

INDUSTRIAL INSPECTIONS



Digital Aerolus' **Aertos™** drones are a true 21st-century solution to your inspection needs. They fly stably and safely in GPS-denied or GPS-compromised environments.

- Rugged carbon fiber design with internal ducts
- Stable indoors and out
- Safe to throw, catch or contact other surfaces via **SafeCatch™**
- Hi-resolution industrial imaging
- Rapid deploy with no setup
- Navigate via advanced Folded Geometry flight Code (**FGC™**)
- Smart and behavior-capable with **DABLE™** and **TANGLE™**



Stable flight indoors: **Aertos™** drones fly smoothly and hover in one spot even inside structures where GPS or other signals may be blocked. Unlike standard drones, the **Aertos120™** applies Folded Geometry flight Code (FGC)™, inspired by spaceflight navigation and our NASA-based roots, to fly and hover *even inside tunnels, tanks, buildings, and under bridges - even if GPS and other signals are denied.*

Simple to deploy: **Aertos™** drones quickly deploy just seconds after power up. You do not need to wait minutes to acquire GPS or go through a time-consuming assembly and setup process. Once they power up, our drones can interpret how they are thrown and begin to carry out desired activities.

See the whole picture: The **Aertos120™** drone includes a gimbal-mounted high resolution camera that images the entire environment including straight up and down. Users may view images in real time via a mobile phone or tablet. After the drone completes its flight, all images transfer easily for storage, processing and interpretation. **Aertos™** *drones gather data smoothly and safely in any space physically large enough to accommodate them.*

Safe to use: **Aertos™** drones fly safely with minimal operating training. Our integrated enclosed-duct design works with control software to help prevent both injuries and any damage to obstacles or obstructions the drone might contact. *First-time users can easily and safely launch our drones and catch them in midair.*

Sturdy design: **Aertos™** drones use carbon fiber and Kevlar™ for advanced strength-to-weight benefits. Rugged, sturdy ducts protect the blades from touching surfaces, materials and people.

Who needs **Aertos™** drones?

- Highway and railroad bridge/tunnel/culvert inspectors
- Underground vault and manhole inspectors
- Boiler or storage tank inspectors
- Warehouse operators
- Building inspectors
- Underground mine operators and inspectors
- Grain elevator and agribusiness operators
- Underground storage space owners
- Ballast tank inspectors and ship owners
- Public Safety



SPECIFICATIONS



SIZE: WxHxD 18" x 22" x 4" , (50cm x 54cm x 10cm) ; **WEIGHT:** 4lbs, (1.8kg)
(standard payload)

BATTERY SYSTEM: LiPo high capacity (spare included) and Universal Mains Charger

FLIGHT TIME: Light payload, over 15 minutes. Full payload over 11 minutes

OPERATIONAL TEMPERATURE: 15F to 105F (-10C to 40C)

MAXIMUM FLIGHT ALTITUDE: 8000ft (2400m)

STANDARD PAYLOAD: Visual wavelength HD video link (real time view and recorded), plus 12 MP stills, stabilized on gimbal with operator control of pitch from forward to straight up or down (+/- 90°)

OPERATOR CONTROL: Conventional joysticks for flight, plus thumbwheel adjustment for camera tilt and button for taking still photos

COMMUNICATIONS: ISM bands FCC certified

LIGHTING: Colored lights to aid in navigation and indication of status

CARRYING: Protective shipping case and carrying bag included

OPTIONS:

Illuminator: 2-watt high-brightness (300-lumen) LEDs for videos and stills

Integration with Intel's Aero Compute™ platform

Other imaging payloads such as infrared and multispectral cameras

GPS for advanced stability outdoors

Advanced Telemetry Link

Tethering subsystem

Additional batteries

Training

Super Stability with Height Freeze™

LIDAR for advanced ground sensing

The cornerstone of the **Digital Aerolus** technology suite is **Folded Geometry Code** (FG™), a flight control and operating system built on advanced multi-dimensional geometric flight mathematics developed for space navigation and not previously used in the consumer and commercial drone/UAS industry. We integrate **FG**™ with our **TANGLE**™ telemetry and data management system, and our **DABLE**™ Behavioral Language and Environment.

These proprietary technologies offer users the opportunity to **customize performance** and behaviors in all UAVs that deploy our technology. Besides our own physical platforms like the **Aertos120**™, **Digital Aerolus** control technologies port to other commercial platforms. Call us for additional information about our drones or technologies, or for help in solving your problems and addressing your needs.

