position: $\pm 1\text{m}$

Main function

1. Airplane mode

Manual mode

Autonomous route mode

2. Main control methods

Take off and landing autonomously

Autonomous routes

Return home autonomously

Circling around the point

3. Instant troubleshooting

The remote control signal is interrupted

Data link signal is interrupted

4. Health Monitoring

Vibration monitoring

Voltage monitoring

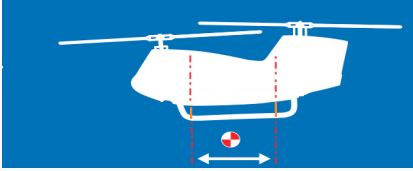
Temperature monitoring

Current monitoring

Speed monitoring

Oil level monitoring

PRODUCT HIGHLIGHTS



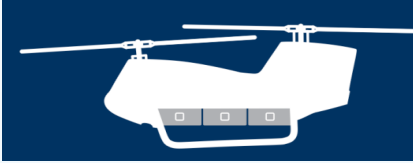
Allows a wide range of center of gravity



Large cargo space



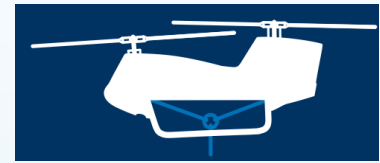
Easy delivery in the air



Splitwarehouse



Overallwarehouse



Hanging

APPLICATIONSCENARIOS

Material supply



Island transportation



Desert material supply



Agriculture forestry and plant protection



Wechat Official Account QR Code



Sina-Weibo QR Code