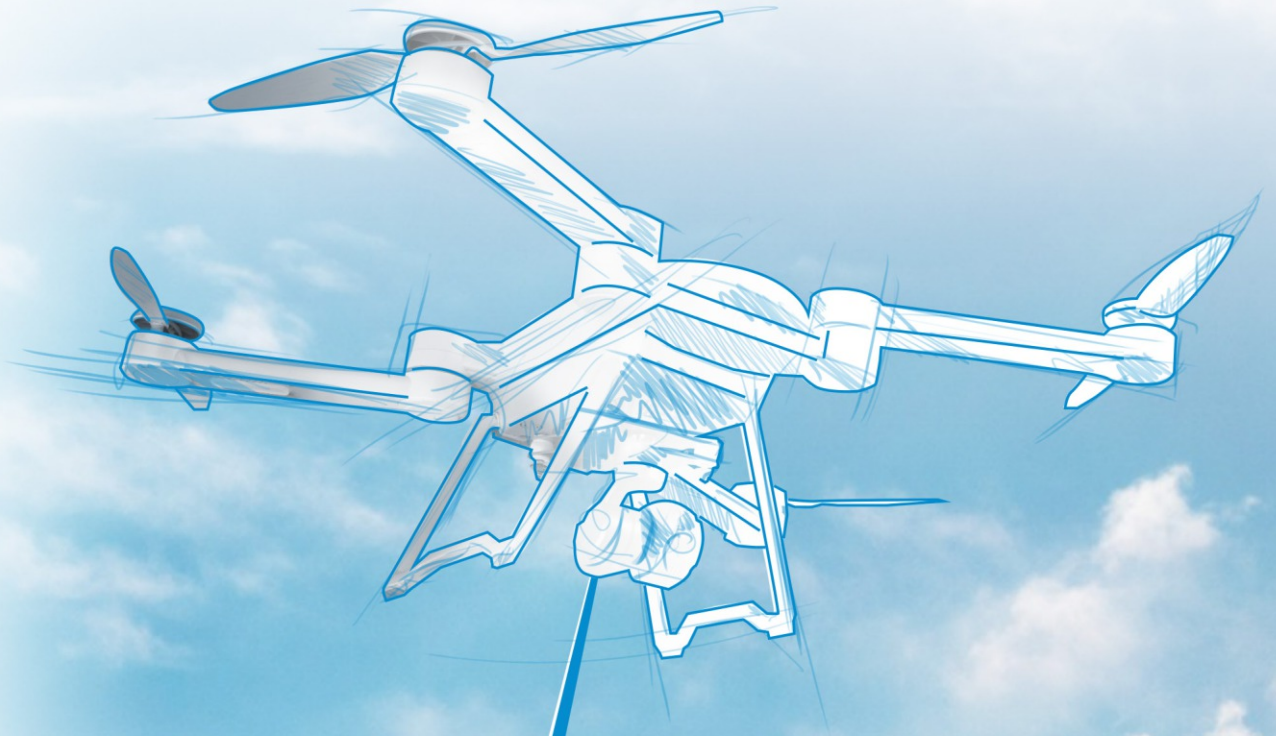# OTONOM
## TEKNOLOJİ

## TETRON

We are an engineering and technology company engaged in **long-endurance unmanned aerial vehicle-based solutions, addressing a broad range of needs including border security, reconnaissance and surveillance, communication, search and rescue, and precision agricultural activities. We scale our solutions to meet your needs in a variety of fields, including the design and production of the aerial vehicle, and the integration of subsystems, including sensors and command control systems, onto the aerial vehicle. We also offer a rental service.**

The approach we adopt for our products and solutions is based on the **life-cycle concept, standing by our customers in all phases, including development, integration, qualification, user training, maintenance and updates.**

The TETRON ground-based unmanned aerial vehicle (UAV) is a system that enables a rotorcraft UAV to carry out its mission when **tethered by a cable to a compact ground station.** Depending on the size of the selected UAV, TETRON can be integrated with land and marine vehicles with limited volume, can be used when vehicles are on the move, and can be used in narrow spaces. In this system, which can be integrated with various rotorcraft UAVs, **depending on needs**, as power is transmitted to the UAV through a cable, endurance is not limited to the UAV's battery.

Communication also takes place through the cable, **preventing jamming and interception.** The safety ensured by tethering the UAV to ground via a cable makes it easier to gain permission from civil aviation authorities for use in civil and controlled airspace.

**The winch system** developed for TETRON can automatically and safely adjust the length of the cable to the UAV's movements. This mechanism, which is the most critical component in such systems, has been developed based on our extensive experience in the field of ground-tethered balloon systems, and has proven itself in the field.

TETRON is interoperable with the **OTONOM GCS ground station, which is incorporated with various features, including integrated platform control, monitoring of platform status information, generation and display of operator warnings, integrated payload control, map support and recording.**

*The TETRON ground-tethered UAV system is a UAV solution that can be used on limited volume platforms and in narrow areas. It can be used while the platform is moving; offers 100 percent communication security; and can carry out its mission for unlimited periods.*

# TETRON Product Family
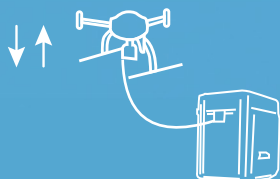## Technical Specifications:

Unlimited endurance

Maximum 100m operational altitude

Portable and low operational cost

Safe take-off/landing with automatic winch control system

Data security with communication through the cable

Easy platform integration

Upto 2.5kW power transmission to 100m

# Technical Data

| | TETRON-S | TETRON-M |
|---|---|---|
| Max. Operational Altitude | 80 m | 100 m |
| Endurance | Unlimited | Unlimited |
| Max. Power Transmission | 1,8 kW | 2,5 kW |
| Operating Temperature Range | -20℃ / +55℃ | -20℃ / +55℃ |
| Hauling Speed (meter/minute) | 180 | 180 |
| Tether Vinch | Automatic | Automatic |
| Manual Winch Control | Optional | Optional |
| Host Computer Interface | Serial / Ethernet | Serial / Ethernet |
| Tether Communication | PLC | PLC |
| F/O Communication | Optional | Optional |
| Tether Station | Mobile | Mobile |
| Environmental Protection | IP 52 | IP 52 |

## TETRON - S

This system serves as a connection station for drones with payloads that require up to 1.8 kW of power.

## TETRON - M

This system serves as a connection station for drones and payloads that require high power, and payloads. The TETRON-M is ideally suited for missions at altitudes of up to 100 m.

FIELD TESTED
AND
APPROVED

# Application Areas

## Social Event Monitoring

Provides decision-makers with situational awareness from a bird's-eye perspective by flying over crowds for long durations and in a safe manner.

## Disaster and Emergency Management

In the event of disasters or other emergencies, can be made mission-ready in a short time to meet various needs, ranging from surveillance to communication.

## Reconnaissance, Surveillance and Intelligence

Can carry out its mission both onsite or from a vehicle, either as fixed or mobile; acts like your eyes-in-the-sky by providing uninterrupted reconnaissance, surveillance and intelligence support.

## Land Traffic Management

Easily portable, enabling the aerial monitoring of land traffic in the region, allowing the necessary measures to be taken in a timely manner.

## Environment Protection

Allows the detection and monitoring of fires and other environmental incidents by carrying out surveillance over a large area, and acts as the response teams' eye-in-the-sky.

## Communication

In cases where the coverage area or communication infrastructure is insufficient, can easily be deployed to the region and can expand the coverage area by carrying its payloads to high altitudes, and can ensure direct communication between assigned units over a broad area.

# OTONOM
T E K N O L O J İ

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