INDUSTRIAL SOLUTIONS INTRODUCTION

HCMC, 19th July 2025

OUR IMAGES

DJI ENTERPRISE DRONE ROADMAP

2006
Company Founded

2014
· M100, formally started exploring industrial usage

2016
· Released Phantom 4, M600 and M600 Pro

2017
M200 series released

2018
· Released Phantom 4 RTK,
· Released PAYLOAD SDK

2019
· Released Mavic 2 Enterprise series
· Released DJI Terra

2020
· Released M300 RTK and Zenmuse P1/L1/H20 series

2021
· Released M2E Advanced

2022
Released M30 series, H20N, DJI Dock and DJI FlightHub 2, M3E, M3T

2024
· Released M350 RTK, FC30

2025
Released M4E, M4T, FC 100

DJI ENTERPRISE CURRENT PRODUCT LINEUP

DJI Pilot 2 APP
Manual control, mission planning

FLIGHTHUB 2
Drone Operations Management Platform (web-based)

D-RTK 3

Mavic 3 Enterprise Series

M3E 

M3T 

M3M 

Matrice 4 Series

M4E 

M4T 

Matrice 350 RTK

P1 

L2 

H30 

H30T 

Dock 2

M3D 

M3TD 

Post-Processing

DJI Terra & Modify
2D/3D Modelling Software (PC)

DJI Thermal Analysis Tool
Thermal image analysis (PC)

DJI ENTERPRISE CURRENT PRODUCT LINEUP

DJI Pilot 2 APP
Manual control, mission planning

FLIGHTHUB 2

Drone Operations Management Platform (web-based)

Matrice 400 RTK

P1

L2

H30

H30T

Dock 3

Matrice 4D

Matrice 4TD

Post-Processing

DJI Terra & Modify
2D/3D Modelling Software (PC)

DJI Thermal Analysis Tool
Thermal image analysis (PC)

DJI ENTERPRISE – 3rd PARTY HADWARE INTEGRATION

Mavic 3 Enterprise Series

Audio Broadcast

Gimbal Searchlight

Matrice 30 Series

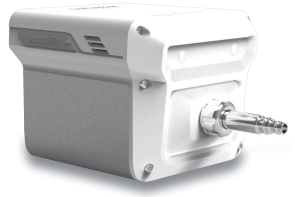
Spotlight & Speaker

Matrice 350 RTK Series

Oblique Camera

Audio Broadcast

Gimbal Spotlight



Gas Detector

TH4 Hook

Flashing Light

Water Sampling

DJI ENTERPRISE – DJI MODULAR & PAYLOAD

Mavic 3 Enterprise Series Modular

RTK Module

Speaker

Matrice 4 Series Modular

Spotlight

Speaker

Matrice 350 RTK Payload Camera

H30T

H30

P1

L2

DJI ENTERPRISE –SOFTWARE

DJI PILOT 2

- Flight Planning & Execution
- Flight Control & Monitoring
- Payload & Camera Control
- Data Management & Analysis

DJI FLIGHTHUB 2

- Drone Fleet Management
- Livestream
- Annotation & Sync Map
- Cloud Mapping
- Mission Management
- Media Management

DJI TERRA

- 2D Visible Light
- 3D Visible Light
- 2D Multispectral
- Lidar Point Cloud
- GCP Management

DJI MODIFY

- 3D Visible Light
- Floating Part Removal
- Flattening
- Texture Repair
- Hole Fill
- Water Surface repair
- Cloud Sharing

DJI THERMAL ANALYSIS TOOL 3

- Analyse Thermal Image
- Temperature Information
- Reporting format

DJI ENTERPRISE –PRODUCT SELECTION

QONIC

01

Mission Planning

DJI Pilot 2

DJI FlightHub 2

02

Data Acquisition

Mavic 4
Enterprise Series

M30 Series

M350 RTK
M400

Dock 3

03

Analysis/Report

DJI FlightHub 2

DJI Terra

DJI Modify

DJI Thermal
Analysis Tool 3

MAVIC 3 ENTERPRISE SERIES

RTK Module

Speaker

Small Commercial Drone

- Max Flight Speed: 15 m/s
- Max Take-Off Altitude Above Sea Level: 6000 m
- Max Pitch Angle: 30° (Normal Mode), 35° (Sport Mode)
- Operating Temperature Range: −10°C — 40°C

Specification	Mavic 3E	Mavic 3T	Mavic 3M
Gimbal View			
RGB Camera	4/3 CMOS, 20 MP	4/3 CMOS, 20 MP	4/3 CMOS, 20 MP
Zoom	56x Hybrid Zoom	56x Hybrid Zoom	-
Thermal Camera	-	DFOV: 61°, Equivalent Focal Length 40mm, Resolution 640 × 512	-
Multispectral Camera	-	-	Four 5MP multispectral cameras (Green, Red, Red edge & Near-Infrared)
Industry	AEC & Survey	Energy & Utilities, Oil & Gas	Agriculture
Main Function	Surveying & Inspection	Thermal Imaging & Inspection	Multispectral Imaging & Surveying

MATRICE 30 SERIES

Commercial Drone

- Max Flight Speed: 23 m/s
- Wind Resistance: 12 m/s
- Max Flight Time: 41-min
- IP55 Protection Rating
- Dual-vision and ToF sensors

Specification	Matrice 30	Matrice 30T
Gimbal View		
Wide-Angle Camera	½” CMOS Sensor, 12 MP	½” CMOS Sensor, 12 MP
Zoom Camera	½” CMOS Sensor, 48 MP	½” CMOS Sensor, 48 MP
Thermal Imaging Camera	-	Equivalent Focal Length: 40 mm, Resolution: 640 x 512, Frame Rate: 30 fps
Laser Rangefinder	Range: 3m – 1200 m	Range: 3m – 1200 m
Industry	Public Safety, Oil & Gas	Public Safety, Oil & Gas
Main Function	Inspection & Surveillance	Thermal Imaging & Inspection & Surveillance

MATRICE 350 RTK & PAYLOAD

Flagship Drone Platform

- 55 Minute Flight time
- IP55 Protection Rating
- Night-Vision FPV Camera
- Multiple Payload Configuration
- Using DJI Pilot 2 software to fly

Payload	H30	H30T	P1	L2
Payload View				
Specifications	• Wide-angle camera • Zoom camera • Laser range finder • NIR auxiliary light	• Wide-angle camera • Zoom camera • Laser range finder • NIR auxiliary light • Infrared thermal camera	• Full-frame camera • Multiple fixed-focus lens options	• Frame LiDAR • High-accuracy IMU system • 4/3 CMOS RGB Mapping Camera
Industry	Public Safety, Oil & Gas, AEC& Survey	Public Safety, Oil & Gas, AEC & Survey	Energy & Utilities, Agriculture, AEC & Survey	Energy & Utilities, Agriculture, AEC & Survey
Main Function	Inspection & Surveillance	Thermal Imaging & Inspection & Surveillance	Surveying & Mapping & Inspection	Surveying & Mapping & Inspection

MATRICE 4D SPECIFICATION

DJI MATRICE 4D

Tele Camera

1/1.5 CMOS, 48 MP Effective Pixels

f/2.8, Format Equivalent: 168 mm

Vs M3D, pixels quantity increase by 4 times,

zoom capability increase by 2 times

Mid-Tele Camera

1/1.3 CMOS, 48 MP Effective Pixels

f/2.8, Format Equivalent: 70 mm

Laser Range Finder

Measurement Range: 1800 m (1 Hz) | ~5905 ft.

Range Accuracy: 0.2 + 0.005 × D (m)

Wide-Angle Camera

4/3 CMOS, 20 MP

f/2.8-f/11, Format Equivalent: 24 mm

0.5-Second Interval Shooting

Mechanical Shutter

In-camera distortion correction

MATRICE 4TD SPECIFICATION

DJI MATRICE 4TD

Thermal Camera

640 × 512, f/1.0, 53 mm equivalent focal length
Infrared super-resolution, image resolutions up to 1280 × 1024

Mid-Tele Camera

1/1.3 CMOS, 48 MP Effective Pixels
f/2.8, Format Equivalent: 70 mm

Tele Camera

1/1.5 CMOS, 48 MP Effective Pixels
f/2.8, Format Equivalent: 168 mm
Vs M3D, pixels quantity increase by 4 times, zoom capability increase by 2 times

Wide-Angle Camera

1/1.3 CMOS, 48 MP Effective Pixels
f/1.7, Format Equivalent: 24 mm

Laser Range Finder

Measurement Range: 1800 m (1 Hz) | ~5905 ft.
Range Accuracy: 0.2 + 0.005 × D (m)

NIR Auxiliary Light

FOV: 6°, Illumination Distance: 100 m

MATRICE 400

Matrice 400 Highlights

Endurance, High-Speed

- 59 mins of flight time with a payload
- Maximum flight speed of 25 m/s
- Maximum route speed of 25 m/s

Payload Flexibility

- 6 kg payload capacity
- 4 × E-Port V2 interfaces
- 7 payloads at the same time

Safe & Reliable

- Power-line-level obstacle sensing
- Video transmission range
  FCC: 40 km | CE/SRRC/MIC: 20 km
- Airborne relay video transmission
- Full-color vision for safer flights
- IP55 protection rating

Smart & Efficient

- Smart detection
- AR projection line, map, route
- Real-time terrain follow
- Intelligent flight modes
  Cruise, FlyTo, Smart Track, POI
- Ship-based takeoff/landing

Automated Operations

- Power line follow
- Slope & geometric route

Accessory Upgrades

- Brand new smart battery station
- Manifold 3 onboard computer with
  100 TOPS of processing power

DOCK 3

Autonomous Drone Docking Station

- Lightweight & Easy to Deploy
- IP55 Ingress Protection Rating
- Max Operating Altitude: 4000 m
- 10 km Maximum Effective Operating Radius
- Backup Battery Life: 5 hours

DOCK EVOLUTION

Start Of Automation

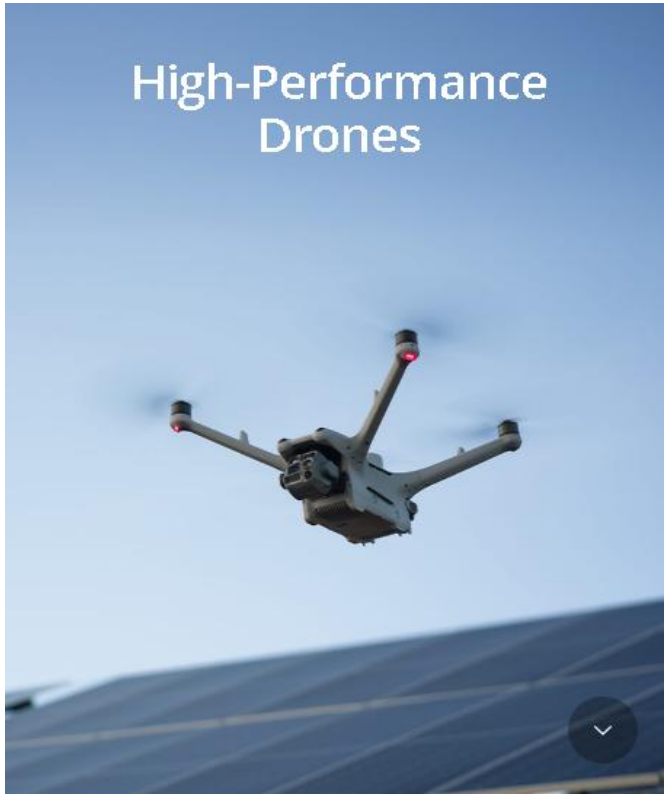
Small And Tough

Meet The Intelligent

HIGHLIGHTS


Flexible Deployment,
Ultra-Long Transmission


Efficient Operation with
Intelligent Features

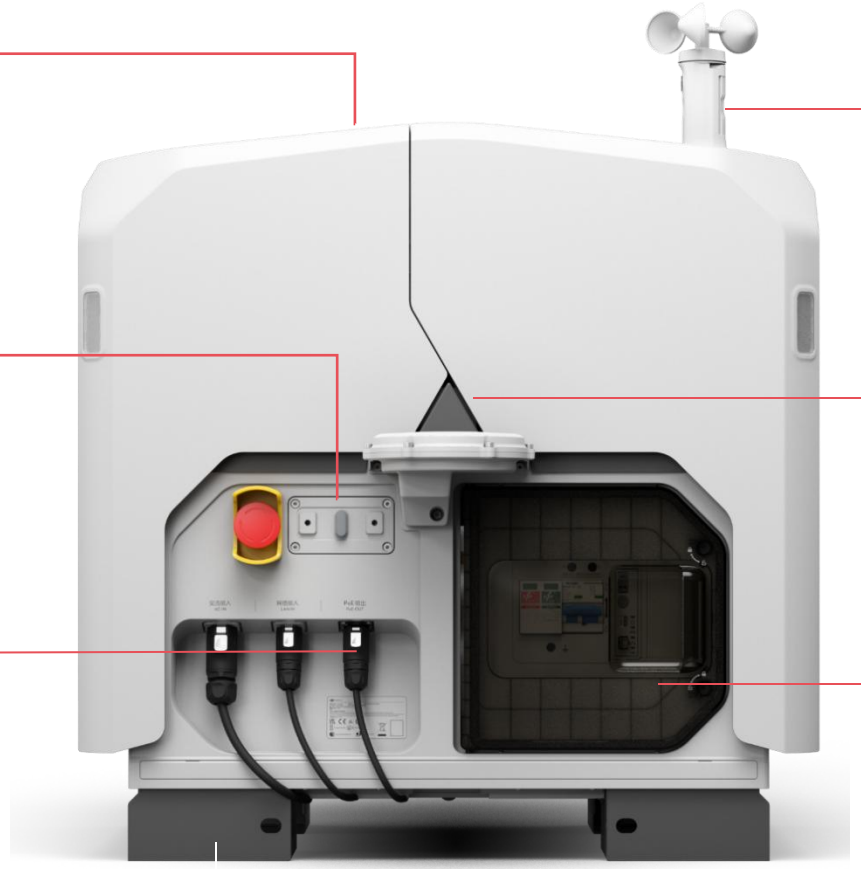

High-Performance
Drones


Master All Environment
ICE RESISTANCE


Enhanced Experience
With Advanced Software


Accessories

DJI DOCK 3 ANATOMY - EXTERIOR



8° tilt to the cover

Type-C port

New POE port

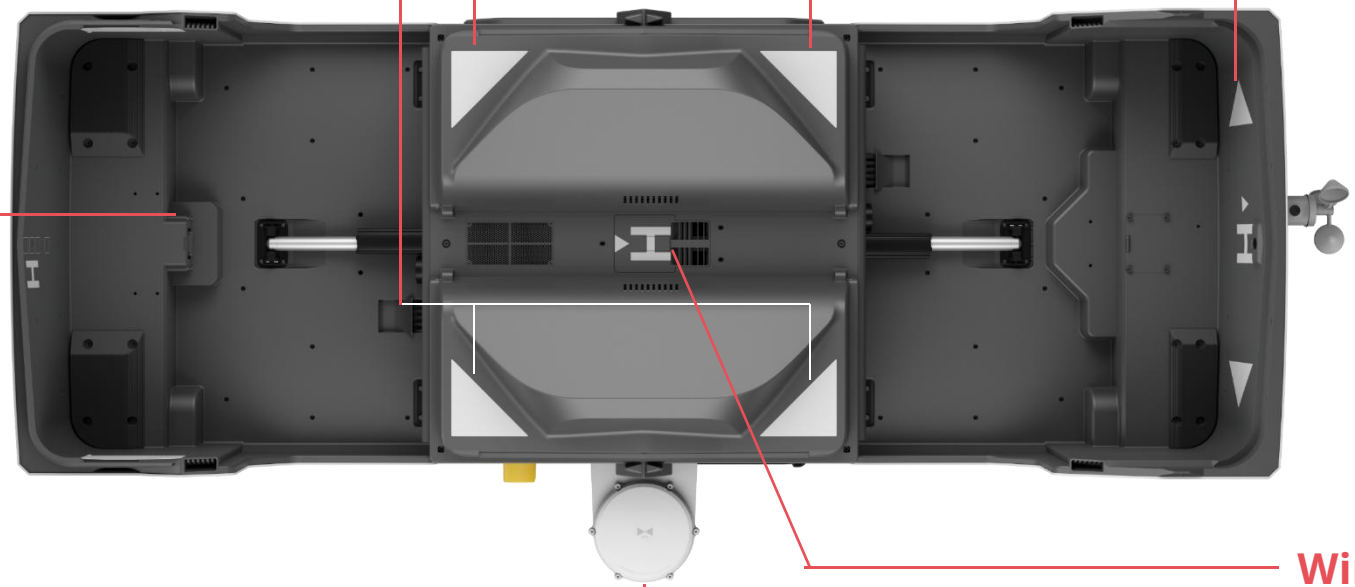
New Base

Weather Station

New Sealing system

Semi-Transparent board

DJI DOCK 3 ANATOMY - INTERIOR



MASTER ALL ENVIRONMENTS

DOCK 3	M4D SERIES	WIND RESISTANCE	TEMPERATURE RANGE
IP56	IP55	12m/s during take-off/landing	-30°~50°C

DJI Dock 3 has an IP56 rating

Work even in harsh environments

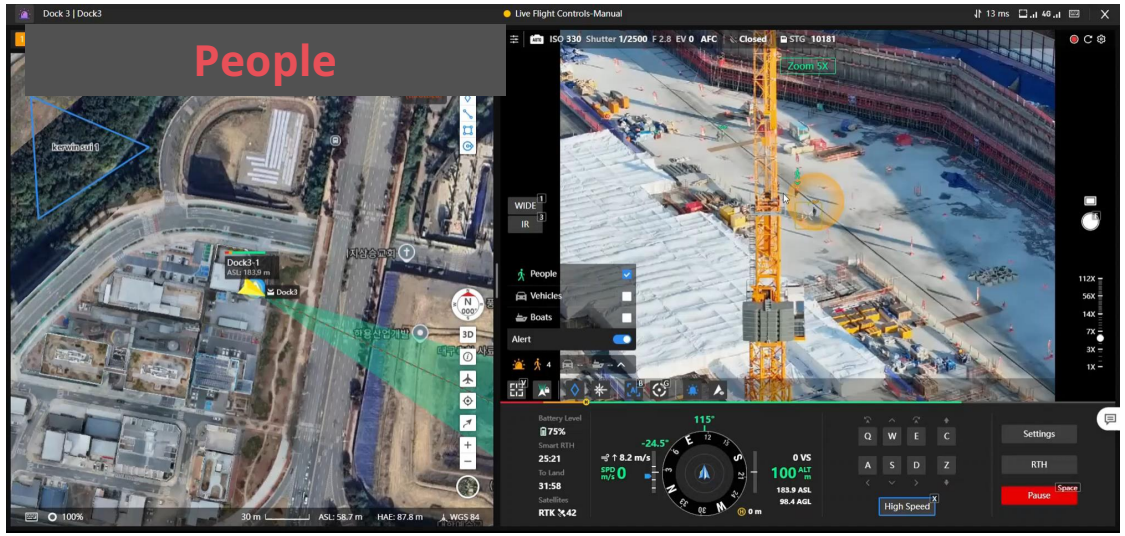
12m/s wind resistance

Anti-icing propellers

More powerful air conditioning

Dock cover can open with 10mm icing

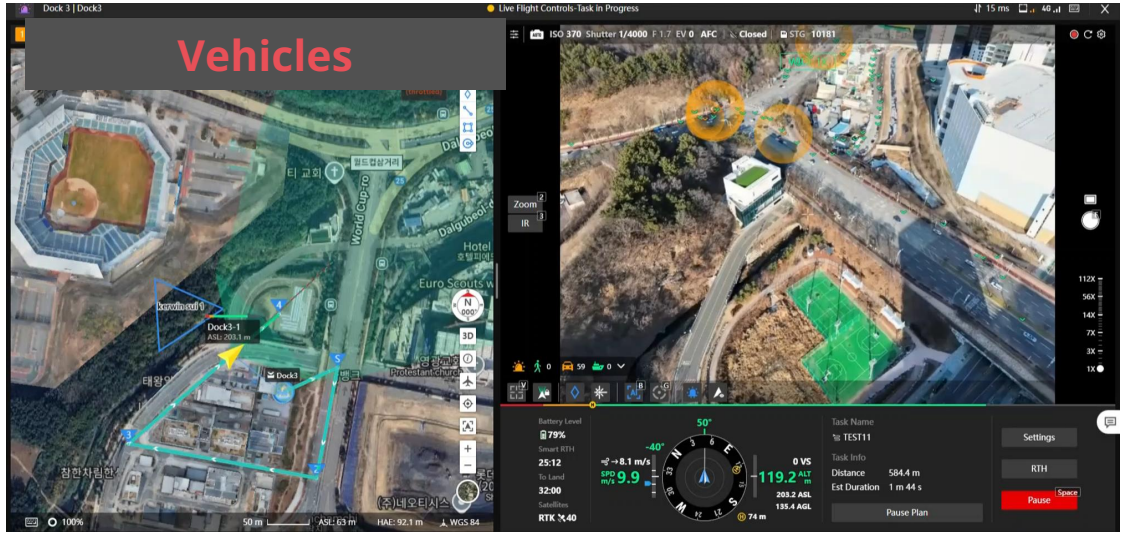
REAL-TIME DETECTION

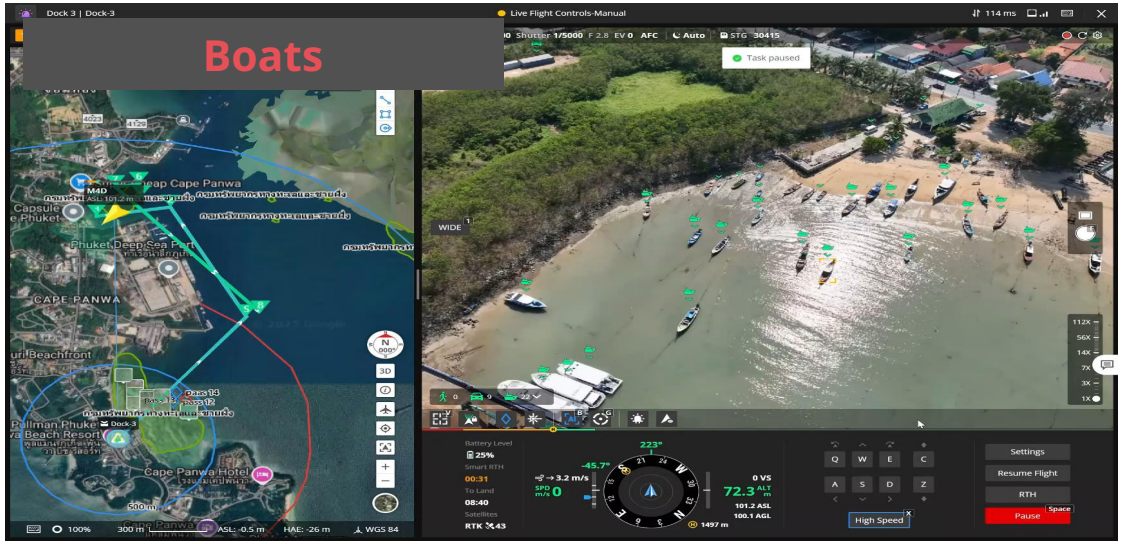


Detect:

- People
- Vehicles
- Boats

Send a warning message on FlightHub 2 when an object is detected

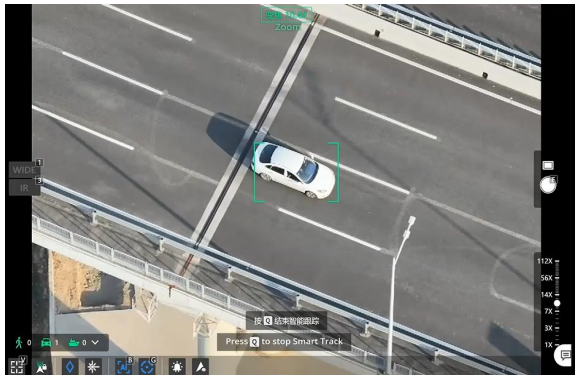




ADVANCE SOFTWARE

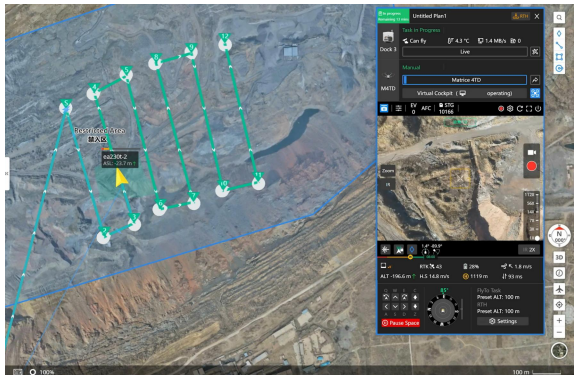
Smart Track

- Operators can use the Matrice 4D Series' auto-zoom to track vehicles or vessels for quick follow-up



Automated Routes

- During the automated mission, the drone captures images or videos of vehicles, vessels, and temperature anomalies and alerts the operators

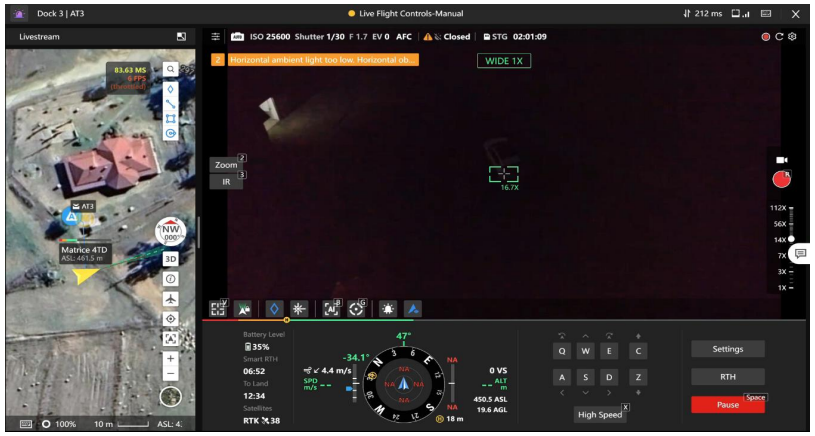


Intelligent Change Detection

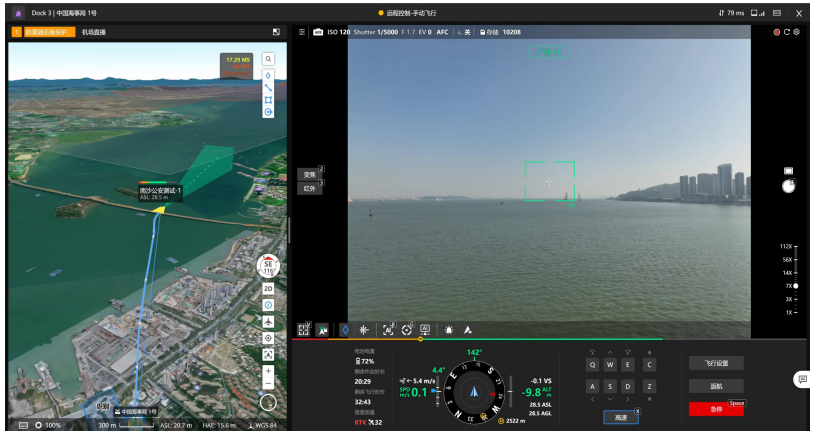
- The intelligent change detection feature assists operators in analyzing area changes over time, supporting environmental protection, disaster relief, and crack detection for improved decision-making.

HIGH PERFORMANCE DRONES

Greater Camera Performance



Enhance The Visibility During Night

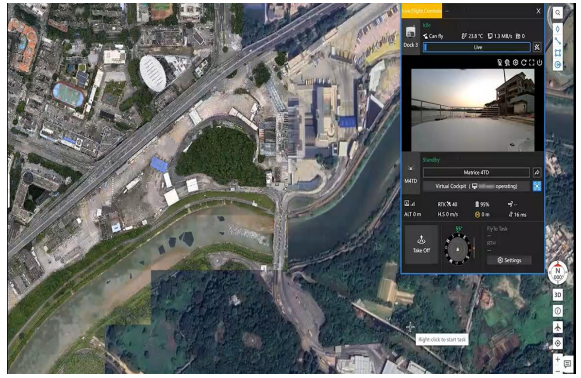


New Angle Capability

EFFICIENT OPERATION

Open and Fly

- Take off quickly and arrive at the emergency site

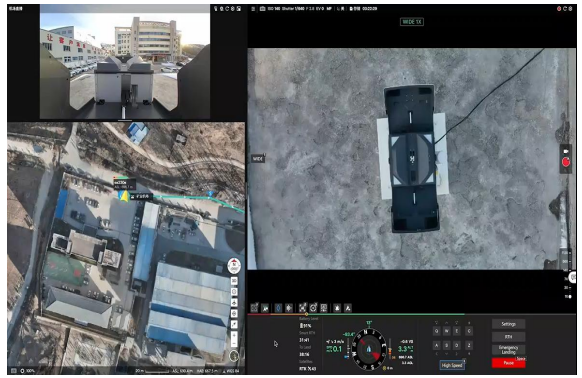


Low–Latency Live View

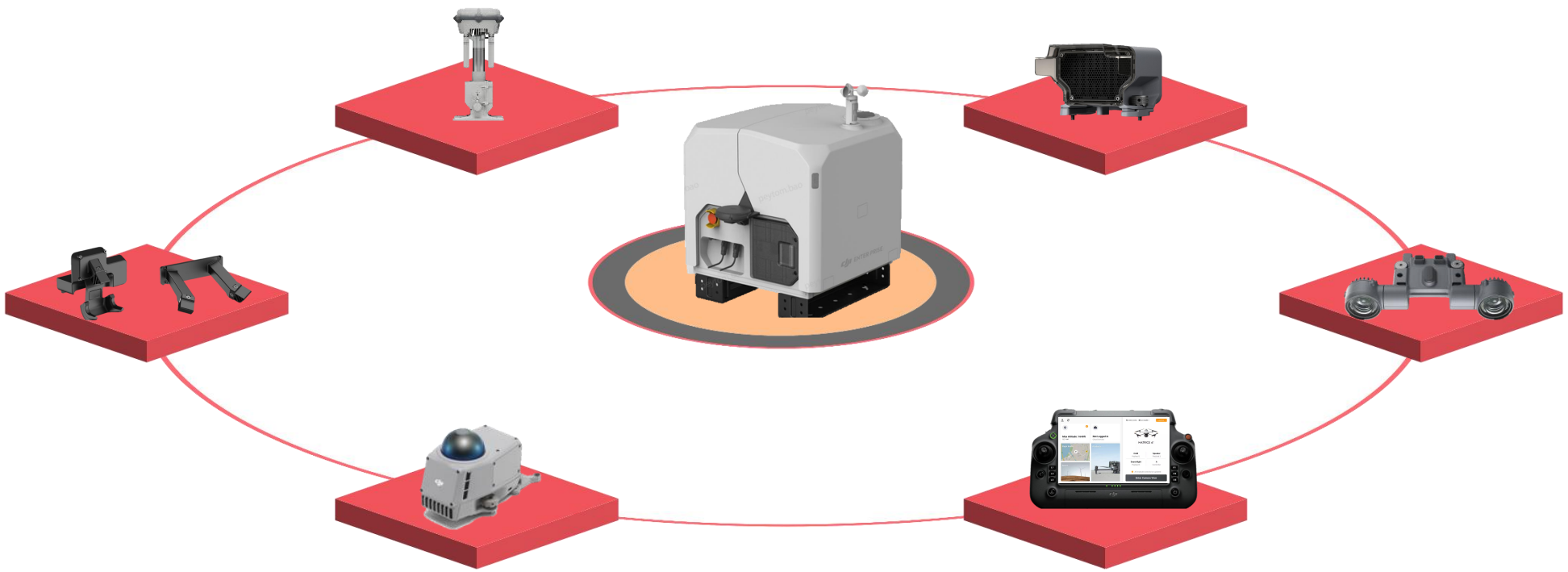
- Video feed is displayed in real-time with minimal delay

Transmit While Flying

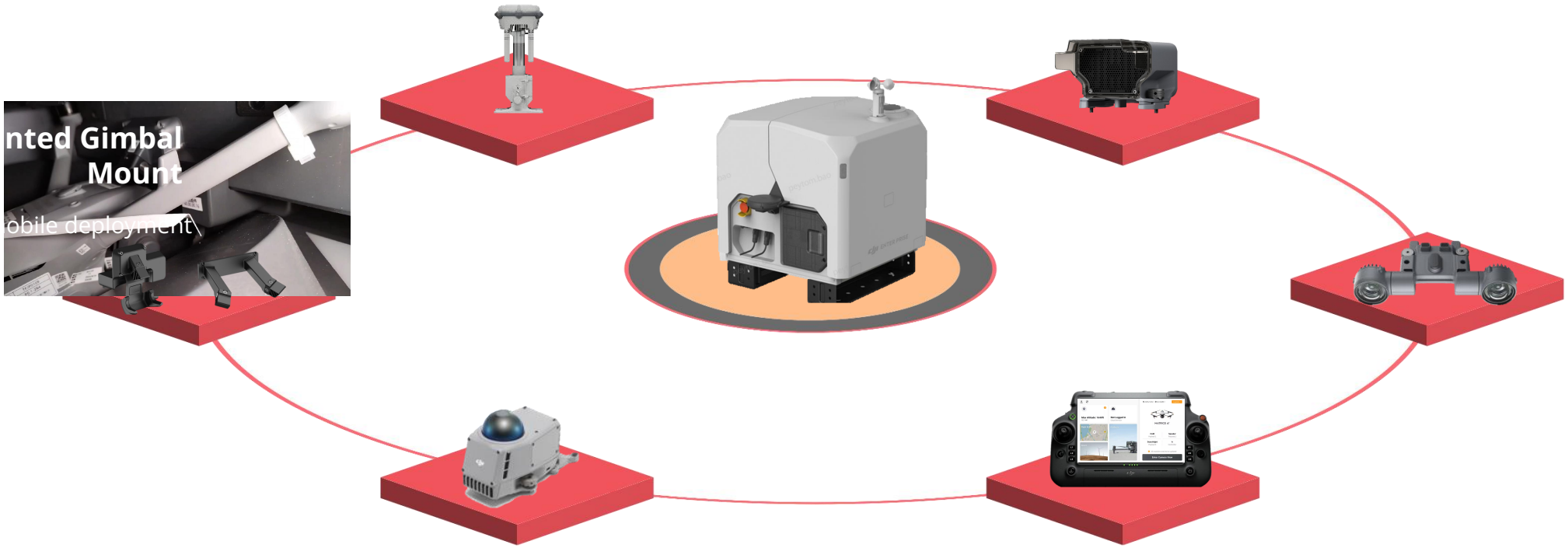
- Data transfers instantly upon landing, and a rough model is quickly generated in the cloud, boosting efficiency



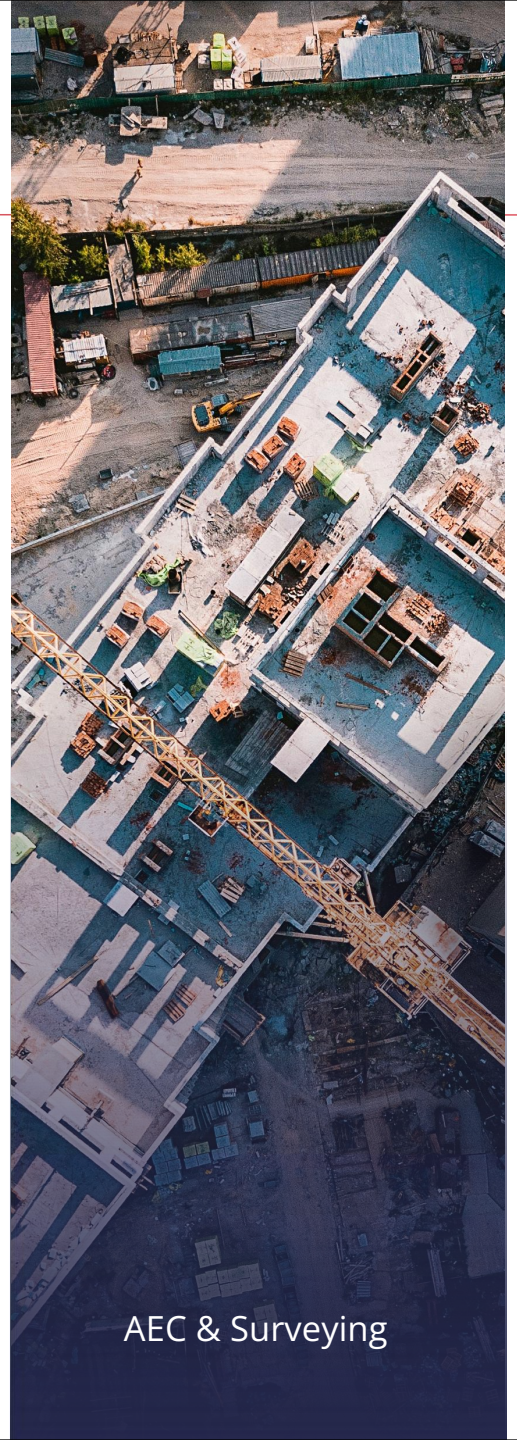
ACCESSORIES

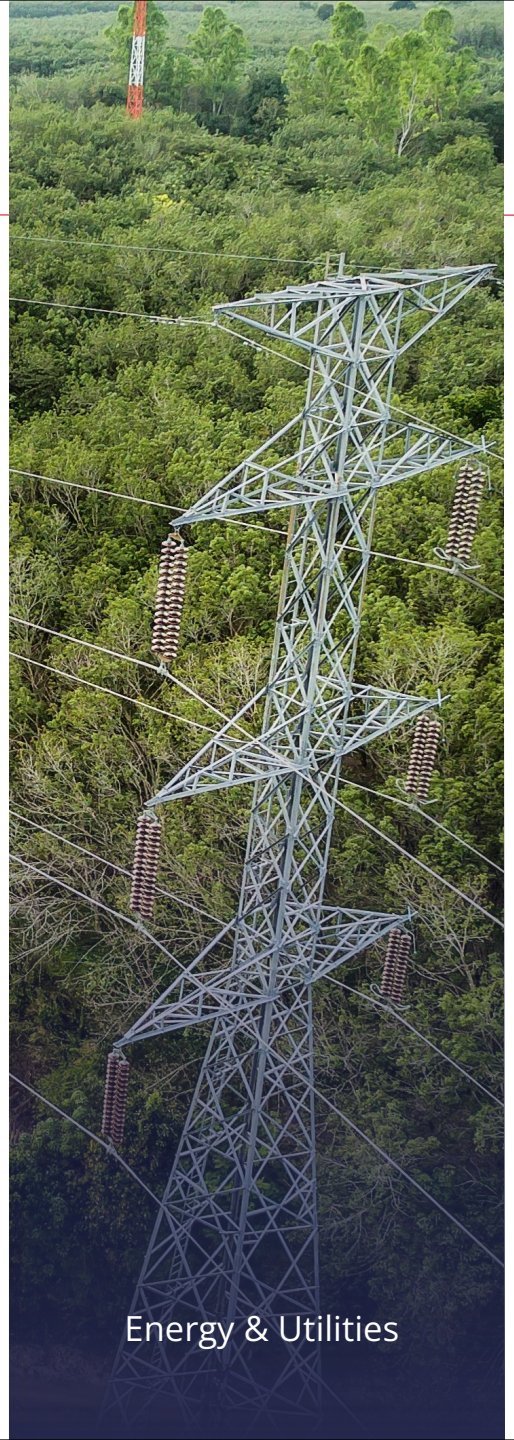


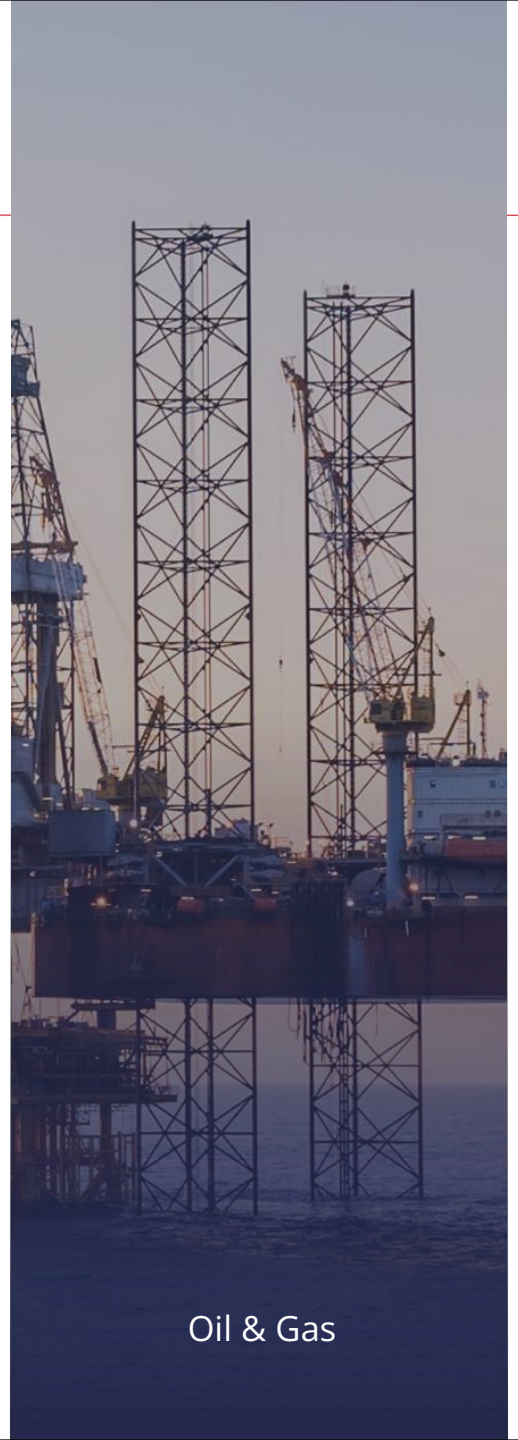
ACCESSORIES

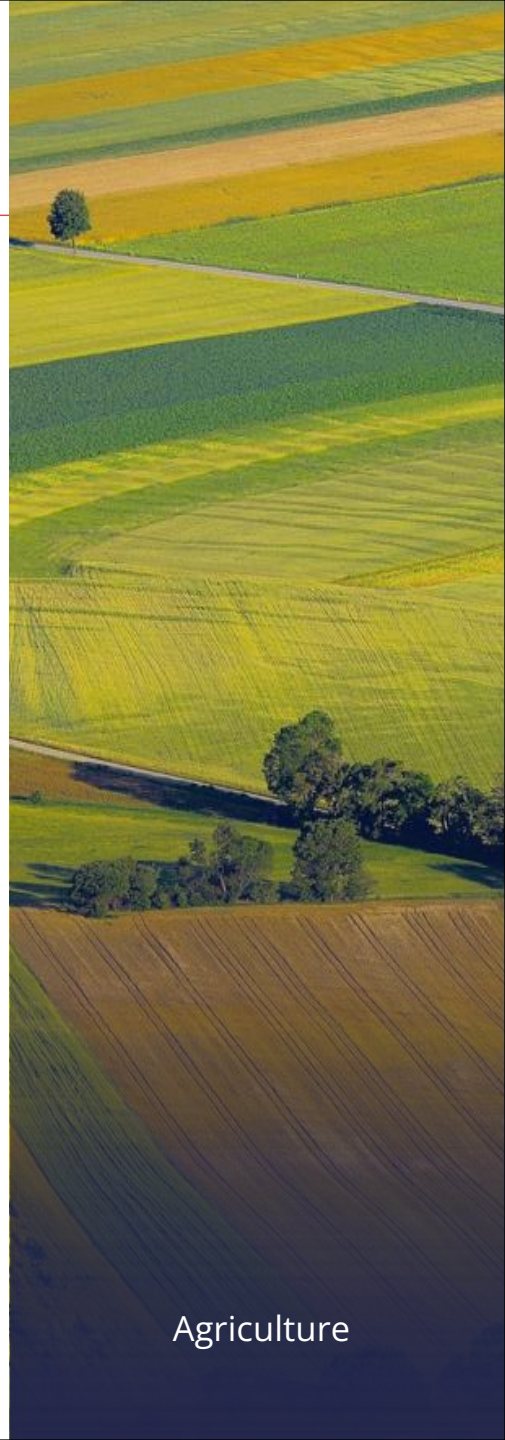



Public Safety


AEC & Surveying


Energy & Utilities


Oil & Gas


Agriculture

PUBLIC SAFETY INDUSTRY

Applications of Drone in Public Safety Industry

- **Search and Rescue (SAR)**
- **Disaster Response and Management**
- **Law Enforcement**
  - Mission Situational Awareness
  - First Response
- **Firefighting**
  - Urban Fires
  - Wildfires

Relevant Models

Matrice 30T

Matrice 350RTK + Zenmuse H30T

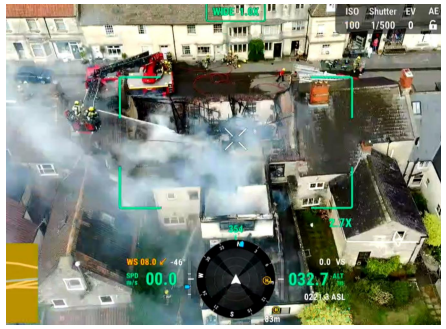
MATRICE 30T IN FIREFIGHTING

DJI Pilot 2

Manual Flight

Matrice 30T

DJI FlightHub 2



Fire Monitoring

DJI FlightHub 2

Thermal Inspection

1. Mission Planning

- During fire accident, Matrice 30T can be deployed and controlled by **manual flight.**

2. Data Acquisition

- **Displaying of livestreaming of** FlightHub 2 on firefighting operation allows **fast decision in short time**.

3. Analysis/Report

- Thermal camera on Matrice 30T can detect the **hottest areas** in a burning structure to identify the **source of the fire**.

MATRICE 350 RTK WITH H30T IN LAW ENFORCEMENT

DJI Pilot 2

Manual Flight

M350 RTK

H30T

DJI FlightHub 2

Surveillance Process

DJI FlightHub 2

Crime Scene Documentation

1. Mission Planning

- During **emergency response**, M350 RTK is deployed and controlled using **DJI Pilot 2**.

2. Data Acquisition

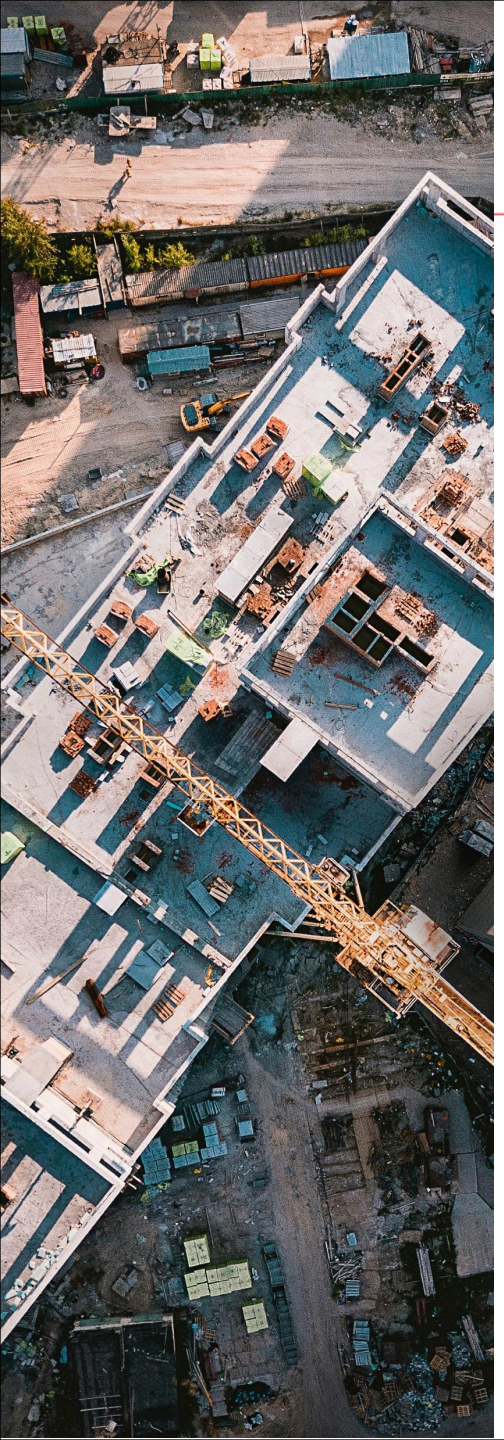
- By using **Smart Track** with **livestream** and **annotation**, **rapid communication** between police officers is granted.

3. Analysis/Report

- **High-resolution images & videos** act as valuable information for **crime scene investigations** and **courtroom purposes**.

MATRICE 350 RTK WITH H30T IN SAR IN VIETNAM

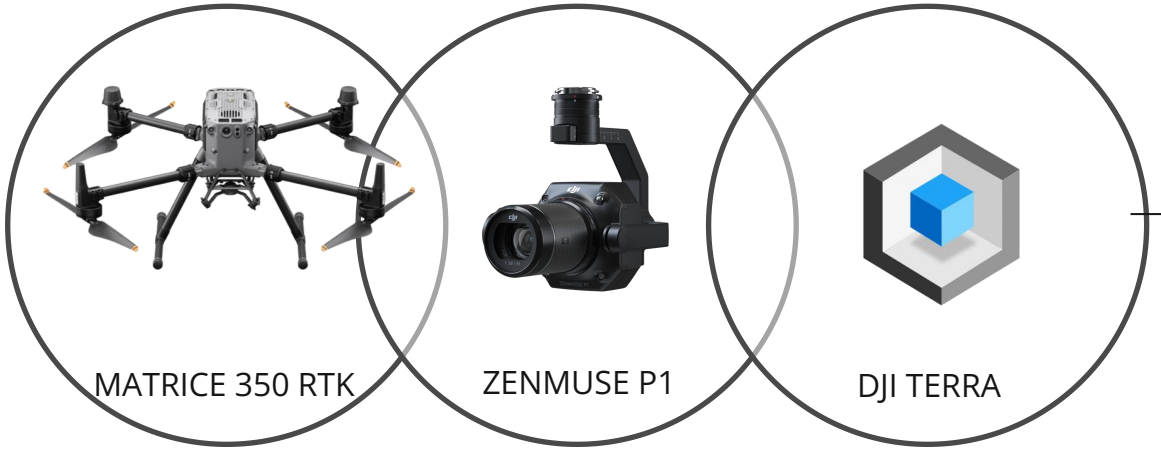
MATRICE 30T RESCUE ASSISTANCE IN VIETNAM



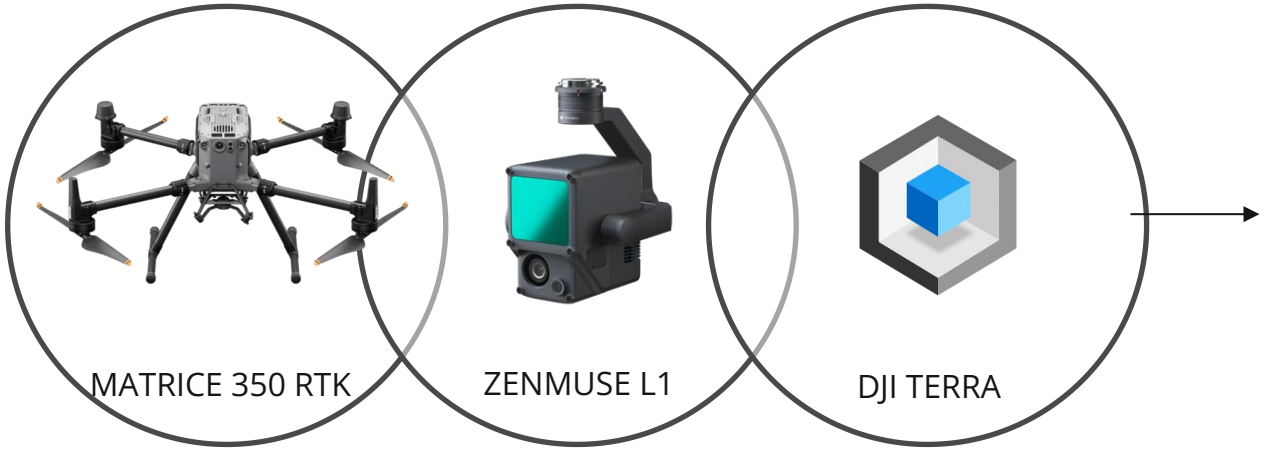
AEC & SURVEYING INDUSTRY

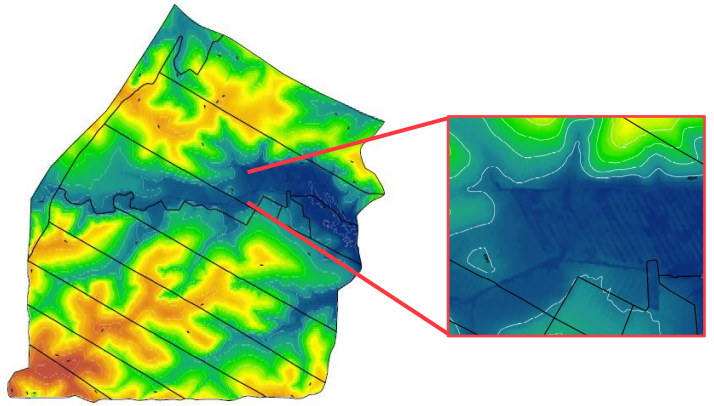
The ability to capture data from above, drones have been successfully integrated into surveying workflows to perform land surveys, photogrammetry, 3D mapping, Topographic surveying and more.

AEC & SURVEYING RECOMMENDED DRONES



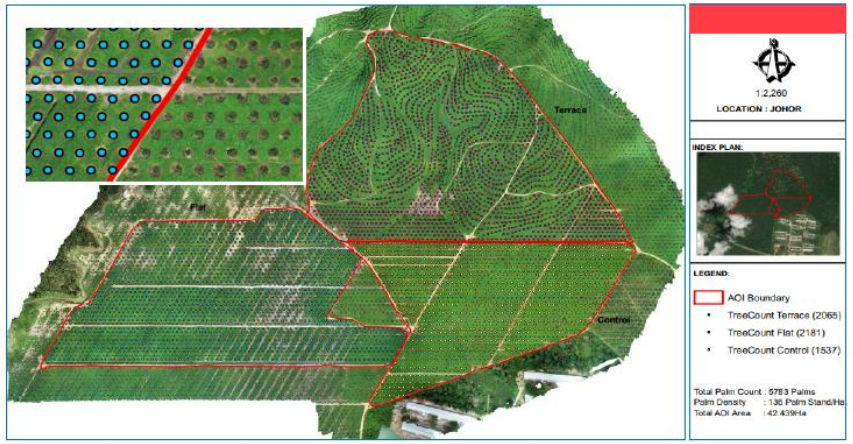
ORTHOMOSAIC MAP



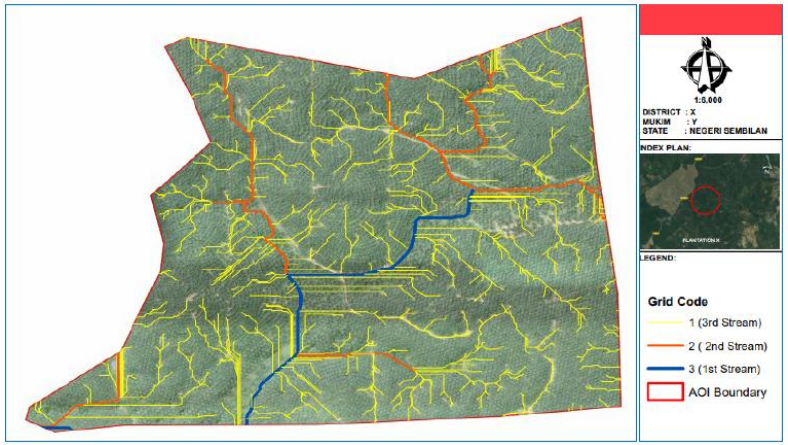


DIGITAL TERRAIN MODEL MAP

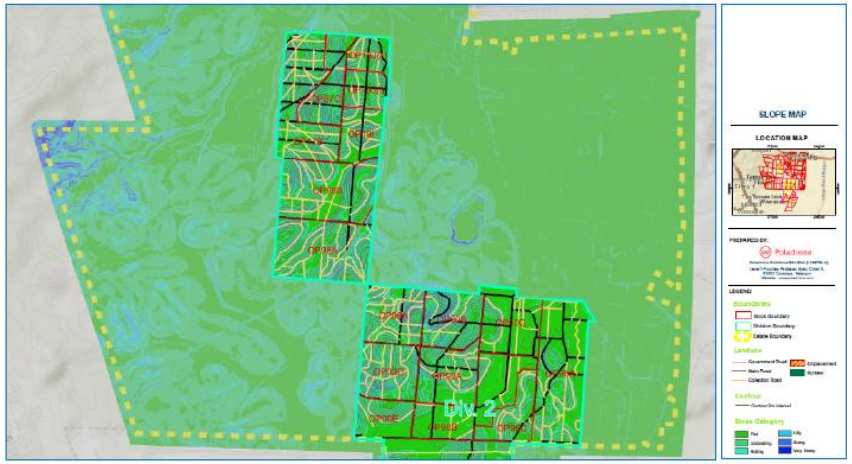
AEC & SURVEYING SAMPLE REPORT



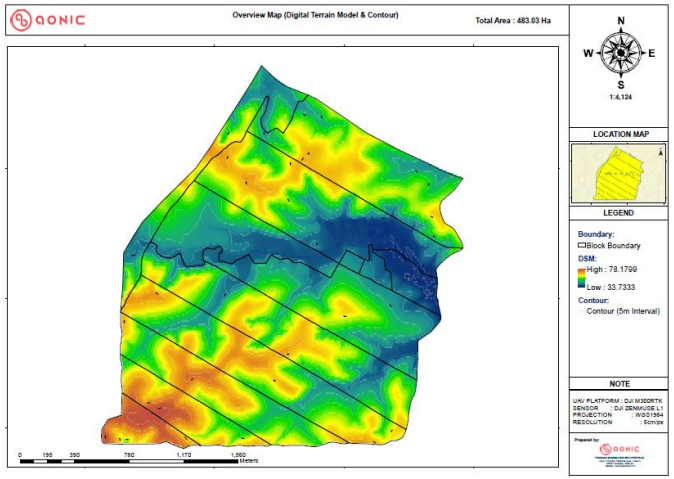
TREE CENSUS MAP



STREAM NETWORK MAP



VECTOR MAP



DIGITAL TERRAIN MODEL MAP

PUBLIC SAFETY BENEFITS

IMPROVED SURVEILLANCE

Monitor **large crowds** during public events, protests, or gatherings, providing **real-time aerial views**

ENHANCED OPERATIONS

Monitor wildfires, **providing real-time data** on the spread and intensity of the fire, helping firefighters **strategize their response**

DISASTER RECOVERY

Drones can **survey large areas** quickly to assess the extent of damage to infrastructure, helping **prioritize recovery efforts**

AEC & SURVEYING BENEFITS

IMPROVED EFFICIENCY

Increased efficiency of geographic information collection & streamline data processing

REDUCED COST

Save on equipment & labor costs by automating data collection and analysis with drone & software solutions

ENHANCED SAFETY

Using drones to automate manual tasks that typically require working at height or in dangerous environments

POWERFUL INSIGHTS

Accurate aerial data to create industry-standard deliverables such as DSM, DOM, and 3D models with drone and software solutions

ENERGY & UTILITIES INDUSTRY

Applications of Drone in Energy & Utilities Industry

- **Infrastructure Inspection**
- **Surveying and Mapping**
  - Site Assessment
  - Environmental Monitoring
- **Vegetation Management**
- **Emergency Response**
  - Intrusion Detection

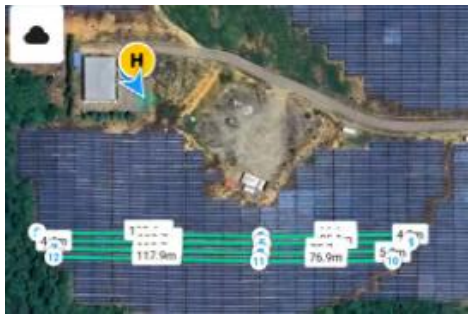
Relevant Models

Dock 2 + Matrice 3TD

Matrice 350RTK + Zenmuse H30

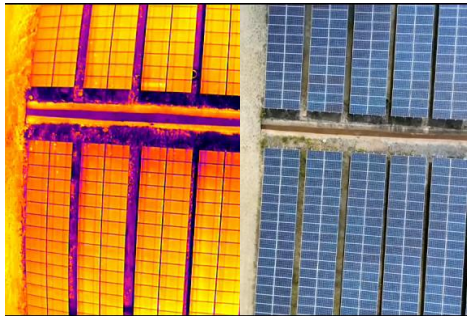
DOCK 2 WITH MATRICE 3TD IN SOLAR FARM THERMAL MAPPING

DJI FlightHub 2



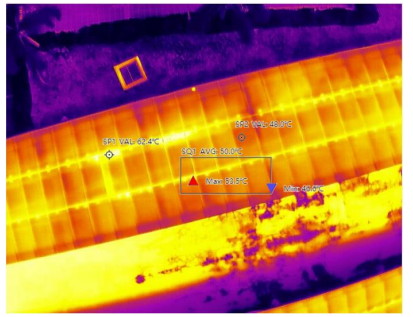
Waypoint Route

Dock 2 + M3TD



Mapping Data Acquisition

DJI Thermal Analysis Tool 3



Thermal Image Analysis

1. Mission Planning

- By using DJI FlightHub 2, the mission can be **planned and designed** for **thermal mapping of solar farm**.

2. Data Acquisition

- M3TD executes the mission planned **automatically** for data acquisition process.

3. Analysis/Report

- By using DJI Thermal Analysis Tool 3, the **defect** of solar panel can be detected from the **abnormality of temperature**.

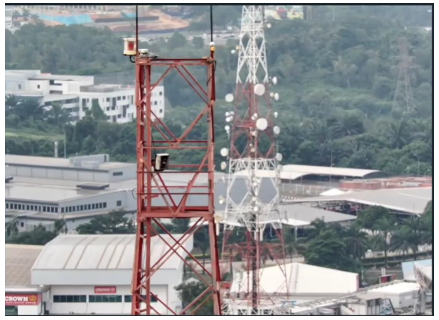
MATRICE 350 RTK WITH H30 IN TELCO TOWER INSPECTION

DJI Pilot 2

Manual Flight

M350 RTK

H30



Telco Tower Inspection

DJI FlightHub 2

Power Control Box Image

1. Mission Planning

- By using DJI Pilot 2, the mission for manual flight can be **planned and designed.**

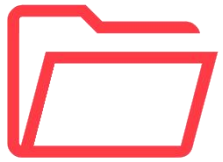
2. Data Acquisition

- H30 allows the inspection of telco tower from **safe distances** with **multiple angles**.

3. Analysis/Report

- The cover of the power control box is **missing** which can **lead to incidents**. The structure of the box is also **rusted**.

ENERGY & UTILITIES BENEFITS OF USING DRONES

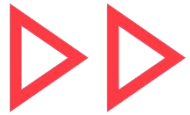


BETTER DATA

Teams will benefit from a **higher level of detail** compared to typical ground or helicopter patrols, and thermal imagery can quickly **identify hot spots**.

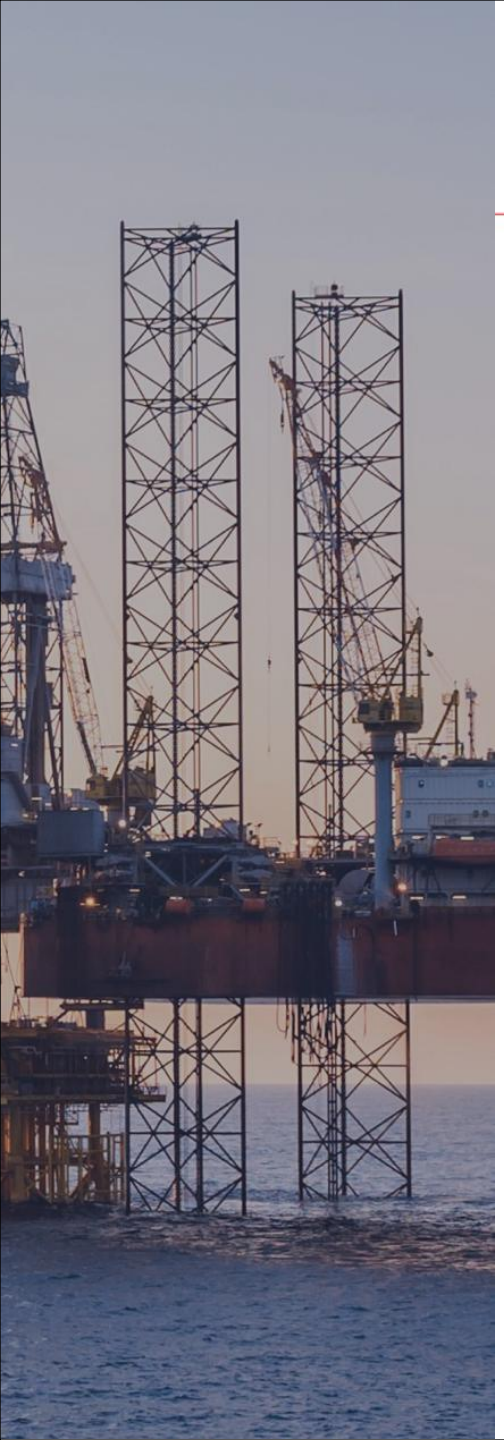
REDUCED RISK

Crews can get a **close-up view** of a **potential defect** without climbing, using a bucket truck or high-cost helicopter.



FAST RESPONSE

Drones can collect information that can **safely speed up** any help you send the right equipment and personnel to the right location in order to **restore power as efficiently** as possible.



OIL & GAS INDUSTRY

Applications of Drone in Oil & Gas Industry

- **Inspection & Maintenance**
  - Pipeline Inspection
  - Tank & Flare Stack Inspection
- **Surveying and Mapping**
- **Emergency Response**
  - Disaster Assessment
- **Security and Surveillance**
  - Perimeter Security

Relevant Models


Matrice 350RTK + Zenmuse L2


Matrice 350RTK + Zenmuse H30T

MATRICE 350 RTK WITH L2 IN OIL & GAS PLANT MAPPING

DJI Pilot 2

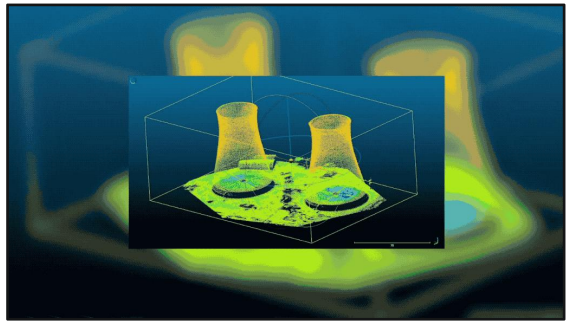
Area Route

M350 RTK

L2

Mapping Data Acquisition

DJI Terra



Plant 3D Model

1. Mission Planning

- By using DJI Pilot 2, the mission can be **planned and designed** for **mapping of plant**.

2. Data Acquisition

- L2 allows data acquisition on the **hardly accessible areas** from safe distance and has higher **area coverage**.

3. Analysis/Report

- 3D model is generated using DJI Terra and can be applied in **inspection or documentation purposes**.

MATRICE 350 RTK WITH H30T IN OIL & GAS INSPECTION

DJI Pilot 2

Manual Flight

M350 RTK

H30T

Tank Thermal Inspection

DJI FlightHub 2

Tank Thermal Image

1. Mission Planning

- By using DJI Pilot 2, the mission for manual flight can be **planned and designed for regular inspection.**

2. Data Acquisition

- As H30T has **large area coverage**, inspection is conducted despite having **active plants**.

3. Analysis/Report

- **Structural integrity** of the tank can be evaluated to detect **signs of leaks, overheating, or insulation failure.**

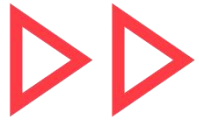
BENEFIT OF DRONES IN OIL & GAS

SAFETY IMPROVEMENT

Drones access **hazardous and remote locations**, **reducing risky tasks** for human workers and enhancing personnel safety.

COST EFFICIENCY

Drones conduct inspections and monitoring **more efficiently and at a lower cost** than traditional methods. This leads to significant savings in operational expenses.



TIME SAVINGS

Drones provide **real-time data collection and analysis**, enabling faster and informed decision-making, thereby improving **operational efficiency**.

ASSET INSPECTION

Drones equipped with specialized cameras and sensors **inspect infrastructure, identifying corrosion, leaks, and damage** early on, minimizing downtime and expensive repairs.

AGRICULTURE INDUSTRY

Applications of Drone in Agriculture Industry

- **Crop Monitoring and Health Assessment**
  - Precision Agriculture
  - Plant Disease Detection
- **Field Mapping and Surveying**
  - Soil & Field Analysis
- **Livestock Monitoring**
- **Environmental Inspection**

Relevant Models

Mavic 3M

Dock 2 + Matrice 3TD

MAVIC 3M IN MULTISPECTRAL MAPPING OF CROP

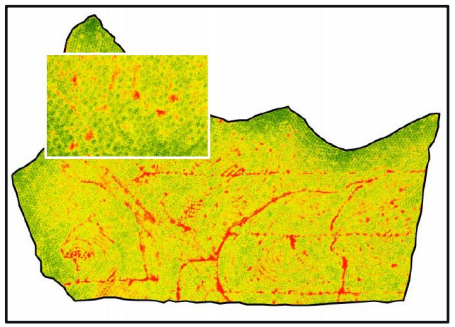
DJI Pilot 2

Area Route

M3M

Mapping Data Acquisition

DJI Terra



Multispectral Map

1. Mission Planning

- By using DJI Pilot 2, the mission can be **planned and designed** for **mapping** of crop.

2. Data Acquisition

- M3M executes the mission planned **automatically** for data acquisition process.

3. Analysis/Report

- The map generated **identify nutrient deficiencies** in crops by analyzing their **reflectance in different wavelengths**.

DOCK 2 WITH MATRICE 3TD IN THERMAL INSPECTION AND PROGESS MAPPING OF PLANTATION

DJI Pilot 2

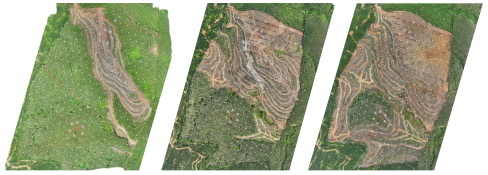
Area Route

Dock 2 + M3TD

Mapping Data Acquisition

DJI FlightHub 2

Thermal Inspection



Progress Map

1. Mission Planning

- By using DJI Pilot 2, the mission can be **planned and designed** for **mapping** of oil palm plantation.

2. Data Acquisition

- M3TD executes the mission planned **automatically** for data acquisition process.

3. Analysis/Report

- By using FlightHub 2, the map models can be **generated and compared** to track the plantation **growth and status**.

BENEFIT OF DRONES IN AGRICULTURE INDUSTRY

TIMELY MONITORING AND EARLY DETECTION

Multispectral drones enable **frequent monitoring** of crops during the growing season, helping farmers detect issues like **weather-related stress or pest infestations early on**. This allows farmers to take prompt corrective actions.

COST-EFFECTIVENESS

Multispectral drones provide a cost-effective alternative to traditional crop monitoring methods like **ground-based scouting or manned aircraft**. They offer more **comprehensive and detailed data**, saving farmers time and resources.

NON-INVASIVE AND FLEXIBLE

Drones are non-intrusive and flexible for data collection since they can fly over fields **without causing soil compaction or crop damage**. They can reach **challenging areas** that traditional methods may struggle to access.

ENVIRONMENTAL SUSTAINABILITY

Adopting precision agriculture with multispectral drones helps farmers **reduce fertilizer and pesticide use**, promoting **sustainable farming** with a lower environmental impact.

DJI DELIVERY

DJI FlyCart 30

- 30 kg Max Payload
- 28 km Flight Distance without Payload
- 16 km Flight Distance with Full Payload
- IP55 Ingress Protection Rating
- Max Operating Altitude: 6000 m

DJI FlyCart 100

- 85 kg Max Payload
- 26 km Flight Distance without Payload
- 12 km Flight Distance with Full Payload
- IP55 Ingress Protection Rating
- Max Operating Altitude: 6000 m

DJI DeliveryHub

- One-stop air delivery management platform
- Remotely create, schedule & allocate tasks and devices
- Livestream from multiple different devices
- Mission Planning
- Alternate Landing Site Management

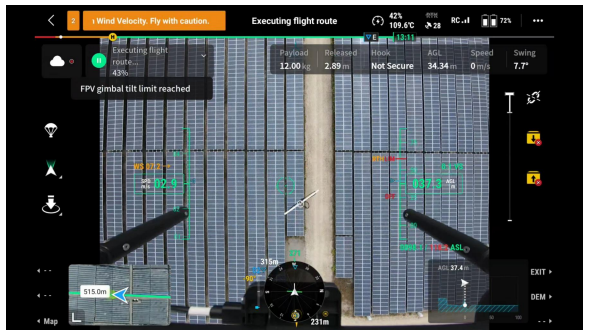
FLYCART 30 IN SOLAR FARM

DJI DeliveryHub

Waypoint Flight

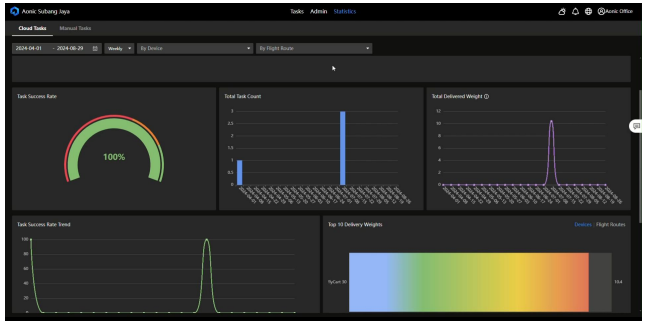
FlyCart 100

DJI DeliveryHub



Solar Panel Transporting

DJI DeliveryHub



Data Statistics

1. Mission Planning

- During solar panel replacement, **waypoint mission** can be planned in DJI DeliveryHub.

2. Data Acquisition

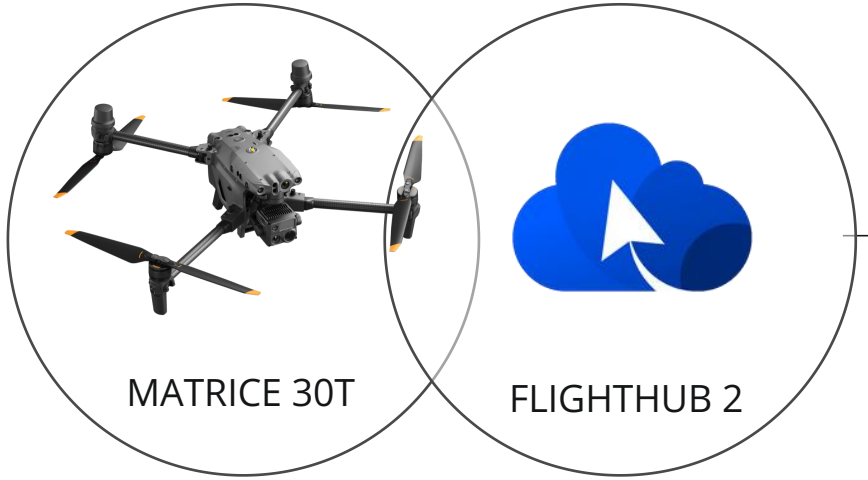
- **Displaying of livestreaming of** DJI DeliveryHub on solar panel replacement operation **share operation messages to teammates**.

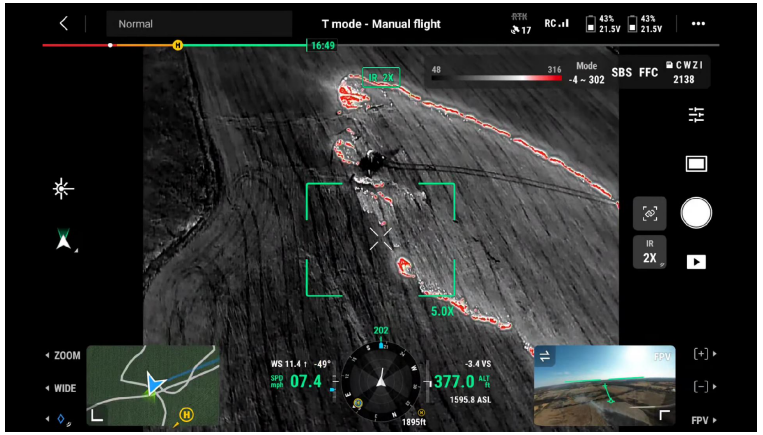
3. Analysis/Report

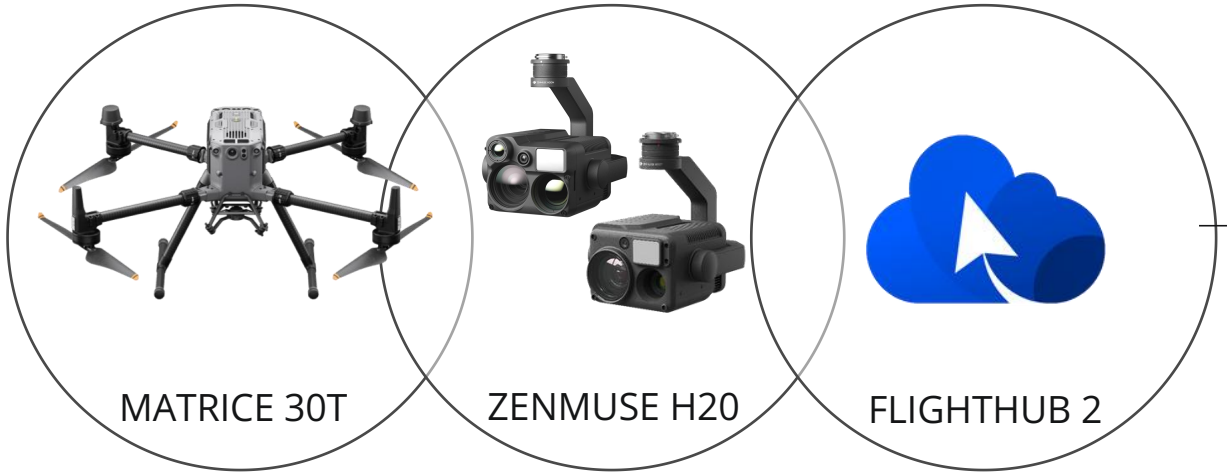
- After the mission execution is completed, DJI Deliveryhub able to **generate reports and the statistics** based on **specific dates, drone and flight routes**.

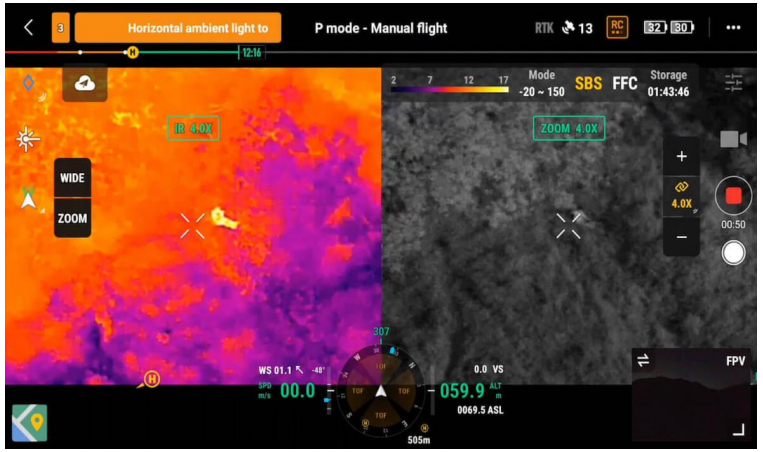
FLYCART 30 IN VIETNAM (VSP)

PUBLIC SAFETY RECOMMENDED DRONES









PUBLIC SAFETY APPLICATIONS

FIRE FIGHTERS

DJI technology arms firefighters with aerial insight enabling rapid, efficient, and informed decisions to maximize safety

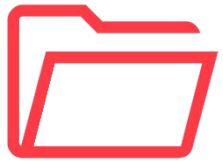
LAW ENFORCEMENTS

Drones are becoming critical tools for law enforcement agencies, enabling greater safety, quicker response, and better decisions.

SEARCH & RESCUES

Emergency responders can identify targets and deploy care faster thanks to the overhead guidance DJI drones provide.

ENERGY & UTILITY BENEFITS OF USING DRONES



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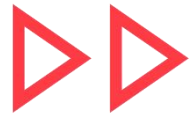

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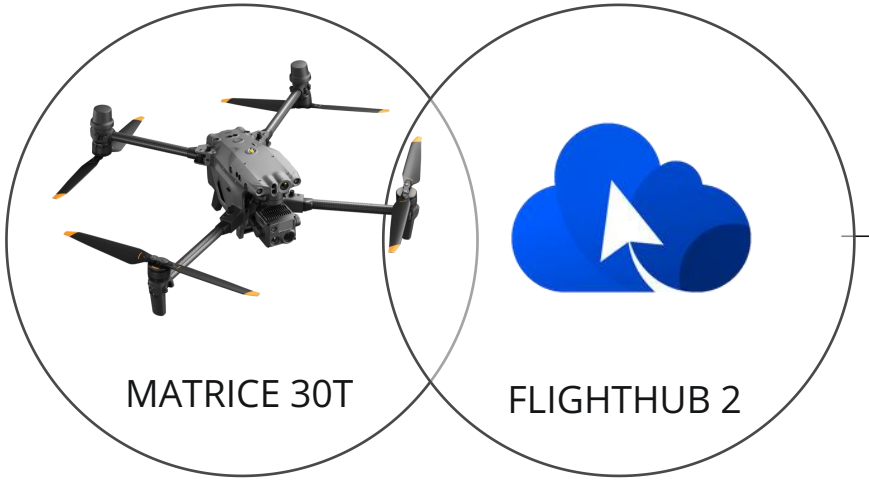
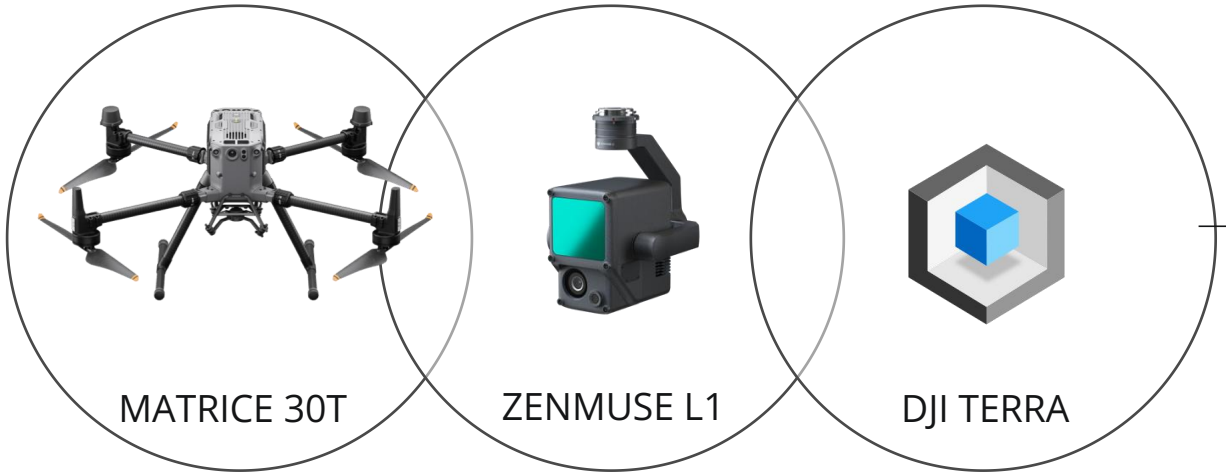
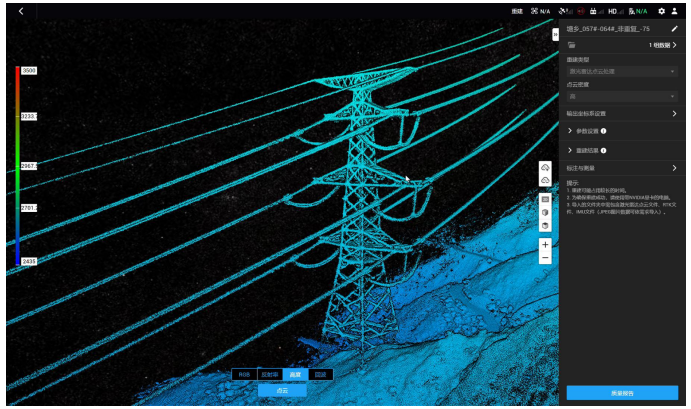
ENERGY & UTILITY RECOMMENDED DRONES



Thermal Inspection





LiDAR Point Cloud

ENERGY & UTILITY APPLICATIONS

DIGITALIZATION

- Transmission/distribution lines digitalization and vegetation management
- 3D modelling of the substation

INSPECTION

- Line inspections with visual/thermal cameras
- Automated inspections
- Emergency response after storm
- Wildfire prevention

BENEFIT OF DRONES IN OIL & GAS

SAFETY IMPROVEMENT

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COST EFFICIENCY

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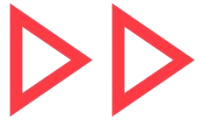

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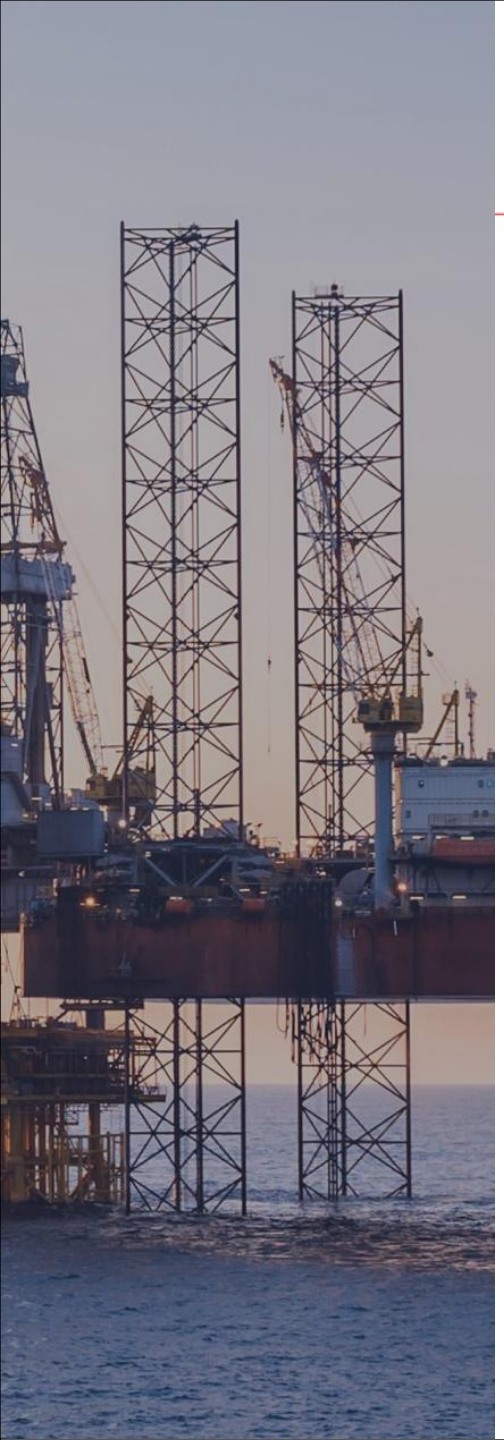
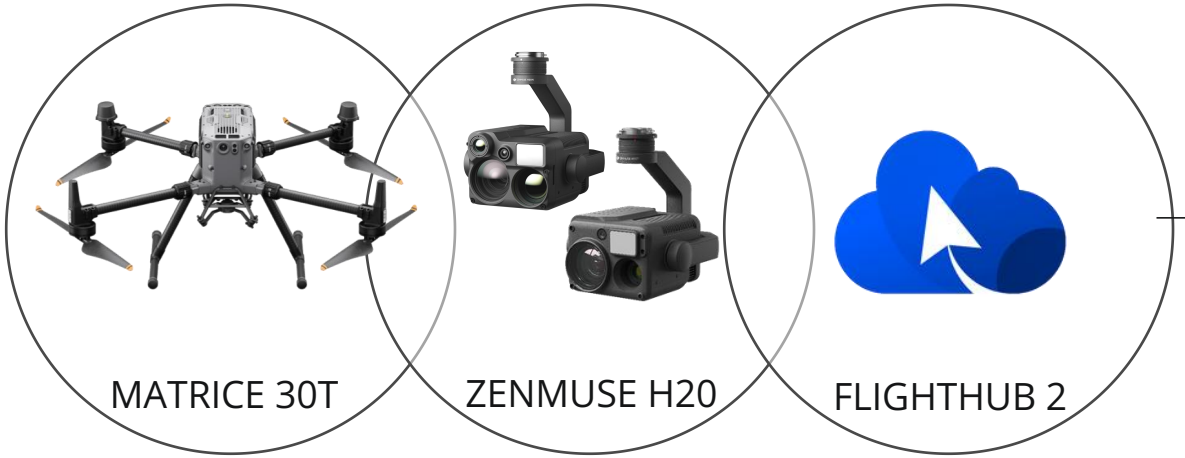
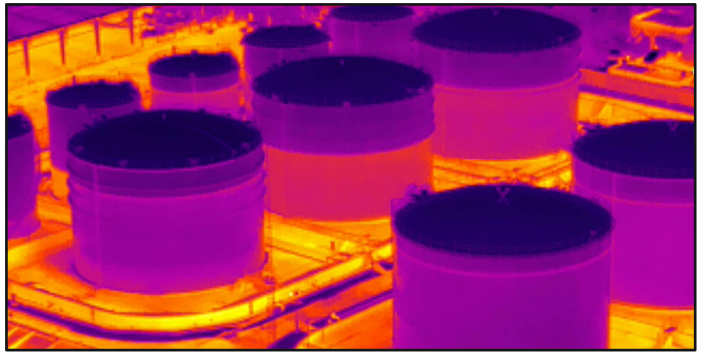


OIL & GAS INDUSTRY

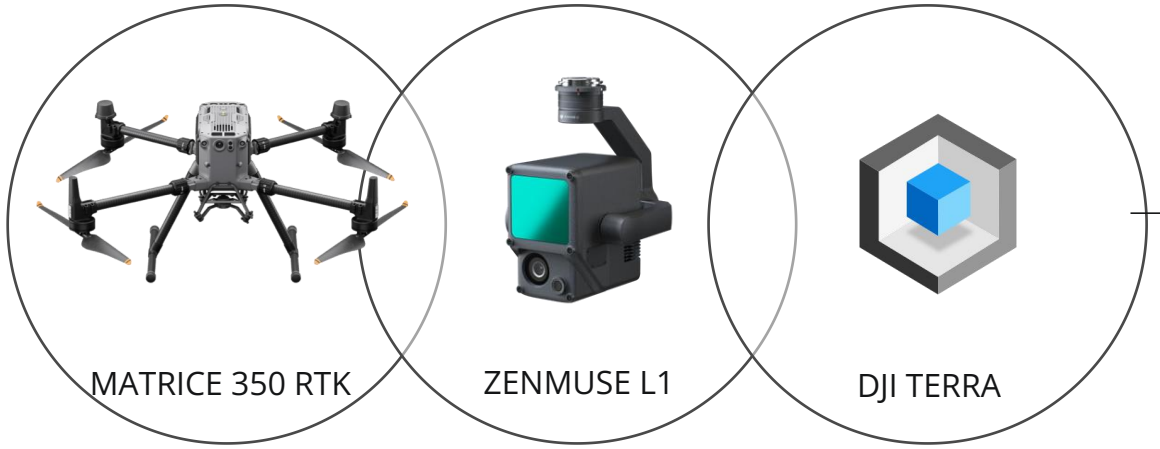
The oil and gas industry is known for its complex and dangerous work, making safety, efficiency, and cost-effectiveness crucial for success. Drones have recently transformed the industry by offering many advantages in various operations. Drones, or unmanned aerial vehicles (UAVs), are now essential tools that simplify processes, improve data collection, and enhance decision-making, fundamentally changing how oil and gas companies do their work.

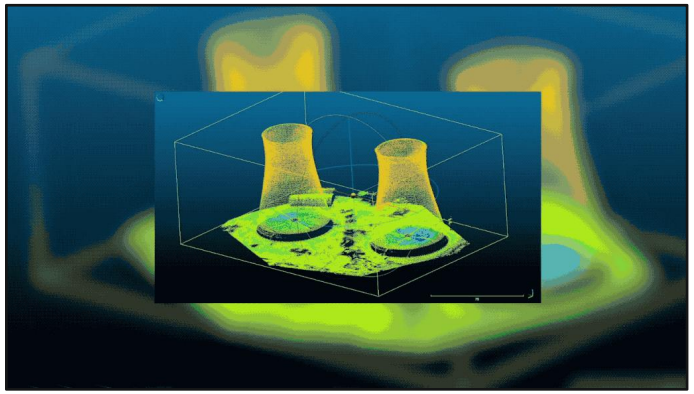
OIL & GAS RECOMMENDED DRONES





INSPECTION



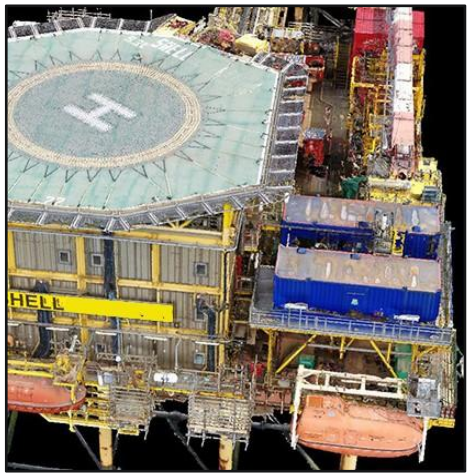


DIGITAL MODEL

APPLICATION OF DRONES IN OIL & GAS

Monitoring Environment

Drones with thermal cameras and gas sensors detect emissions from facilities, aiding environmental compliance. They also track wildlife in sensitive areas, helping companies minimize their impact on ecosystems.



Exploration and Surveying

Drones simplify exploration and surveying by conducting aerial surveys over difficult terrains. They use high-resolution cameras and LiDAR technology for detailed mapping, reducing exploration costs and improving decision-making.

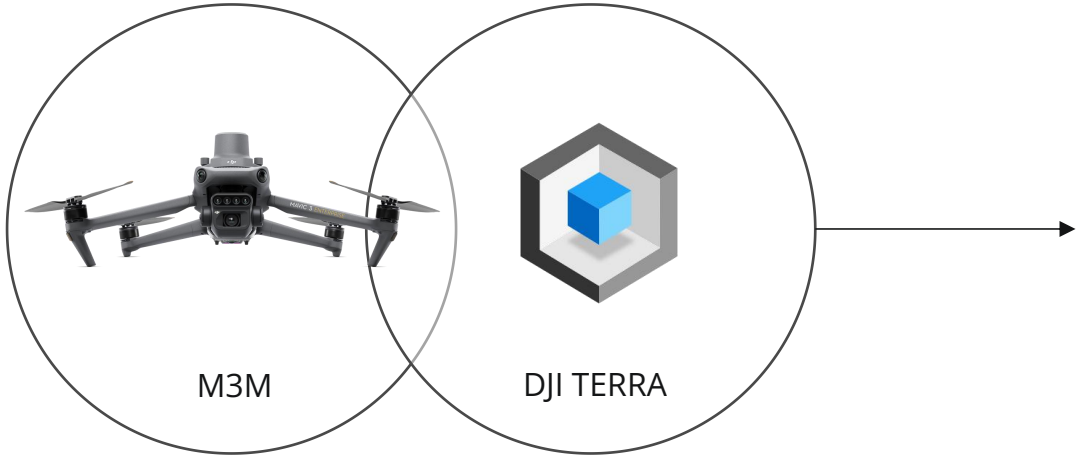
Emergency Response

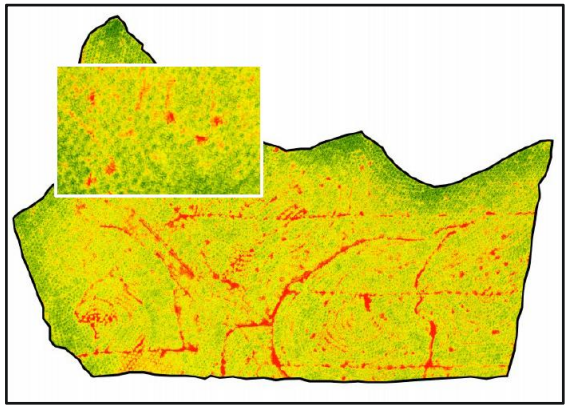
Drones play a crucial role in emergency response and disaster management. They survey affected areas, assess damages, and provide vital information to aid efficient resource allocation for response teams.

AGRICULTURE INDUSTRY

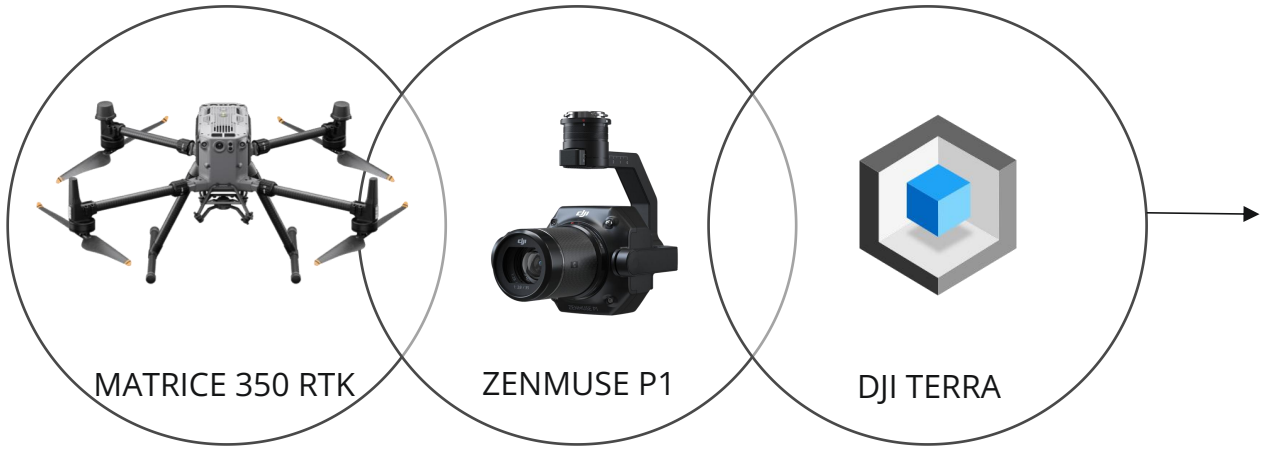
Drone technology has become increasingly popular and valuable in the agriculture industry. It involves using drones equipped with multispectral sensors to capture data in multiple bands of the electromagnetic spectrum, beyond just the visible light spectrum that the human eye can perceive. These sensors can detect different wavelengths of light, such as near-infrared (NIR), red edge, and thermal infrared, among others.

AGRICULTURE RECOMMENDED DRONES

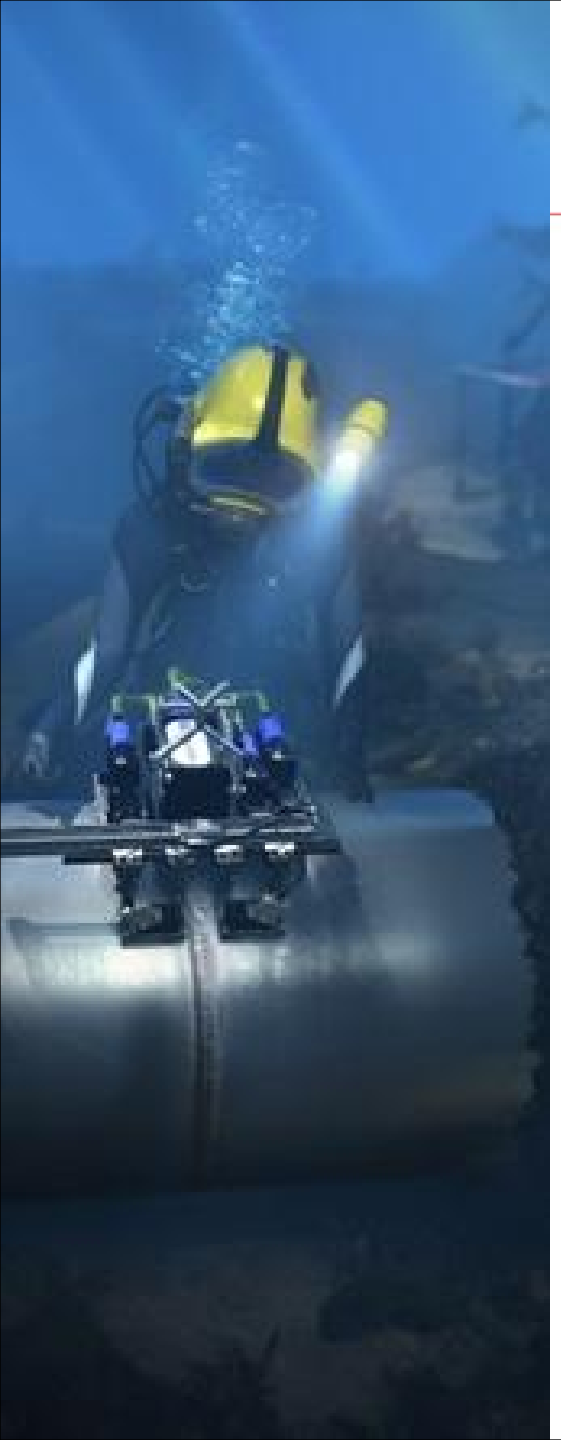




MULTISPECTRAL MAP



RASTER MAP



INSPECTION – UNDER WATER DRONE (ROV-USV)

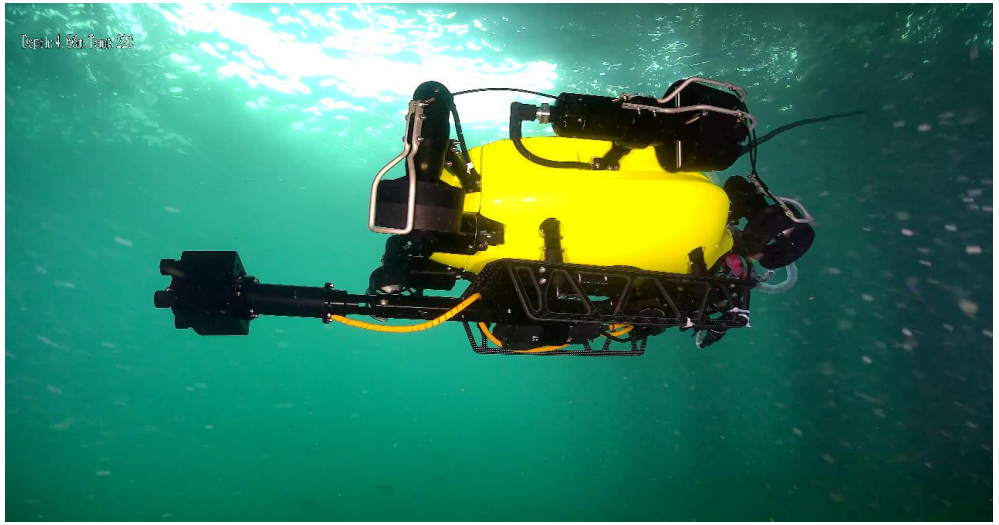
Applications of Drone in Infrastructure (Underwater)

- **Infrastructure Inspection**
  - Propellers Inspection
  - Shipment Inspection
- **Surveying and Mapping (lake, river, dam,..)**
  - Site Assessment
  - Environmental Monitoring
  - Mud sample
  - Water Quality sample

Relevant Models

ROV E-MASTER/NAVI

FIFISH X1



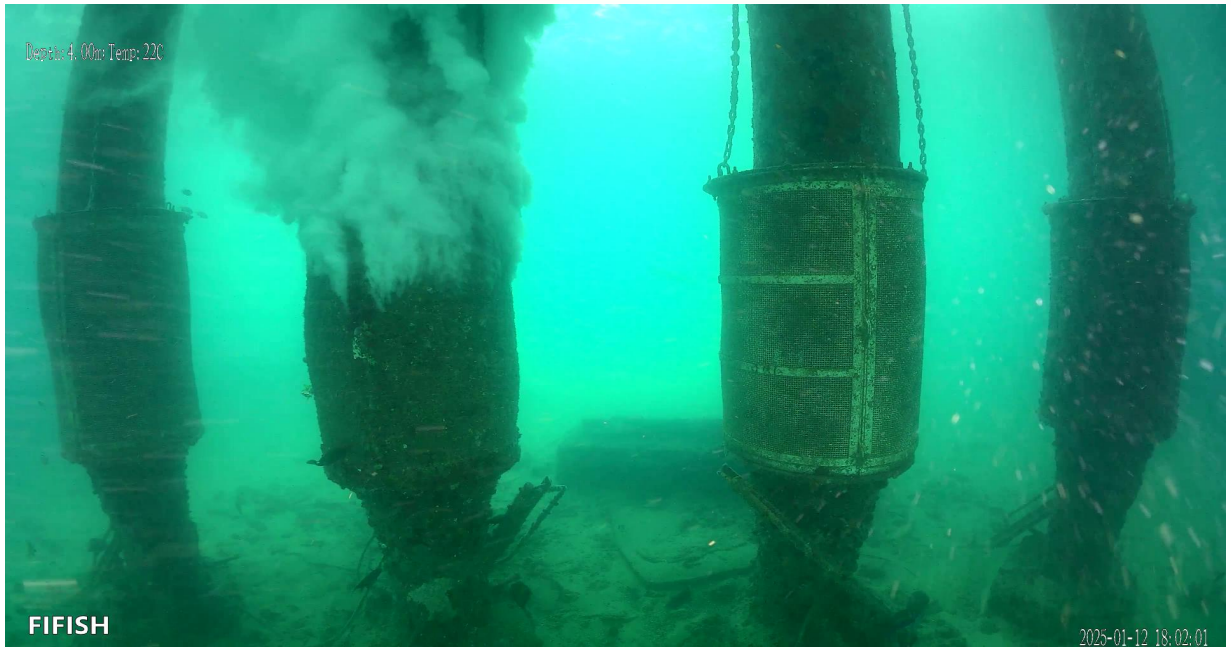
Speed : **4.5Knots**
Depth Rating : **350m**
Operating time : **24/7**
Led : **6000 Lumen LED x 2**
Camera : **Video 4K UHD**
Photo format JPEG, DNG

Application

Application

INSPECTION – UNDER WATER DRONE (ROV-USV)

INSPECTION – UNDER WATER DRONE (ROV-USV)



Underwater footage of 4 cylinders

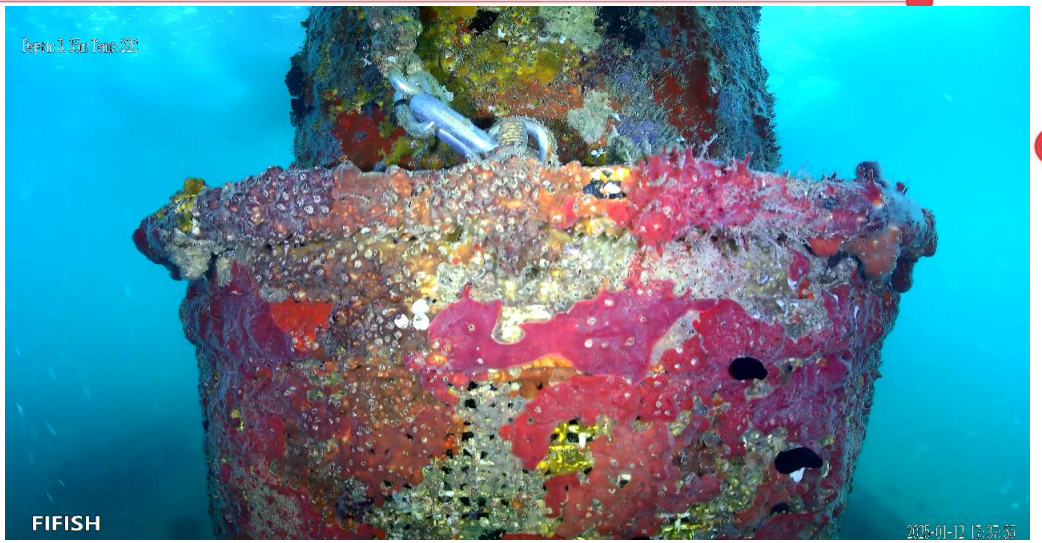
X1 inspection cylinders

X1 Advantages:

- Equipped with a 4K camera and 166° ultra-wide-angle view for precise and detailed visuals.
- Built-in 12,000-lumen LED lights enhance clarity in low-light conditions.
- Six degrees of freedom enable agile movement in complex waters.
- With anti-current capability of 4 knots and Station Lock, it ensures stability in dynamic water flows.

INSPECTION – UNDER WATER DRONE (ROV-USV)

Inspection of the upper part of the cylinder

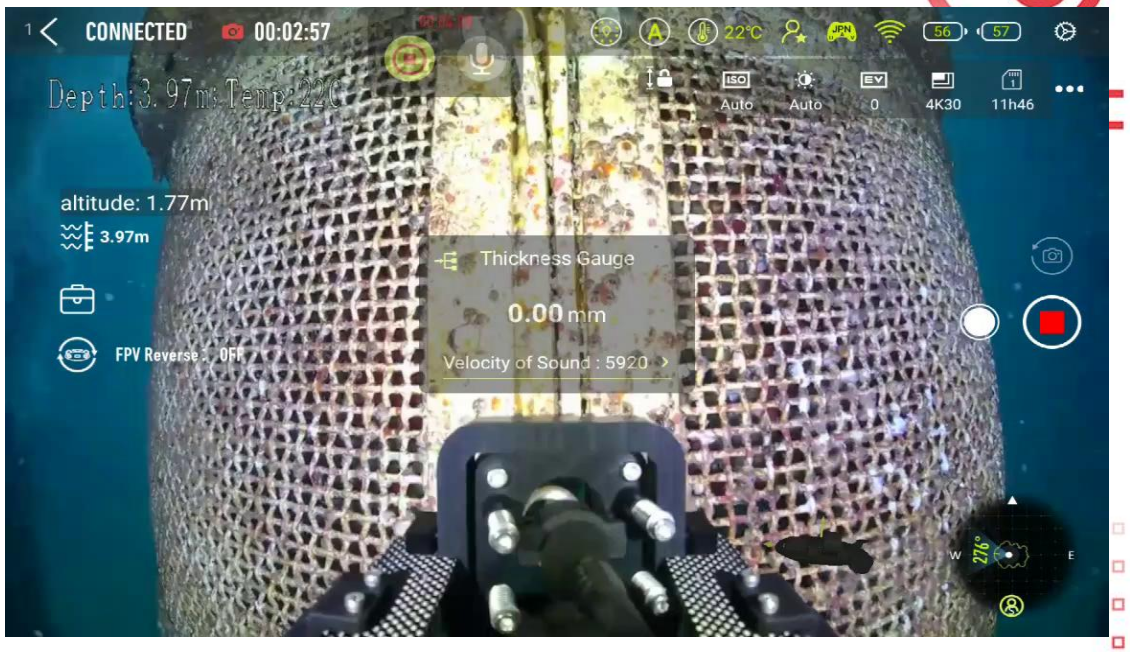


Inspection of the cylinder protective net

Inspection of the Sacrificial anode block

Inspection of the cylinder base

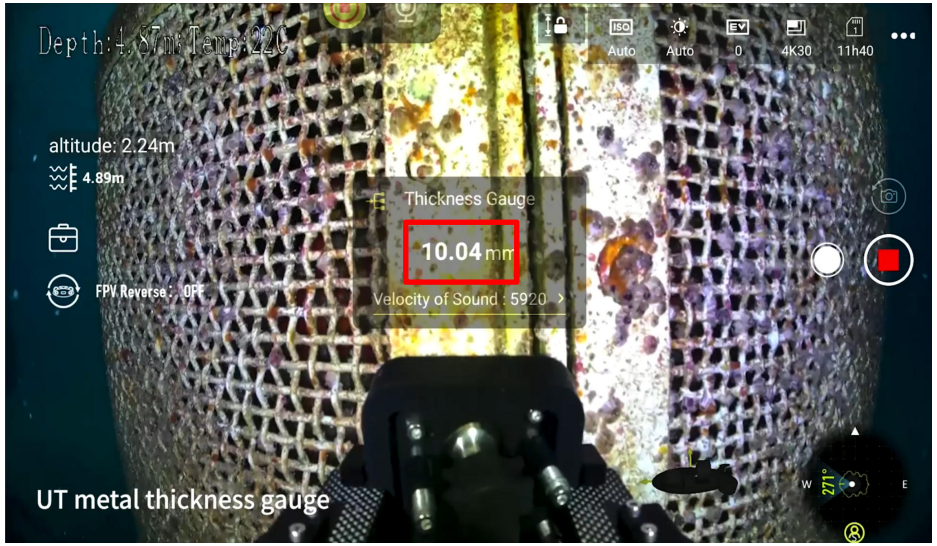
INSPECTION – UNDER WATER DRONE (ROV-USV)



X1 Advantages:

- Modular UT design, supports quick replacement, making it easy for on-site operations and maintenance.
- The UT probe can automatically adapt to the surface of the measured object and features a cushioning design, reducing operational difficulty and providing good protection for the equipment.
- Test data is displayed in real-time on the app, with test images and measurement data presented simultaneously, enhancing operational intuitiveness.
- Measurement data is automatically saved**, facilitating later analysis and processing, ensuring data integrity and traceability.

INSPECTION – UNDER WATER DRONE (ROV-USV)

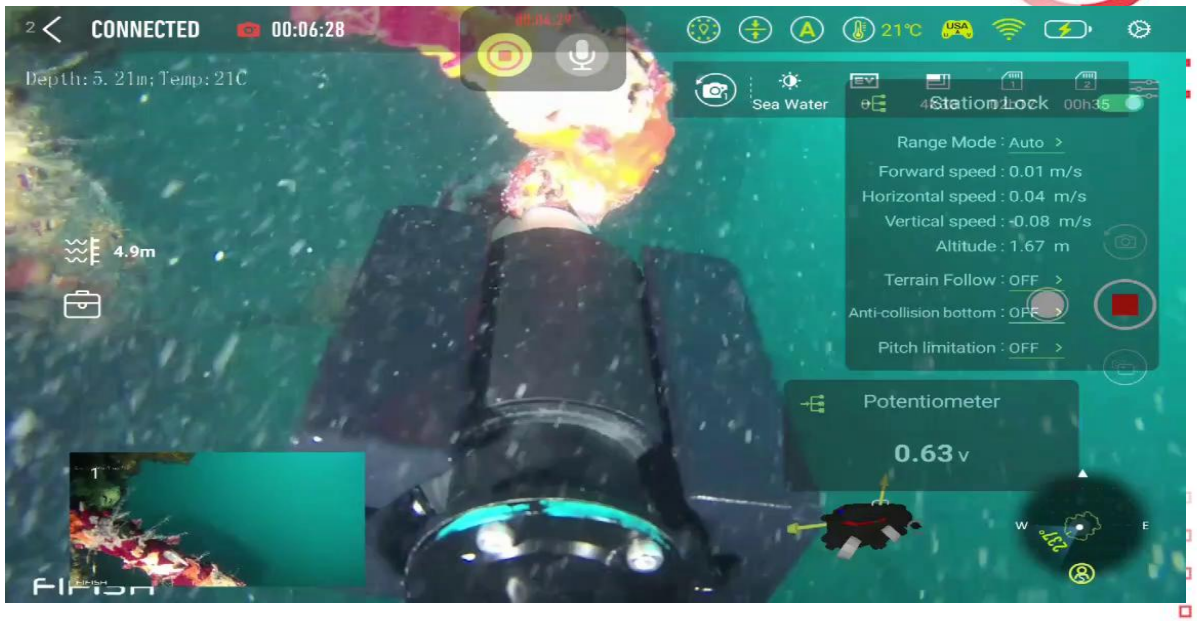


INSPECTION – UNDER WATER DRONE (ROV-USV)

X1 Advantages:

- The cavitation jet gun features a modular design, allowing for quick installation and replacement, ensuring convenient on-site operation and maintenance;
- Equipped with the Station Lock function, X1 maintains a stable posture and position during marine biofouling cleaning, significantly improving operational efficiency;
- With six degrees of freedom motion capability, X1 can adapt to complex environments and efficiently clean marine organisms from any location.

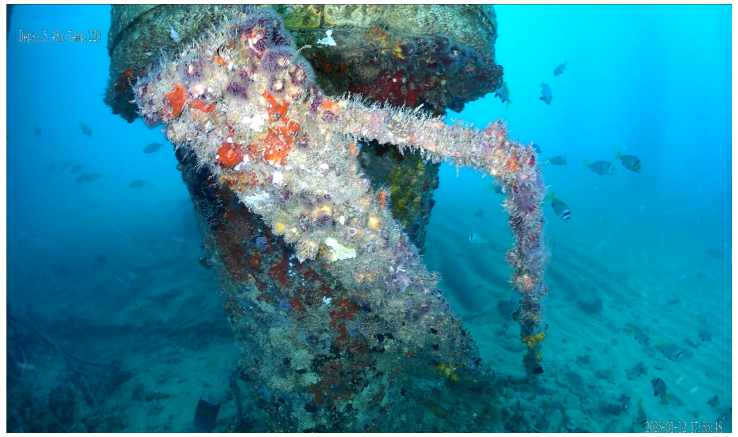
INSPECTION – CATHODIC PROTECTION TEST



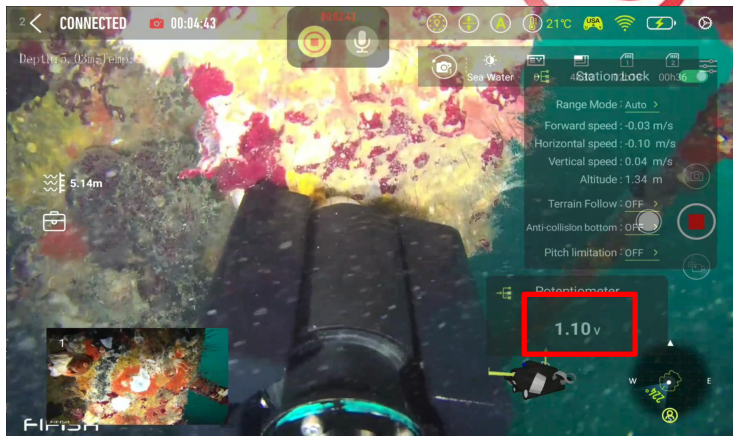
X1 Advantages:

- The CP system utilizes a modular design, enabling quick installation and disassembly, significantly enhancing operational efficiency.
- CP measurement data is displayed in real-time on the dedicated app and automatically links and saves test data with corresponding measurement images, ensuring efficient and accurate data management.
- Leveraging six-degree-of-freedom motion capability and the Station Lock function, X1 can accurately measure CP data at any location in the water, offering high adaptability to various operational scenarios.

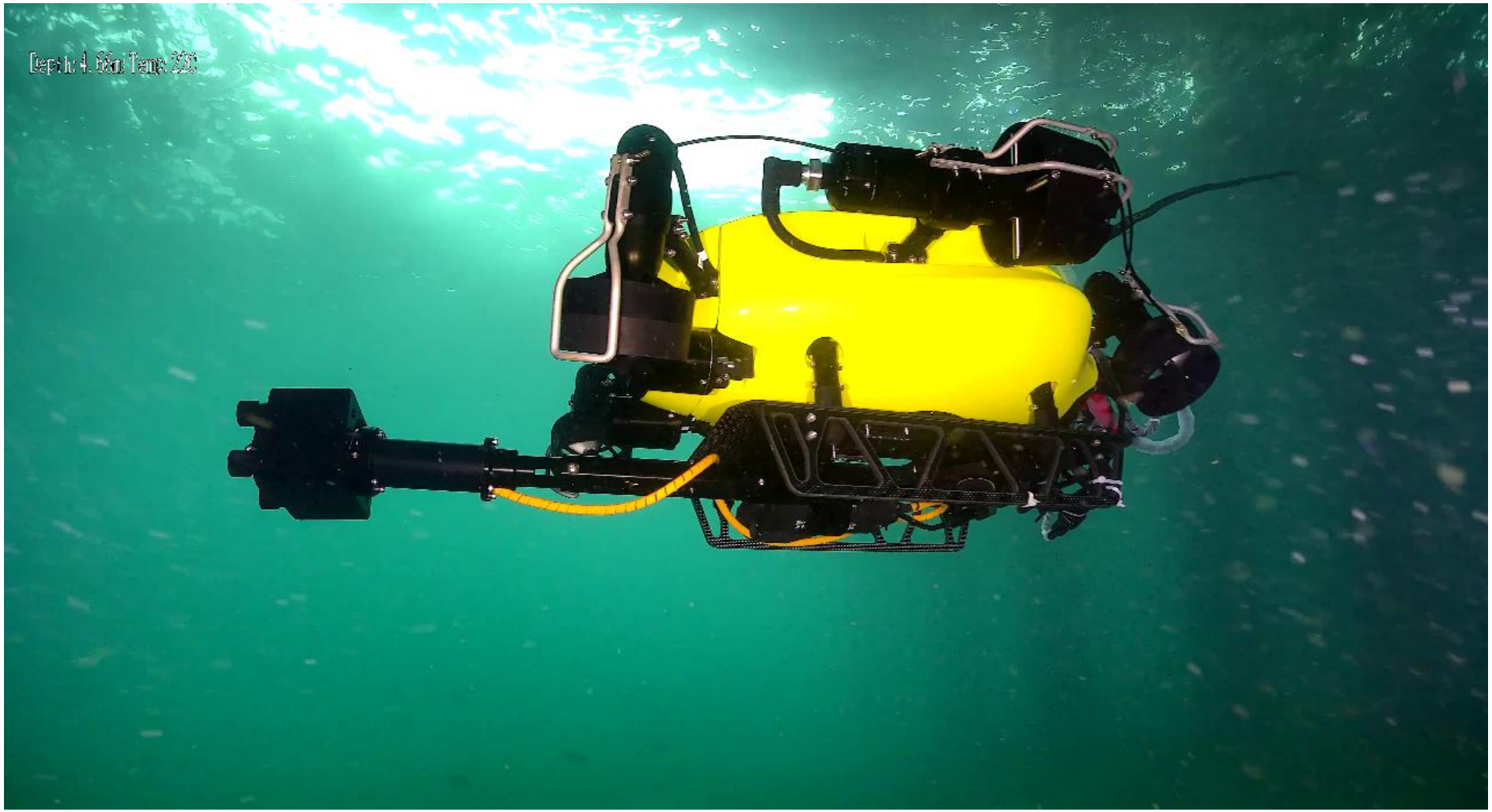
INSPECTION – UNDER WATER DRONE (ROV-USV)



Sacrificial anode



INSPECTION – UNDER WATER DRONE (ROV-USV)

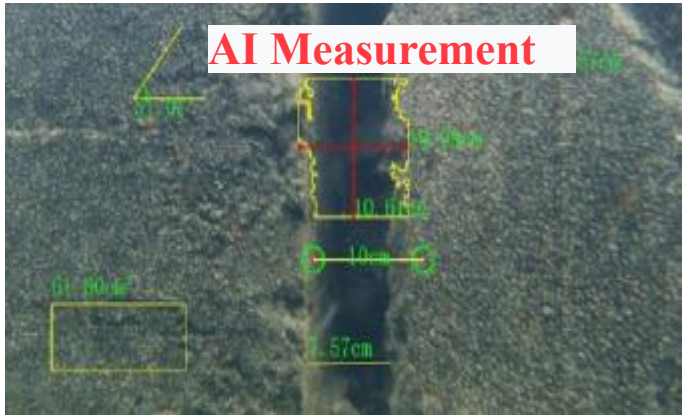


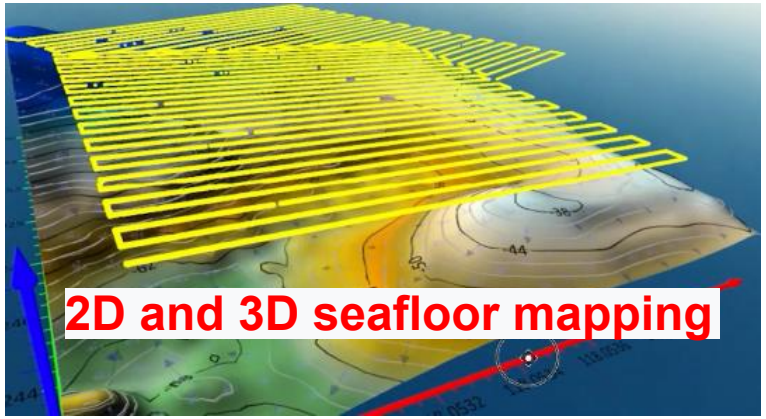
FIFISH E-MASTER NAVI

Fifish E-Master is an unmanned underwater vehicle (ROV) designed for measurement, inspection, and underwater surveying tasks. The device integrates advanced AI technology, a sonar system, a laser scaler, and an ultra-wide-angle 4K camera to collect precise data in underwater environments that are difficult for humans to access.

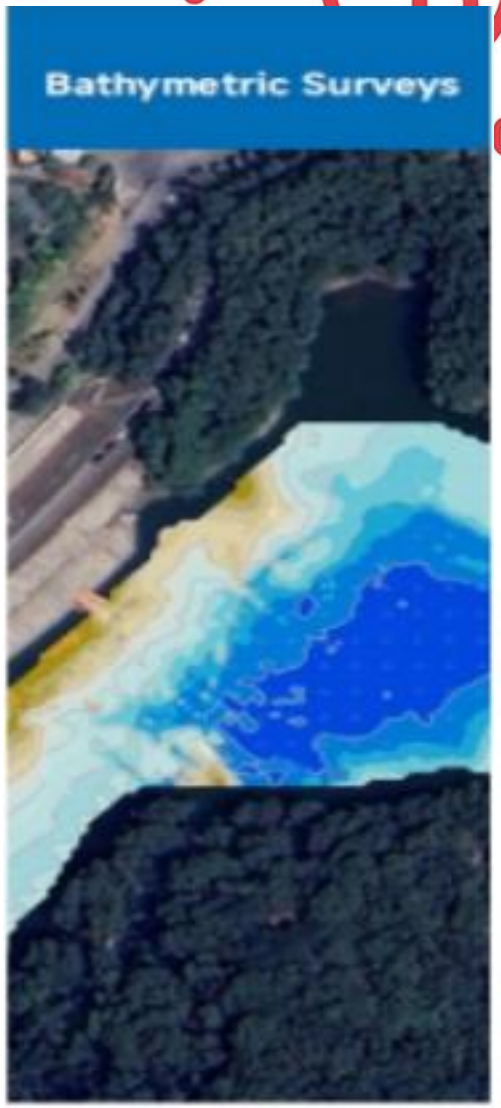
Speed : **Maximum 3 knots**
Depth Rating : **200m**
Operating time : **2.5hrs**
Led : **5000 Lumen LED x 2**
Camera : **Video 4K UHD**
Photo format JPEG, DNG

OUTSTANDING FEATURES





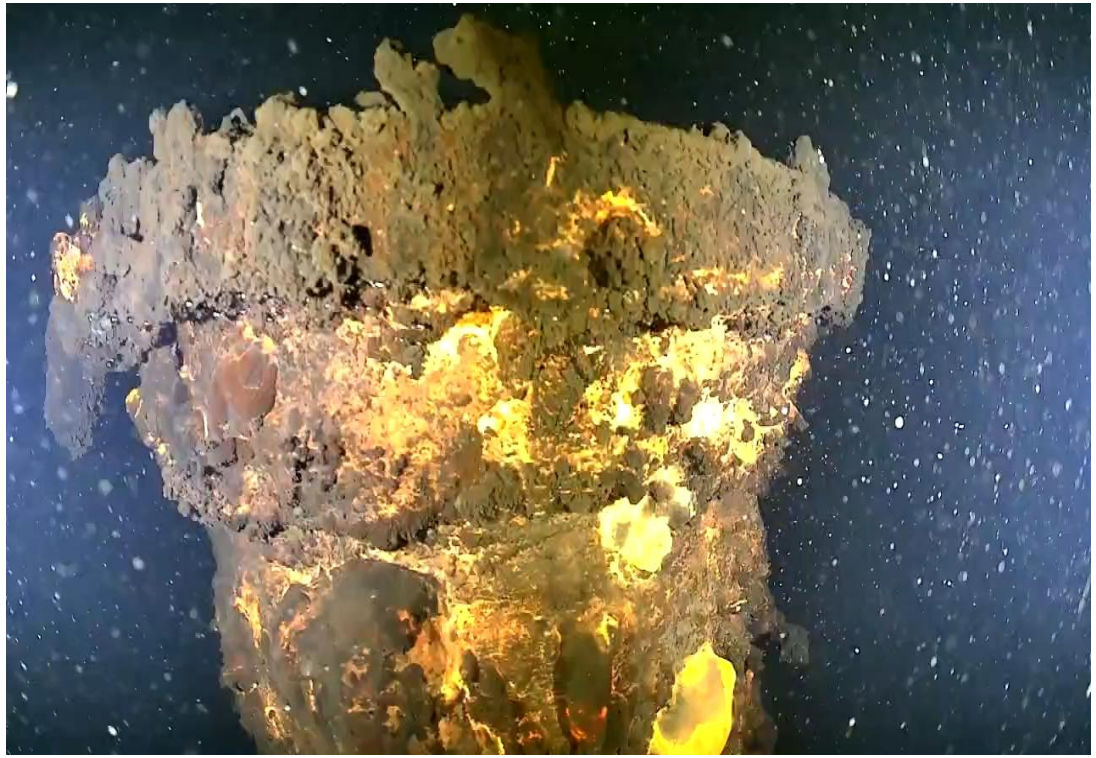
Application



Fish E-Master Navi

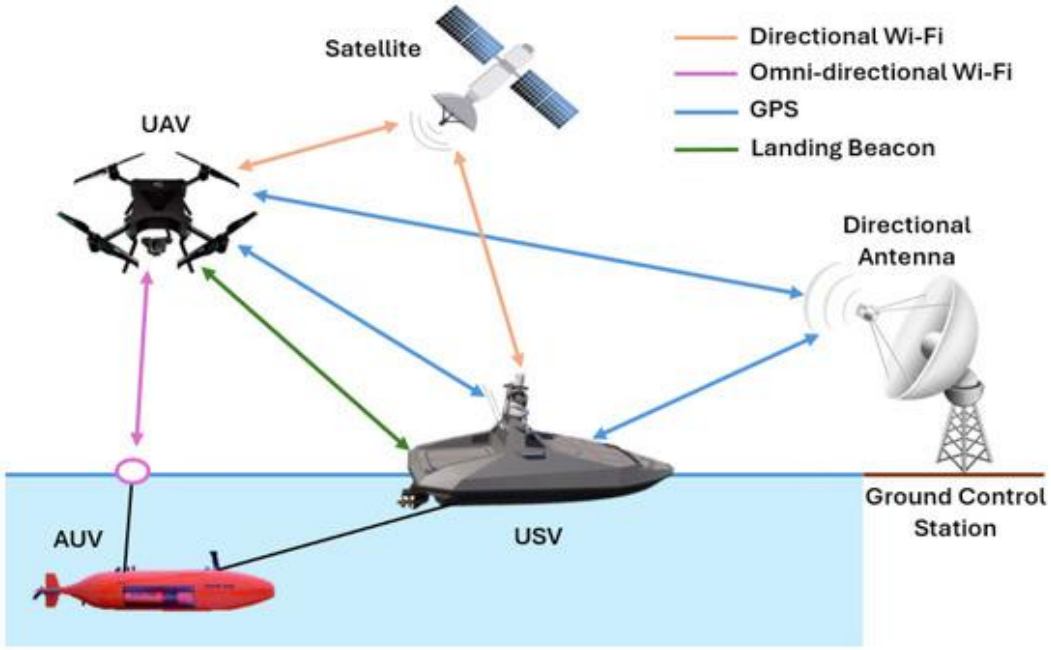
Check pipes

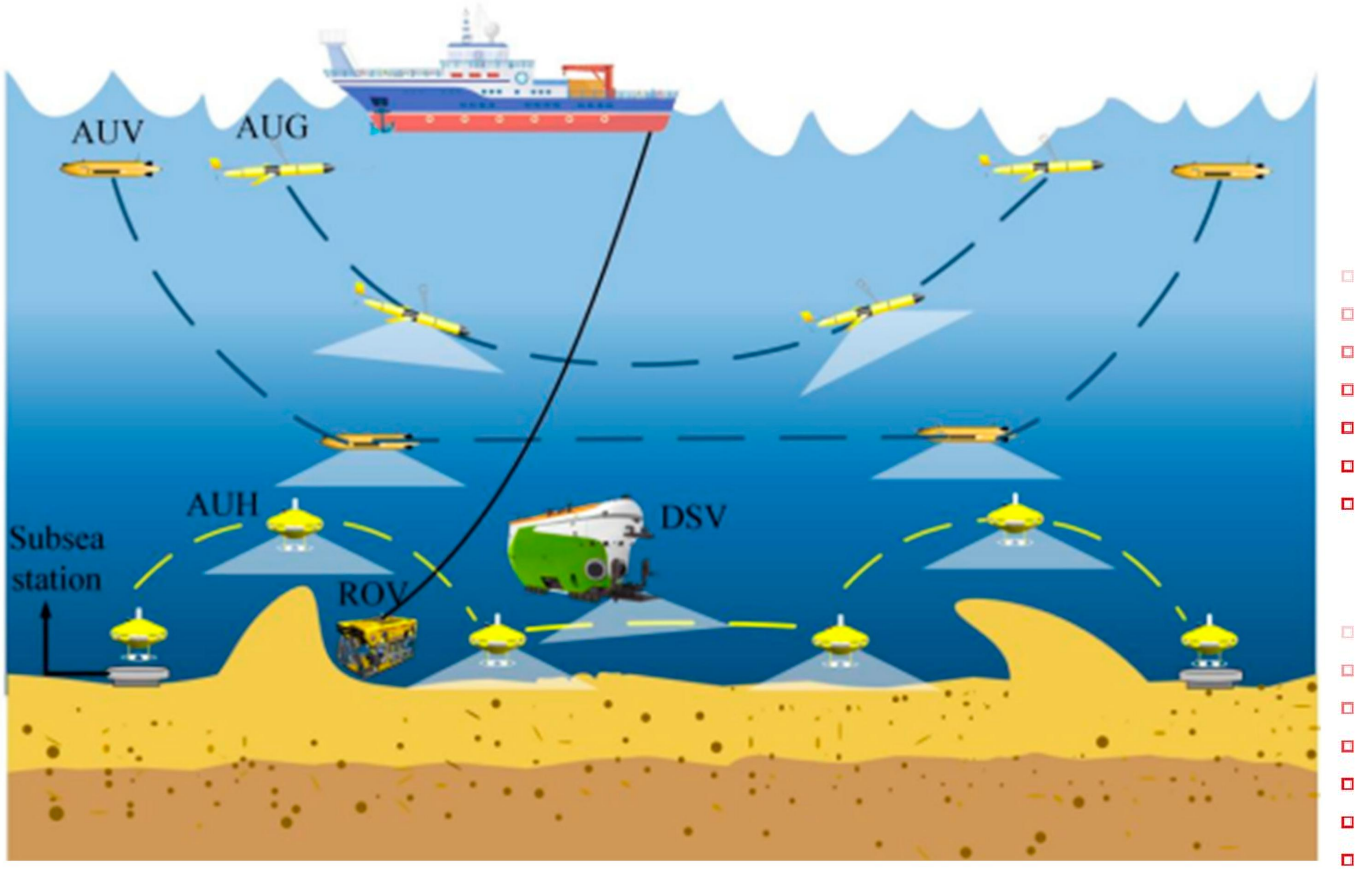
Check pipes



CHECK THE PIPES IN THE WATER TANK

Drone family





BENEFIT OF DRONES IN AGRICULTURE INDUSTRY

Timely monitoring and early detection

Multispectral drones enable frequent monitoring of crops during the growing season, helping farmers detect issues like weather-related stress or pest infestations early on. This allows farmers to take prompt corrective actions.

Cost-effectiveness

Multispectral drones provide a cost-effective alternative to traditional crop monitoring methods like ground-based scouting or manned aircraft. They offer more comprehensive and detailed data, saving farmers time and resources.

Non-invasive and flexible

Drones are non-intrusive and flexible for data collection since they can fly over fields without causing soil compaction or crop damage. They can reach challenging areas that traditional methods may struggle to access.

Environmental sustainability

Adopting precision agriculture with multispectral drones helps farmers reduce fertilizer and pesticide use, promoting sustainable farming with a lower environmental impact.

Agriculture | MIST DRONE

Mist Drone is a blanket spraying drone for paddy, farmland and open field crops, aimed at delivering faster, easier and safer crop spraying for workers and the environment

Blanket Spraying

Adjustable Nozzles

20 to 30 Liters Tank

Coverage of 24 Ha/day

Swappable Tank for Spreader System

Mist NEX

Mist Max

Blanket Spraying

Function : Blanket Spraying
Flight Time : up to 10 minutes
Operating Speed : 6 m/s
Flow Rate : 5 L/min (max)
Tank Size : 20L / 30L
Sensor : Obstacle Avoidance
GNSS : GPS

Spray Profile Comparison

Y-Shape	Boom	Centrifugal Nozzle
		
Shower Dispersal	Shower Dispersal	Mist Dispersal

Amist Max spreading

Mist Tec 50

Precision Spraying

50 Liters
High tank capacity

50 Kg
The distribution system can be swapped.

16L/min
Spray flow rate per minute

20 minutes
Maximum idle flight time

RTK
RTK module for precise positioning

Terrain
Shape-following flight capability

Avoid obstacles
Advanced sensors

Fleet Management
Manage multiple devices

Mist Tec spraying and spreading

+Get in Touch

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REFERENCE LINK

1. (Aonic) Inspection Output Sample.pdf

2. (Aonic) Mapping Output Sample.pdf