



TARTM

Powerful | Precise | Productive

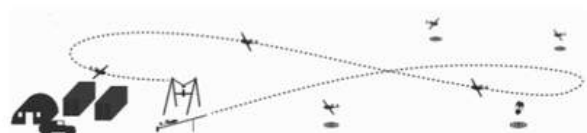
About us

Karman Drones is driven by a profound belief in the transformative power of unmanned aerial technology. We design, develop, and manufacture UAVs for various applications.

We understand the immense potential that drones hold for revolutionizing various sectors, and we are committed to pushing the boundaries of what is possible.

Vision: Our Vision is to create the most captivating modern-day drones with enhanced dependability, top-notch performance, and the ability to operate in any weather conditions globally.

Mission: Improving human existence with limitless unmanned aerial technology





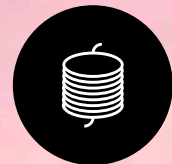
Up to 24 hour

True Endurance™



<5.5 kg

Max take-off weight



100 m

Tether Length

TAR (Tethered Aerial Robot) transcends drone limitations with an unprecedented 24-hour* flight time, offering continuous surveillance reliability. Its dual-redundant coaxial design and 100-meter* tether ensure uninterrupted operations, eliminating battery and downtime concerns. TAR excels in real-time data transmission and versatile payload options, customizable for specific needs. User-friendly deployment maximizes operational efficiency. From securing infrastructure to aiding disaster relief, TAR redefines aerial capabilities, marking a transformative era in surveillance and data collection. Experience TAR—a drone redefining endurance and possibilities.



Compact Design

It comes with innovative co-axial motor configuration and ultra-compact design. Offering unparalleled performance in a portable package.

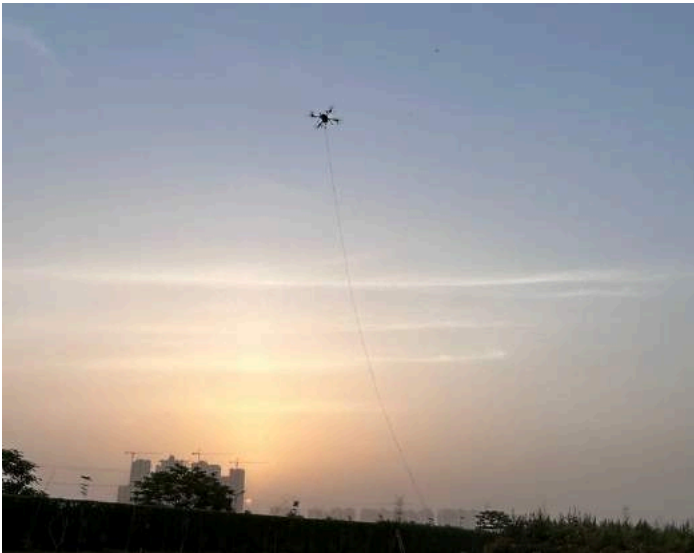
Co-Axial Configuration

It comes with co-axial configuration providing dual redundancy ensuring your drone remains operational in all situations



Rugged Airframe

It's robust construction minimizes downtime, extends the drone's lifespan, and protects internal components, offering optimal performance in demanding scenarios.



Up to 24 hours True Endurance™

Uninterrupted continuous flight time revolutionizes aerial surveillance, offering prolonged monitoring without frequent landings.

Composite Material

It is made up of advance composite materials for rugged structure to improve the UAV's life



Highly portable

Crafted for convenience, its compact structure allows users to effortlessly carry it in the side bag provided

EO-IR Dual vision Payload

Visible Camera Resolution: 1920 X 1080 P
Thermal resolution: 640 X 480P
Visible Camera Zoom: 40X
Control Range (PTZ): -45°C to +135°C(Tilt), -180°C to +180°C (Pan)



RGB Day Payload

Visible Camera Resolution : 4K @ 30fps
Visible Camera Zoom : 6X (Digital)
1/1.7-inch Sony sensor
HDR and starlight night vision
3-axis gimbal stabilization

100 m Tethered Box

Micro tether length: 100 m
Tether weight: 16 g/m
Power output: 2200 W
Tensile Strength: 120-150 daN
Micro Tether management:
Electric and Manual switch
Dimensions: 408 x 603 x 261 mm
Portable Power Source: 230 VAC,
50-60 Hz (4 kW min), 120 VAC,
50-60 Hz (3 kW min)
Rugged Structure: IP54 Certified



70 m Tethered Box

Micro tether length: 70 m
Tether weight: 16 g/m
Power output: 1500 W
Tensile Strength: 100 daN
Micro Tether management:
Electric and Manual switch
Dimensions: 627 x 475 x 292 mm
Portable Power Source: 230 VAC,
50-60 Hz (4 kW min), 120 VAC,
50-60 Hz (3 kW min)
Portability: Telescopic handle
and wheels



EO-IR Dual Vision Payload

This dual electro-optical/infrared (EO/IR) stabilized camera is designed for long-range observation applications weighing just 115 grams.

It features an X40 zoom (X20 optical + X2 digital) and a field of view (FOV) of 60° wide, 3° narrow, and 1.5° deep allowing it to identify and track objects at long distances.

Equipped with a stabilized gimbal system that cancels out platform vibrations, ensuring smooth and clear video footage. It also provides operators with the ability to see in both visible and infrared light. With low latency video streaming, it enables operators to view real-time video footage over long distances

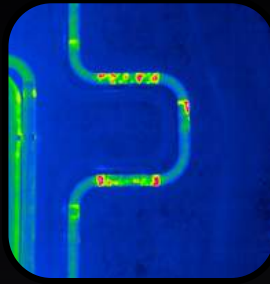
Applications



Law enforcement and public safety by monitoring high-crime areas



Search and Rescue your missions with nighttime operations to complete search and rescue missions.



Power Line and Pipeline Monitoring by identifying hotspots, detecting leaks, and assessing structural integrity, and enhancing the efficiency of maintenance operations.



Wildlife conservation efforts by monitoring animal populations, tracking migration patterns, and identifying potential threats such as poaching.



Environmental monitoring by Forest fire management with help of IR capabilities assisting in early detection of forest fires by identifying temperature anomalies and smoke even in challenging visibility conditions.



Disaster response aftermath of natural disasters provides comprehensive assessments of affected areas aiding emergency responders in planning.



Critical Infrastructure Protection by monitoring critical infrastructure such as airports, power plants, and government facilities.



RGB Day payload

It is a 3-axis gimbal-stabilized camera with compact and lightweight design (95g). It comes with a 1/1.7-inch Sony sensor, capturing stunning 4K video at 30fps, perfect for capturing aerial landscapes and dynamic scenes. Additionally, the 6x digital zoom enables the user to get closer to the action without compromising image quality.

For low-light environments, it impresses with its HDR and starlight night vision capabilities, allowing you to capture clear and detailed footage even in challenging lighting conditions. The 3-axis gimbal stabilization effectively counteracts unwanted camera shake, ensuring smooth and professional-looking footage.

Applications



Law enforcement and public safety by monitoring high-crime areas



Search and Rescue your missions with daytime operations to complete search and rescue missions.



Real-time monitoring and surveillance of large areas, enhancing security measures for critical infrastructure, public events, or private properties during daylight hours.



Facilitate the inspection of infrastructure such as bridges, power lines, pipelines, and buildings.



Monitor ecosystems, wildlife, and natural habitats to aid conservation efforts by helping in biodiversity, identifying environmental threats, and supporting wildlife conservation initiatives.



Disaster response aftermath of natural disasters provides comprehensive assessments of affected areas aiding emergency responders in planning.



Critical Infrastructure Protection by monitoring critical infrastructure such as airports, power plants, and government facilities.



Accomplish your missions with ease

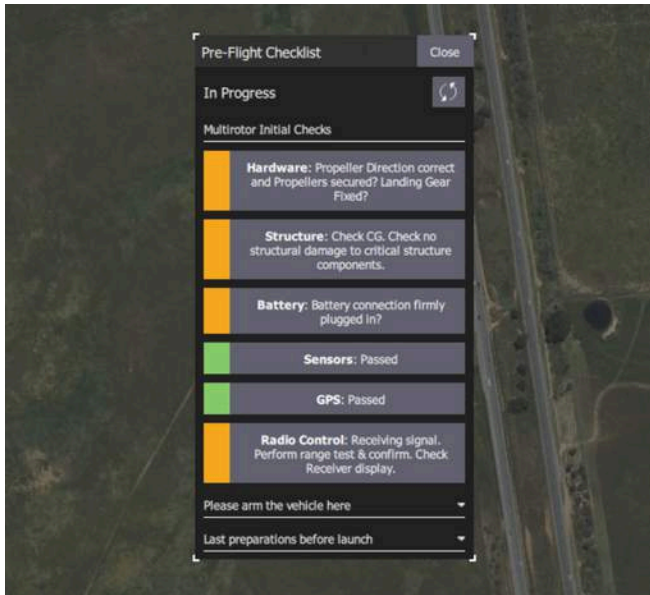
KARMAN GCS

Prepare
Plan
Perform



With Karman Drones' GCS, you have complete control over your drone, allowing you to create flight plans, execute them with accuracy, and monitor your drone's performance in real-time. Whether you're in need of aerial surveys, surveillance, or any other drone-related tasks, the GCS provides a user-friendly interface that simplifies the entire process.

The planning UI is designed to be beginner-friendly, while at the same time allowing space for experts to fine-tune the tiny details in their missions. It's the essential tool for unlocking the full potential of your drone operations, making them more efficient, safe, and effective.

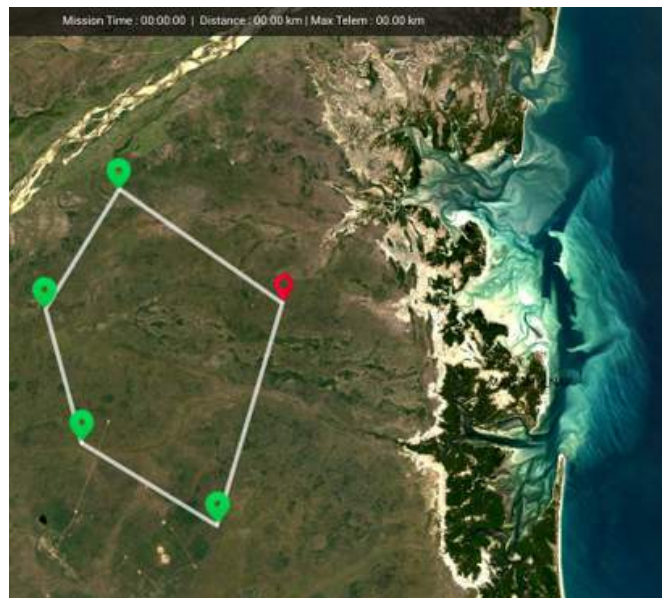


Pre-flight check

It features an advanced Pre-Flight Check, meticulously evaluating crucial parameters before takeoff.

Plan missions with ease

Armed with the latest geographical terrain data, you can optimize your missions by flying at a constant height above the terrain, ensuring you'll never run into it.



Absolute Safety

Implemented with failsafe to safeguard your UAVs during emergencies like low battery or RC link loss. Effortlessly establish geofences to prohibit your UAVs from entering restricted zones.



Structure scans

Structure scans allow you to assess the condition of any structure, plan maintenance and much more which can be fine-tuned for any structure.

Survey scans

Utilize survey scans to thoroughly examine an area of choice. Choose from pre-defined patterns or create your own with our tracing tool.



Failsafe feature

It protects UAVs in the event of an emergency such as battery low, RC link loss. Easily create geofences to prevent your UAVs from flying into restricted areas

Technical data



True Endurance™	Up to 24 hour
Max take-off weight	<5.5 kg
Max payload weight	<750 g
Max take-off weight altitude (AMSL)	4500 m
Max attainable height	100 m
Dimensions	92 X 92 X 27 cm
Operating temperature range	-20°C to +60°C
Wind resistance	10 m/s
Ascend speed	2 m/s
Descend speed	1 m/s
Deployment time	<10 minutes
Emergency battery backup	10 minutes



Key Advantages

TAR redefines aerial intelligence with its unmatched 24-hour endurance. This tethered marvel pierces day and night with high-resolution vision, meticulously mapping landscapes and revealing intricate details of terrain, enemy movements, or even environmental threats. Real-time data streams empower lightning-fast decisions and optimized operations, minimizing risk and maximizing efficiency.

But the TAR's true brilliance lies in its secure tether, a communication lifeline beaming crucial intelligence back to command centers. Weather-unfazed and ever-present, this technological sentinel elevates situational awareness, streamlines resource allocation, and bolsters security across diverse applications. From safeguarding borders to navigating disasters, the TAR becomes an invaluable tool.

Advantages

Surveilling like a vigilant eye in the sky, the Karman Drones TAR redefines aerial defense. Its unrivaled 40-hour endurance keeps watch over borders, sensitive assets, and disaster zones, while its high-resolution gaze penetrates day and night to reveal enemy movements, terrain details, and even environmental threats. Real-time data streams empower rapid response and informed decisions, reducing risk for personnel and optimizing operations.

But the TAR's brilliance lies not just in its eagle-eyed vision, but its tether - a secure communication lifeline transmitting crucial data back to command centers. This tireless sentinel, weather-unfazed and ever-present, elevates situational awareness, streamlines resource allocation, and bolsters defense, transforming the battlefield into a transparent chessboard where victory belongs to the informed.

- **Enhanced perimeter security**
- **Continuous surveillance**
- **Real-time intelligence**
- **Improved situational awareness**
- **Continuous communication relay**
- **Multi-sensor insight**

Enhanced perimeter security

The TAR sets a new standard in continuous surveillance with its unmatched 24/7 endurance, ensuring vigilant monitoring of sensitive borders, military installations, and strategic assets. Equipped with high-resolution cameras, it offers detailed views that aid in the prompt detection of intrusions, unauthorized activities, and potential threats.

Notably, the TAR's weather resilience surpasses traditional methods, maintaining stability even in windy conditions for uninterrupted monitoring regardless of weather fluctuations. The real-time intelligence gathered by the TAR, including precise location, movement patterns, and heat signatures, is transmitted instantly, providing crucial information for rapid response and informed decision-making in defense operations.

- **Continuous surveillance**
- **Weather resilience**
- **Real-time intelligence**
- **Perimeter security**

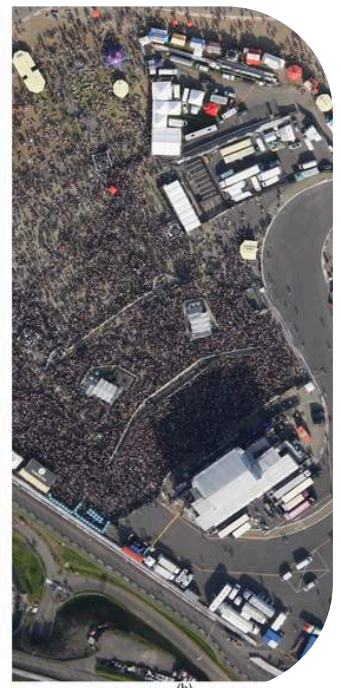
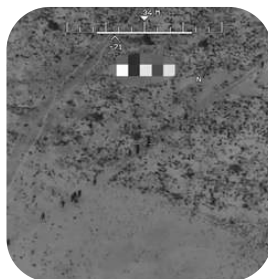


Improved situational awareness

The TAR boasts an unparalleled ability for wide-area coverage, swiftly spanning vast distances to conduct comprehensive reconnaissance and mapping of critical areas such as battlefields, enemy positions, and disaster zones. This capability significantly enhances situational awareness, providing invaluable insights for strategic planning and resource allocation in military operations.

The TAR's versatility extends to its multi-sensor configuration, incorporating advanced technologies like LiDAR and gas detectors. This allows the military to gather crucial data on various aspects, including terrain details, enemy troop movements, chemical threats, and potential IED locations. The integration of diverse sensors empowers the TAR with a comprehensive data collection capability, strengthening intelligence gathering and facilitating thorough risk assessment for enhanced operational efficiency.

- **Wide area coverage**
- **Uninterrupted flight time**
- **Multi-sensor insights**
- **Superior surveillance**



Enhanced operational efficiency

It revolutionizes operational efficiency by significantly reducing manpower needs through its autonomous operation and extended endurance. This innovative approach minimizes the necessity for personnel deployment in perilous or remote areas, facilitating optimal resource allocation and diminishing risk exposure for soldiers. Additionally, the TAR ensures continuous communication relay with its reliable tether, enabling uninterrupted data transmission from remote locations back to command centers.

This seamless communication channel enhances coordination and ensures real-time situational updates. Furthermore, the TAR's compact size and tethered system contribute to quick deployment capabilities, allowing for swift aerial surveillance even in challenging environments. This amalgamation of autonomous operation, continuous communication, and rapid deployment positions the TAR as a versatile and indispensable asset in defense operations.

- **Reduced manpower needs**
- **Quick deployment**
- **Continuous communication relay**
- **Portable and mobile**



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