



Conquer the Sky for Human's Good

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- Beijing city MMC Tienmu technology
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Wechat Official Account



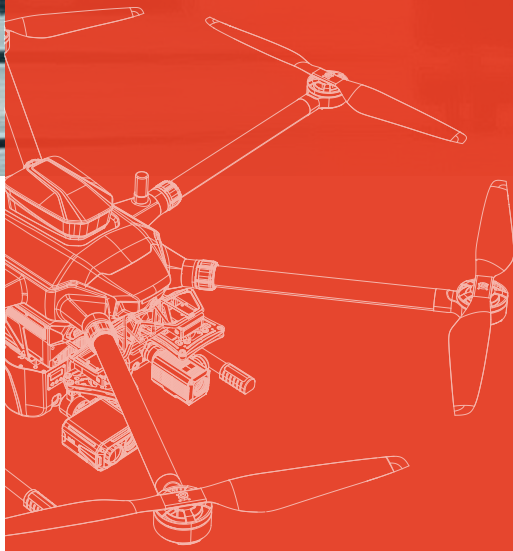
The Cloud Application

MMCUAV

Fire Hazard Prevetion

The Combination Task Of Supervising And Suppressing

Industrial Solutions



Global Warming is Seriously Influencing The Forest Fire

Direct ecological destruction | Intensify land desertification | Cause soil erosion | Unable to maintain ecological balance

220 Million Hectares Forest Area

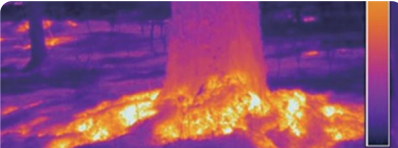
16000+ Times Annual Fire

Flame Overview



Surface-fire

It is mainly spread along the surface of woodland, burning ground cover, harming young trees, shrubs, under Status of industry wood, etc.



Underground Fire

The fire burns in the humus layer of the forest, the fire peat layer, and there is no flame visible at the surface, only smoke, and it spreads slowly and can last for days, months or even longer.



Canopy Fire

Mainly along the canopy spread, canopy fire destructive, can burn needles, ground cover, etc., the general temperature of 900°C, the smoke is dark gray.

Historical Situation

The statistic of china bush fire in last ten years

The total area of the fire is 485,000 hectares

The affected forest area is 193,000 hectares

In 2022, there were 709 forest fires in China

Occur period 74%

Region 71%
Hunan、Guangxi、Jiangxi、Guangdong, total ocured 503 times

240 fire hazard cases happened in early of 2023

Occur period
From march to april

Region
Middle south, West south area of China

Status Of Industry



Complex Landform

Affected by the complex terrain such as mountains and canyons and dense vegetation, the efficiency and scope of artificial foot inspection are limited.



Inadequate Equipment

There are many kinds of forest fires, complex burning materials, interweaving to form a complex fire Occur period From march to april Region Middle south, west south area of china environment.



High Risk

Forest fires develop very quickly. If the fire prevention is not timely, "small" is not rapid and thorough, it will bring greater challenges to subsequent fire fighting operations and evacuation of trapped personnel.

Project Introduction

The MMC UAV solution of high efficiency coordination

Focus on responding to the sudden fire conditions before and after the disaster, solve the pain points such as poor timeliness, long interval and secondary reignition in the past.

Open space coordination

Fire prevention

Inspection and suppression

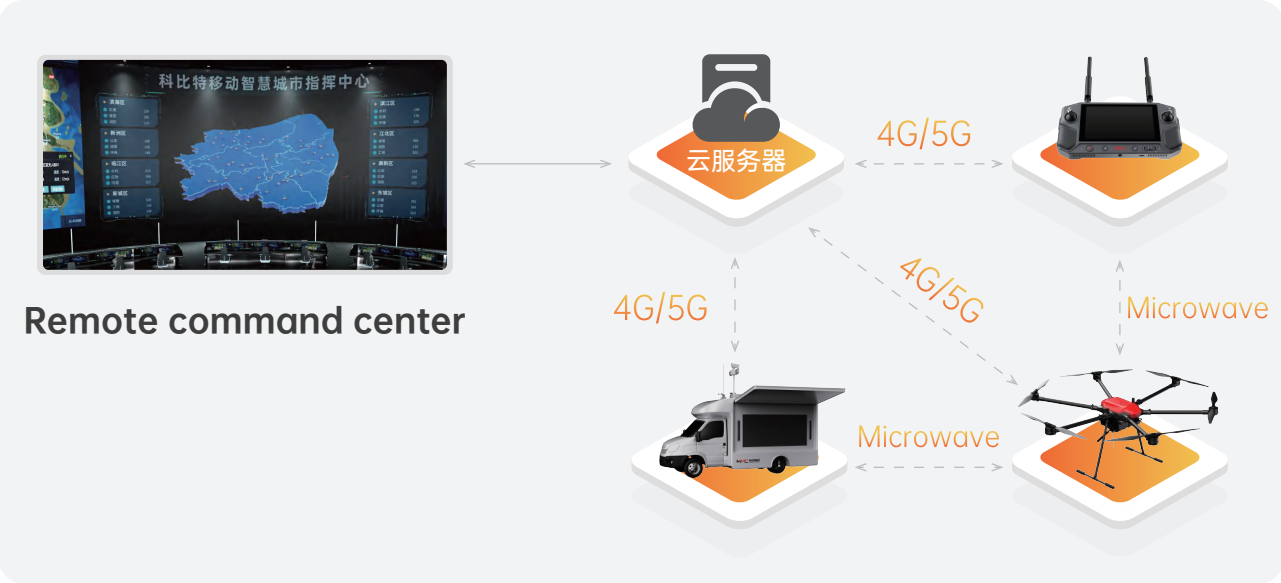
Mobile automated patrol

Reexaminnig rekindle risks

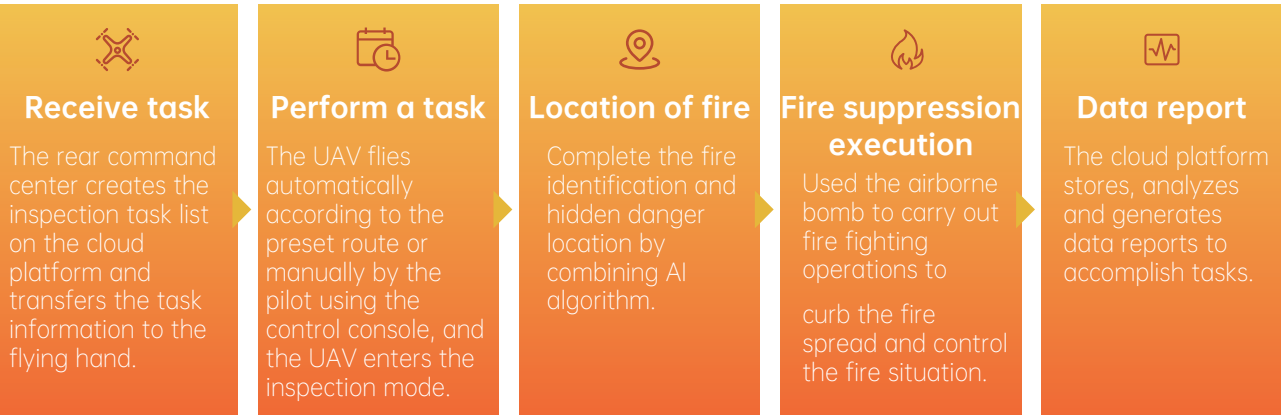
Flexible response to emergencies



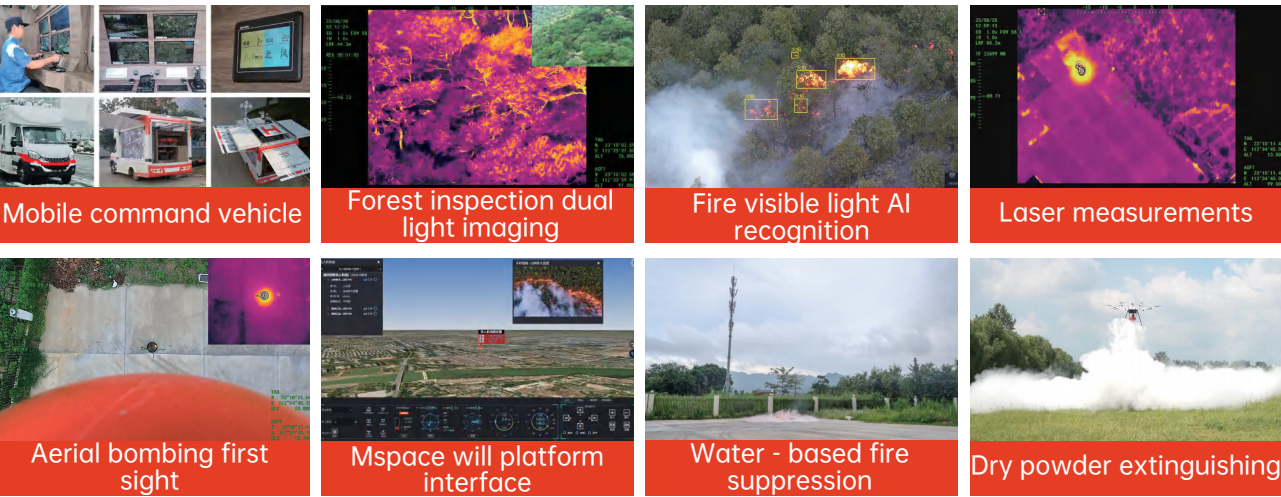
Structure



Operation Process

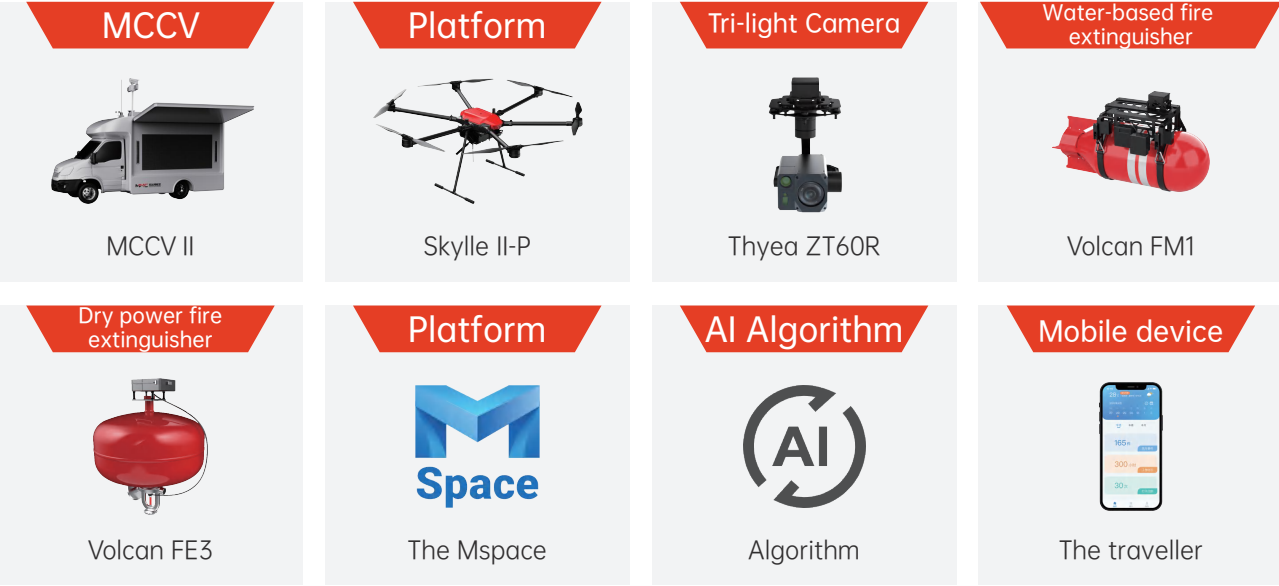


Outcomes



Product Introduction

The MMC related products (high efficiency fire extinguishing)



Vanguard Mobile Control And Command Vehicle II

As a mobile workstation on site, the mobile command vehicle is equipped with command and dispatch, communication support, flight control, material storage, remote control, data processing, large screen overview, on-board power generation, weather monitoring, night lighting and other functions.

Based On IVECO	2998mL Engine Capacity	4295kg Total Weight	13L Combined MPG
Diese	3 Passenger Capacity	130km/h Max. speed	3.7 Square meter LED screen

Skylle II-P (UAV)

Aviation carbon fiber integrated molding process, can cope with harsh working environment; Quick-disconnecting arm and tripod design, with rapid deployment, portability and other characteristics.

15kg Heavy load	60min Long endurance	20km Telegraphict ransmission	< Level 7 Wind resistance
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Thyea ZT60R (Trilight Camera)

Support photography and video, target tracking function, AI detection of vehicles and personnel. The photo attributes include the time it was taken and GPS information.

30x Optical zoom	1000m Ultra-long range	417 million HR	640*512 Thermal imaging resolution
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Volcan FM1 (Water based fire extinguisher)

The fire extinguishing power is large, the speed is fast, and the A/B fire is fully effective; A chain reaction occurs on the surface of the combustion material to form a barrier layer to isolate the air; It can absorb 70% of the harmful smoke in the combustion process.

10L Capacity of the extinguisher	2m*2m Accuracy rate	4A/24B Suppression class
>8m Spray radius	30m² Covered area	500m Laser measurement

Volcan FE3 (Dry powder extinguisher)

Programmed operations such as quick landing of bombs on the ground, takeoff with bombs, hovering over the fire site, automatic dropping of bombs, intelligent setting of altitude detonations in the air, and large-scale fire extinguishing.

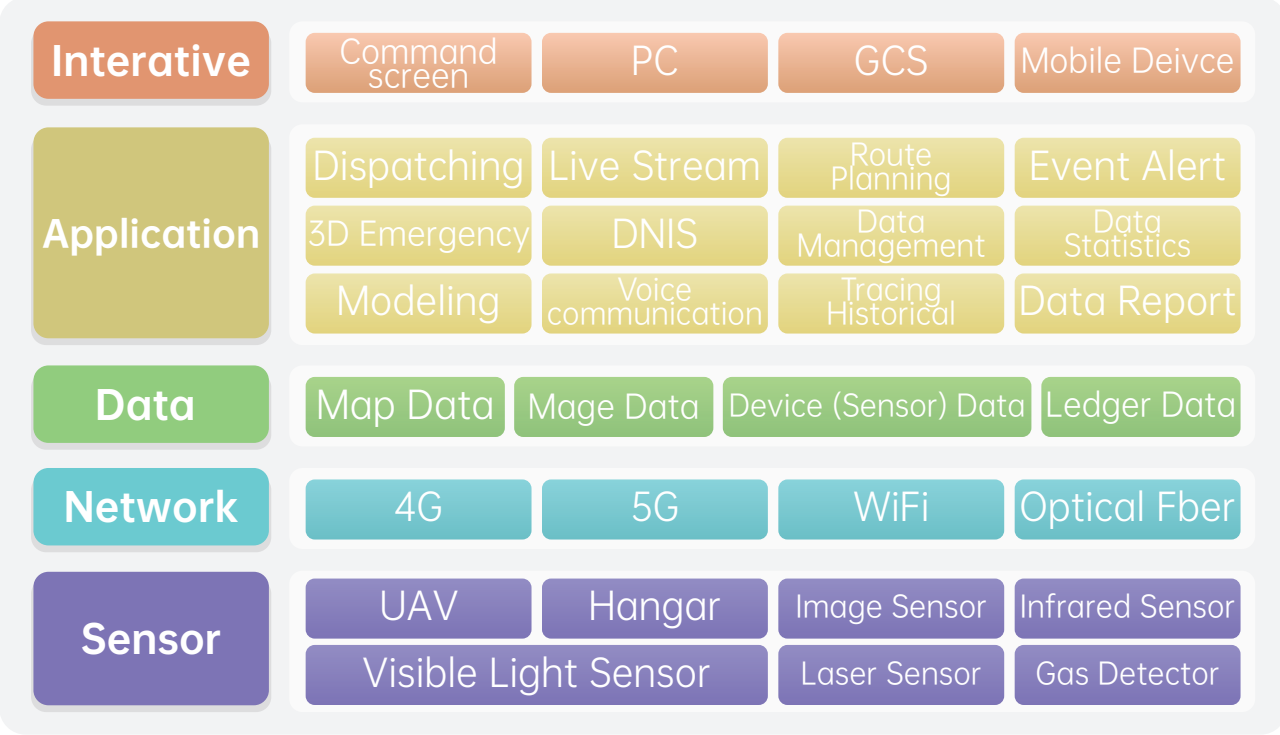
3kg Capacity	Vertical down ward injectio	Electromagnetic trigger	>4m Transmitting distance
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AI Algorithm

Smoke identification: 98%

Flame recognition rate: 100%

The Stucture Of Mspace



The traveller (Moblie device)

The mobile terminal helps emergency personnel view, navigate, process, report results, and locate personnel.

Real-time monitoring	Data storage
Portable	Result export

Successful Case

🕒 2023/8 📍 Guangdong Province Zhaoqing City

Case: Dinghu Fire-fighting Practice

Quick locationing

Flight height 40m、 explosion height 8m

Infrared test,laser measure, and accuary locating the target

The UAV flew to a height of 40m, quickly sensed the location of the fire through infrared thermal imaging and local temperature measurement function, and quickly measured the longitude and latitude coordinates and spatial distance of the fire with laser capability. The aerial detonation height of the fire bomb was set to 8m. The pilot quickly aimed at the location of the fire through the remote control image transmission screen, accurately put the fire bomb, and successfully extinguished the fire source.

