



Cleo Tactical Dronut™



The World's First UAV for Subterranean and Dense Urban Environments

The Cleo Dronut™ is the world's first portable and rugged UAV designed specifically for use in subterranean and dense urban environments.

It features fully enclosed propellers for safe operation in extremely cluttered environments; it is built to withstand collisions with walls and can fly through obstacles such as curtains and power lines without crashing.

Despite its small size, the Dronut™ boasts an impressive payload of cutting-edge sensors and a powerful AI engine that enables it to sense its surroundings and avoid obstacles without relying on GPS connectivity.

The Dronut's autonomous capabilities reduce the cognitive load on an operator and allow for easy operation with a deployment time of less than 45 seconds. This UAV is an extremely capable and effective tool in clearing buildings, caves, and tunnels while keeping war fighters and law personnel safe.



Compact

Small enough to fit in the palm of a hand, the Dronut™ can operate in extremely cluttered environments and can fly through openings as small as 10" wide.



Intelligent

Altitude and position hold in GPS denied environments in addition to its ability to sense and avoid obstacles make the Dronut™ extremely easy to operate.



Resilient

The lack of any exposed propellers allows the Dronut™ to hit objects and hard surfaces, like walls, without crashing or damaging itself or its surroundings.

Lifesaving reconnaissance in GPS denied environments

Get in touch with us to learn more about the Dronut: contact@cleorobotics.com

Dronut™ Specifications

AIRCRAFT

Total weight	370 grams (13 oz)
Diameter	155 mm (6 in)
Height	100 mm (4 in)
Max lateral speed	3 m/s
Max ascent speed	2 m/s
Max descent speed	2 m/s
Flight time	15 minutes
Charge time	35 minutes
Batteries:	Rechargeable & replaceable
Launch time	Under 45 seconds

PAYLOAD

Sensors	Day imager Night imager (optional)
Streaming resolution	HD (1280x720)
Framerate	Up to 60 Hz
Lens	1/3.06"
Field of view	100 degrees



COMMUNICATIONS LINK

Operating frequency	2.4 GHz
Latency	Less than 250 ms
Line of sight transmission distance	2 km
Encryption	AES-256

GROUND CONTROL STATION

Operating System	Android 9
Input	Dual 2-axis joysticks
Weight	350 grams
Charger	Micro USB

AUTONOMY & NAVIGATION

Sensors	<ul style="list-style-type: none">❖ LiDAR❖ Global shutter camera❖ RGB camera❖ Snapdragon AI Engine
Navigation	Vision based navigation for GPS denied environments SLAM based obstacle detection & avoidance
Hover accuracy	Vertical: ± 5cm Horizontal: ± 10cm