

智造无限可能  
Intelligence makes it possible



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\*In order to continuously improve user satisfaction, the product will continue to be upgraded.  
The actual product and promotional materials may be different, please refer to the final actual product.\*

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**ZHUN** (WK-1800、WK-1500)

消防无人机 FIRE FIGHTING DRONE

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ZHUN

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## 01. 公司介绍 \ COMPANY PROFILE

### 广州市华科尔科技股份有限公司

是一家专业从事无人机研发、生产、销售和技术服务于一体的高新技术企业；产品广泛应用于警用安防、消防救援、农业植保、巡检侦察、遥感测绘、电力巡检、海事救援、智能伴飞、无人值守等多个领域。

公司成立于2001年，座落于粤港澳大湾区—广州市南沙经济开发区，占地面积3万平方米，在职科研/工程/生产人员300余人。华科尔无人机完全自主研发，先后通过了ISO9001、ISO14001、ISO45001等国际质量、环境、职业安全等体系认证；经过二十多年的技术积累和沉淀，华科尔已成为全球领先的智能无人机系统解决方案提供商，奠定了全球智能飞行器行业领导地位。公司已获得海内外发明专利、实用新型专利和软件著作权等300余项。近年来连续被行业组织评选为“中国无人机十大品牌”、“中国无人机十大创新品牌”、“全球无人机五十强”；先后获得“广东省智能化航拍无人机工程技术研究中心”、“广东省机器人骨干企业”、“广东省自主创新示范企业”、“市级企业技术中心”、“市级研发机构”等荣誉称号，并连续通过了十多省、市、区三级政府的科研项目立项和研究成果验收。

华科尔无人机畅销全国，并在北美、欧洲及中东等30多个国家政企单位得到了广泛应用。华科尔人将继续秉承“专业、专注”的工匠精神，不断创新超越，服务全球，智造无限可能！

### Guangzhou Walkera Technology Co., Ltd

Is a company specializing in UAV R&D, A high-tech enterprise integrating production, sales and technical services; products are widely used in police security, fire rescue, agricultural plant protection, inspection and reconnaissance, remote sensing mapping, power inspection, maritime rescue, and intelligent swarm flight, unattended and other fields.

The company was established in 2001 and is located in the Guangdong-Hong Kong-Macao Greater Bay Area-Guangzhou Nansha Economic Development Zone. It covers an area of 30,000 square meters. Walkera UAV is completely independently owned and has passed ISO9001, ISO14001, ISO45001 and other international quality, environment, occupational safety and other system certifications; after more than 20 years of technology accumulation and precipitation, Walkera has become the world's leading intelligent unmanned provider of aircraft system. The company has obtained more than 300 invention patents, utility model patents and software copyrights at home and abroad. Walkera drones are sold worldwide and have been widely used in government and enterprise units in more than 30 countries including North America, Europe and the Middle East. Walkera people will continue to uphold the craftsman spirit of "professionalism and focus", continue to innovate and surpass, serve the world, and intelligently create infinite possibilities!





## 02. 高层灭火 \ HIGH BUILDING FIRE FIGHTING

城市的高楼层出不穷,越来越高的楼层,给消防救援带去很大的挑战。

华科研发的察打一体、双重灭火四轴、六轴大载重消防无人机很好地解决了高层灭火的难点、痛点。目前华科尔灭火无人机可分为高层破窗喷打一体双重灭火无人机、高层大载重干粉灭火无人机、消防救援无人机等多个机种。

消防员可实施操控消防无人机实施灭火救援,消防无人机可编队轮番作业,并可实时监控现场态势、监管无人机飞行状态等功能,可直接将火灾现场视视频实时连接消防指挥中心平台;在道路畅通无法接近火场时,消防无人机可快速升空到达。

Walkera developed investigation and shooting integrated firefighting drones, WK-1500 and WK-1800 have well solved the difficulties and pain points of high-level fire extinguishing.

Firefighters can implement functions such as controlling the drone, real-time monitoring of the situation on the scene, and monitoring the drone's flight status. They can directly connect the real time fire scene video to the fire command center platform; Saving time a lot, improving rescue efficiency and escort fire protection tasks.





### 03. 组网作业 \ CLUSTER WORK

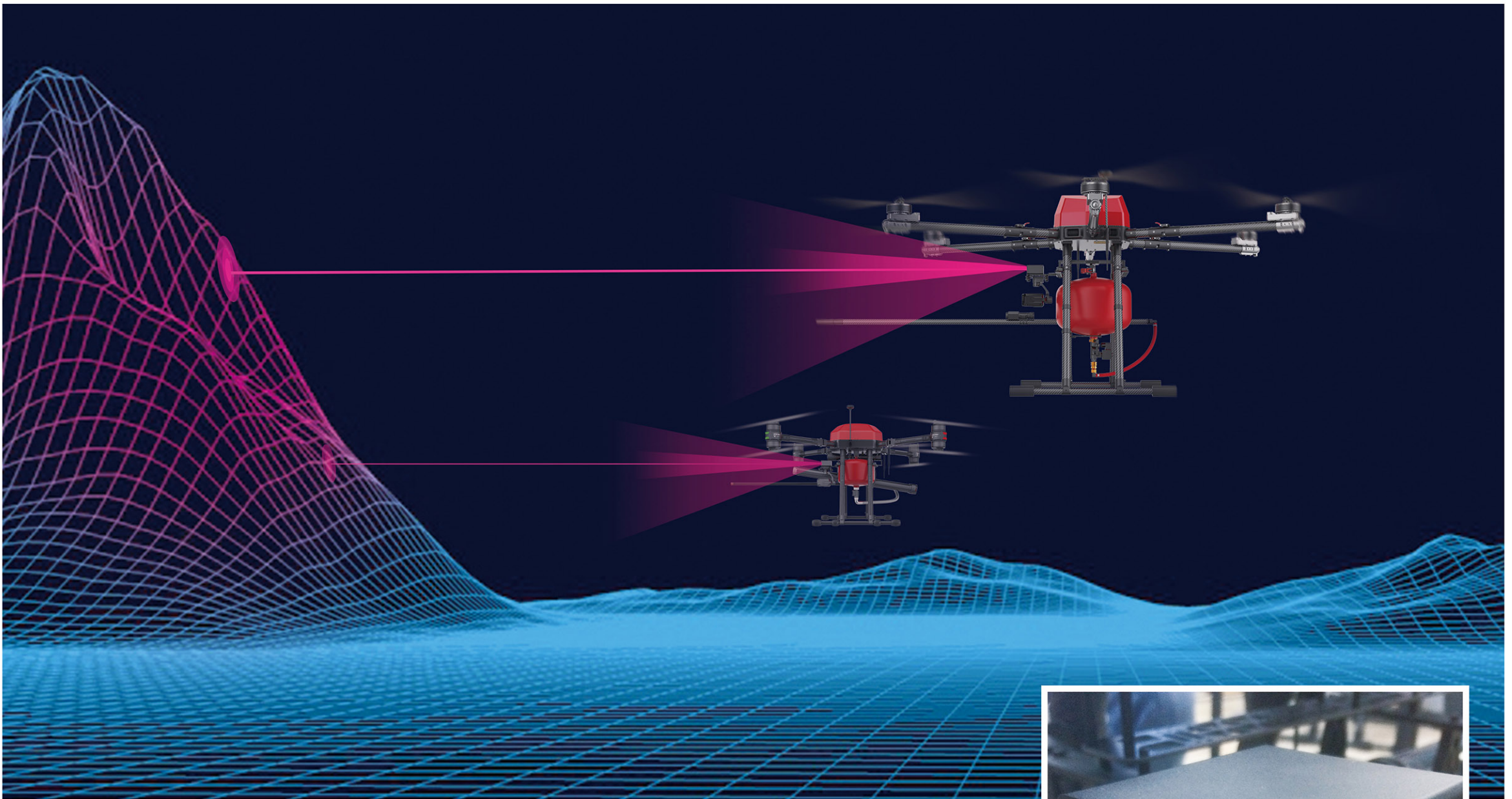
指挥中心控制系统实时掌控火灾现场情况；无人机小组实现自主导航编队灭火作业，配合30倍光学变焦相机，对高楼火灾现场多个角落进行监控。通过华科尔无人机指挥中心软件，在大屏同时收看多台执行任务的无人机监控图像，并显示每个消防小组的地理位置，帮助指挥官准确决策。

The command center controls the live fire site; the drone team implements autonomous navigation formation fire fighting operations, and cooperates with a 30x optical zoom camera. Multiple corners of the high-rise fire scene were monitored. Through the Walkera UAV Command Center software, you can watch multiple UAV surveillance images on a large screen at the same time. And displays the location of each fire team to help commanders make accurate decisions





## 04. 功能介绍 \ FUNCTIONS



### 激光雷达 / LIDAR

采用激光雷达技术，通过高精度传感器打造的智能避障系统，激光测距可达100米，能够识别前方向3-15米(可调)的障碍物并进行刹车减速，防止因误操作带来的风险，保障你的飞行安全。避障和测距双重保护，让你的飞行更加安全，加大救援的概率。

Intelligent obstacle avoidance system made by high-precision sensors, the laser ranging can reach up to 100meters, the obstacle can be identified from 3 to 15meters (adjustable)in the front direction and the brake is decelerated to prevent riskscaused by wrong operation and guarantee your flight safety. Both obstacle avoidance and ranging protection make your flight safer and increase the probability of rescue.





## 04. 功能介绍 \ FUNCTIONS



### 带有夜视瞄准系统 / With night vision targeting system

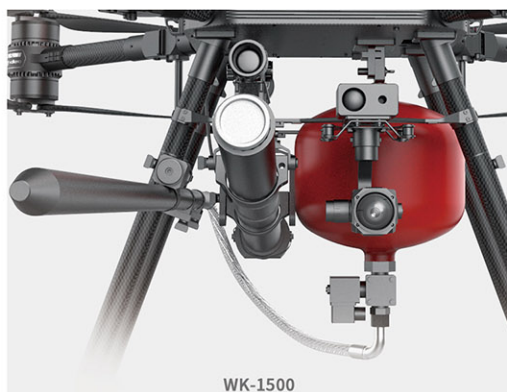
ZHUN拥有超强负载与抗震设计，配合高倍镜瞄准镜加带有夜视功能的高帧率相机，发射精度高，能够在复杂火场气象环境下远程精准发射灭火弹。通过图传实时在地面控制端显示瞄准目标点，在APP客户端有十字瞄准星，大大提高射击精准性，提高救援效率。

ZHUN is equipped with a high-power load and anti-tremor design, a high-power aiming mirror and a high-frame camera with night vision function. With high transmission accuracy, ZHUN is able to fire extinguishing projectiles remotely and accurately in a complex fire weather environment. The target point is displayed on the ground control end in real time through the graph transmission, and the cross target star is available on the APP client, which greatly improves the accuracy of shooting and improves the rescue efficiency.

### 机载火箭发射灭火弹和灭火罐 / Airborne rocket fire extinguishing bombs and fire suppression bottle

ZHUN双重灭火无人机机身下方搭载一支火箭发射灭火弹和灭火罐，灭火器飞行动力为火箭发射机，有效发射距离40米，灭火罐喷粉管展开长度4.33米（最短可缩到1.5米）；灭火弹和灭火器采用专用灭火剂装填，高楼层场景下可对火源点进行有效打击，为消防救援提供高空火力压制。

Under the fuselage of the dual fire-fighting drone ZHUN is equipped with a rocket launcher and fire extinguisher. The fire extinguisher is powered by the rocket launcher, The effective firing distance is 40 meters, and the expansion length of powder spraying pipe of extinguishing tank is 4.33 meters (the minimum can be reduced to 1.5 meters); Fire extinguishers and extinguishers are loaded with special extinguishing agent, which can effectively strike the fire source in the scene of high floors, providing high-altitude fire suppression for fire rescue.



WK-1500



WK-1800

### 30倍光学变焦相机 / 30X optical zoom camera

ZHUN标配挂载30倍光学变焦相机，超远距离监控，可观察火场及灾情的一切细节情况，能有效帮助制定救援方案。还可一机多用，可根据客户不同的需求，挂载不同的设备，比如：红外热成像相机、微光夜视相机等设备。

Equipped with 30 X optical zoom camera, it can monitor the situation from a distance, observe all details of fire and disaster, and effectively help to make rescue plan. It can also be used for many purposes. Different equipment can be mounted according to different demands of customers, such as infrared thermal imaging camera, low light night vision camera and other equipments.



### 智能化安全保护系统 / Intelligent security protection system

ZHUN在飞行中，如偶发特殊情况，任意电机故障而导致动力不平衡，GPS模式下，飞行器可自动修正，保持飞行姿态，通过控制遥控器油门慢慢降低，实现安全降落，飞行器仍然处于可控状态，有效的提高可靠性。

In the flight, for example, the power imbalance is caused by occasional special circumstances and arbitrary motor failure. In the GPS mode, the aircraft can be automatically corrected and maintain the flight attitude. By controlling the throttle of the remote control, the safe landing can be achieved.



### 严酷的环境，依然出色 / Harsh environment, still outstanding

ZHUN双重消防灭火无人机机身采用封闭模块化设计，拥有超强的IP65三防能力，在复杂的环境中依然可以快速展开作业。无论在风雨、尘土还是高温、严寒中都能稳定工作，具备工业级防水、防尘、防腐能力，适应严酷的救援作业环境。

The fuselage of ZHUN dual fire extinguishing UAV adopts closed modularization design and has super IP65 three-defense capability. It can still be operated quickly in a complex environment. It can work steadily in wind, rain, dust, high temperature and cold, Industrial-grade waterproof, dustproof, corrosion-proof ability, adapt to the harsh rescue operation environment.

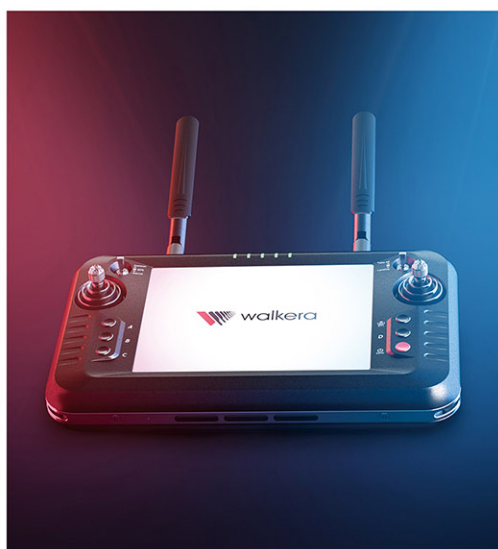


## 04. 功能介绍 \ FUNCTIONS

### ZHUN消防无人机专用带屏遥控器 / ZHUN firefighting drone special remote controller with screen

针对消防救援的需求，我们专为ZHUN消防无人机而设计带屏遥控器，带屏遥控器集便携与高亮显示一身，在强光直射下也能呈现清晰图像，结合内置APP，让你摆脱使用普通移动设备时的繁杂信息的干扰，更加轻松高效作业。

Aiming at the special needs of Firefighting application, we designed a remote controller with screen for ZHUN Firefighting Drone. The remote controller with screen is portable and highlighted. It can also display clear images in direct sunlight, with built-in APP, you can get rid of the interference of complicated information when using ordinary mobile devices, and work more easily and efficiently.



#### 高亮显示屏 / High-brightness display screen

遥控器集成 7.86 英寸 2K 高亮显示屏，屏幕最高亮度达 2000 cd/m<sup>2</sup>，约为普通移动设备的两倍，在强光直射下仍清晰可见，作业更加安全可靠。

ZHUN Firefighting Drone with screen remote controller integrates 7.86 inch 2K high-brightness display screen with maximum brightness of 2000 cd/m<sup>2</sup>. It's about twice as safe and reliable as ordinary mobile devices, and it's still visible in direct sunlight.



#### 高清图传 / HD image transmission

ZHUN消防无人机带屏遥控器配备使用先进的2.4G和5.8G双频远距离传输系统，波长长，抗干扰能力强，有效控制距离可达6KM，传输稳定可靠。

ZHUN Firefighting Drone with screen remote control equipped integrates the advanced 2.4G and 5.8G dual frequency long range video transmission system, long wavelength, strong anti-interference ability, effective control distance up to 6KM, stable and reliable transmission.

### ZHUN消防无人机带屏遥控器定制化系统 / Customization system of ZHUN remote controller with screen

定制化Android系统搭配深度优化的WKDrone-ZHUN APP，摆脱使用普通移动设备时的操作卡顿和繁杂信息的干扰，让作业更高效、安全；同时，系统还支持安装其它安卓APP，从而实现更多影像编辑和分享功能。

Customized Android System Collocation Depth Optimized WKDrone-ZHUN APP, Get rid of the interference of operation carton and complicated information when using ordinary mobile devices, and make the operation more efficient and safe; At the same time, the system also supports the installation of other Android Apps to achieve more image editing and sharing functions.



### ZHUN消防无人机带屏遥控器定制APP / Customized APP for ZHUN remote controller with screen

针对消防救援的特殊需求，我们专为ZHUN消防无人机而设计的APP，简化操作，轻松作业。可监视化平台，方便操作者统计和监管，实时查看作业的进度、规划作业航线等功能，实时显示作业参数及飞行参数等。

To meet the special needs of Firefighting applications, we designed an APP specifically for ZHUN Firefighting Drone, which simplifies the operation and makes it easy to operate. The monitoring platform can make it convenient for operators to make statistics and supervision, check the progress of plant in real time, operation area, and plan operation routes, etc., and display operation parameters and flight parameters in real time.





## 05. 可挂载物件 \ MOUNTED MATERIALS



### 3KG\5KG灭火罐(WK-1500)

干粉净重3kg\5kg 总重6.2kg\9.5kg  
充装压力1.2MPa, 电控快开方式  
喷粉管: 碳纤维材质;  
长度: 展开4.33m (最短可缩到1.5m)

### 3KG Fire Extinguishing Tank

The n.w.: 3kg\5kg  
Total w.: 6.2kg, 9.5kg of dry powder respectively. Filling pressure 1.2 MPa  
Electronically controlled fast opening mode, powder spray pipe: carbon fiber material;  
Length: Expansion 4.33M  
(Minimum can be reduced to 1.5m)



### 12KG灭火罐(WK-1800)

干粉净重12kg, 总重19kg  
充装压力1.2MPa, 电控快开方式  
喷粉管: 碳纤维材质;  
长度: 展开4.33m (最短可缩到1.5m)

### 12KG Fire Extinguishing Tank

The n.w.: 12kg and total w.: 19kg of dry powder respectively. Filling pressure 1.2 MPa  
Electronically controlled fast opening mode, powder spray pipe: carbon fiber material;  
Length: Expansion 4.33M  
(Minimum can be reduced to 1.5m)



### 垂直抛投干粉灭火弹

ABC超细干粉; 4枚干粉弹, 可依次抛投, 每枚灭火面积达6m<sup>2</sup>  
内置1080P 高清抛投瞄准镜头  
适用: 大型场所、工厂、森林、交通灭火

### Direct Throwing Dry Powder Fire Extinguishing Bomb

ABC Ultrafine Powder; 4 pcs Dry Powder Bombs which can be thrown in turn, each pc Fire extinguishing area up to 6m<sup>2</sup>, built-in 1080P high-definition throwing and aiming lens Suitable for fire extinguishing in large places, factories, forests and traffic



### 高空发射器灭火弹

CM60 型机载式发射器  
外管口径: φ67mm  
灭火弹单发灭火能力: 9.2 m<sup>3</sup> (全淹没)  
最大射程: ≤50m 种类: ABC超细干粉;

### High Altitude Launcher Fire Extinguishing

CM60 Airborne Launcher  
Outer tube caliber: 67mm  
Single fire extinguishing capability of fire extinguisher: 9.2 m<sup>3</sup> (full submergence)  
Maximum Range: ≤50m Type: ABC Ultrafine Dry Powder



### 喷水箱

高压水泵电压: 48V  
高压水泵重量: 2.5 kg  
高压水泵压力: 开:0.25MPa 关:1.5MPa  
水箱: 10升(WK-1500)/17升(WK-1800)  
喷水管材质: 碳纤维  
伸缩长度: 展开长度3m (最短可缩到1.5m)

### Water Tank

High pressure pump voltage: 48V  
Weight of high pressure water pump: 2.5kg  
water pump pressure: on :0.25MPa off :1.5MPa  
Water tank: 10L(WK-1500)/17L(WK-1800)  
Material: carbon fiber  
Expansion length: expansion length 3m (minimum up to 1.5m)



### 水带消防喷水

可接消防栓、消防车高压供水  
喷水管材质: 碳纤维  
伸缩长度: 展开长度3m(最短可缩到1.5m)

### Fire Horse

It can work with fire hydrant and firefighting truck  
Material: carbon fiber  
Expansion length: expansion length 3m (minimum up to 1.5m)



### 补光相机

30倍光学变焦、1080P高清相机  
总像素: 216万  
适用: 夜间监控侦察, 安全巡逻

### Fill-up Camera

30X optical zoom, 1080P HD camera  
Total pixels: 2.16 million  
Suitable to: Night surveillance and reconnaissance, security patrol



### 双光相机

可见光: 30倍光学变焦、1080P高清相机  
红外热成像: 25mm 640x480分辨率  
适用: 夜间监控侦察, 消防、安全巡逻

### Dual-lens Camera

30X optical zoom, 1080P HD camera  
Infrared thermal imaging: 25mm 640x480 resolution  
Suitable to: Night surveillance and reconnaissance, fire, security patrol



### 4K 30倍光学变焦

1200万高清 4K画质, 30倍变焦  
焦距: 6.7-134.5mm  
适用: 远距离追踪, 监控侦察, 安全巡逻

### 4K 30X Optical Zoom Camera

12 million HD 4K 30X Optical Zoom  
Focal length: 6.7-134.5mm  
Suitable to: Long-range tracking, surveillance and reconnaissance, security patrol



## 05.可挂载物件 \ MOUNTED MATERIALS



### 救生圈抛投

内置1080P 高清抛投瞄准镜头  
辅助搜寻精准抛投  
适用：海上应急救援抛投

### Lifebuoy Throwing

Built-in 1080P High Definition throwing aiming lens  
assisted search precision throwing  
Suitable to: marine emergency rescue throwing



### 倾斜相机

APS-C画幅的(单个)2400万像素  
12000万总像素 可1:500测图  
适用：采集城市三维影像、地物测绘

### Tilt camera

APS-C picture (single) 24 million pixels  
120 million total pixels for 1:500 mapping  
Suitable for: acquisition of three-dimensional urban images, topographic surveying and mapping



### 条幅宣传

遥控展开、投放  
条幅规格: 80x30cm  
适用：消防演习、法制及广告宣传

### Banner Promotion

Remote control deployment and launch  
Banner Specification: 80x30cm  
Suitable to: fire drills, legal system and advertising



### 空中喊话器

音量达125分贝，传音距离可达1.2公里  
100W功率，一键录音  
适用：现场指挥、人群疏散、执法喊话

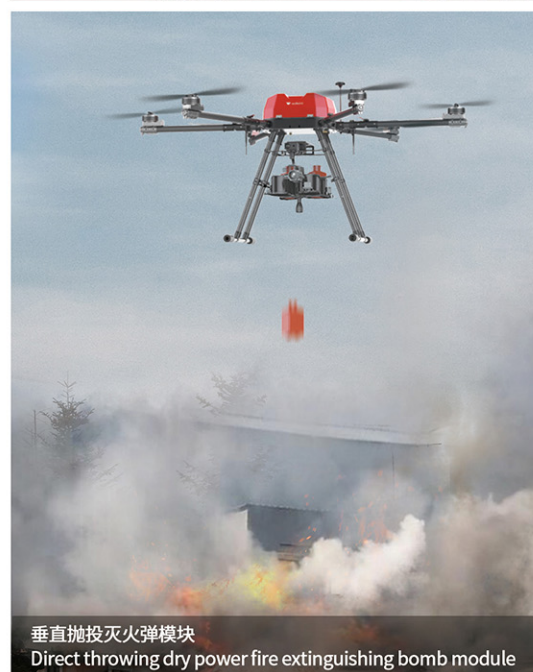
### Air Caller

The volume is 125 decibels and the invoice transmission distance is 1.2 kilometers.  
100W power, one-key recording  
Suitable to: on-site command, crowd evacuation, law enforcement shouting

## 06. 应用场景 \ APPLICATIONS



5KG灭火罐模块\5KG fire extinguishing tank module



垂直抛投灭火弹模块  
Direct throwing dry power fire extinguishing bomb module



双灭火弹模块  
Double fire extinguishing bomb module



水带消防喷水模块  
Fire hose module



编组作业 \ Cluster work



## 07. WK-1800产品介绍 \ PRODUCT DETAILS

### 六轴大载重 6-Axis large load

六大旋翼电机提升飞行动力，搭载灭火弹及其它救援设备，最大起飞重量：56.10公斤，最大负载重量：20公斤。  
6-Axis motors enhance flight power, equipped with fire extinguishing bombs and other rescue equipment, Maximum take off weight :56.10kg and the maximum load weight is 20 kg.

### 30倍光学变焦相机 30 X optical zoom camera

标配挂载30倍光学变焦相机，超远距离监控，可观察火场及灾情的一切细节情况，能有效帮助制定救援方案。  
Equipped with 30 X optical zoom camera, remote monitoring, It can observe the fire site and all details of the disaster, and can effectively help developing the rescue plan.



### 智能电池，长航时 Intelligent battery, long-endurance

内置智能电源管理系统，标配电池单次飞行续航时长50分钟，APP内置低电压警报与电量管理，确保无人机稳定飞行。  
Built-in intelligent power management system, standard battery with a single battery life of 50minutes, APP built-in low voltage alarm and power management to ensure stable drone flight

### 创新桶型折叠设计 Innovative barrel folding design

折叠六轴结构设计，电机提升飞行动力，最大起飞重量56.10公斤，能搭载灭火弹及其它救援设备。  
Folding six-axis structure design, the motor improves flight power, the maximum take-off weight is 56.10 kg, Can carry fire extinguishing bombs and other rescue equipment





**六轴大载重**  
Six-axis large load



### 六轴大载重 / Six-axis large load

WK-1800采用的六轴设计，大大的提升飞行动力，最大起飞重量56.10公斤。可轻松挂载其它救援设备。增加救援速度，为消防救援预留时间。

WK-1800 adopts 6-Axis designs, which greatly improves the flight power, the maximum take-off weight is 56.10kg, which can easily mount other rescue equipments. Increasing rescue speed and reserving time for fire rescuing.

### 折叠设计 / Folding design

机臂采用六轴垂直型结构设计，结构紧凑牢固。折叠之后整机呈现桶状，在保证结构强度需求的同时方便日常运输及装配，减少飞机的占用面积，为工作人员减少装箱的难度节省组装的时间，对运输工具的要求也大大的降低。

The arm adopts a six-axis vertical structure design, which is compact and firm. After folding, the whole machine has a barrel shape, which facilitates daily transportation and assembly while ensuring structural strength requirements, reduces the occupied area of the aircraft, reduces the difficulty of packing for the staff, saves assembly time, and greatly reduces the requirements for transportation tools.



### 智能电池，长航时 / Smart battery, long endurance

超大容量电池，内置智能电源管理系统，大大提升了飞行时的安全性。标配的大容量电池，单次飞行续航时间长达50分钟。APP内置低电压警报与电量管理，大幅提高电池寿命及工作效率，确保无人机稳定飞行，能更好地为您飞行保驾护航。

Super-capacity battery, with intelligent power management system built in, greatly improves the safety of flight. The standard, large-capacity battery lasts up to 50 minutes on a single flight. Low voltage alarm and power management are built in the APP, which can greatly improve battery life and work efficiency, ensure the stable flight of the uav and better protect your flight.





## 08. WK-1500产品介绍 \ PRODUCT DETAILS

### 机载火箭发射灭火弹 The airborne rocket fires fire bombs

有效发射距离40米，单发可覆盖范围为9.2立方米，遥控器APP端设有十字瞄准星，误差小。  
The effective launch distance is 40 meters, with a coverage area of 9.2 cubic meters single shot. The APP terminal of the remote control is equipped with cross aiming star, with small error.

### 30倍光学变焦相机 30 X optical zoom camera

标配挂载30倍光学变焦相机，超远距离监控，可观察火场及灾情的一切细节情况，能有效帮助制定救援方案。  
Equipped with 30 X optical zoom camera, remote monitoring, It can observe the fire site and all details of the disaster, and can effectively help developing the rescue plan.



### 机载电子快开灭火罐 Airborne electronic fire extinguishing pot

灭火喷粉管展开长度4.33米（最短可缩到1.5米），灭火罐净含量为3公斤，遥控器APP端设有十字瞄准星，误差小。  
The expansion length of the powder spraying pipe of extinguishing tank is 4.33meters (the minimum can be reduced to 1.5meters), Extinguisher Net weight 3kg. The APP terminal of the remote control is equipped with the cross aiming star, with small error.

### 折叠四轴八桨设计 Foldable four-axis eight-paddle design

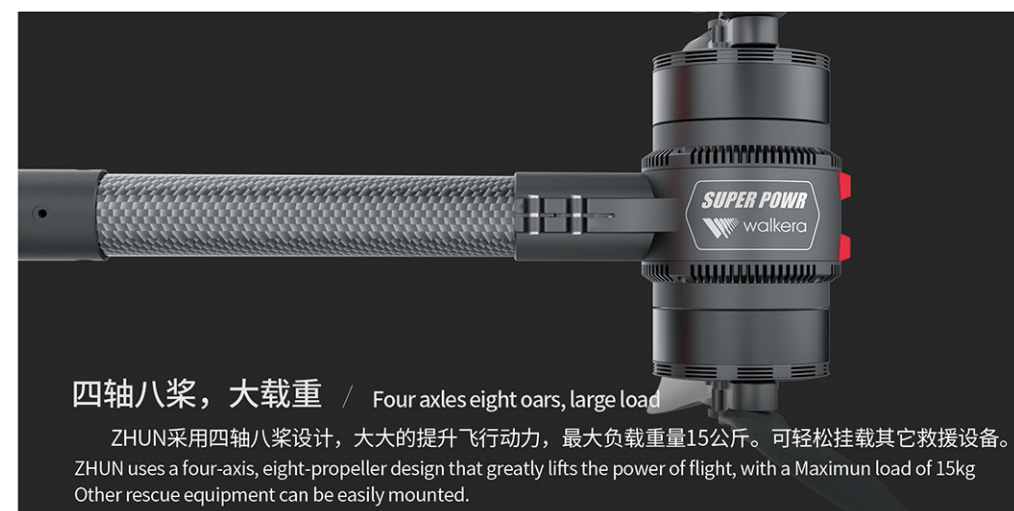
折叠四轴结构设计，八电机提升飞行动力，最大起飞重量45公斤，能搭载灭火弹及其它救援设备，飞行时间可达35分钟。  
Foldable four-axis structure design, eight-motor lift flight power, with a Max Take-off weight of 45kg, it can be loaded with fire extinguishing bombs and other rescue equipment and can fly 35 minutes maximum.





### 察打一体、双重灭火

Investigation and shooting  
integrated firefighting drone



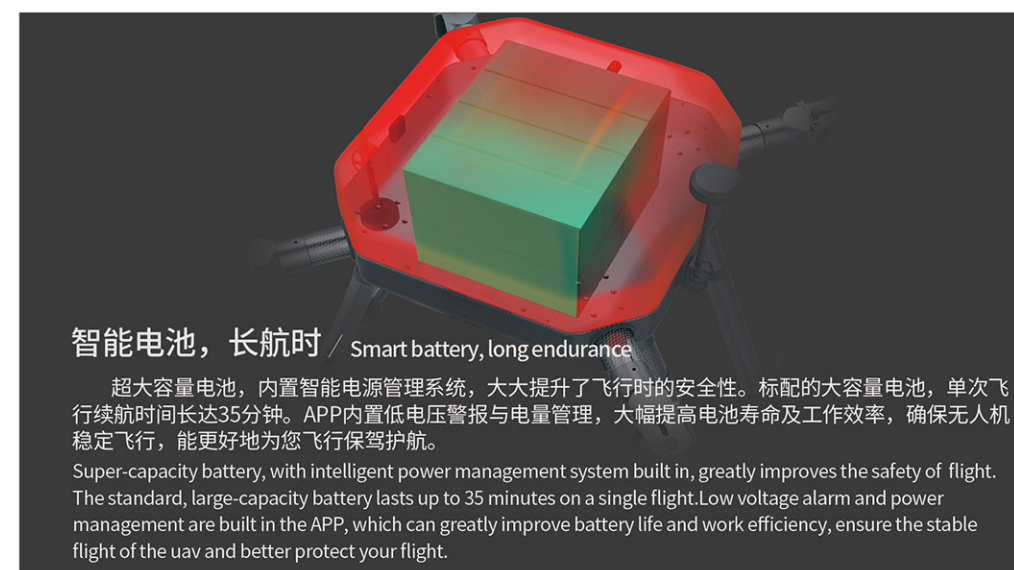
### 四轴八桨，大载重 / Four axes eight oars, large load

ZHUN采用四轴八桨设计，大大的提升飞行动力，最大负载重量15公斤。可轻松挂载其它救援设备。  
ZHUN uses a four-axis, eight-propeller design that greatly lifts the power of flight, with a Maximum load of 15kg. Other rescue equipment can be easily mounted.

### 折叠设计 / Folding design

机臂采用四轴免工具横向折叠环抱型结构设计，结构紧凑牢固。折叠之后整机呈现环抱式，在保证结构强度需求的同时方便日常运输及装配，减少飞机的占用面积，为工作人员减少装箱的难度节省组装的时间，对运输工具的要求也大大的降低。

The arm is designed with four-axis free-tool lateral folding loop structure, which is compact and firm. After folding, the whole machine takes on a loop type, which is convenient for daily transportation and assembly while ensuring structural strength demand, reduces the occupied area of the aircraft, reduces the difficulty of packing and saves the assembly time for the staff, and greatly reduces the requirements on the transport tools.



### 智能电池，长航时 / Smart battery, long endurance

超大容量电池，内置智能电源管理系统，大大提升了飞行时的安全性。标配的大容量电池，单次飞行续航时间长达35分钟。APP内置低电压警报与电量管理，大幅提高电池寿命及工作效率，确保无人机稳定飞行，能更好地为您飞行保驾护航。

Super-capacity battery, with intelligent power management system built in, greatly improves the safety of flight. The standard, large-capacity battery lasts up to 35 minutes on a single flight. Low voltage alarm and power management are built in the APP, which can greatly improve battery life and work efficiency, ensure the stable flight of the uav and better protect your flight.



09. WK-1800 参数 \PARAMETERS

飞机参数：

对称电机轴距：	1900mm
机身尺寸：	展开尺寸1800x2070x910mm 折叠尺寸950 x1100 x 910mm
续航能力：	50分钟
最大起飞重量：	56.10kg
最大巡航速度：	10m/s
最大上升速度：	5m/s
最大下降速度：	3m/s
最高工作海拔：	5000m
最大抗风能力：	12m/s
防水防尘能力：	基础防水/日常防尘
工作温度：	-10℃—45℃

瞄准镜参数：

放大倍率：	3-9倍（可调）
调节方式：	旋转锁定环手调式
调节量：	100码外1呎哒1/4英寸
分化线：	十字密点分化
调焦方式：	物镜调焦

激光雷达测距避障：

测距量程：	100m
障碍物感知范围：	3-15m（可调）
测量频率：	10kHz
FOV:	水平20°，垂直3°

喷水箱：

净含量：	17升
材质：	HP295
高压水泵重量：	2.5kg
充装压力：	1.2MPa
安装方式：	快挂式
打开方式：	电子快开

云台相机参数：

传感器：	1/2.3 SONY IMX117 CMOS
变焦倍率：	30倍光学变焦
ISO范围：	100-3200(视频) / 100-1600(照片)
录制分辨率：	4K 30fps
拍照分辨率：	3840 x 2160
变倍速度：	大约2.0秒
水平视角：	59.8°- 3.0°(广角-望远)
近摄距：	5000mm(广角-望远)
视频存储最大码流：	64Mbps
压缩标准：	H.264 / H.265
支持文件存储格式：	FAT32/JPG/MP4
支持存储卡类型：	Micro SD/SDHC卡 最大支持128G， 传输速度为Class10及以上或达到 UHS-1评级的卡

灭火罐：

净含量：	12kg
材质：	HP295
重量：	19kg
充装压力：	1.2MPa
安装方式：	快挂式
打开方式：	电子快开

遥控器参数：

屏幕尺寸：	7.86inch
分辨率/亮度：	2048x1536 / 2000cd/m²
内存：	RAM:4G；ROM:16G
系统：	Android
工作频率：	2.4GHz双频
信号有效距离：	约6千米（开阔无遮挡，无电磁干扰）
内置电池：	7.4V 9000mAh LiPo 2S
视频输出接口：	HDMI

喷粉管：

材质：	碳纤维
伸缩长度：	展开长度4.33m（最短可缩到1.5m）

Aircraft：

Symmetrical motor wheelbase：	1900mm
Fuselage size：	Unfold:1800x2070x910mm Folded:950 x1100 x 910mm
Flight time：	50minutes
Max Take off weight：	56.10kg
Maximum cruise speed：	10m/s
Maximum rise speed：	5m/s
Maximum decline speed：	3m/s
Working altitude：	5000m
Maximum wind resistance：	12m/s
Waterproof and dustproof capability：	Basic waterproof/daily dustproof
Working temperature：	-10℃—45℃

Sighting telescope：

Magnification：	3-9 times
Adjusting mode：	Swivel lock hand mode
Adjustment：	One click from 100 yards 1/4 inch
Differentiation line：	Cross - dense point differentiation
Focusing mode：	Objective lens focusing

LIDAR ranging obstacle avoidance：

Distance measuring range：	100m
Range of obstacle perception：	3 ~15 m (adjustable)
Measuring frequency：	10kHz
FOV:	Level 20 ° and 3 °vertically

Fire suppression bottle：

Net weight：	17L
Material：	HP295
Weight of water pump：	2.5kg
Filling pressure：	1.2MPa
Installation method：	Quick hanging type
Open mode：	Electronic fast

Gimbal and Camera：

Sensor：	1/2.3 SONY IMX117 CMOS
Zoom ratio：	30x optical zoom
ISO range：	100-3200(Video) / 100-1600(Photo)
Recording resolution：	4K 30fps
Photography resolution：	3840 x 2160
Zoom speed：	About 2.0 seconds
Horizontal viewing angle：	59.8°- 3.0°
Near distance：	5000mm
Video storage stream：	64Mbps
Compression standard：	H.264 / H.265
Support file storage format：	FAT32/JPG/MP4
Memory card：	Micro SD/SDHC 128G Max a transmission rate of Class 10 and above or UHS-1 rating

Fire suppression bottle：

Net weight：	12kg
Material：	HP295
Weight：	19kg
Filling pressure：	1.2MPa
Installation method：	Quick hanging type
Open mode：	Electronic fast

Remote：

Screen：	7.86inch
Resolution/Brightness：	2048×1536/2000 cd/m²
Internal storage:	RAM: 4G; ROM: 16G
System:	Android
Video output interface:	HDMI
Woring frequency：	2.4GHz & 5.8GHz dual frequency
Effective signal distance：	About 6km (open, no occlusion, no electromagnetic interference)

Powder spraying pipe：

Material：	Carbon fiber
Expansion length：	4.33m expansion length (minimum shrinkage to 1.5m)



10. WK-1500 参数 \PARAMETERS

飞机参数：	
对称电机轴距：	1500mm
机身尺寸：	展开尺寸1150x1150x760mm 折叠尺寸650x650x760mm
续航能力：	35分钟
最大起飞重量：	45kg
最大巡航速度：	10m/s
最大上升速度：	5m/s
最大下降速度：	3m/s
最高工作海拔：	5000m
最大抗风能力：	14m/s
防水防尘能力：	基础防水/日常防尘
工作温度：	-10°C—45°C

云台相机参数：	
传感器：	1/2.3 SONY IMX117 CMOS
变焦倍率：	30倍光学变焦
ISO范围：	100-3200(视频) / 100-1600(照片)
录制分辨率：	4K 30fps
拍照分辨率：	3840 x 2160
变倍速度：	大约2.0秒
水平视角：	59.8°- 3.0°(广角-望远)
近摄距：	5000mm(广角-望远)
视频存储最大码流：	64Mbps
压缩标准：	H.264 / H.265
支持文件存储格式：	FAT32/JPG/MP4
支持存储卡类型：	Micro SD/SDHC卡 最大支持128G， 传输速度为Class10及以上或达到 UHS-1评级的卡

瞄准镜参数：	
放大倍率：	3-9倍（可调）
调节方式：	旋转锁定环手调式
调节量：	100码外1咔哒1/4英寸
分化线：	十字密点分化
调焦方式：	物镜调焦

激光雷达测距避障：	
测距量程：	100m
障碍物感知范围：	3-15m（可调）
测量频率：	10kHz
FOV:	水平20°，垂直3°

喷粉管：	
材质：	碳纤维
伸缩长度：	展开长度4.33m（最短可缩到1.5m）

灭火器参数：	
型号：	CM60 型机载式发射灭火器
CM60 型机载式发射灭火器直径：	φ60mm
灭火器长：	995mm
灭火器全重：	≤3010g
灭火剂种类：	ABC 超细干粉
灭火剂净重：	≥1100g
器体主材质：	铝合金
单发灭火能力：	9.2立方（全淹没）
灭火器发火电流：	≥700mA
灭火器安全电流：	≤150mA
灭火器最大射程：	≤40 米
灭火器发射初速：	≤35m/s
灭火器喷射延期时间：	5s-6s
灭火器使用温度：	-40°C~+50°C
全密封：	防水、防潮、不爆炸
灭火器使用年限：	5年

发射器参数：	
型号：	CM60 型机载式发射器
发射器外管口径：	φ67mm
最大外管口径：	φ70mm
发射器全长：	1000mm
发射器全重：	≤1400g
发射弹种60型弹器体主材质：	复合材料，合金
发射器触发电压：	12-24V 电信号
发射器触发电流：	≥700mA
发射器使用温度：	-40°C~+50°C
发射器使用年限：	3年 ≥100次

灭火罐：	
净含量：	3kg
材质：	HP295
重量：	6.2kg
充装压力：	1.2MPa
安装方式：	快挂式
打开方式：	电子快开

遥控器参数：	
屏幕尺寸:	7.86inch
分辨率/亮度:	2048x1536 / 2000cd/m²
内存:	RAM:4G; ROM:16G
系统:	Android
工作频率:	2.4GHz双频
信号有效距离:	约6千米（开阔无遮挡，无电磁干扰）
内置电池:	7.4V 9000mAh LiPo 2S
视频输出接口:	HDMI

Aircraft：	
Symmetrical motor wheelbase:	1500mm
Fuselage size:	Unfold:1150×1150×760 mm Folded: 650×650×760 mm
Flight time:	35minutes
Max Take off weight:	45kg
Maximum cruise speed:	10m/s
Maximum rise speed:	5m/s
Maximum decline speed:	3m/s
Working altitude:	5000m
Maximum wind resistance:	14m/s
Waterproof and dustproof capability:	Basic waterproof/daily dustproof
Working temperature:	-10°C—45°C

Gimbal and Camera：	
Sensor:	1/2.3 SONY IMX117 CMOS
Zoom ratio:	30x optical zoom
ISO range:	100-3200(Video) / 100-1600(Photo)
Recording resolution:	4K 30fps
Photography resolution:	3840 x 2160
Zoom speed:	About 2.0 seconds
Horizontal viewing angle:	59.8°- 3.0°
Near distance:	5000mm
Video storage stream:	64Mbps
Compression standard:	H.264 / H.265
Support file storage format:	FAT32/JPG/MP4
Memory card:	Micro SD/SDHC 128G Max a transmission rate of Class 10 and above or UHS-1 rating

Sighting telescope：	
Magnification:	3-9 times
Adjusting mode:	Swivel lock hand mode
Adjustment:	One click from 100 yards 1/4 inch
Differentiation line:	Cross- dense point differentiation
Focusing mode:	Objective lens focusing

LIDAR ranging obstacle avoidance：	
Distance measuring range:	100m
Range of obstacle perception:	3 ~15 m (adjustable)
Measuring frequency:	10kHz
FOV:	Level 20 ° and 3 °vertically

Powder spraying pipe：	
Material:	Carbon fiber
Expansion length:	4.33m expansion length (minimum shrinkage to 1.5m)

Fire extinguisher parameters：	
Model:	CM60 Airborne Fire Extinguisher
CM60 Airborne Fire Extinguisher Diameter:	φ60mm
Length:	995mm
Weight:	≤3010g
Extinguishing agent type:	ABC Superfine dry powder
Extinguishing agent weight:	≥1100g
Body material:	Aluminum alloy
Single fire extinguishing ability:	9.2cubic meters（Totally submerged）
Fire extinguisher firing current:	≥700mA
Fire extinguisher safety current:	≤150mA
Fire extinguisher maximum range:	≤40m
Fire extinguisher launch velocity:	≤35m/s
Fire extinguisher injection delay time:	5s-6s
Fire extinguisher working temperature:	-40°C~+50°C
Sealed:	Waterproof, moistureproof, non-explosive
Fire extinguisher service life:	5 years

Shoot machine parameter：	
Model:	CM60 airborne launcher
Out diameter Shoot machine:	φ67mm
Maximum outer tube diameterr:	φ70mm
Shoot machine full length:	1000mm
Shoot machine full weight:	≤1400g
60 types of projectile body:	Composite material, alloy
Shoot machine trigger voltage:	12-24V electrical signal
Shoot machine triggered current:	≥700mA
Shoot machine usage temperature:	-40°C~+50°C
Shoot machine usage life:	3 years ≥100 times

Fire suppression bottle：	
Net weight:	3kg
Material:	HP295
Weight:	6.2kg
Filling pressure:	1.2MPa
Installation method:	Quick hanging type
Open mode:	Electronic fast

Remote：	
Screen:	7.86inch
Resolution/Brightness:	2048×1536/2000 cd/m²
Internal storage:	RAM:4G; ROM: 16G
System:	Android
Video output interface:	HDMI
Woring frequency:	2.4GHz & 5.8GHz dual frequency
Effective signal distance:	About 6KM (open, no occlusion, no electromagnetic interference)