

A black and white drone with a white tank is shown in flight, positioned centrally in the upper half of the frame. It has four propellers and is equipped with a spray system. The background consists of rolling hills covered in dense, terraced tea fields. The tea plants are arranged in neat, curved rows that follow the contours of the hills. In the distance, more hills are visible under a clear sky. A small, simple building is nestled on a hillside to the right. In the lower-left foreground, a person wearing a hat and carrying a basket is seen working in the tea field.

Drone Sprayer for Agriculture

Intelligent & Precision



FDXD-4R-10L

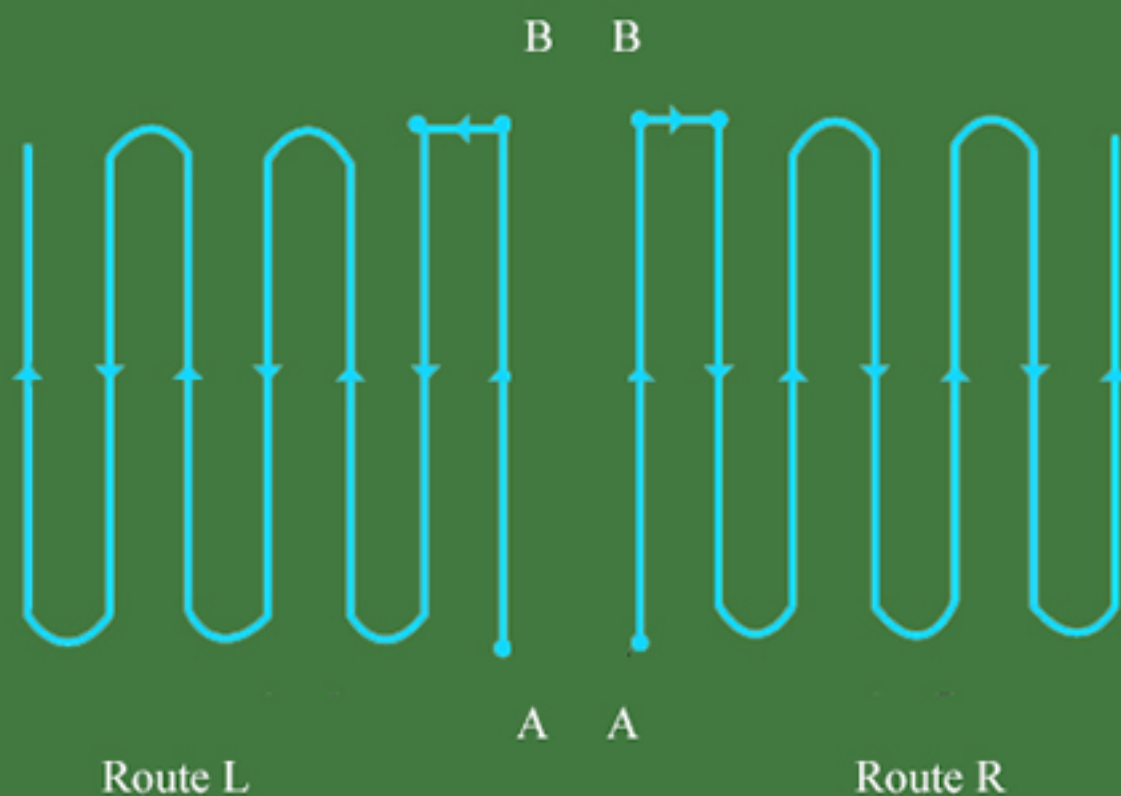
Using the new T1 - A Flight Controller, with a Radar Sensing System that provides additional reliability during flight. T1 - A is a mature flight controller for agricultural UAV. It provides rich and practical function that can meet the multiple requirements of the current agricultural UAV. By the integration of high precision sensor, the application of advanced industrial precision calibration algorithm as well as reasonable intelligent operation mode, the more efficient, accurate and convenient way of plant protection work can be realized.

T1-A | Multi-rotor flight controller

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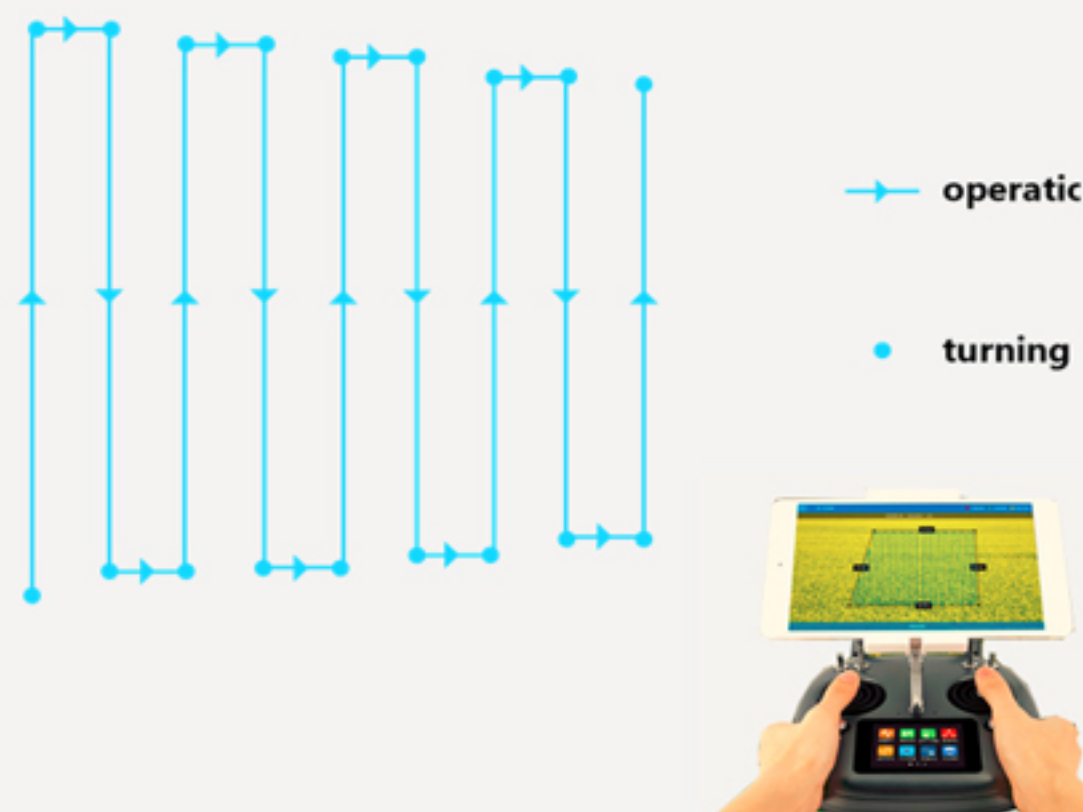


Using ground station, the user can select the operation area, and set operation distance, flight speed, altitude and other information. The aircraft will automatically fly back and forth according to the specified distance and traverse the entire area to complete the work, and the land operation is more convenient.



Semi-automatic mode

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



Terrain Following Radar Module

T1-A provides a terrain-following radar module for farmland irregularities. The module can refresh the rate of the distance 500 times per second between the real-time detection of plant protection machines and crops. According to the data from terrain following radar module, T1-A can adjust the flying height of UAV in real time, and ensure the relative height between unmanned aerial vehicles and the crops. The error can be controlled in centimeter. The module is designed accordingly to the level of IP65 protection, and can be adapted to different crop sprays. The module can not only avoid heavy spray and leakage spray caused by topographic changes or uneven terrain, but also can effectively improve the efficiency of plant protection.

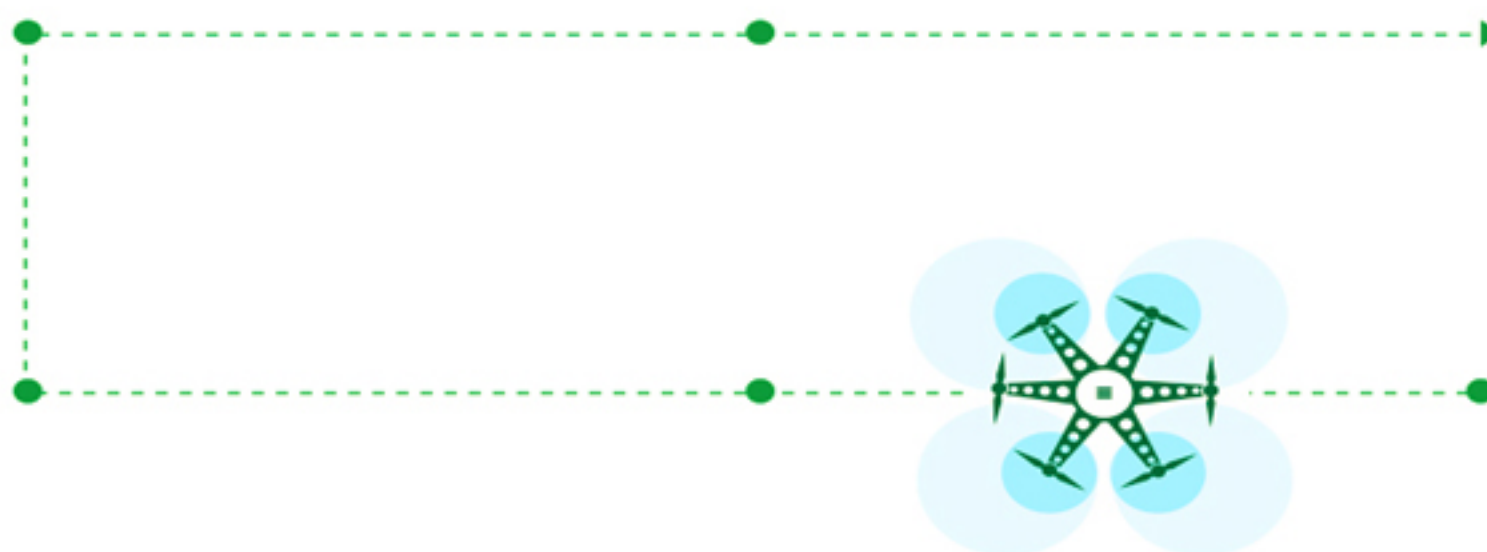


Forward Obstacle Sensing



Backward Obstacle Sensing

Precise Spraying



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 ensure the uniformity of spray, but also save agrochemicals.

Break point continue to spray

When detect the following signals such like the secondary battery alarm, low dose alarm, losing ground control signal, one key to return, T1-A 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.



Multi-platform assistant software & ground station

In addition to using PC tuning, T1-A also supports the use of mobile devices for tuning (bluetooth modules needed), which is easy to use. By connecting the customized data link, users can use PC, iPad and Android devices to control the aircraft, and easily achieve BLOS horizon flight.

Dose monitor

When the dosage is lower than the warning value, the LED indicator will flash. It will shut off the pump and record this point as the continued spraying point.



Black box

T1-A provides a black box function, which can record the flight data completely. T1-PRO data recording module can support 100,000 times cycle read and write. The maximum cumulative 32-hour flight data can be recorded.



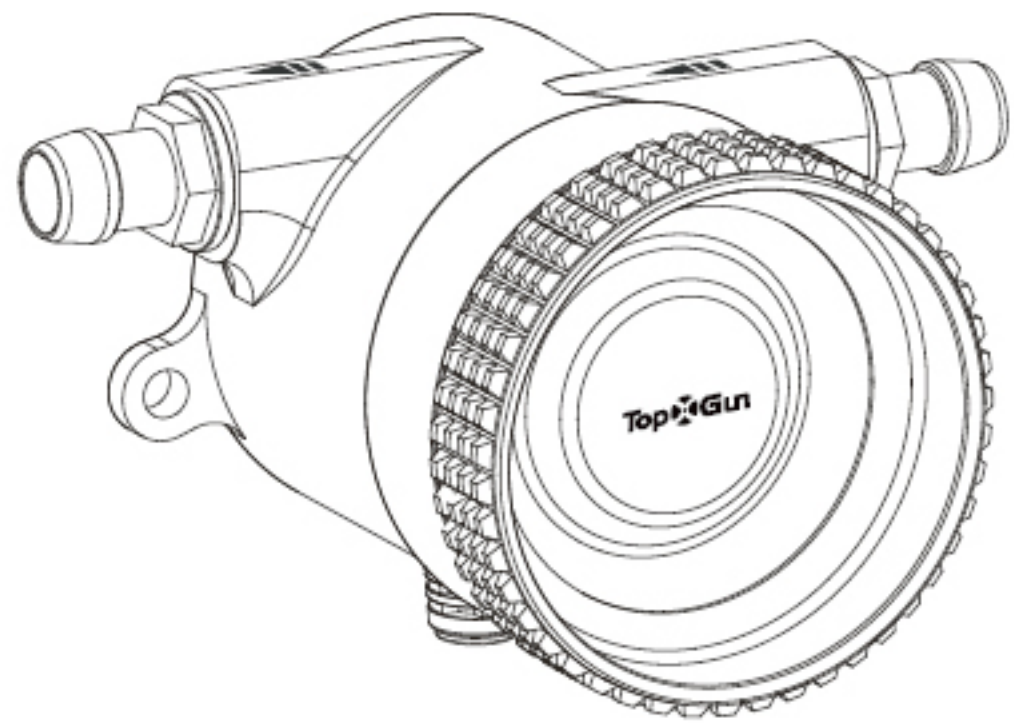


Firmware Update

According to the market demand, we will provide the user with the firmware update to optimize function and improve performance, which brings better flight experience.

Liquid Flow Meter

The flow meter can accurately detect the velocity of the flow through the liquid, and it can realize the function accurate control of spraying amount, statistic of dosage per unit area, judgment of drug breakage and so on.



DK32

AN INTELLIGENT/ UNIVERSAL / PROFESSIONAL

- All in One Design
- Advanced SHTT Spread-spectrum Technology
- 16-Channel Multi-Functional, compatible with most RC models
- Extraordinary Handling & Accurate Operating Experience
- High Brightness Colorful LCD Touch Screen
- Voice Broadcast & Vibration Alert



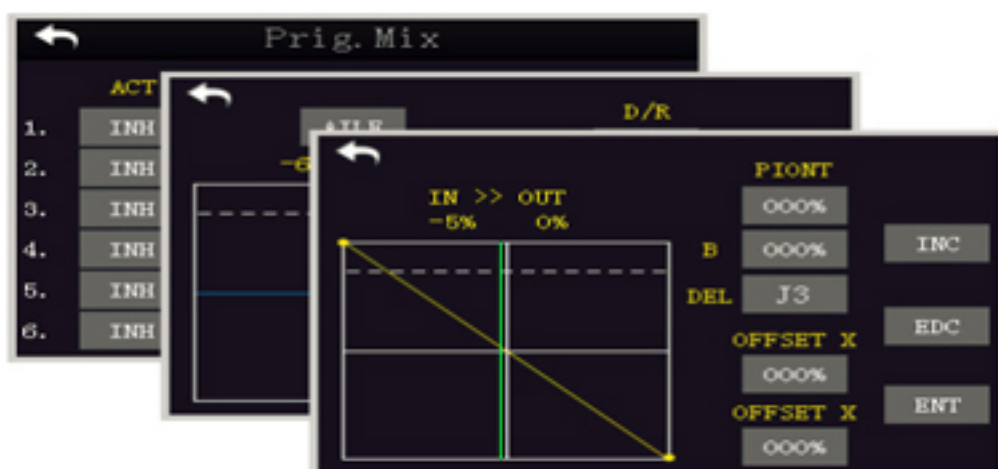
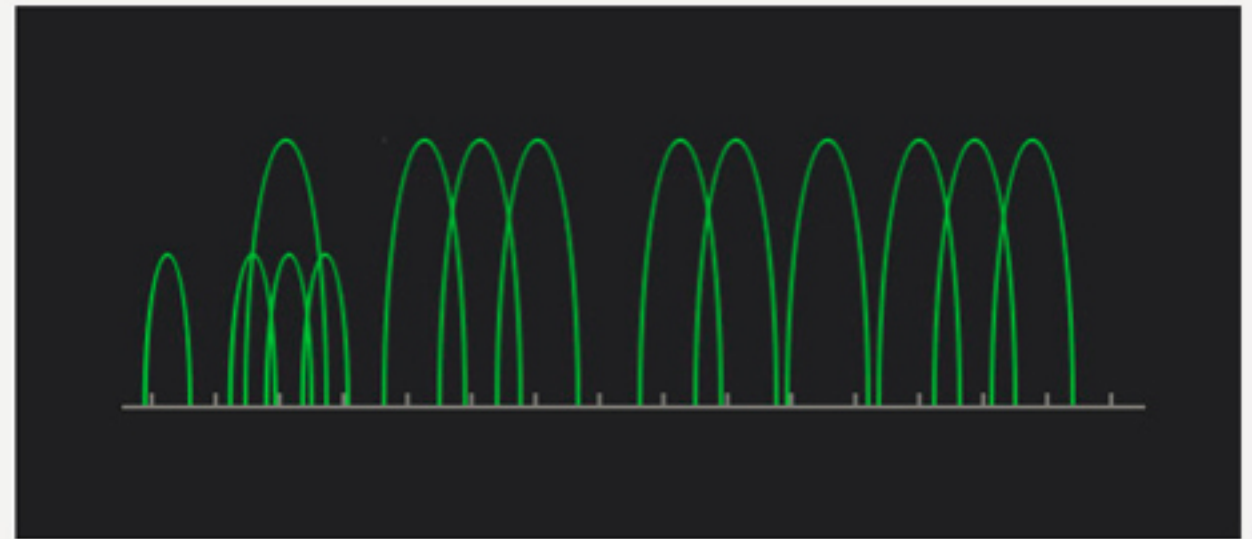


Extraordinary Handling & Accurate Operating Experience

Perfectly fits operators' palm by applying a fashionably streamlined industrial design style and ergonomics design. And a sweet-hearted matte silicone pad as additional protection. Just free your mind and let it fly.

Advanced SHTT Spread-spectrum Technology

Applies the latest bidirectional 2.4G spread spectrum technology named as SHTT (SIYI HOPPING TELEMETRY Technology). 3km effectively stable control & transmission distance (unobstructed, free of interference). Both controller and receiver are linked by a unique matching code. With the fast hopping telemetry technology, the anti-jamming capability is enhanced to prevent interfering from other devices, allows multiple remote controllers working stably at same time.



Powerful Features

Fulfills the requirement of complicated models or robots

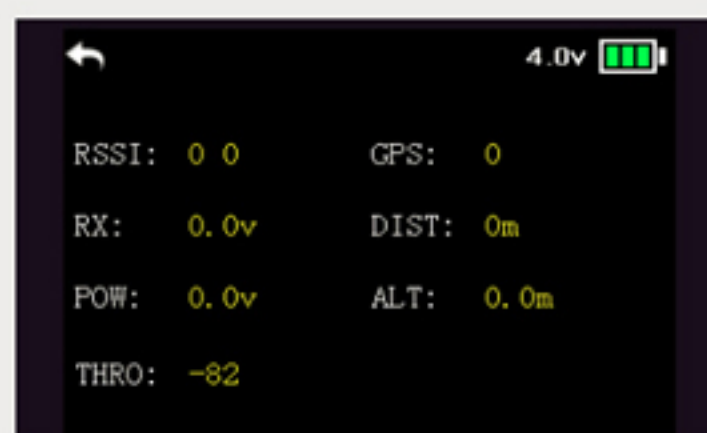
- Default 64 sets of model data storage, and group numbers are unlimited
- Powerful programmable hybrid control supports customize normal hybrid control and curve hybrid control setup
- Editable ratio, throttle curve and pitch curve make complicate curve easy to adjust
- Through data copy function, you can share your model setup to friends easily
- Trainer mode with kinds of different protection permits that the trainer can take control through one button
- Channel mapping and failsafe function

Powerful Performance



High Brightness Colorful LCD Touch Screen, Brand New GUI System

The high brightness colorful screen is clearly visible in sunlight. And LCD touch screen means you would never need to adjust parameters by traditional keys and buttons. Assisting by a turntable-key and the brand new OEM GUI system for operating interface, the remote controller provides a more user-friendly experience.



Real-Time Data Return

Real-time data return and display of aircraft power, battery level, signal strength, GPS and multi-sensor telemetry.



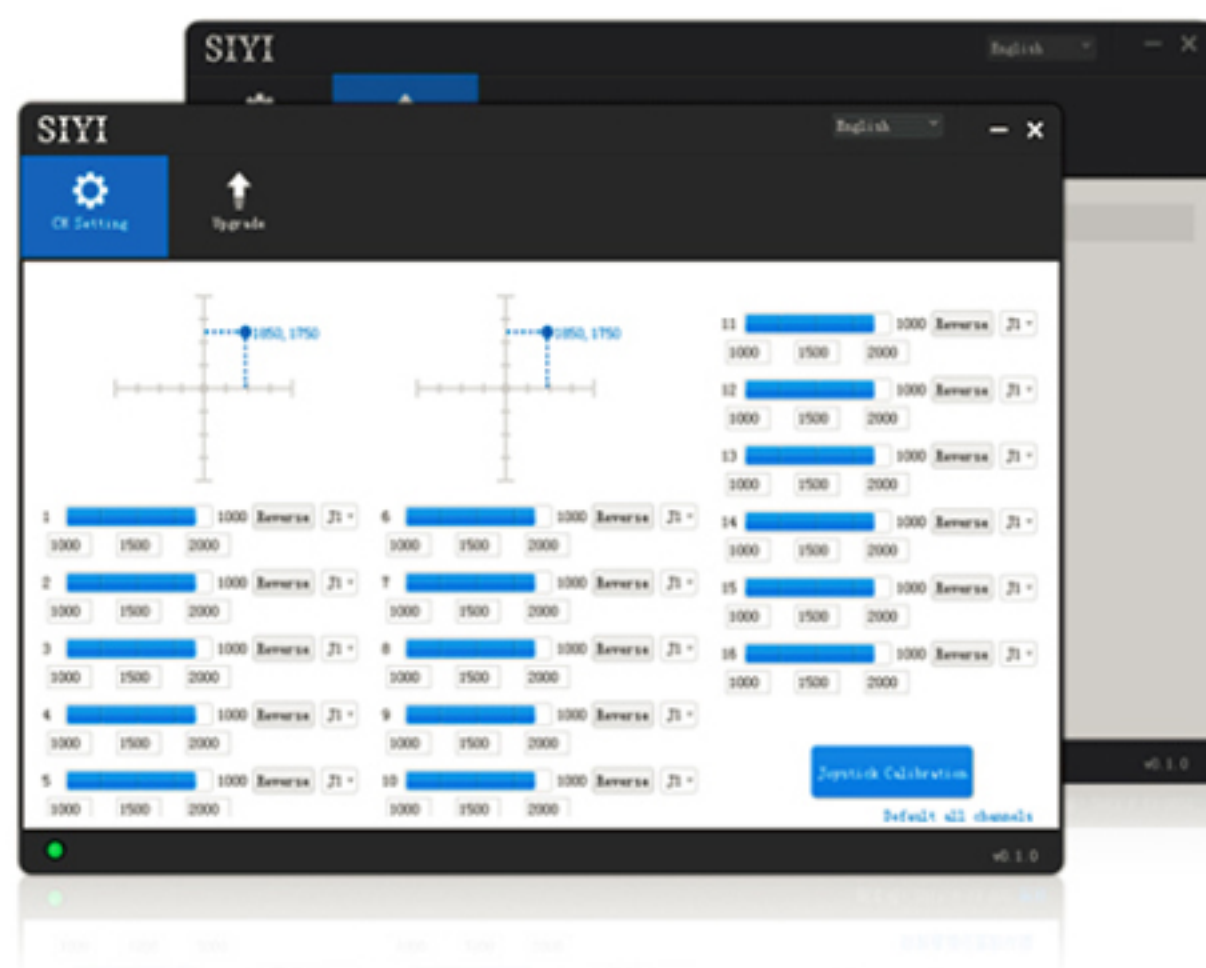
Vibration Alert, English/Chinese Menu with Voice Broadcast

Vibration alert and voice broadcast help you being more concentrate on flying.



Parameter Adjustment on PC

It's an obviously better experience to adjust parameter on personal computers than through LED screen, also more enjoyable owning continuous service of upgrading firmware and updating new features.



Creative 5-dimensional Sub-trim Button

Sub-trim button designs in traditional remote controllers have been overturned in ST32, you can quickly switch between sub-trim buttons and joysticks while you are operating flight. Using metal button, the overall industrial design style will bring you an extraordinary experience.



17
KG

Thrust 17KG+



Low Noise



Stable & Reliable



Impact Resistant



Dustproof & Waterproof
(IP35)



Anti-corrosion Coil



17KG+ Thrust

Weight decrease is achieved by optimizing stator structure while maintaining its mechanical strength. Manual winding helps increase slot fullness for thrust above 17kg with power of more than 3300W.

Low Noise, Stable & Reliable

36N42P configuration reduces motor vibration in operation for motor wearing diminution, service life extension and noise debasement. Motors run more smoothly than motors with general configuration at max. throttle.

Impact Resistant

Optimized machining precision and motor structure with motor core part protection effectively avoids cases as to the failure in motor utilization after crash and impact.

Dustproof , Waterproof & Cooling

Closed exterior and lattice structure take account of both dustproof, waterproof and cooling effects which handles usage in various environment.

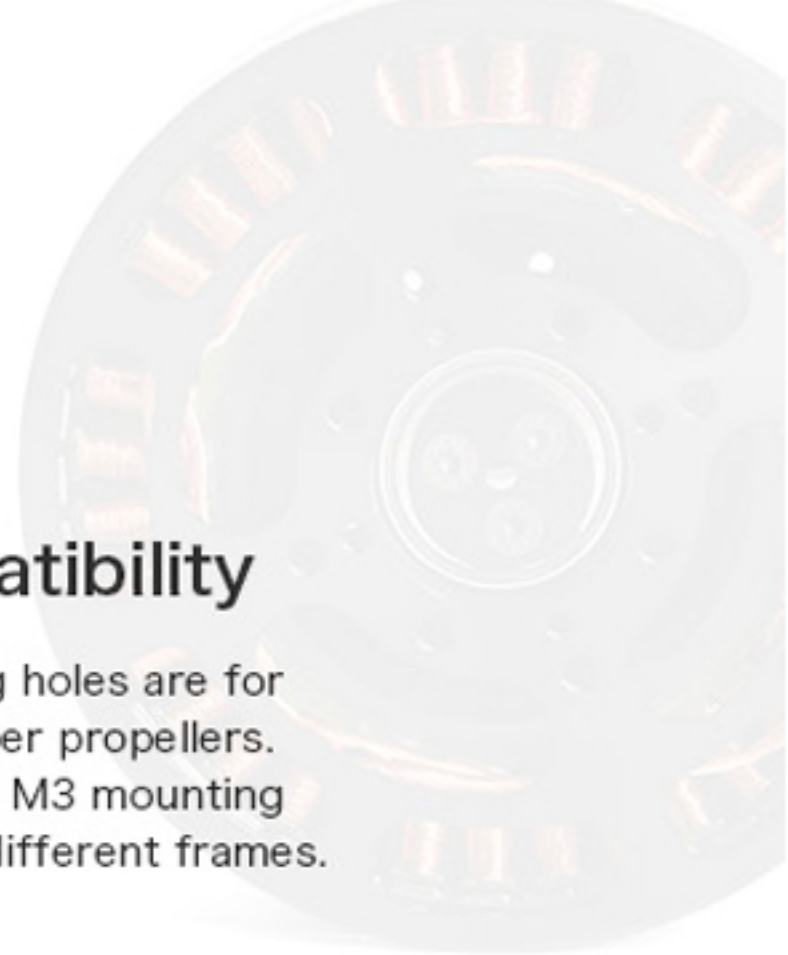
Anti-corrosion Coil

Special coating gets the coil free of corrosion from pesticides.



Extensive Compatibility

T-MOTOR standard mounting holes are for T-MOTOR 28"-32" carbon fiber propellers. Meanwhile, there are M4 and M3 mounting holes on the motor base for different frames.



HARD PRINCIPLE

x · carbon

Propellers of light weight, durable density and small moment of inertia.



The Easy Choice

Clear naming convention lets you choose the most suitable propeller easily.



Original Technology

Continuous reform and refinement of our injection molding process gives an optimum hybrid mix of carbon-fibre and polymer properties to our new x · carbon props.

x 1.5

Abrasion Resistance
of Prop Surface

-3.5%

Material Density

x2

Prop Strength



Trailing edge
of general props



Trailing edge
of X · carbon props

Each prop is challenging the limit of injection technology and mold for 0.25mm trailing edge, airflow interference reduction and lift-drag ratio increase.

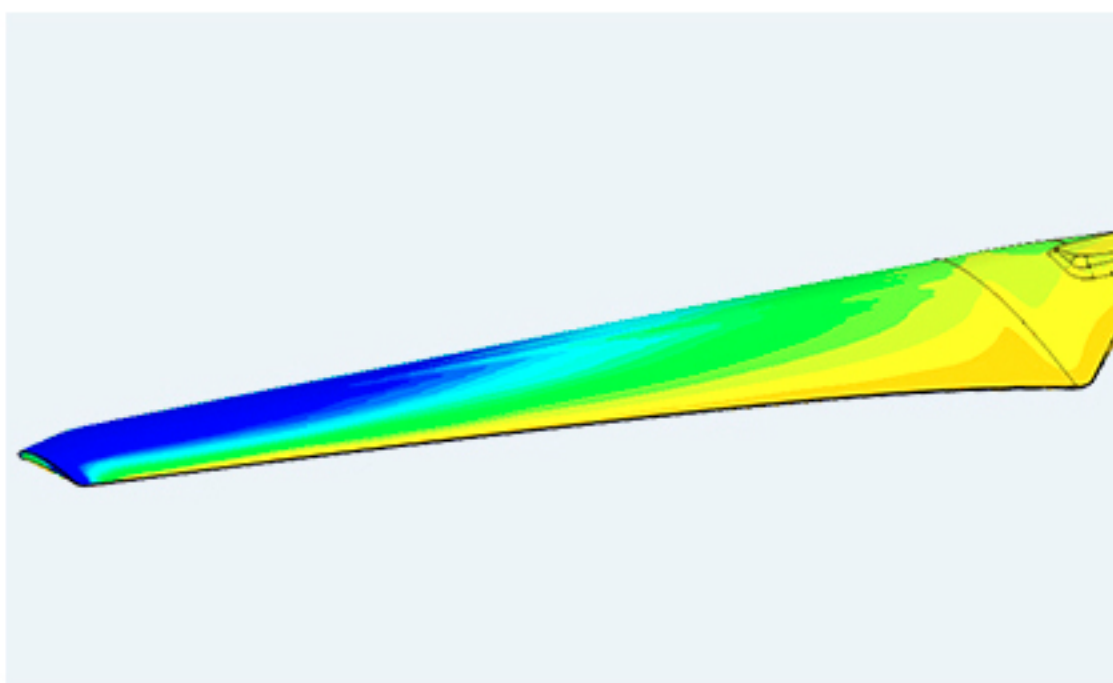


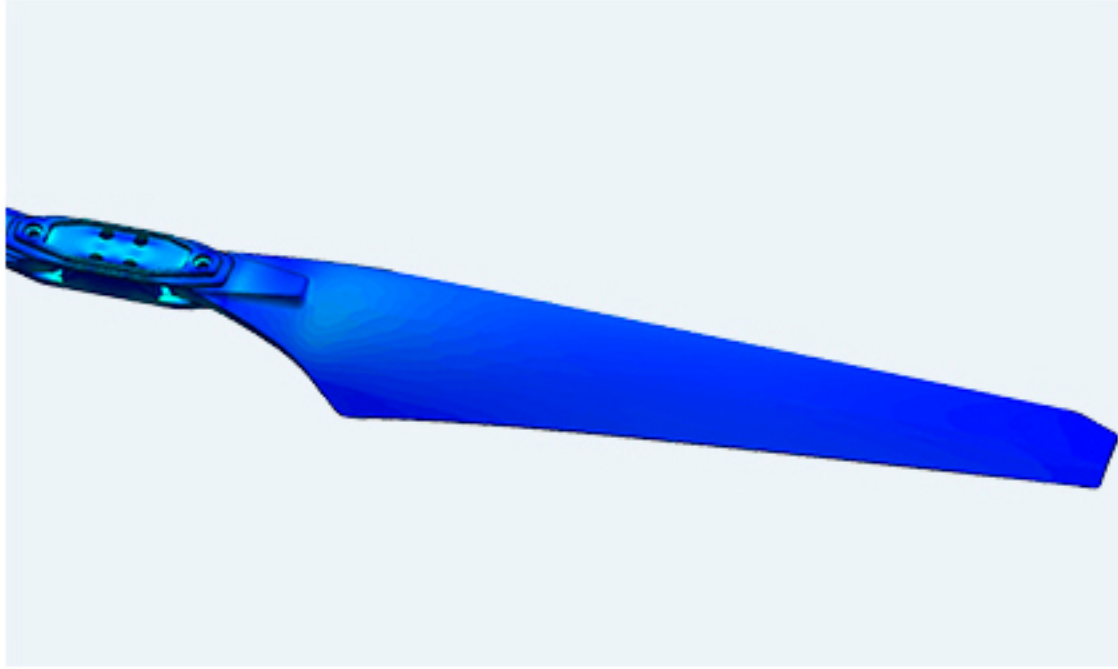
Heat insulating coating of high shading degree is employed to the surface to protect props from ultraviolet. The prop material of heat endurance enables long time flight under high temperature.

Technology Behind X · carbon

CFD Fluid Simulation

The ideal aerodynamic interaction is achieved with the help of T-MOTOR propeller performance forecast program. The final propeller design came out from more than 10 candidates after comparison on targeted working condition.



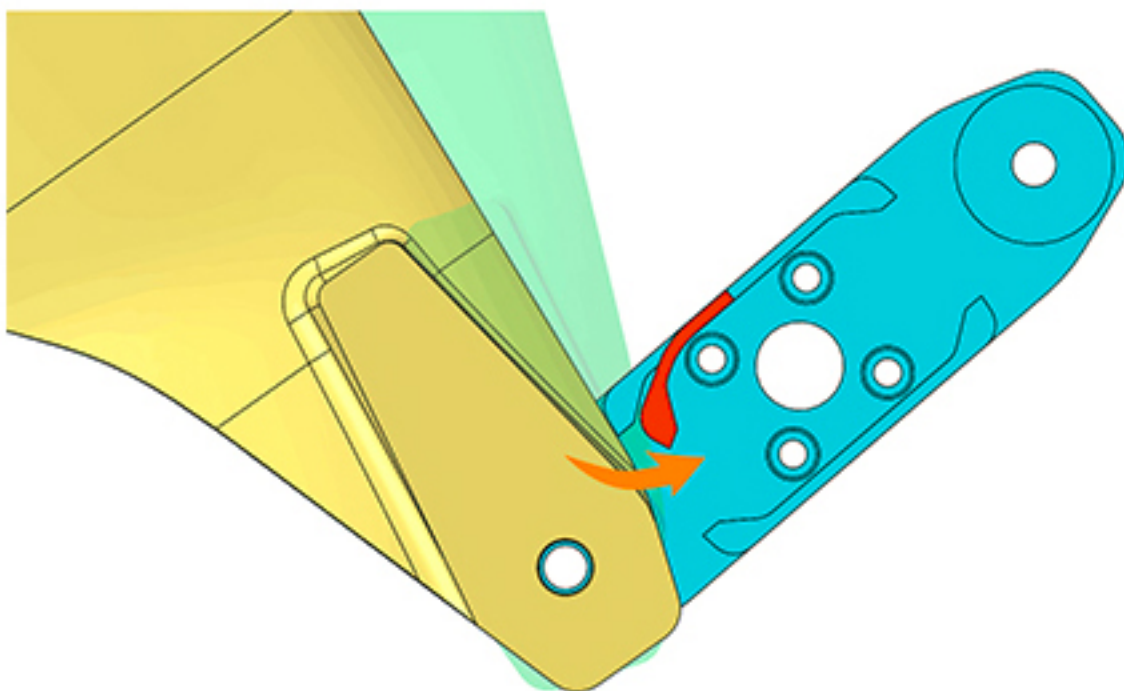
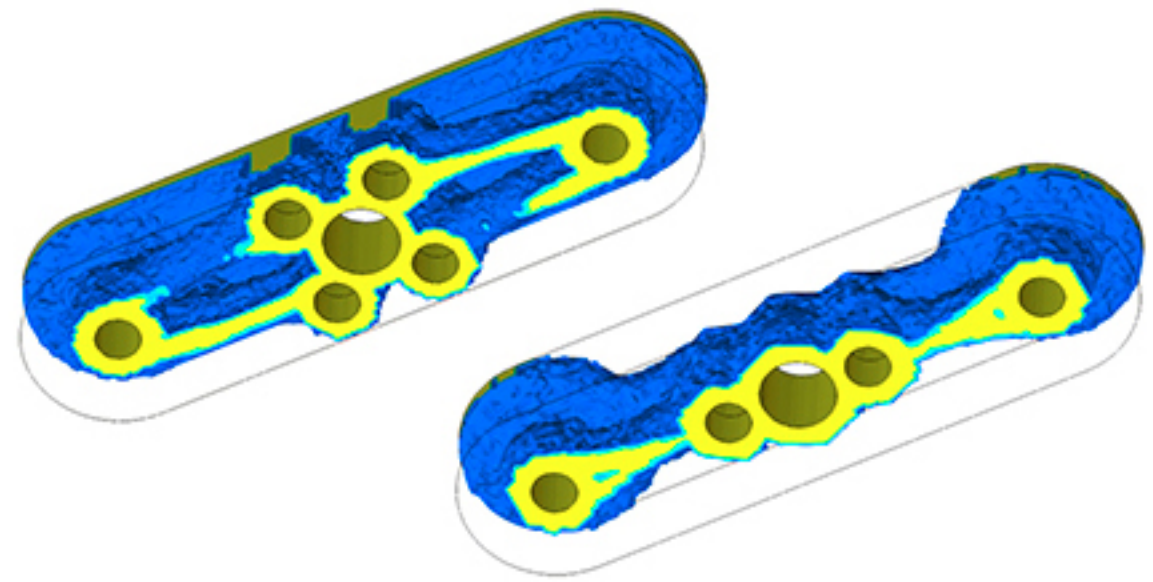


CAE Finite Element Analysis

Fluid–solid coupling technology is employed to analyze the structure by adding load distribution of fluid simulation onto the propeller for tangible monitoring over the condition of each part to make it flawless.

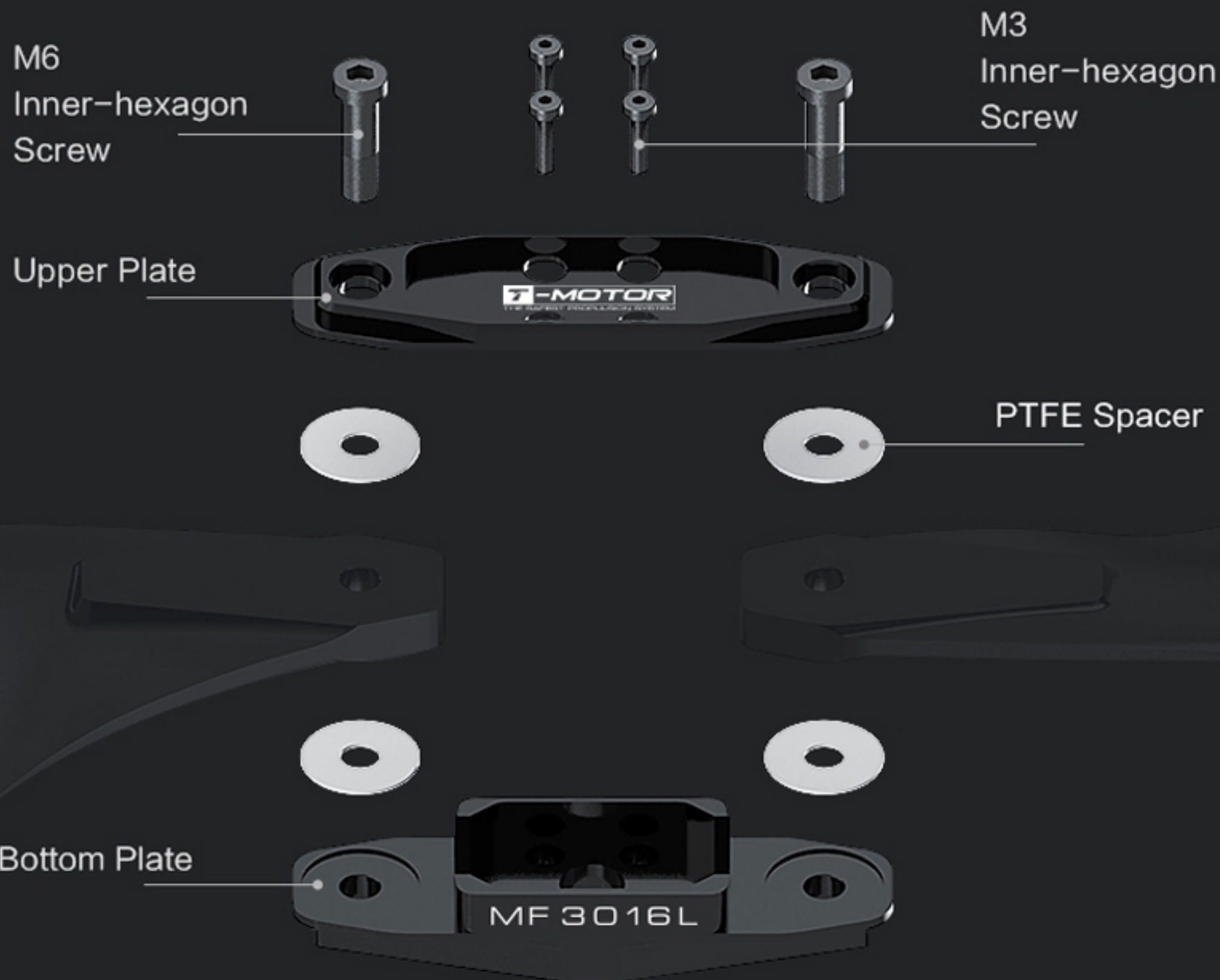
Topology Optimization Design

T–MOTOR attaches much significance to topology optimization technology structure simplification. The optimum design was obtained from optimal specific strength scheme after CAE finite element analysis for infinite potential in limited space.



Energy–Snubber Technology

T–MOTOR Energy–snubber technology is adopted to the whole series to protect the motors when propellers are attacked by extreme impact. The unique structural deformation will absorb the energy from impact.



Customized **PTFE** spacer for longer service life.

Same steel as motor shaft is adopted to prevent **spindles and screws** from bending.

Prop connector made of 7075 aluminium alloy with anodizing treatment is light, tough and rustless.

Superior Texture

Meticulous treatment behind the propellers.

A **100,000-time** folding test
was carried out to ensure the craft and quality to the best of it.

SPECIFICATION

AIRCRAFT FRAME

Dimensions	1152mm x1152mm x630mm (arm unfolded, without propellers) 667mm x667mm x630mm (arm folded)
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SPRAY SYSTEM

LIQUID TANK

Volume	10L
Standard Operating Payload	10 kg

NOZZLE

Model	XR11001VS (Max 2L/min adjustable)
Quantity	4

FLIGHT PARAMETERS

Total Weight	10.5 kg (without battery)
Standard Takeoff Weight	23 kg
Max Takeoff Weight	26kg (at sea level)
Max Thrust-Weight Ratio	1.1 (with 26kg takeoff weight)
Power Battery	Battery (14000mAh 377Wh 22.2V)
Max Power Consumption	11200 W
Hovering Time*	22 min (@14000 mAh & 15.5 kg takeoff weight) 10 min (@14000 mAh & 26kg takeoff weight)

*Hovering time acquired at sea level, with wind speeds lower than 3m/s.

Max Operating Speed	8m/s
Max Flying Speed	10 m/s
Max Service Ceiling	Above Sea Level 2000 m
Recommended Operating Temperature	0 °C to 40 °C

REMOTE CONTROLLER

Model	DK32
Operating Frequency	2.400 GHz to 2.483 GHz
Max Transmission Range	3 km (unobstructed, free of interference)
EIRP	≤20 dBm
Built-in Battery	3000 mAh, 3.7V
Operating Temperature Range	-10 °C to 40 °C
Storage Temperature Range	Less than 3 months: -20 to 45°C
More than 3 months:	22 to 28°C
Charge Temperature Range	5 °C to 40 °C

RADAR MODULE

Detection Range	2-20 m
Working Range	1.5 - 3.5 m
Precision	< 10 cm

PROPULSION SYSTEM

MOTOR

Stator Size	81×20 mm
KV	100 rpm/V
Max Thrust	13.5 kg/Axis (48V, Sea Level)
Weight	680g