DRONEACHARYA®

AERIAL INNOVATIONS

INTRODUCING

ARYA 1.0

A SURVEY GRADE DRONE FOR ALL YOUR INDUSTRIAL NEEDS

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63 minutes

Max Flight Time

3 KG

Max Payload Capacity

5000 m

Max Take-off Altitude

12.5m/s

Max Wind-resistance Speed

Arya 1.0

is your go - to Autonomous and Intelligent surveying aerial platform for performing challenging, long duration missions across industries. Equipped with an advanced flight control algorithm, camera processing algorithm, gimbal stabilization algorithm, and visual AI algorithm, this drone ensures seamless operations and complete control of your missions.

Do More With Arya 1.0

Multiple expansion devices

- Night navigation light
- Rear RTK
- FPV single upward gimbal component
- LTE backup video transmission
- Downward multi-payload component.

Automatic patrol inspection	AI intelligent object recognition and tracking
Through day and night omnidirectional obstacle avoidance system	Through day and night omnidirectional obstacle avoidance system

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Portable All-in-one Remote Control

High-resolution, high-brightness large-size touch screen provides bright full screen displays in sunlight.

Automatic return and precision landing	Multiple payloads for robust functions	Advanced networking mode
Through visual positioning system	Including Visual, Thermal and LiDAR sensors	Control one aircraft using multiple remote control terminals

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Technical specifications

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Entire machine	
Dimension	Folded (including propellers): 347×367×424mm (L×W×H) Unfolded (including propellers): 950×995×424mm (L×W×H) Unfolded (excluding propellers): 549×592×424mm (L×W×H)
Maximum flight time	No load: 63min
Symmetrical motor diagonal distance	≤ 725mm
Weight	2.35kg Left and right (excluding batteries)
Maximum takeoff weight	7kg
Maximum Payload	3kg (Under the maximum payload, the maximum safe flight speed is only 15m/s)
Noise	≤ 58dB@5m position
Propeller	1866 folded propellers
Flight control software performance indesx	
Hovering accuracy (GNSS)	Horizontal: ±1.5m (with GNSS positioning) Vertical: ±0.5m (with GNSS positioning)
Hovering accuracy (with vision positioning)	Horizontal: ±0.3m (with GNSS positioning) Vertical: ±0.3m (with GNSS positioning)
Hovering accuracy (RTK)	Horizontal: ±0.1m (with RTK positioning) Vertical: ±0.1m (with RTK positioning)
RTK position accuracy	When RTK is fixed: 1cm+1ppm (horizontal) 1.5cm+1ppm (vertical)
Maximum angular velocity	Pitch axis: 200°/s Yaw axis: 100°/s
Maximum pitch angle	30° (45° during emergent braking and startup)
Maximum ascent speed	S mode: 5 m/s P mode: 4 m/s
Maximum descent speed	S mode: 4 m/s P mode: 3 m/s
Maximum wind resistance	15 m/s (Level VII) The maximum wind resistance is 12m/s during taking off and landing.
Maximum flight speed	S mode: 23 m/s P mode: 15 m/s
GNSS satellite search time	Cold-startup satellite search time: ≤3.5 minutes Hot-startup satellite search time: ≤50 seconds
IP Rating	IP54
Operating temperature	-20°C~55°C
Maximum takeoff altitude	5000m

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Multiple Payloads, Multiple Applications

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PDL-1K Dual-sensor Camera

A 1K high-resolution infrared detector, which is 4 times the resolution of 640*512 infrared in the market, highly convenient for infrared detection under special environmental conditions

- 1K (1280×1024) Thermal Camera, Mega Pixels
- Metal Package, Accurate Temperature Measurement
- Dual Channel, Day & Night Detection
- 3 - axis gimbal stabilization

PVL-8K Camera

Shoot highly detailed images, providing insight beyond vision for security, forestry, transportation, surveying, electricity and other scenarios.

- 48-megapixel photos and 6K@30fps video
- High efficiency and Multi-purpose
- 3D Stabilization,Outstanding Imaging

PLI01 LiDAR

A lightweight professional LIDAR sensor developed for multi-rotor platforms. It integrates light and compact lidar systems, inertial navigation systems, control systems and high-resolution mapping cameras

- Supports triple echo for ultra high details
- High-quality Point Cloud with a Fusion GNSS, high-precision inertial navigation
- Distance measurement up to 450 m with 80% reflectivity
- Single operation area up to 2km^2

PQL01 Quadra-sensor Camera

Combines visible light, wide-angle, infrared thermal imager, and high-precision laser for medium and long distance.

- 48 mega Ultra-clear Pixels
- Infrared Precise Temperature Measurement
- High-precision Ranging & Positioning
- AI Intelligent Algorithm for high computing speed

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