

## Agriculture Spraying Drone A1-10L Specification

### Black Box

A1 provides a black box function, which can record the flight data completely. A1 data recording module can support 100,000 times cycle read and write. The maximum cumulative 32-hour flight data can be recorded.



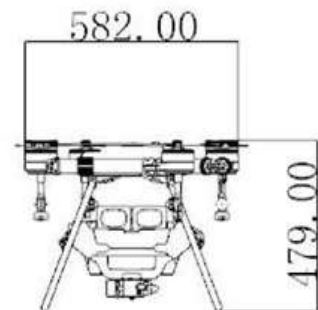
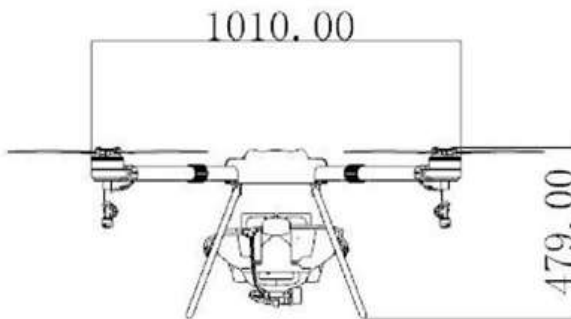
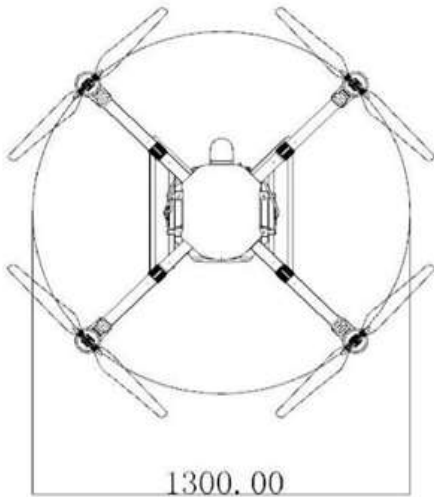
### Remote Control

2 kinds of remote control are available.



## Foldable Design

The easy fold-up design is convenient for delivery, assembling and transportation, without weakening the original structural strength. The fold-up design reduces 80% of the size. We have a lot of different frames for your options. And we can also provide customize service to design new frames.



Its motor arms fold inward, making the aircraft compact and easy to transport in the trunk of a car. Able to withstand harsh conditions, the A1 series drone's airframe is made of light, yet durable high-strength carbon fiber.

## Highly Efficient Spraying System

A1 series drone spraying system equips a 10L capacity of wave-proof tank, efficient water pump, four nozzles. Based on the actual tests, spray width is 4-8 m and operating efficiency is 0.5L-4.5L/ min. The wind-resistant nozzle can decrease pesticides float in the air and economize spraying operations.



You can set the spraying range, independent planning the path of changing working lines, also implements the constant situation of height, speed and flow spraying. The function of intelligent spraying flow can be controlled which is associated with the flight speed: the faster the speed, the greater the flow; Speed is lower than 0.5 m/s, pump will shut off independently. It not only ensures the uniformity of spray, but also save agrochemicals.



### PRECISE SPRAYING

The spray nozzles can be interchanged and chosen according to specific liquid properties to optimize atomization, energy efficiency and amount of liquid sprayed.

In total, the A1 series drone has four nozzles powered but can also be configured according to each client's specifications.

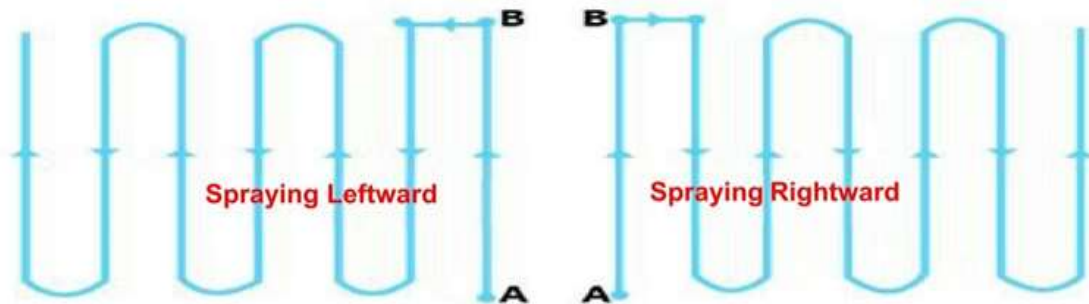
## Planning Mode

Choose between multiple flight modes: GPS mode, AB point mode, Manual mode and Auto Operation mode, according to terrain and the specific requirements of each mission.

In AB point mode, the flight can be easily planned with the press of a few buttons, without the need for mapping knowledge or other software, making the A1 series drone not only the most efficient but also the easiest to use spraying solution. In GPS Mode, the user can control the drone flying in parallel, forward and backward. It automatically sprays pesticides, which is suitable for operation in the irregular areas. Under Manual mode, the pilot freely navigates the aircraft.

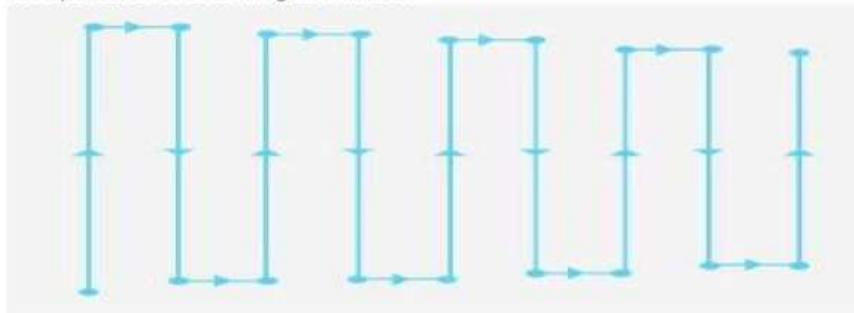
### AB Point Mode

In the AB point mode, the aircraft can automatically spray pesticides in accordance with the established route, which is suitable for large regular areas.



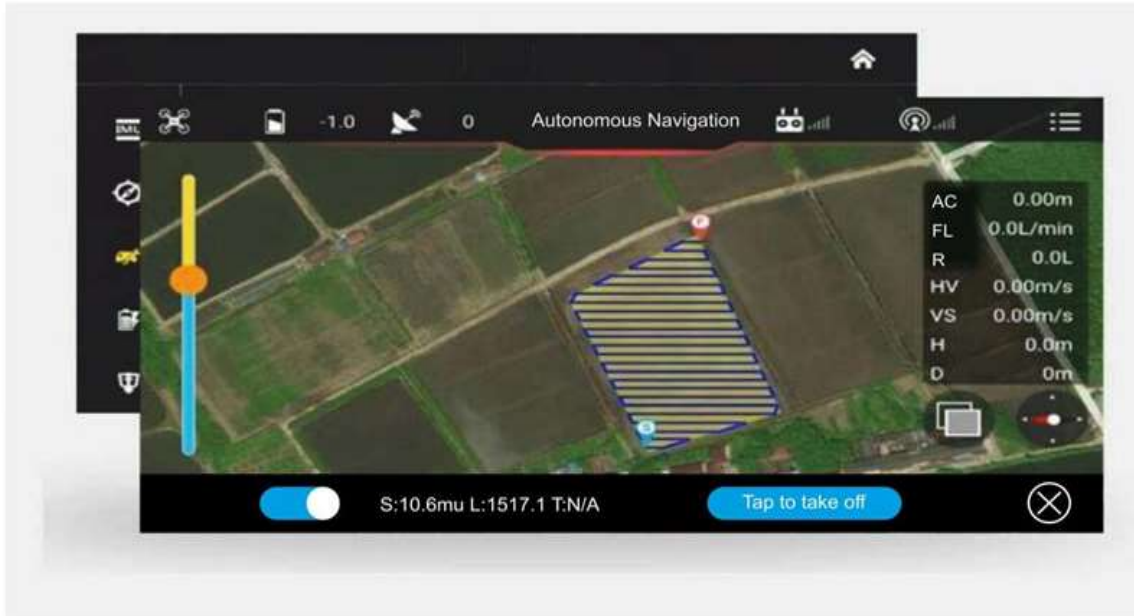
### Semi-automatic Mode (GPS Mode)

In the semi-automatic operation mode, the user can control the drone flying in parallel, forward and backward. It automatically sprays pesticides, which is suitable for operation in the irregular areas.



### Auto Operation Mode

User can select the operation area on APP, and set operation distance, flight speed, altitude and other information. The drone will automatically fly back and forth according to the specified distance and traverse the entire area to complete the work, and the land operation is more convenient.



### Break Point Continue to Spray

When detected the following signals such as the secondary battery alarm, low dose alarm, losing ground control signal, one key to return, drone will automatically shut off the water pump, and make the current point as the continued point to spray. By the function of 'one key to return', UAV can fly to the continued point to restart operation, which ensures the continuous operation of plant protection.



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## Spec

### Aircraft Frame

Dimension: 920\*920\*480 mm (arm unfolded, without propellers)  
 582\*582\*480 mm (arm folded, without propellers)  
 Diagonal Wheelbase: 1300 mm



### Flight Parameters

Total Weight: 10 kg (without battery) 25 kg (with battery, Full Loaded)  
 Standard Take-off Weight: 25 kg Max Take-off Weight: 30 kg



Hovering Time: 12 min (24kg take-off weight) \* 20 min (Spraying time)  
 28 min (14kg take-off weight) \*

Recommended Operating Temperature: -10°C~40°C

### Spray System

Liquid Tank Volume: 10 L  
 Number of Nozzle: 4  
 Spraying Span: 4 m  
 Max Operating Speed: 7 m/s \*  
 Max Flying Speed: 10 m/s \*  
 Theoretical Operating Efficiency: 10 acers/hour  
 Max Spraying Speed: 3.5L / min (water pump)

### Ground Controller (Remote Control)

Max Transmission Range: 1000 m -Low Battery Warning (Unobstructed, Free of Interference) \*\* -Auto Return to Home

**Fully Automated Flight APP**

- Automated Flights
- Irregular Boundary
- Flight History
- Task List

-Variable Spray Rate Variable Flight Speed

\*The Flight parameters are for reference only. Different natural conditions may affect the actual flight situation.  
 \*The Transmission Range may be influenced by varied conditions. Choose open area without high buildings as the flight area.

## Optional Accessories



### FPV Camera

A1 series drone can be equipped with wide angle FPV camera and searchlight can monitor the working environment in both daytime and night, to ensure the safety of operation. It is equipped with 120° FPV wide-angle cameras that transmit clear, front-facing live views. For long distance operation, the remote controller's built-in display indicates obstacle avoidance information to ensure safety. With the help of the FPV camera feed, users can effortlessly record A/B points or waypoints, increasing work accuracy and efficiency.





### Terrain Following Radar Module

After equipped with terrain follow radar, the drone can scan the terrain below it in real time to keep a constant, centimeter-accurate height above crops. Spray density is maintained even as the ground rises and drops so that an optimal amount of liquid is always applied .



### High-Precision Obstacle Avoidance Radar

The A1 series drone can detect centimeter-wide power lines from up to 15 m away. This protects the aircraft not only from power lines, but from trees branches and other common obstacles as well. Active Obstacle Sensing and Avoidance works during the day or at night without being influenced by light or dust.



**RTK**

RTK is a high precision navigation and positioning system. Using dynamic differential technology, it provides ultra accurate, centimeter level 3D positioning. This enhanced accuracy over typical barometer, compass and GPS systems makes RTK essential for commercial, industrial and scientific applications where accuracy is imperative. By removing compass dependence, the system is also resistant to magnetic interference, such as those generated by metal structures and high voltage power lines, allowing for accurate flight in environments where other aircraft cannot function.

The A1 series drone RTK is powered by high-precision RTK navigation and positioning technology which offers centimeter-level positioning that is essential for industrial applications. Dual-antenna direction finding technology gives strong resistance against electromagnetic interference, ensuring flight safety even when the aircraft is flying near high-voltage power lines or in other complicated environments. The A1 series RTK works in tandem with a new base station and RTK handheld mapper, which receives positioning data from the onboard RTK module to accurately measure fields and transmits results to the remote controller for precise planning.



**Why need to buy AG Spraying Drone?**

**Security:**  
Protect farmers from being harmed by pesticides.

**Wide Range of Applications:**  
Suitable for all kinds of crops

**Environment Protection:**  
Reducing the pollution to water and soil.

**Water Saving:**  
Water consumption is only 10% of traditional spraying method.

**High Efficiency:**  
A1 series drone can spray 10-15 acres per hour, the efficiency is 40 times higher than manual work.

**Labour Cost Saving:**  
Only 1-2 workers are needed for large field.

**Pesticides Saving:**  
Can save more than 30% of Insecticide.

**Easy to Use and Low Maintenance:**  
We offer manual and our engineers will help you if necessary.

Others Products

16 Liters Tank Capacity



Easy to Swap Tank Design



20 Liters Tank Capacity





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