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# About YJTech

Dongying Youjia Industry & Trade Co.,Ltd was involved in the drone industry since 2015, specializes in the development, design, and production of Unmanned Aircraft Vehicle. We have professional R&D technical team, complete and scientific quality management and production system, good after-sales service system with more than ten years of industry experience.

We operate through Five business segments, provide solutions to the UAV industry application, UAV plant protection services, UAV automation control system development, UAV technical maintenance support and UAV education.

We offer drone accessories in various categories such as drone frame, Motor, Battery, Charger, Remote controller, Flight Controller and Spraying system. We will never stop to commit to the research and development of new products according to the different needs of customers. We are currently one of the few drone manufacturers in the market that has its own production and processing capabilities.

Our operations and services cover many cities in different provinces of China and different countries around the world such as US, Mexico, Peru, Malaysia, Philippines, Ukraine, Turkey, Australia and so on.





# Foreign Market



Peru



Colombia



Brazil



Spain



Turkey



India



# ADVANTAGE

## R&D

Since the establishment from 2008, YJTech has been devoting to the research and development of Precision machining and multi-rotor UAV flight control for agricultural plant protection, and has realized the fully autonomous and safe operation in agricultural applications.

A strong technical research and development team continues to innovate in structural design, leading the development trend of the industry.

## Characteristic

After 4 years of drone precipitation and market testing, YJTech has a full range of plant protection drones with different load types that are widely used in the market, including 10L, 16L, 22L, 25L, which are suitable for different scales farmland.





# Y Series Plant Protection Drone

## Y10 Plant Protection Drone

Foldable Arm, Fixed Tank, Compact Structure

Y10 is designed with Folding arm and Compact Structure, Convenient, efficient and easy to carry. Autonomous, GPS and manual operation fulfill all operation requirement.

## Y16 Plant Protection Drone

Larger Water Tank, Larger Spray Pattern

The Y16 drone is equipped with a 5L high-pressure water pump and 6 high-pressure nozzles. The spraying range can reach 6m. Thanks to the improvement of the spraying system and power system, the spraying efficiency is greatly improved.





# Y Series Plant Protection Drone

## Y25 Plant Protection Drone

The king of plant protection drones with unprecedented capacity

Created a miracle in single mission of working efficiency .  
Conversion between High pressure nozzle and Centrifugal Sprinkler, adapting to various farmland, Such as rice and orchard. Powerful airflow drive droplet to penetrate crop from top to the bottom





# YJTech V2 Flight Control System

Great Foresight, Endless Progress

- V2 is stable and efficiency flight control system and specially designed for multi-rotor agriculture UAS.
- Comprehensive flight monitoring and warning function.
- In the case of calculation failure, the system can be recombination to ensure the safe operation of the system.



V2 provide highly integrated ground station software, which has flight data monitoring, instrument panel status display, abnormal status alarm, flight remote control, electronic map, route planning and other functions;

High measurement accuracy, which reduces the probability of attitude divergence, thereby ensuring the reliability and safety of the system's work;

Provides powerful route planning capabilities and flexible mission control functions. Users can easily formulate diversified flight missions by using the ground station software;

V2 system integrates high-precision inertial and satellite navigation sensors, the sensor data is preprocessed, drift compensation and data fusion in the full temperature range, obtain real-time flight attitude, position coordinates, working status and other parameters to complete the high-precision attitude and route control of the multi-rotor UAS platform

V2 system integrates dual redundancy CPU and sensors, and each redundancy can be automatically detected and switched autonomously, effectively ensuring flight safety.





# Product Features



## Terrain flow radar

- Launch MMW(millimeter wave) and detect various terrains accurately, up to 30 meters difference in altitude, adjusting the relative altitude autonomously suitable for various terrains including rugged terrain.
- Omnidirectional 40° terrain sensing; terrain deviation  $\leq$  10cm.
- Terrain follow radar is specially designed to be water proof, suitable harsh weather and surroundings.



## Módulo GPS y GNSS RTK de alta precisión

- As the standard aviation system, GPS can meet most of the customers working demand. RTK module is an option for special crop or environment with centimeter level accuracy. RT station module ensure the accurate working whenever and wherever possible.
- Using high dynamic receiver board card, even at a high speed of 100km/hr, it can achieve centimeter-level high-precision differential positioning results.



## Radar para Evitar obstáculos

Front and back obstacle avoidance radar detect the surroundings in both side to identify obstacle (radius  $\geq$  5 cm) 20 meters away and detour around it automatically.



## Protección de grado industrial

Clasificación IP67 para módulos de núcleo principal. Todos los módulos eléctricos son resistentes al agua, al polvo y a los golpes, lo que los hace adaptables a entornos de trabajo más duros.




## Estructura ultrafuerte

The main structure is made of thickened carbon fiber, ensure the light weight and high strength. Aviation aluminum landing gear passed 500kg tolerance test, which reduce the damage after crash landing greatly.



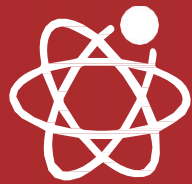
# Intelligent Adjustable High Pressure Spraying System

- High pressure nozzles strong penetrating power, long endurance, and cost effective .
- Adjustable droplet size 200~500um, better absorbed by various crops
- Dual water pump design integrated intelligent flowmeter system, flow rate 3~8L/min.
- Variable-Rate Spray Control, Real-time regulate flowrate according to flight speed.
- Liquid level indicator senses the tank volume real time, ground station display sync.

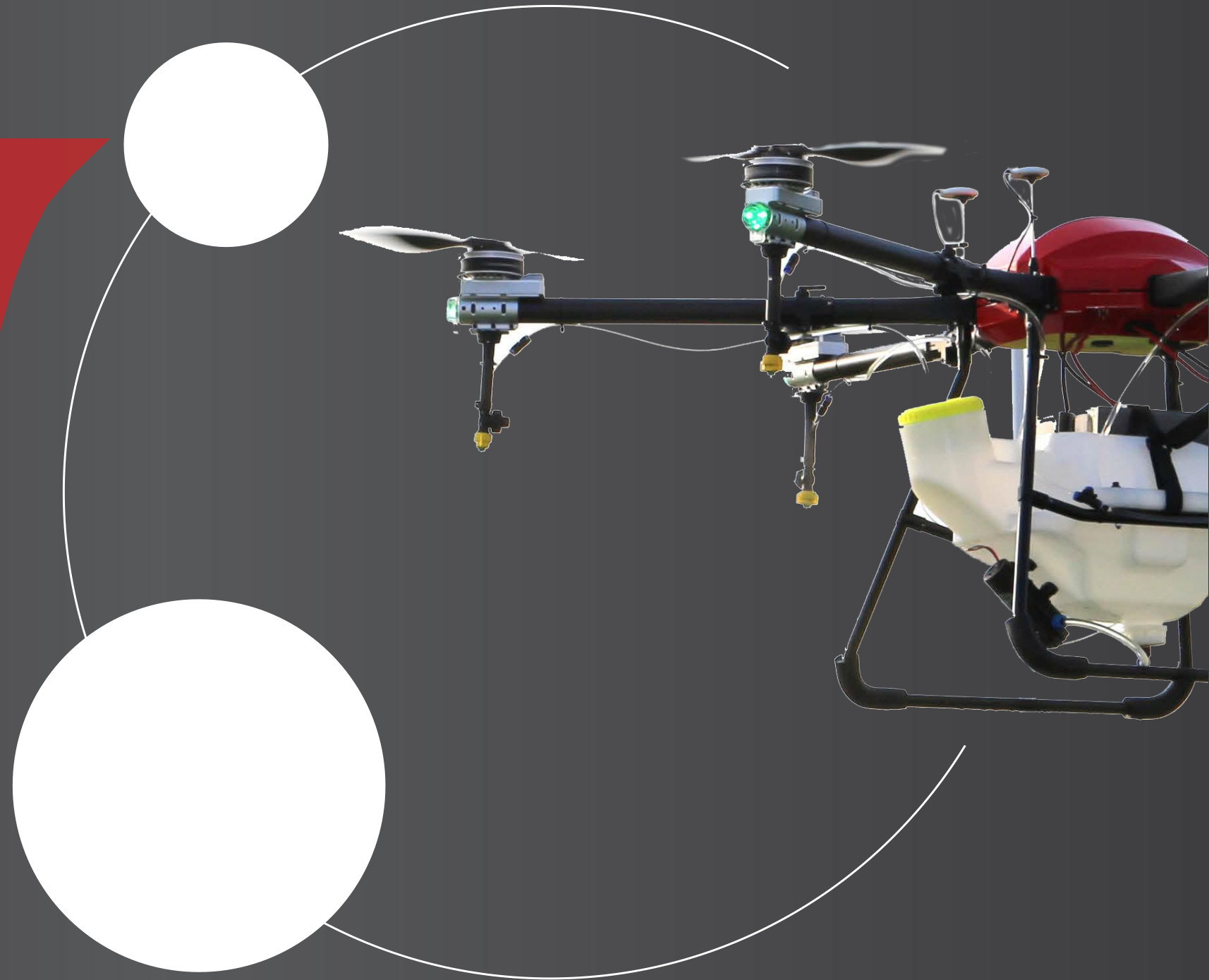


	Y10	Y16	Y25
Maximum Capacity	10L	16L	25L
Spray Width	4-5 meters	5-6 meters	6-7 meters
Operating Efficiency	4.16ha/hr	5.33ha/hr	6.94ha/hr

# » Smart Spreading System



YJTECH particle seeding system supports the seeding of 0.5-6 mm solid particles, which is suitable for the sowing of different types of solid particles such as grains, fertilizers and baits. The size of the discharge valve and the rotation speed of the seeding turntable can be adjusted to achieve quantitative and accurate seeding





# Specifications

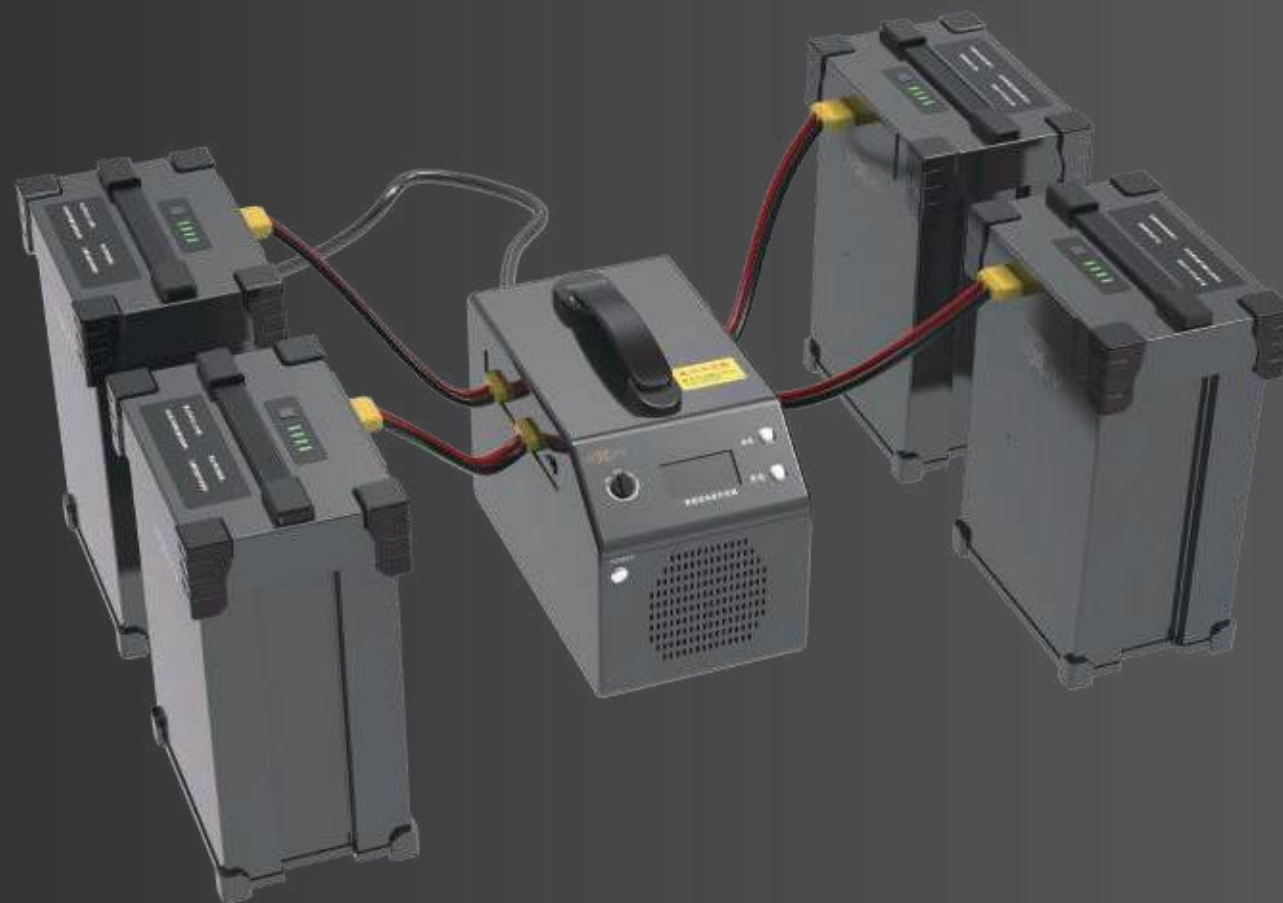
		Y10-4 axis	Y16-6 axis	Y25-6 axis	
Airframe	Airframe Wheelbase	1210mm	1630mm	1885mm	
	Transport Dimensions(Kg)	710*710*820mm	1080*1080*840mm	1060*1010*860 mm	
	Takeoff Weight(Kg)	24.9kg	38kg	52kg	
	Water- Resistant	.	.	.	
Flight Control System	Flight Controller	K3A PRO/K++ v2	K3A PRO/K++ v2	K3A PRO/K++ v2	
	Night Operation	.	.	.	
	APAS Obstacle Avoidance	.	.	.	
	MMW Radar Terrain Tracing	.	.	.	
	Terrain Tracing Accuracy (m)	≤0.1	≤0.1	≤0.1	
	Navigation Method	GPS/RTK	GPS/RTK	GPS/RTK	
	Spraying System	Maximum Capacity (kg)	10L	16L	25L
		Spray Width (m)	4-5 meters	5-6 meters	6-7 meters
Efficiency (ha/mission)		0.55	0.88	13.88	
Nozzle Type		High pressure nozzle	High pressure/Centrifugal nozzle	Y High pressure/Centrifugal nozzle	
Droplet Size (μm)		200-500μm	200-500μm	200-500μm	
Breakpoint Resume		.	.	.	
Instant Flow-start/stop		.	.	.	
Operating Efficiency(ha/hr)		4.16	5.33	6.94	
Automatic Liquid Refiller		.	.	.	
Remote Control System		Integrated Intelligent Remote Controller	.	.	.
	Charger	Quick Charge 3.0	Quick Charge 3.0	Quick Charge 3.0	
	FPV	720HD	720HD	720HD	
	Remote control Distance(Km)	2Km	2Km	2Km	



# Smart Power System

Multiple Channel Charging, Intelligent Protection

- YJTech power system for Y series plant protection drone adopts Li-Po intelligent batteries.
- YJTech intelligent Li-PO industrial battery charger 2 and 4-channel intelligent charger compatible with all serious drones



14S 22000 mAh for Y25,Y30



12S 16000 mAh for Y10

Anti-collision, shockproof and anti-penetration

Charger and discharger over 500 times

USB, CAN and Wi-Fi three methods check the real-time data

Software updated by USB

Over temperature protection

Automatically balanced internally , Keep the battery voltage difference within 20mV

# » Ground Station System

- YJTECH integrated intelligent remote controller-H12, High resolution and ultra bright 5.5 inch screen, visible even under strong sunlight.
- Advanced SDR technology and super protocol stack, making the image clearer, lower the latency, longer distance, stronger anti-interference.
- Internal rechargeable battery, long lasting, support charging and working simultaneously.
- Ultra long distance transmission, control radius over 5Km.
- IP67 protection capability, dust proof, anti-splash.



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