

Introduction of
PRENEU

About ***PRENEU***



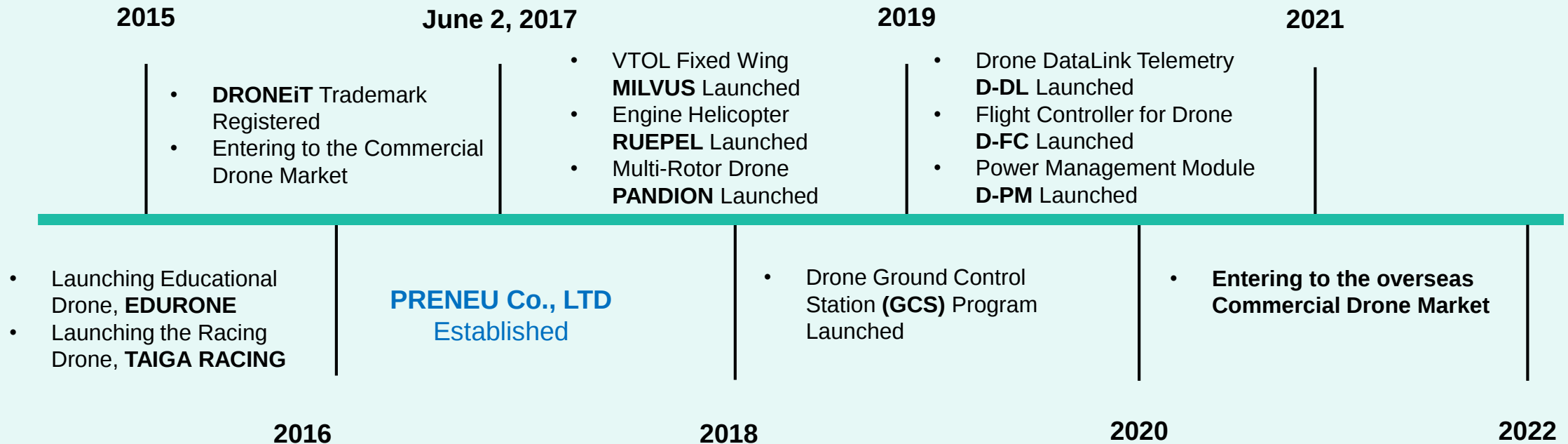
KOREA's #1 Commercial Drone Company

When drones began to emerge as an important factor in the 4th industry, PRENEU entered into Drone Business with its own IoT and Aviation Technology. PRENEU is expanding its business areas to industrial aircraft manufacturing and drone operation services.

PRENEU offers various industrial grade drones for Reconnaissance/Surveillance, Search/Rescue, Survey and Inspection. Also PRENEU is setting up an UAV ecosystem to contribute to our future society.

During last few years, PRENEU is able to participated in multiple military and government projects. Thanks to the successful accomplishment of all these nationwide projects, PRENEU has become the number one and largest drone company in Korea.

Company History



PRENEU Office

325 Sandan-ro, Ansan, Korea

Factory F501-503



Sales Office F1204-1205



R&D F513-514



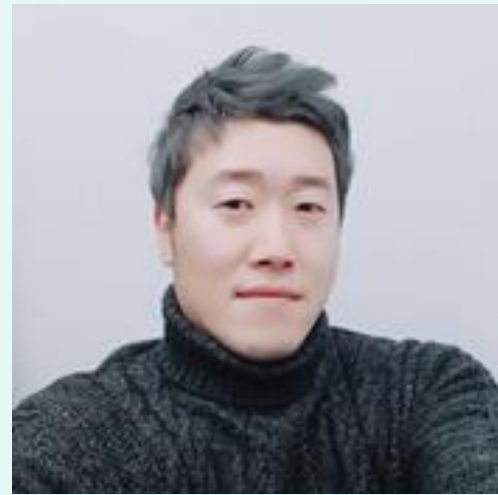
Meet the Team



JK Lee
CEO



JJ
CMO



Mr. Ka
CTO



Dan
Sale Manager

Mission, Vision & Values

Mission

Convergence of IT and Drone Technology to make our life easier

Vision

Drones for our Future

Values

Innovation – an Innovative thinking leads to the best technology

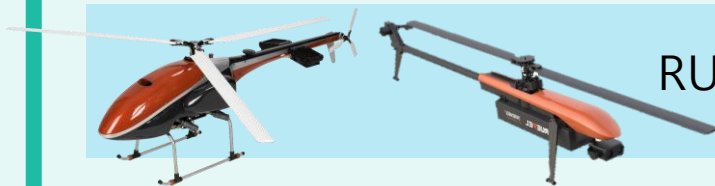
What Makes **RENEU** Different

Manufacturing of Commercial Drones

PANDION



RUEPEL



MILVUS



Manufacturing of Drone Parts

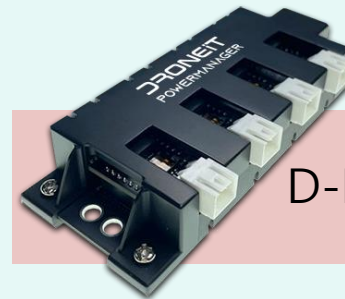
D-DL Datalink Telemetry



D-FC Flight Controller



D-PM Power Management



MILVUS R for RECON

VTOL-based fixed wing "MILVUS"

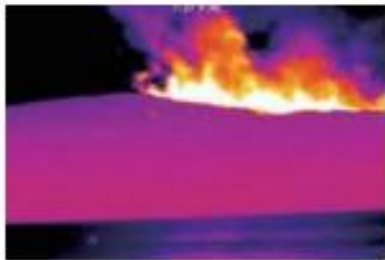
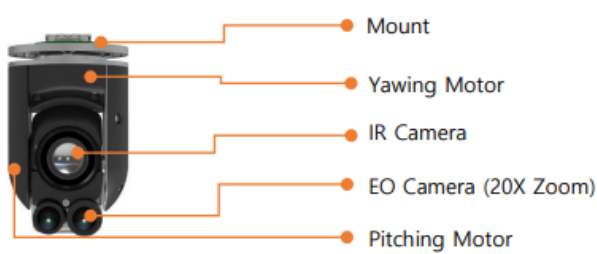
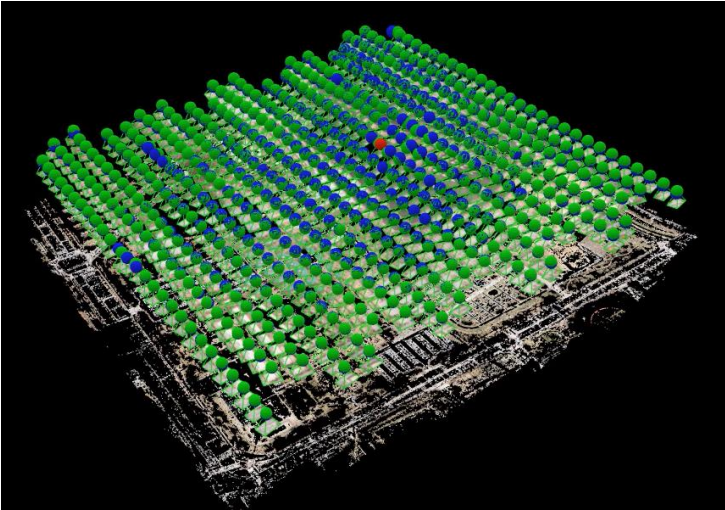


IMAGE TRACKING / MOTION DETECTING IR Camera for Fire Monitoring

	Features	Specification
MILVUS Pifatform	Weight w/o Payload	4.3kg
	Take Off and Landing	VTOL(Vertical take off and landing)
	Power Source	Electric motor
	Material	FRP Composite, Carbon, Kevla
	Number of Motors	5 EA
	Max Payload	1.2kg
	MTOW	7.9kg
	Size	2,000 (Wingspan) * 770 (Length) * 300 (Height) mm
	IPXX	IP43
	Stall speed	13m/s
	Cruise Speed	16~22m/s
	Max ascent speed	2.5m/s
	Max descent speen	3m/s
	Max ceiling	1500m
	Max flight time	Max 80min. Without Payload (60min with Payload)
	Operating Temperature	-10~40 °C
	Satellite System	GPS GNSS
Battery	Capacity	8300mah x 2EA
	Voltage	22.2V
	Cell	6 cell
	Type	LiPo

MILVUS **M** for MAPPING

VTOL-based fixed wing "MILVUS"



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RUEPEL R4 for Surveillance

UAV Helicopter "RUEPEL"

Provide drones services in harsh environments

Even under bad environments like sea, river and mountain with strong wind, limiting UAV-related services in the past, the RUEPEL ensures top-quality UAV services including surveillance, patrol, transportation and more.

Available Payloads



Patrol
Monitoring



Facility
Inspection



Disaster
Response



Military
Operation



13m/s

Max Operating Wind Speed

Max. 90min

Endurance

3kg

Max Payload

ASL 4km

Max Ceiling

PANDION H

Long flight time multicopter

Applied full-distance auto flight

Ensuring high efficiency with one-time flight of maximum 30 minutes , the PANDION enables users to easily select and utilize its various types for mission requirements, and provides auto-flight functions during entire flight through GCS, camera and self-designed applications which can be configured automatically.

Available Payloads



Patrol
Monitoring



Facility
Inspection



Disaster
Response



Supply
Transport



Military
Operation



13m/s

Max Operating Wind Speed

Max. 30min

Endurance

8kg

Max Payload

Max. 60km/h (17m/s)

Max Speed

PANDION S1

Compact Size Quad-Copter "PANDION S1"

For Quick Patrol Mission and Facility Inspection

The compact size and tablet GCS equipment make it PANDION S1 very portable UAV System. It is a UAV that can perform reconnaissance missions at any time by minimizing the preparation process for UAV operation at the mission site. In addition, it is a UAV specialized for cracks and precise inspections of structures in industrial sites.



Potable GCS

- Android Base
- 2.4/5.8GHZ RadioLink

● Patrol
Monitoring

● Facility
Inspection

5 km

Max Operating Distance

Max. 30min

Endurance

250g

Max Payload

Max. 40km/h

Max Speed

Drone Parts

Internalization of Essential Core Parts – DRONEiT

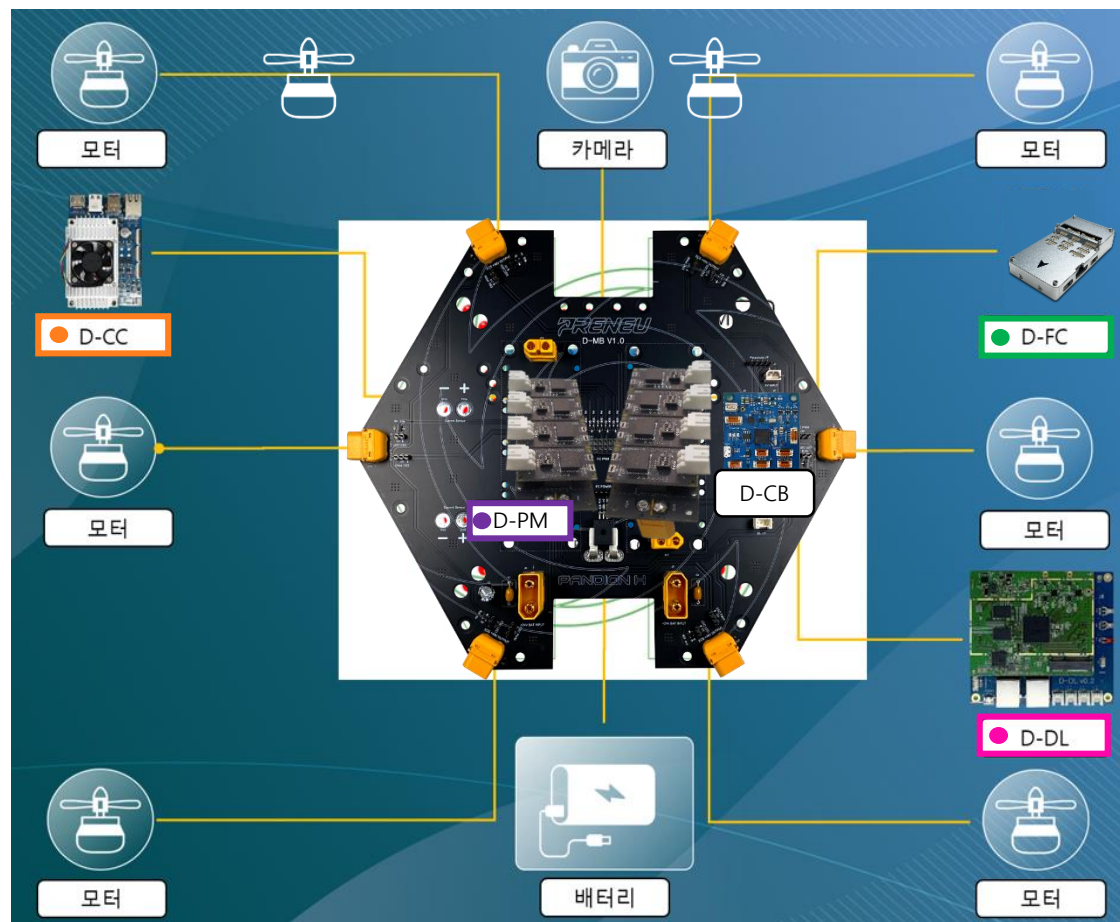
Mission Computer (D-CC)

Developed AI-based mission computer to carry out various missions of the UAV system

- Communication module integration
- AI-based image analysis
- Mission device control
- Obstacle evasion
- Auto-flight

Power Mgmt. (D-PM)

- ESC power balancing adjustment
- Servo module power adjustment
- Provide stable mission performance despite unstable conditions from bad weather (wind, etc.)



Flight Control (D-FC)

- ARM CORTEX-M7
- 480 MHz 1,024 KB RAM
- 8 FROM FMU



Data Link (D-DL)

- HD VIDEO & Telemetry
- 200mW TX Power & Over 10km
- EXTENDED 4 Serial
- Easy Mounting



Emergency Kit Delivery Project

PRENEU drone operation

2018 Drone Show for medical drone demonstration to construct and commercialize the public medical safety networks of Jeollanam-do (9/6/2018)

(Jeollanam-do Office, Sinan-gun Office, National Association of Cognitive Science Industries, Korea Institute of Robotics and Technology Convergence, PRENEU, Lotte Communication Co.)

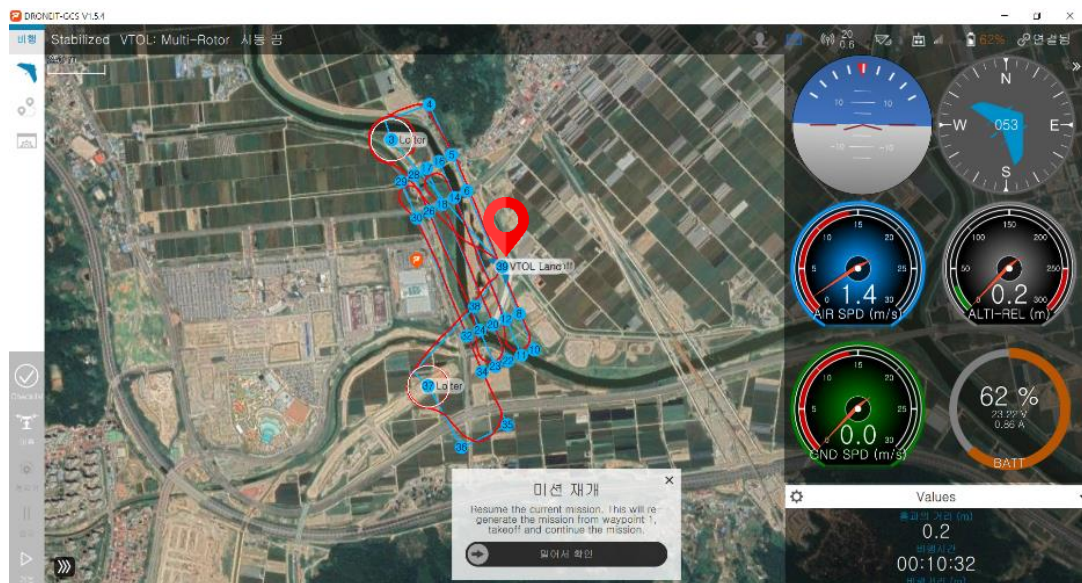
- After the demonstration, planning to review feasibility and pursue by linking with the Goheung Jeonnam and Jeonnam TP



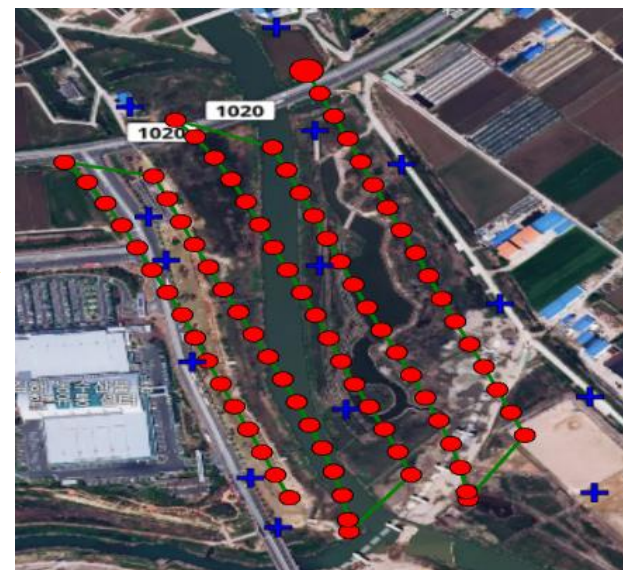
Aerial Survey

PRENEU drone operation

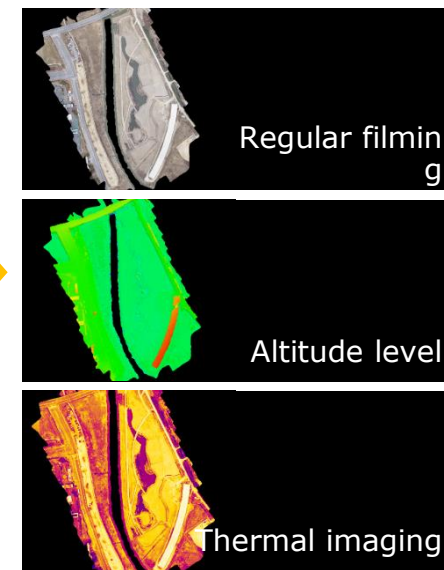
Surveyed rivers around Joman-gang (Riv.) of Gimhae



Flight plan (GCS auto flight)



Data processing (post-processing)



Outcomes (ortho image)



Take-off/landing point
31-4 Sinmun-dong, Gimhae,
Gyeongsangnam-do
Gimhae Park Golf Course parking lot

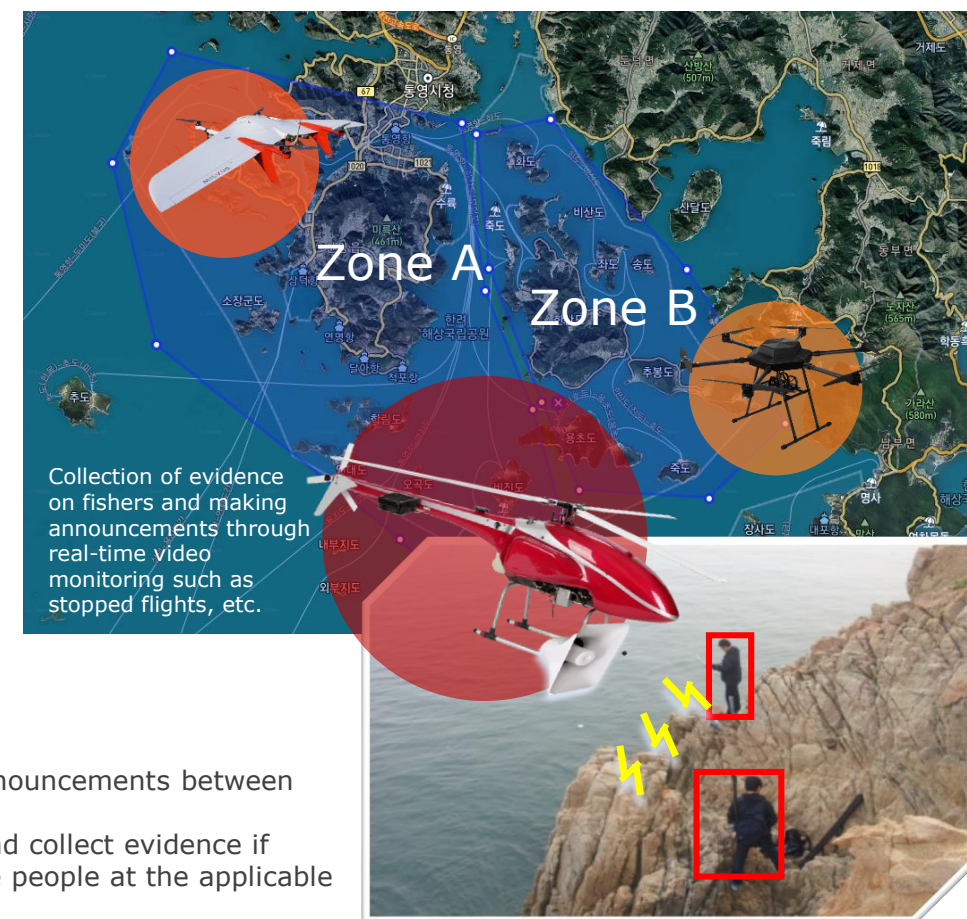


Scope of filming
app. 1km * 350m
350,000m²

National Seashore Park : Monitoring Unauthorized Activities

PRENEU drone operation

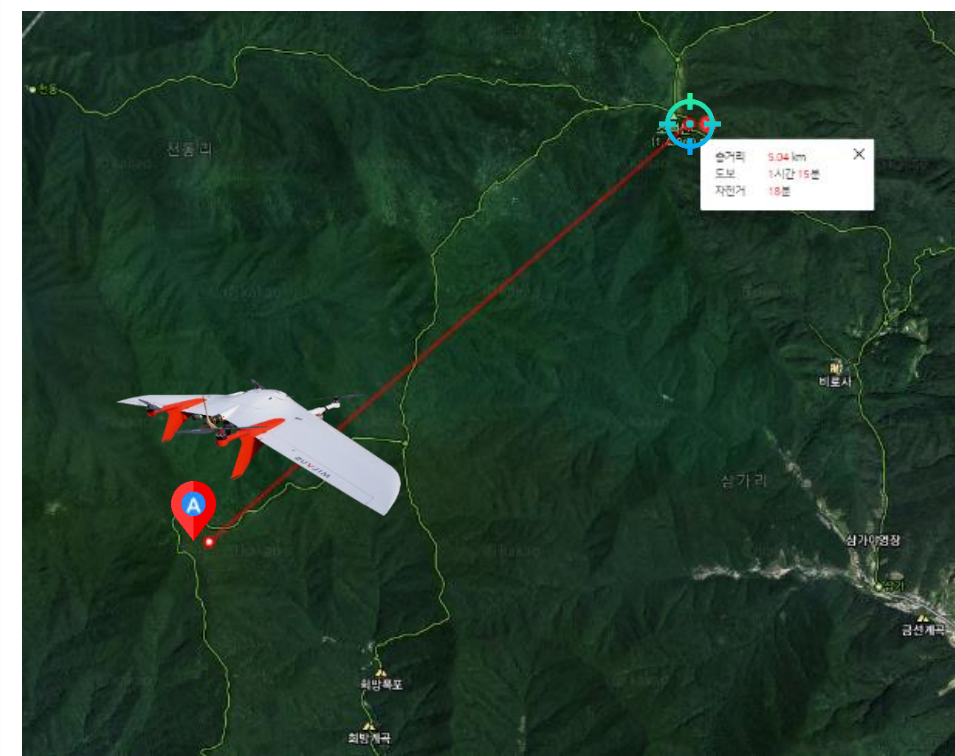
Monitoring system for damages to islands in the Marine National Park



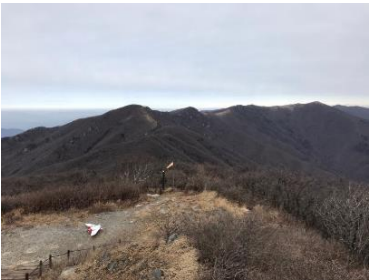
Forest Monitoring (Pine Tree Disease) Project

PRENEU drone operation

service
Sobaeksan (Mt.) pine tree ecology analysis (Korea National Park Service)



Installation of RTK station for GPS error compensation



Takeoff/landing point



Temporary ground control center



Outcomes (ortho image)



Take-off/landing point
2nd Yeonhwabong

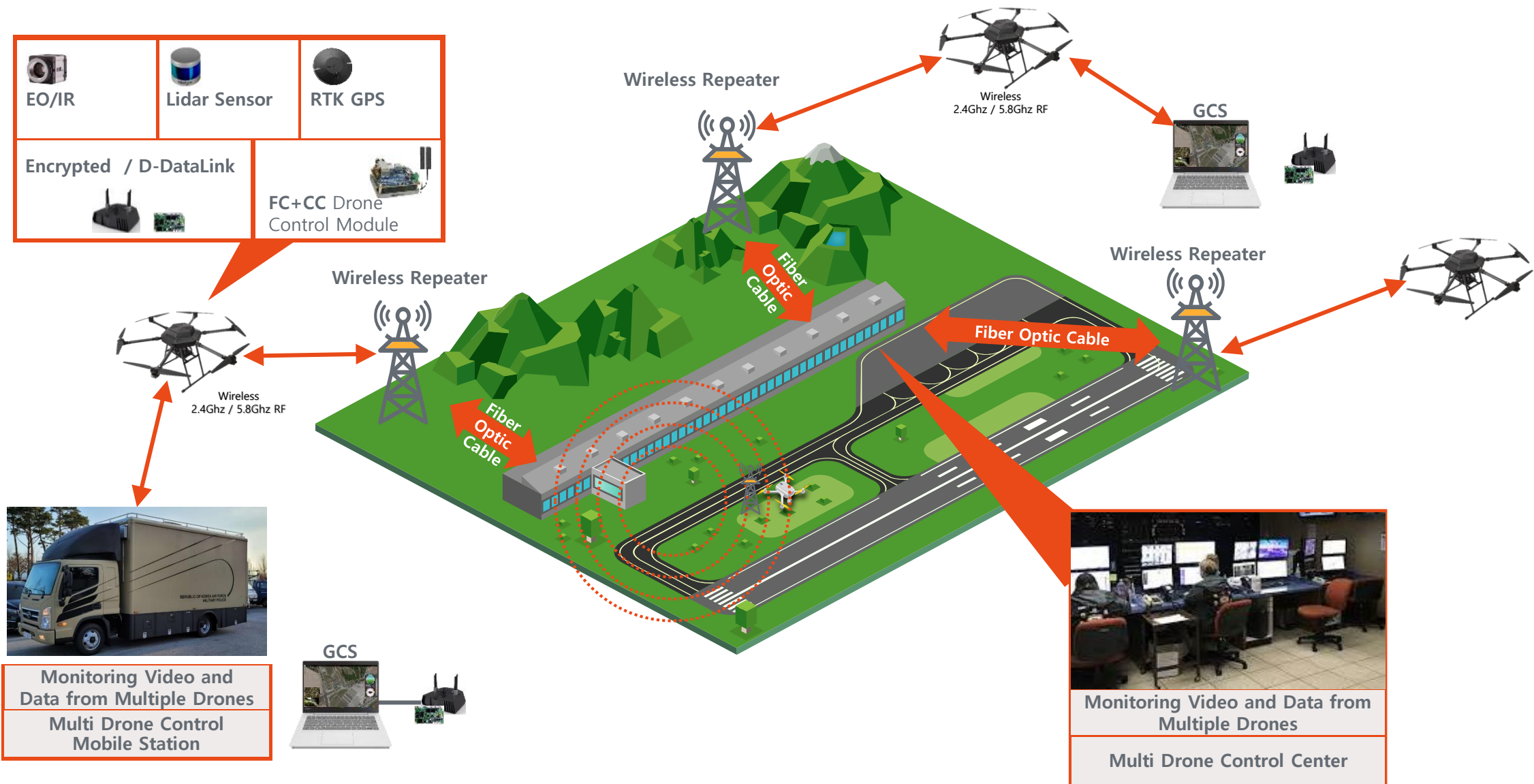


Total distance
5.04km



TARGET area
Top of Sobaeksan

Multi Drone Surveillance System for Military Base Security



Customers

Military Force



Aerospace Industry



Geospatial Industry



Trade Shows



2017. 9 Interdrone
Las Vegas USA



2018. 5 AUVSI Xponential
Denver USA



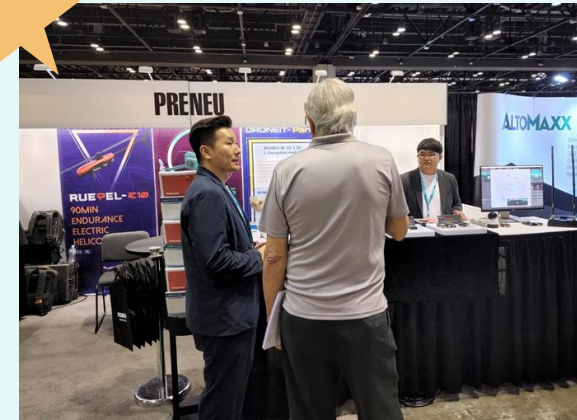
2018. 10 Commercial UAV Expo
Las Vegas USA



2019. 5 Unmanned Systems Asia
Singapore



2020. 2 African Drone Forum
Rwanda



2022. 5 AUVSI Xponential
Orlando USA



Thank you.

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