ARA ROBOTICS

THE ODAS® SOLUTION

On-Demand Aerial Surveys

A Decade of Excellence and Leadership
in Canada's Drone Industry

ARA ROBOTICS 10 YEARS OF INNOVATION

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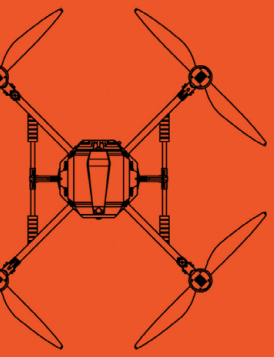
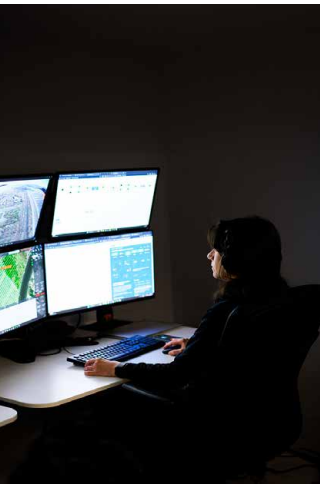


AERIAL SURVEYS ON DEMAND

Drone Mapping Solutions

Discover ODAS®, an on-demand surveying and mapping solution that integrates the power of drones and artificial intelligence to provide you with real-time terrain data. ODAS® revolutionizes traditional inspection methods by significantly increasing the accuracy and speed of aerial data collection. This data is then processed and transmitted through a secure cloud-based platform, giving you instant access to digital models of your site without the need for complex GIS software.

Operator-Supervised Automatic Flights



With ODAS®, your operations benefit from continuous supervision by our teams from our Command and Control Center (CCC) located in Montreal (Quebec), offering you the possibility to make informed decisions without having to be physically on site. Our team has total control over any ODAS® drone in our network thanks to our proprietary software and ensures the safety of operations by monitoring air traffic live via ADS-B.

Custom Innovation

Each site has its own characteristics and challenges. That's why ODAS® offers a fully customized solution tailored to your needs. Whether it's an open-pit or underground site, our technology integrates seamlessly with your existing processes, ensuring maximum impact on the efficiency of your operations.

Automated Operations

Drones can take the same route day after day, making the data more precise.

A Report in 3 Hours

Your data is quickly processed by our rendering software.

No On-Site Pilot

An operator deploys the drone on your site while we control it remotely.

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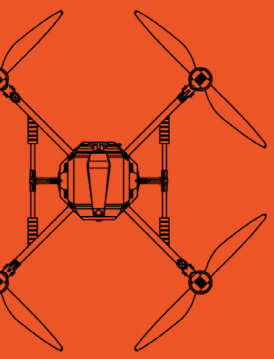


02

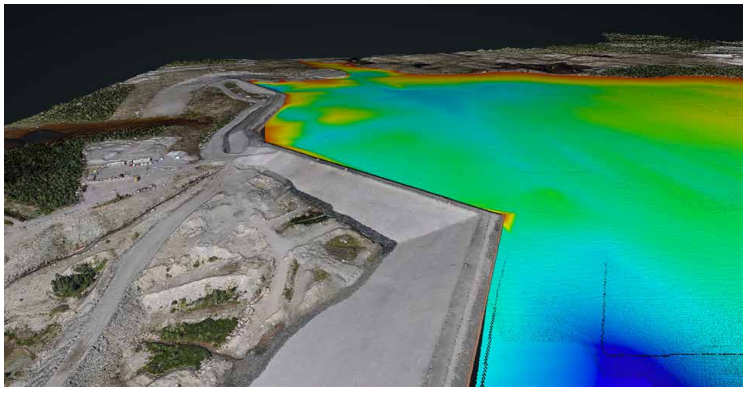
ALL-TERRAIN DRONE

Performance and Reliability in All Seasons

The ODAS® drone is specifically designed to withstand the extreme weather conditions of Quebec. Capable of operating within a wide temperature range, from -30°C to +45°C, it remains operational nearly every day of the year, offering an additional 40% to 60% of usable days compared to competing models, even under difficult weather conditions.

With a maximum flight speed of 15 m/s (55 km/h) and a battery life of up to 40 minutes per charge, including with an ODAS® payload, this drone is a valuable ally for long-duration operations. It also stands out for its ability to resist winds of up to 45 km/h, ensuring stable and reliable performance, regardless of conditions.

Made in Canada
All our drones are designed and built in our office in Montréal



Advanced Management of Retention Basins

We use advanced topographic and bathymetric techniques to obtain precise water volume calculations, thereby enhancing the sustainable management of your retention basins.

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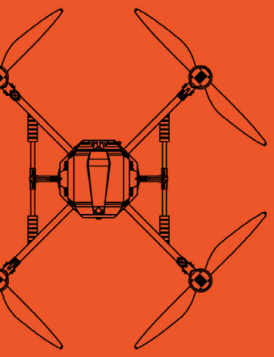


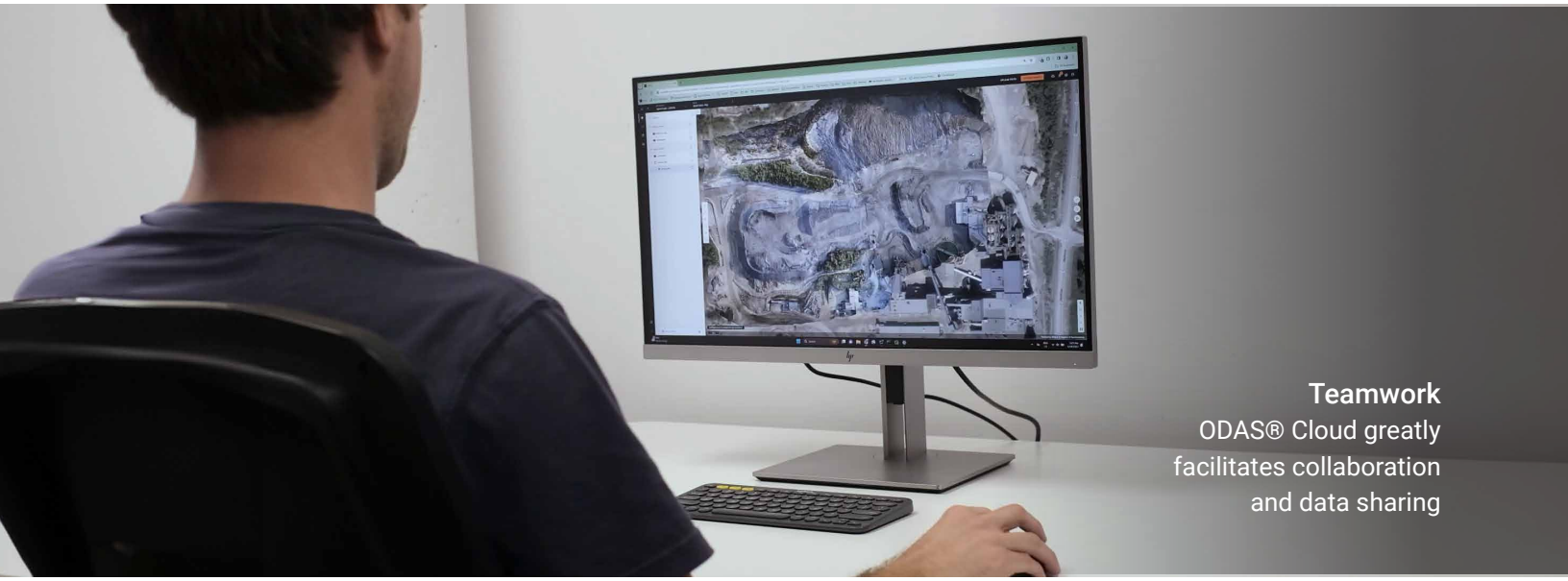
03

HIGH-PRECISION DATA

Create 2D and 3D Models of Your site

During a drone flyover of your site, the ground is captured from different angles, and each photo is associated with precise geographical coordinates. These data points are then processed by our rendering software to create a digital twin with centimeter-level precision of your site. Within a few hours, you will have access to the following elements on ODAS® Cloud:

- Digital twin
- Detailed inventory report
- Road width analysis
- Safety block inspections
- Volumetric and elevation measurements
- Orthophoto, DSM, mesh, and .LAS rendering options



Teamwork
ODAS® Cloud greatly facilitates collaboration and data sharing

Tailings Storage Safety

Thanks to our drones, enhance the safety and stability of the tailings storage process with rigorous topographic monitoring and change detection, reducing environmental risks.

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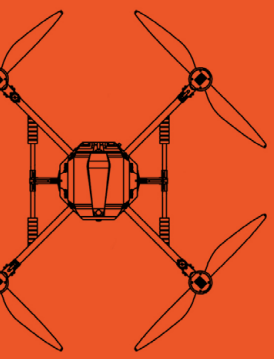
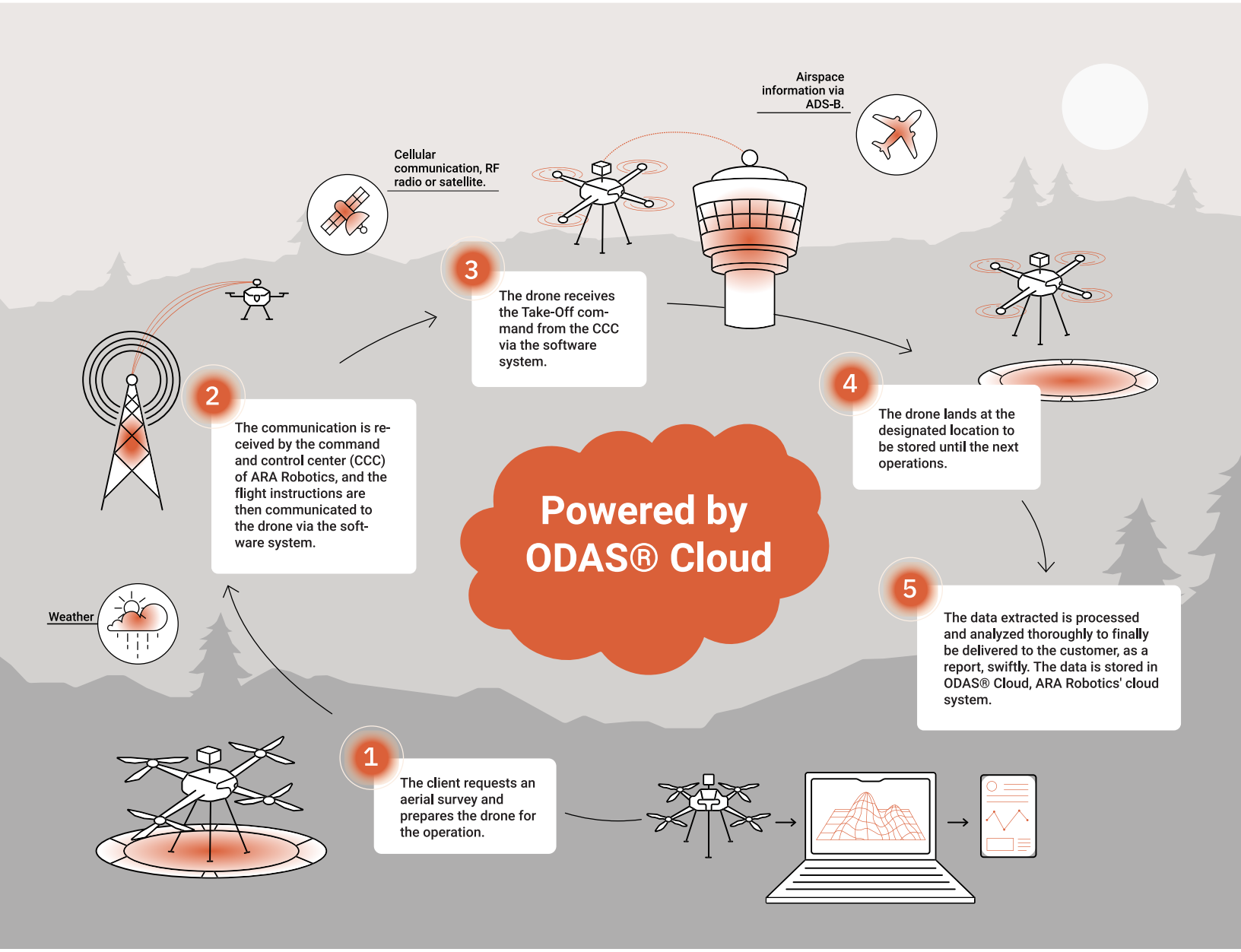


AUTOMATED WORKFLOW

The ABCs of the ODAS® Solution

The ODAS® solution offers an efficient aerial surveying process. First, the client submits a survey request and then prepares the drone for deployment. This requires minimal handling from the client: they simply place the drone on the launch pad and ensure the batteries are charged.

Once airborne, the drone flies over the site to collect precise aerial data. Then, advanced rendering software processes this data to create an accurate 3D model down to the centimeter. Within a few hours, the client receives a complete site analysis on the ODAS® Cloud platform.



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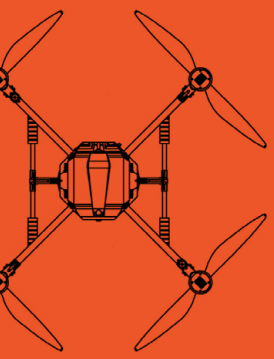


05

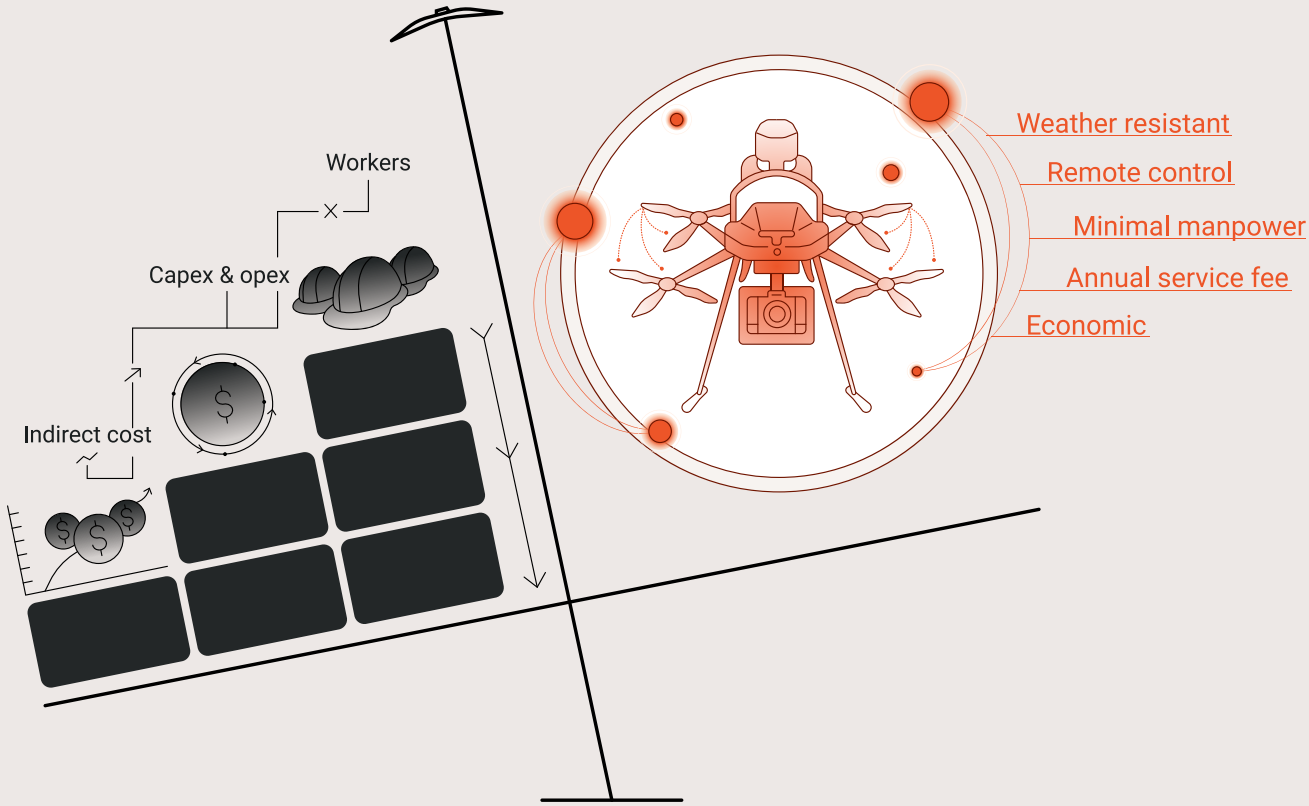
THE ODAS® ADVANTAGE

Simplified RPAS Operations

One of the major strengths of the ODAS® solution is its simplicity. There is no need to manage an internal drone program, since we handle all operations, freeing you from the complexity associated with drone management. Whether you need regular or occasional flights, our certified pilots remotely operate the drones from our Command and Control Center (CCC) in Montreal. We also provide training for your team on pre-flight checks, which requires minimal effort on your part.

Cost Reduction

The ODAS® solution can help reduce service interruptions and expenses, which optimizes your operations and improves your bottom line. Moreover, you will benefit from detailed analysis and in-depth reports of your sites, allowing you to strategically optimize resource allocation and decision making. This optimized management ensures streamlined utilization of your budget, value-added operations thereby increasing your return on investment.



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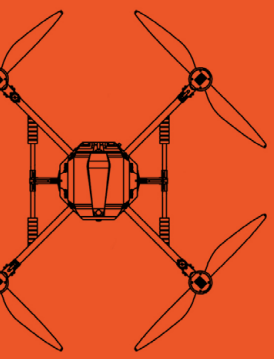

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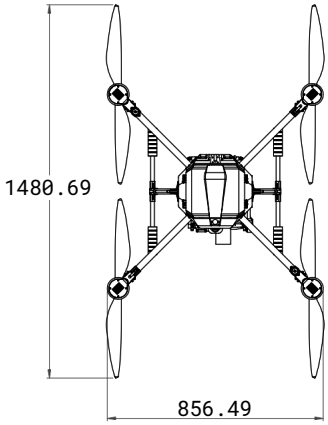
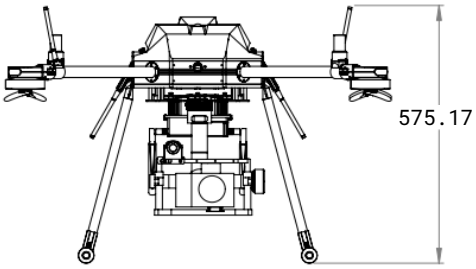
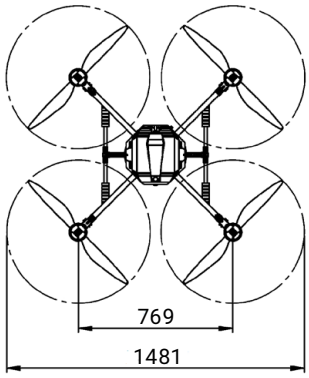
TECHNICAL SPECIFICATIONS

Unladen weight : 10 kg

Drone dimensions (mm) :







Flight Controller Technology (autopilot)	SKYMATE™ by ARA Robotics
Maximum flight time*	40 minutes
Transmission perimeter	4 km
GNSS system	Multiband, 1 m precision, 1 cm with RTK
Orientation measurement	Dual GNSS measurement (without magnetometer)
Generation of the volumetric report	Minimum 3 hours
Wind resistance	Up to 45 km/h wind gusts
Operating temperature	-30 °C to 45 °C
Maximum coverage per flight	160 ha (at 1.9 cm/px)
Batteries	22 000 mAh lithium-ion
Maximum horizontal speed (without wind)	15 m/s
Maximum vertical speed	6 m/s
Accuracy	Vertical: ±1.5 m (GPS enabled) \ ±0.1 m (RTK enabled) Horizontal: ±1.5 m (GPS enabled) \ ±0.1 m (RTK enabled)
Automatic flight features	Automated missions, take-off and landing
Ground station software compatibility	SkyControl™ by ARA Robotics

* With a payload of 3 kg under optimal conditions

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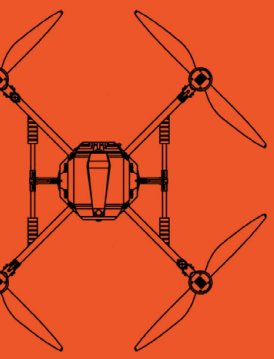

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ABOUT ARA ROBOTICS

ARA Robotics, founded in 2014, is a Canadian company based in Montreal, specializing in the technological development and manufacturing of commercial, civil, and military remotely piloted aircraft systems (RPAS). Its flight controller technology, SKYMATE™, is currently integrated into several manufacturers of remotely piloted aircraft systems in North America and supports the secure integration of their products into civil airspace.

In addition to the ODAS® solution, ARA Robotics offers the RECON RPAS solution, which combines tactical drones, advanced sensors, and high-resolution cameras for defense, infrastructure inspection, wildfire management, and mining. Designed for industrial and urban operations, RECON RPAS excels in reconnaissance missions and operates in GPS-denied environments, making it an invaluable tool for sensitive operations.

ARA Robotics' goal is to advance mission automation for each drone by developing environmental perception, analysis, and measurement tools, in collaboration with North American research laboratories and companies.

Contact Us

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