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I. Company Overview

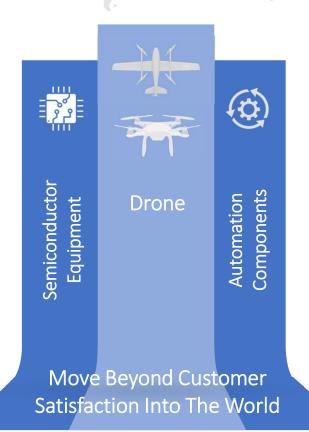
- 1. Company Introduction
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Global, Process Basis & Mass Production Company

World Wide Business		World Best Product	World First Process	
strer	er and expand global markets by ngthening and expanding business lities and building and strengthening overseas networks	Achieve world-leading commercialization by empowering core technologies and maximizing existing core products	Discover new customer value and integrate our core and peripheral technologies to make the world's first process commercial	
	Company Name	NEONTECH Co.,Ltd.		
	Established Date	2000. 10. 23.		
	CEO	Hwang, Seong-il		
file	Address	1745-3 Gwangyang-Dong, Dongan-gu, Anyang-si, Gyeonggi-do, Korea		
	URL	www.neontech.co.kr	,	
P	Sales Revenue	30 million USD (FY2021)		
2	Employee	180		
Company Profile	Business Area	 Drone Business Provide total Military/Fire-fighting/Logistics/Pest control drone solutions Semiconductor Equipment Business Dicing Saw, Saw & Sorter, MLCC Cutter Wafer Cleaner Automation Components Business PLC, Inverter, Reducer, Multi-joint Robot 		

Global Innovation to NEONTECH











No. 10-2086344Drone with body cooling function through air circulation hole



No. 10-2256892 Multi-remote controller auto-switching module and unmanned aerial vehicles



No. 10-2108415Drone to improve flight performance



No. 10-2172495Drone operation system for Painting



No. 10-2265865
Remote multi-point delivery method



No. 10-2281004Drone operation system for Fire-fighting



No. 10-2172493Drone operation system for Golf course



No. 10-2371766

Data Processing Device for Drone for Backing Mission Big Data Analysis and Al Processing











Drone R&D Center Certi

KC Certi (ND-820)

KC Certi (ND-605)

KC Certi (ND-810)



Direct Production Confirmation



Safety certificate (ND-820)



Safety certificate (ND-840)

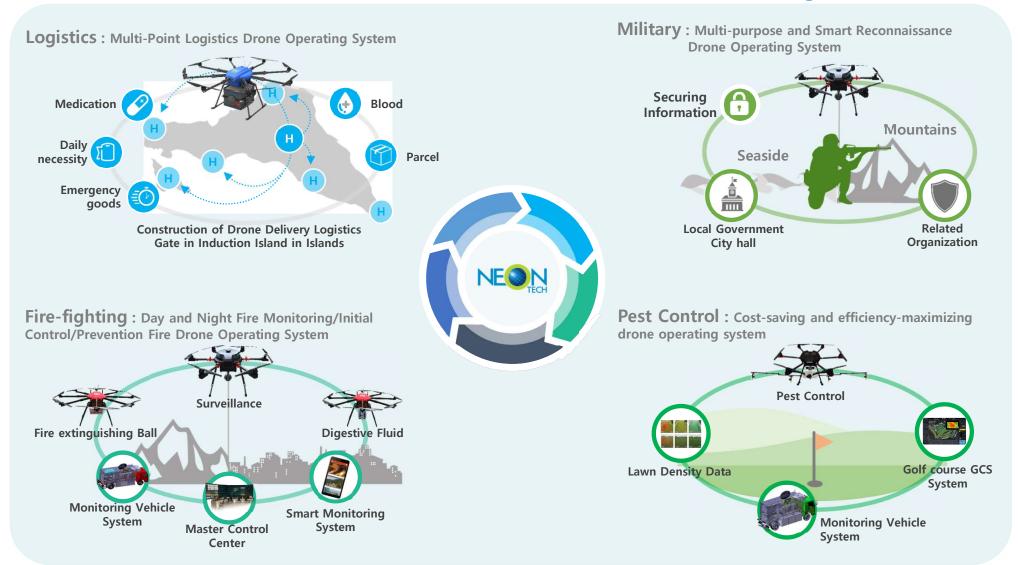


II. Business Area

1. Business Area



Deliver customized Drone Solutions based on Four Strategic Areas





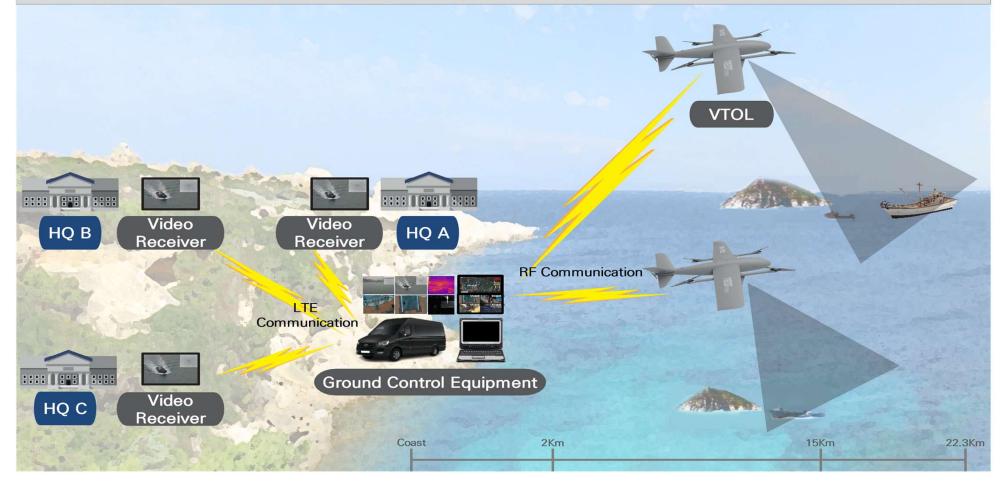
III. Military

- 1. Reconnaissance Drone System
- 2. Boundary Drone System
- 3. Multi-Point Operational Control Surveillance Drone System
- 4. Mobile Control Vehicle System
- 5. Product Line-up



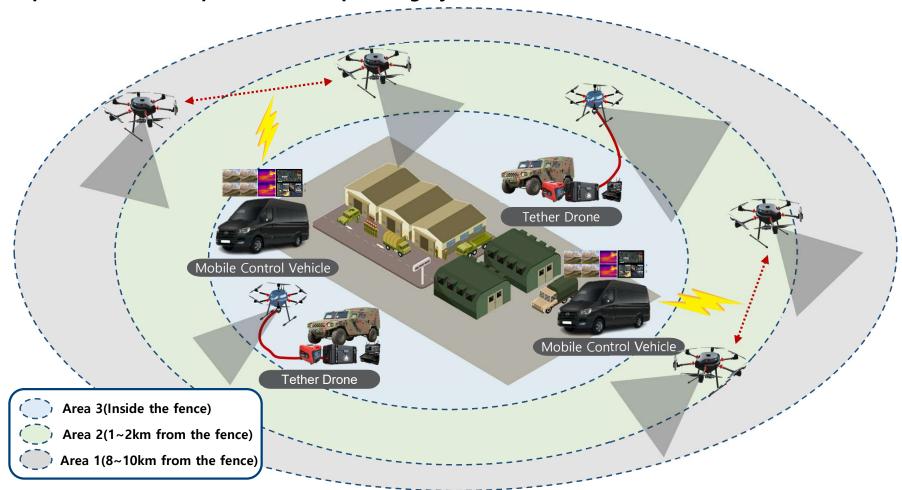
Proposal of VTOL Coast Reconnaissance Operation System

- Monitoring, target acquisition and verification with an EO/IR camera
- Controlled by ground control equipment, and target information is shared through the video receiver





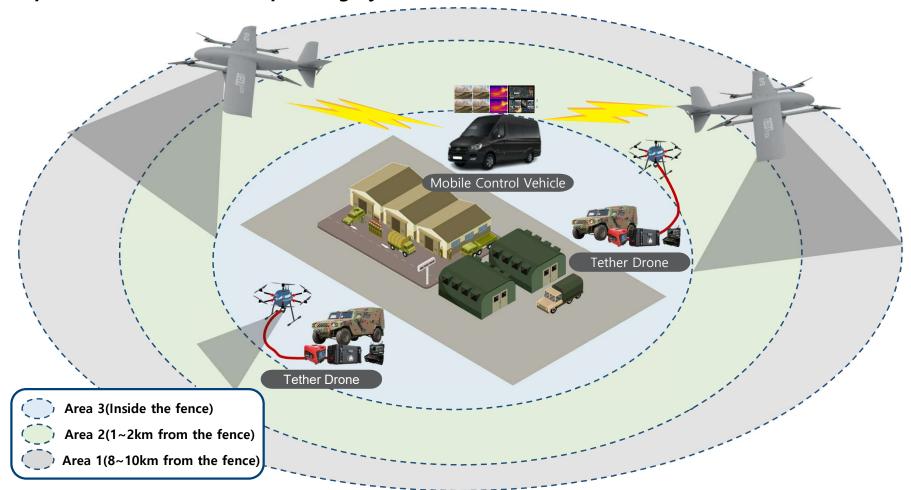
2.1 Proposal of Multi-Copter Control Operating System



- 2 Wired Tether Drone / 4 Wireless Drone Operations
- Separate controls for each Drone
- Centralized Operational Control
- The controller can control and transfer control of six drones



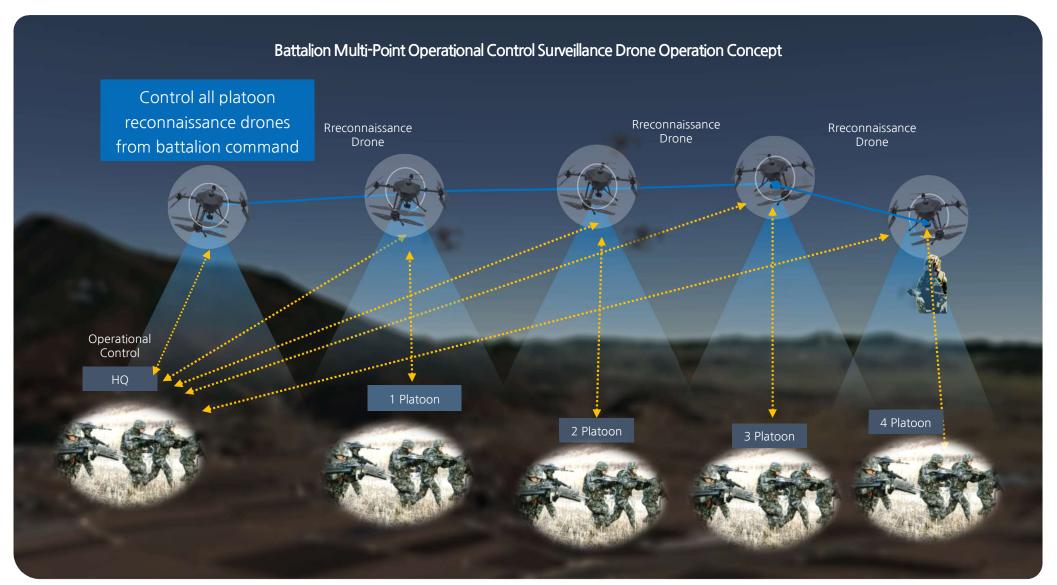
2.2 Proposal of VTOL Control Operating System



- 2 Wired Tether Drone / 2 VTOL Concurrent Operations
- More than 20km, 2 hours reconnaissance
- Zone designation concurrent control reconnaissance is possible
- Mobile control vehicle control



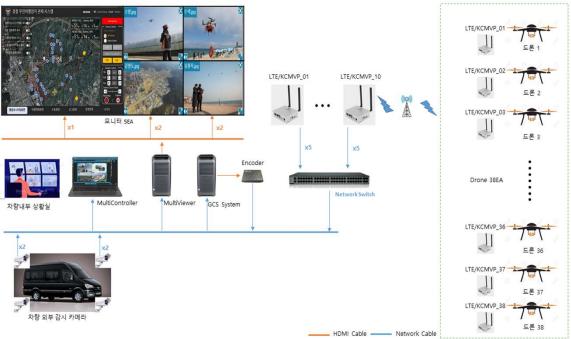
All platoon drones can be controlled from battalion command post (total 7 platoon drone control)







- Mobile Video Control System
- Application of operational management/control technologies such as real-time monitoring and control of movement situations that can be controlled and controlled with multiple drones and mission equipment based on non-visible communication
- Development of Integrated Vehicle Monitoring Unit
- Simultaneous control/control of multiple drones
- Vehicle Imaging Unit Implementation
- Image recording and mobile video transmission











Tether Drone (Wired)



Wire Length	• 100m / 300 ft
Micro Tether Weight	• 16 g/m
Output Voltage	• 6S or 12S
Data Speed	• 200 Mb/s
Size	• 650 x 380 x 360 mm
Weight	• 23 kg

Item	Specification		
Drone Size	•960mm × 960mm × 570mm		
Operating Altitude	• 500m		
Operating Time	• 40 min		
Encryption Equipment	Built-in KCMVP certification and real-time video encryption		
	Operating Altitude	50m	
	Operating Time	6 hour	
	Self-winch system, adjusting cable length according to altitude		
Tether System	 Can be operated in conjunction with drones and ground control equipment * Land power connection + portable power supply (small generator or UPS) • Power Supply Using Portable Power Supply • 220V power connection support for long-term operations 		
GCS	Transmission of drone state, image, coordinate, GPS information		



Reconnaissance Drone (ND-605)



	Improvement frame design
P-6	100
4	4

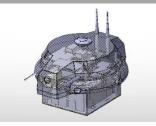
 IP54 Dustproof and Waterproof Design

Solid material



- High Strength Lightweight Nylon Material Application
- Air circulation hole design eliminates heat generation

Free up interior space



 Canopy space enables tactical operations with more on-board equipment

Item	Specification	
Drone Information	 Hexa Copter Size: 970 × 970 × 470 mm Weight not more than 12 kg (including battery and payload) Foldable Arm Design 	
Operating Time	• 30 min	
Wind Resistance	•10~12m/s	
Max Speed	• 60Km/h	
Control Method	• RF/LTE Multi Control - RF : Drone Control - LTE : Video Signal	
Control Distance	Distance 3Km / Elevation 100m	
Operating Temperature	• -10 ~ 40°C	
Feature	 Installation of life tubes for marine fall preparedness and photo/Image Storage (64GB SD Card) Installation of LED drone identification lamp in drone landing area Return To Home function can be operated in the event of an emergency during flight (signal failure, low battery, flight able wind speed exceeded, flight height exceeded, flight radius exceeded) 	



Reconnaissance Drone (ND-405)



FC	

- Various sensor linkage functions
- Non-GPS Flight able
- Black box functionality included

Object Detection Module



■ Al Edge Module (A2P-12)



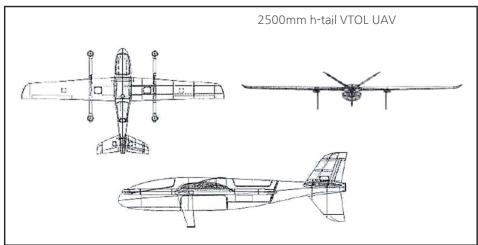
 GCS-Controller LTE/RF-based control can be changed

Item	Specification
Drone Information	• Size : 1000 * 1000 * 600mm 이하(프롭제외) • Weight : 15Kg (Battery, mission equipment excluded)
Operating • Hoverling: 30 min • Mission flight: 20 minutes	
Wind Resistance • 10m/s	
Max Speed	• 40Km/h
Control Method	• RF/LTE Multi Control - RF : Drone Control - LTE : Video Signal
Control Distance	• Distance 3Km / Elevation 150m
Operating Temperature	• -10 ~ 40°C
기 타	 FPV camera (HD class, data link all-in-one) Store data with 512G memory or more in the MC Front obstacle detection sensor installation Equipped with drone loss notification system EO/IR Optical 30x Zoom Camera Waterproof dustproof grade: IP43



VTOL (ND-VT25)





Item	Specification	
Туре	• VTOL	
Size	• 1,260 x 2,500 x 350 mm (L x W x H)	
Weight	6 kg (Battery, mission equipment excluded) MTOW: 13.5 kg	
Operating Time	• 3.5 hour	
Operating Distance	• 20 km	
Max Speed	• 100 km	
Data Link	Encryption (KCMVP) functionality	
Mission Equipment	• EO/IR 30x Optical Zoom	

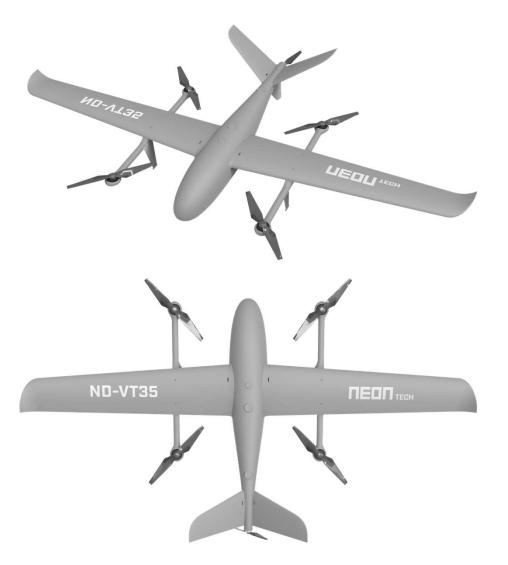


VTOL (ND-VT25) Test Flight





VTOL (ND-VT35)



Item	Specification	
Туре	•VTOL	
Size	• 1,880 x 3,500 x 370 mm (L x W x H)	
Weight	9kg (Battery, mission equipment excluded)	
Operating Time	• 2 hour	
Operating Distance	• 25 km	
Max Speed	•100 km	
Data Link	Encryption (KCMVP) functionality	
Mission Equipment	• EO/IR 30x Optical Zoom	



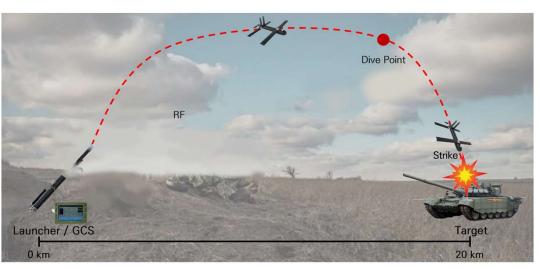
VTOL (ND-VT35) Test Flight





Silent Assassin (Attack drone)





Item	Specification	
Туре	Canister Launch VTOL Type	
Range • 20 km		
Speed	• 120 km/h (cruise), 160 km/h (dive)	
Max Operational Altitude	• 250 m(AGL), 5000m (MSL)	
Weight	• 1.5 kg(including warhead) • 3.5 kg(including launcher)	
Payload	• 400 gr multi-purpose:250 mm RHA armour piercing, anti-personnel, high explosive(HMX)	
Data Link	Encryption (KCMVP) functionality	
Launcher Type	• Pneumatic	
Operational readiness	• < 2 minutes	



IV. Fire-fighting

- 1. Fire-fighting Drone Operating System
- 2. Fire-fighting Drone Control System
- 3. Product Line-up



24h Fire Monitoring System / Real-time Video Shooting & Transmission



Fire Control Integrated System

connection with the comprehensive disaster management system and fire department







Tether Drone (Wired)



Wire Length	• 100m / 300 ft
Micro Tether Weight	• 16 g/m
Output Voltage	• 6S or 12S
Data Speed	• 200 Mb/s
Size	• 650 x 380 x 360 mm
Weight	• 23 kg

Item	Specification		
Drone Size	•960mm × 960mm × 570mm		
Operating Altitude	• 500m		
Operating Time	• 40 min		
Encryption Equipment	Built-in KCMVP certification and real-time video encryption		
	Operating Altitude	50m	
	Operating Time	6 hour	
	Self-winch system, adjusting cable length according to altitude		
Tether System	 Can be operated in conjunction with drones and ground control equipment * Land power connection + portable power supply (small generator or UPS) • Power Supply Using Portable Power Supply • 220V power connection support for long-term operations 		
GCS	Transmission of drone state, image, coordinate, GPS information		



Reconnaissance Drone (ND-605)



Improvement frame design
25 160
6

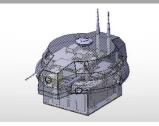
 IP54 Dustproof and Waterproof Design

Solid material



- High Strength Lightweight Nylon Material Application
- Air circulation hole design eliminates heat generation

Free up interior space



 Canopy space enables tactical operations with more on-board equipment

Item	Specification		
Drone Information	 Hexa Copter Size: 970 × 970 × 470 mm Weight not more than 12 kg (including battery and payload) Foldable Arm Design 		
Operating Time	• 30 min		
Wind Resistance	•10~12m/s		
Max Speed	• 60Km/h		
Control Method	• RF/LTE Multi Control - RF : Drone Control - LTE : Video Signal		
Control Distance	Distance 3Km / Elevation 100m		
Operating Temperature	• -10 ~ 40°C		
Feature	 Installation of life tubes for marine fall preparedness and photo/Image Storage (64GB SD Card) Installation of LED drone identification lamp in drone landing area Return To Home function can be operated in the event of an emergency during flight (signal failure, low battery, flight able wind speed exceeded, flight height exceeded, flight radius exceeded) 		



Fire-fighting Drone (ND-840Z)





Fire Extinguishing Ball Mounted



Fire Extinguishing Liquid Mounted

Item	Category	Specification	
Summary	Model Number	ND-840Z	
	Purpose	Fire suppression (Fire extinguishing ball/Fire extinguishing liquid drop)	
Spec	Size	1605 mm / 2895 mm, 3905 mm, 930 mm	
	Weight	73.54 kg	
	мтоw	93.9 kg (Self-weight 73.54 kg, EO/IR 1.35 kg, payload 19 kg)	
	Mission Equipment Weight	Fire extinguishing ball 1.2 kg : 84.9 kg / 4.0 kg : 93.9 kg Fire extinguishing liquid 600 ml : 92.1 kg	
	Power	Lithium polymer battery (30,000mAh * 8 EA)	
	Flight Speed	50 km/h (Max speed 70 km/h)	
	Operating Time	No Load: 35 min Fire extinguishing ball 1.2 kg: 30 min / 4.0 kg: 29 min Fire extinguishing liquid: 29 min	
Operation	Wind Speed	12 m/s	
al Limit	Temperature	-20 ~ +60 ℃	
	GPS Accuracy	RTK (2.5cm/10km)	
	Flight Control System	FC/LTE/Mission All-in-One Module	
	Telecommunication	LTE/Telemetry	
Other	Elevation Measurement	Elevation measurement LIDAR installation	
	Concurrent Operation	10 EA (LTE)	
	Safety Function	Fail Safe/Homecoming(RTH)	

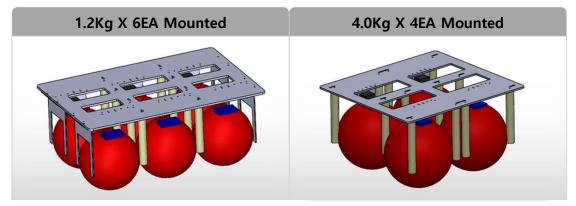


Fire Extinguishing Ball





Item	Specification		
Ingredient	• 90% ABC Dry Powder(Nontoxic)		
Weight	•1.2 kg / 4 kg		
Size	• 150 mm(1.2 kg) / 213 mm (4 kg)		
Extinguishing range	• 3 m ² (1.2 kg) / 9 m ² (4 kg)		
Operating Temperature	• -40~+90°C		





Fire Extinguishing Ball Drop Test





Fire Extinguishing Ball Drop Test Flight





Fire Extinguishing Liquid





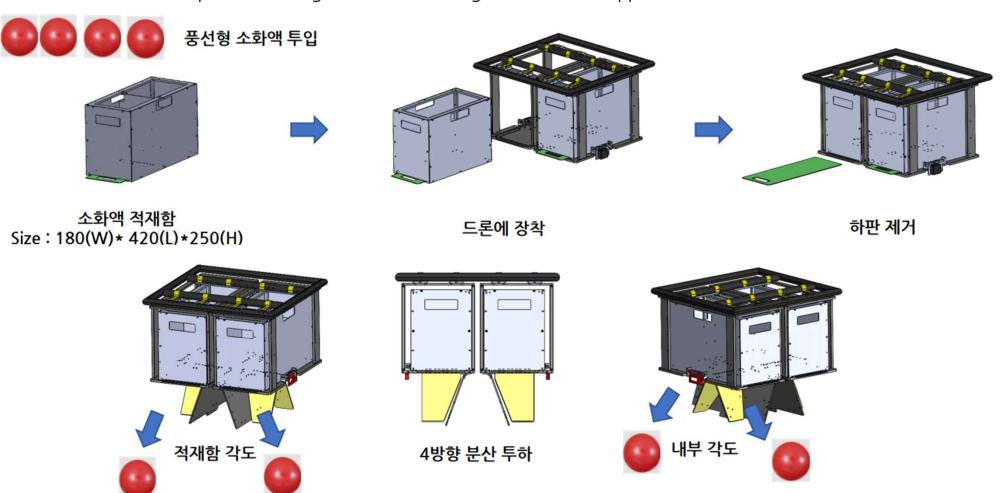
Item	Specification		
Ingredient	• urea, salt ions, etc		
Capacity	• 600 ml		
Size	• 225 * 62 mm		
Operating Temperature	• -10~+45℃		





Fire Extinguishing Liquid Drop Device

• During the development and testing of instrument devices that improve the existing bottle-type digestive fluid in balloon form and can be dispersed in a large area when the digestive fluid is dropped





Fire Extinguishing Liquid Drop Test Flight



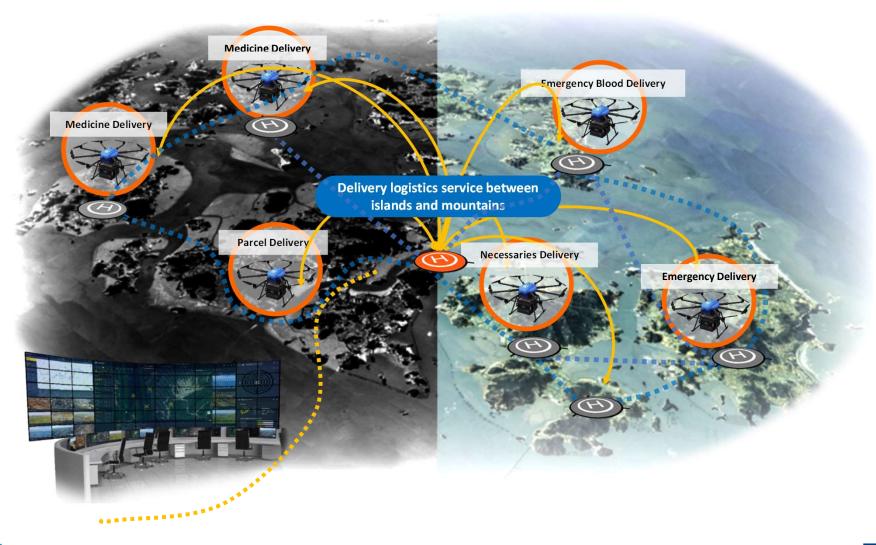


V. Logistics, Pest Control

- 1. Logistics Drone Operating System
- 2. Pest Control Drone Operating System
- 3. Product Line-up



Address-based multi-point drone logistics operating system





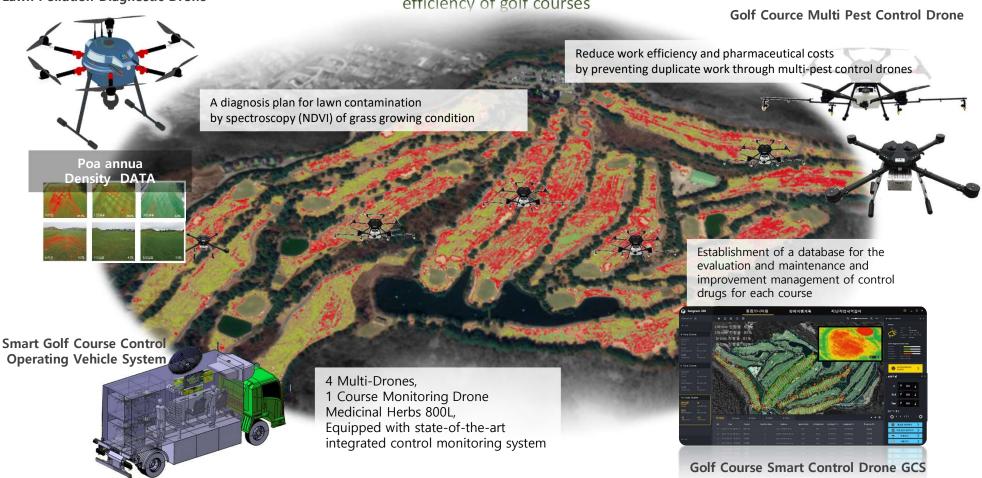
Pest Control Drone Operating System

V. Logistics, Pest Control

GLOBAL INNOVATION to NEONTECH

Pest Control Drone

Providing a new control drone operation system for reducing operating costs and labor Lawn Pollution Diagnostic Drone efficiency of golf courses





Development of Smart Control Drone GCS for Golf Course

코스별 잔디 오염도 진단 및 실시간 모니터링

- 스펙트럼분석(NDVI)기반
 새포아풀밀도조사
- 코스별실시간모니터링 (주야간및500m식별가능)

코스별 방제 약효평가와 유지·개선관리를 위한 데이터베이스 구축

기상/강수량데이터, 병충해목록, 약재에 따른 새포아풀 밀도 데이터를데이터베이스화하여 방제 프로그램 최적화 적용



효율적인 방제작업을 위한 멀티비행 계획

- 면적당분사량설정
- 자동비행경로수립
- 멀티드론의 코스별 방제비행계획 등록(최대 10대가능)
- 코스별 방제작업 진행율표시



Logistics Drone (ND-820)



Item	Specification		
Model Number	ND-820		
Туре	Multicopter (OCTO)		
Purpose	Delivery		
Operating Time	18min(Full load) / 30 min(No load)		
MTOW	64 kg		
Payload	10~20 kg		
GPS Accuracy	RTK (2.5cm/10km)		
Flight control system	LTE/Telemetric , RF(900Mhz, 5.8Ghz)Equipped with encryption module		
Telecommunication	LTE/Telemetric, RF(900Mhz, 5.8Ghz)		
Elevation Measurement	Elevation measurement LIDAR installation		
Concurrent Operation	10 EA (LTE)		
GCS	 Real-time ground control Elevated Elevation/Curved Automatic Flight Monitoring Targeting Store and simulate delivery information (video, flight path) 		
Safety Function	Fail Safe/Homecoming(RTH)		



Logistics Drone (ND-840)



Item	Specification		
Model Number	ND-840		
Туре	Multicopter (OCTO)		
Purpose	Delivery		
Operating Time	25min(Full load) / 30 min(No load)		
MTOW	85 kg		
Payload	10~20 kg		
GPS Accuracy	RTK (2.5cm/10km)		
Flight control system	LTE/Telemetric , RF(900Mhz, 5.8Ghz)Equipped with encryption module		
Telecommunication	LTE/Telemetric, RF(900Mhz, 5.8Ghz)		
Elevation Measurement	Elevation measurement LIDAR installation		
Concurrent Operation	10 EA (LTE)		
GCS	 Real-time ground control Elevated Elevation/Curved Automatic Flight Monitoring Targeting Store and simulate delivery information (video, flight path) 		
Safety Function	Fail Safe/Homecoming(RTH)		



Logistics Drone (ND-840Z)



Item	Category	Specification		
	Model Number	ND-840Z		
Summary	Purpose	Delivery		
	Size	1605 mm / 2895 mm, 3905 mm, 930 mm		
	Weight	73.54 kg		
	MTOW	93.9 kg		
Spec	Power	Lithium polymer battery (30,000mAh * 8 EA)		
	Flight Speed	50 km/h (Max speed 70 km/h)		
	Operating Time	No Load : 35 min		
Operation	Wind Speed	12 m/s		
al Limit	Temperature	-20 ~ +60 °C		
GPS Accuracy		RTK (2.5cm/10km)		
	Flight Control System	FC/LTE/임무 일체형 모듈		
Other	Telecommunication	LTE/Telemetry		
	Elevation Measurement	Elevation measurement LIDAR installation		
	Concurrent Operation	10 EA (LTE)		
	Safety Function	Fail Safe/Homecoming(RTH)		



VI. References

1. References Status



Project	Business Period	User
Drone forest fire monitoring and fire extinguishing system	2020.12.17~2021.03.09	Anyang City Hall, Korea
DNA+Drone Technology Development Project	2020.04.23~2021.12.31	Korea Research Foundation
Proof of establishment and commercialization of drone logistics service platform between islands with 98% success rate of delivery mission	2019.04.01~2022.12.31	Korea Institute of Industrial Technology Evaluation and Management
Implementation and Demonstration of Interworking System between Address-Based Delivery Management System and Delivery Drones	2018.11.01~201812.18	Korea Electronics and Telecommunications Research Institute Postal Technology Center
Pilot operation of delivery of mail logistics drones in mountainous areas	2018.08.01~2018.08.08	Postal Service Headquarters
Construction of Drone Transportation System for Marine Products	2018.05.01~2019.03.31	Korea Robot Industry Promotion Agency
Development of a 50g dass collision prevention and high-level detection superpower impulse radar sensor for drone swarm and auto-landing	2018.06.21~2021.12.31	Civil and Military Cooperation Agency
2017 Policy Support Project for Regional Specialized Content Development - Drone Busking	2017.06.22~2018.07.31	Korea Creative Content Agency
Development of Lightweight, High-Efficiency All-in-One Electric Drive Module for Multicopter	2017.04.01~2019.12.31	Korea Institute of Industrial Technology Evaluation and Management
Drone and Special Mission Equipment Project	2019.10.10~2019.12.08	Busan headquarters customs office
Manufacture/Procurement of Photographic Drone	2019.08.02~2019.10.30	5067th Army Unit



