

# WISPR RANGER PRO SERIES

Commercial Unmanned Aircraft Systems Made in the U.S.A.

#### **Propulsion System**

WISPR Ranger Pro Series utilizes 465KV motors combined with 18.5" carbon fiber propellers and the 22.8V 6S 25,000mAh battery for superior aerial performance.

- Max payload of 7 lbs and in winds of 50MPH+
- Built-in cooling system maintains optimum temperature for the speed controller/electronics
- Flight Time of 18-33 minutes depending on the payload

## **Payload Configurations**

WISPR UAS have the following I/O ports that allow us to communicate, control, and stream live video feeds from the payload

- 2 HDMI Port
- 24V Power port
- SBUS I/O PortsSerial I/O Ports

• PWM I/O Ports

- Single gimbal payloads
- Dual gimbal payloads
- **Compactible Frame Design**



# **Object Avoidance**

The WISPR Ranger Pro Series has two options for collision avoidance: (1) Front collision avoidance available on the WISPR Ranger Pro 1000 and (2) 360 degree collision avoidance available on the WISPR Ranger Pro 1100. The collision avoidance system is LiDAR range finder in based and will work in day or nighttime conditions.

## **Position Stability**

The WISPR Ranger Pro Series is equipped with a Global Navigation Satellite System (GNSS) receiver compatible with Real Time Kinetics (RTK) GNSS systems. It utilizes a LiDAR range finder for altitude accuracy and vertical stability while flying. To ensure the drone has redundancy in the critical sensors needed for flight, WISPR integrates 2 magnetometers, 2 accelerometers, 2 gyro, and 2 barometers. Lastly, a battery current and voltage sensor is used to track battery level. Together these sensors keep the WISPR Ranger Pro Series safe during flight!

### **UAS Hardware Monitoring**

WISPR's UAS capture telemetry flight log tracks every single aspect of the UAS rectifying problems before they happen. The data captured allows proper maintenance/repair of your UAS in due course.





<b>Specifications</b> WISPR Ranger Pro Series		
Maximum Sustainable Payload	7 lbs.	
Max Flight Time	18-33 minutes depending on payload	
Max Wind Rating	50MPH+ - Tested	
Collision Avoidance	Omni-Directional collision avoidance	
RTK Availability?	Yes	
PPK Availability?	Yes	
Diagonal Wheelbase	42" without propellers 21" without propellers folded	
Height	15" without landing gear 28" with landing gear	
Width	20" folded 29" unfolded	
Weight	12 lb.	
Max Takeoff weight	25 lb.	
Max Speed	50 MPH	
Max Operating Temperature	122° F	
Min Operating Temperature	-4° F	
Frame material	Carbon Fiber	
Battery Requirement	1 x 6S, 25000mAh, 22.8V LiHV	
Battery Weight	5.7 lb.	
Propeller Size	18.5" x 6.3 folding carbon fiber propellers pair, balanced	
24V power port?	Yes	
HDMI I/O port?	Yes	
Serial I/O port?	Yes	
PWM I/O port?	Yes	
SBUS I/O port?	Yes	Power to the Pro
Orientation LED light colors	Red, White, Blue	
Flight controller	CubePilot Blue H7	
Flight controller firmware?	Open Sourced (ArduPilot)	
Frame Type	Quad Copter	
Made in America?	Yes	
NDAA Compliant?	Yes	