

PRENEU is Korea's leading drone specialist providing innovative drone systems and services through convergence of H/W manufacture technology for drones and aviation, S/W development technology, and key IT technology.

- VTOL FIXED WING
- MULTI COPTER
- UNMANNED HELICOPTER
- D-PARTS







31 October - 3 November 2022 Abu Dhabi, United Arab Emirates







## VTOL Fixed Wing UAV



#### Proven Quality, Many Applications

MILVUS has been supplied to military, public institutions, and private Companies. Its stability has been proven during operation. It provides efficient drone services for purposes such as aerial surveying, surveillance/reconnaissance, and



#### PAYLOAD

EO/IR(Dual) / Survey Camera / Multi Spectral Sensor / PPK

#### APPLICATION

#### Survey

- Geospatial data acquisition and cadastral survey
- Aerial Mapping

#### Public Safety

- Pipeline Surveillance
- · Sea shore, River shore Monitoring

#### Defense

- · Military Air Defense Training
- Military Reconnaissance Mission

#### Mission Payloads





EO/IR (Dual)

















Compact Multi purpose UAV

## PANDIAN S

#### Light! Durable! Portable!

Pandion S is a very potable UAV system with a weight of 1.6kg, and its ultra-small EO/IR camera dedicated to Pandion S allow you to perform missions easily and quickly.



#### PAYLOAD

EO/IR(Dual) / LRF / SEARCHLIGHT / SPEAKER

#### APPLICATION

#### Surveillance/ Reconnaissance

Urban Aerial Monitoring

#### Facility Inspection

• Al base precise Power line, Solar Cell Panel Inspection

#### Defense

- Military Base Surveillance
- Military Training

## Modular Type Electric Helicopter UAV



#### Great Usability based on Various Mission Payloads.

It provides special mission services such as search/rescue using UAV in areas with harsh environmental conditions, such as maritime and mountainous areas



## PAYLOAD

EO/IR(Dual) / LIDAR

#### APPLICATION

#### Surveillance/ Reconnaissance

Maritime, Mountain Area Monitoring

#### Defense

- Military Operation
- Warship Mounting UAV

#### Special Survey

 Special Purpose Mission Device-Based Surveying







3kg Payload

ASL 3.3km

# PANDIAN

## Auto-Pilot Hexa-Copter

It provides automatic flight and obstacle detection/avoidance flight through the self-designed application and automatic setting of the camera and GCS.

#### PAYLOAD

EO/IR(Dual) / LIDAR / Delivery Kit

#### APPLICATION

#### Precision Measurement

- Radio Frequency Measurement
- Facial Recognition

Geospatial data acquisition and cadastral survey

#### Defense

- Military Base Surveillance
- Military Training

### Surveillance/ Reconnaissance

• Day/Night Reconnaissance

## Software



#### DRONEIT-GCS

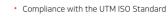
- · Provide real-time information including flight mode, flight speed, flight distance, camera status, GPS coordinates and UAV battery status.
- · Real-time flight/video control system
- Video data transmission over LTE network
- Autonomous waypoint flight
- Auto take-off, return, landing, flight, actions according to missions
- Simultaneous control of multiple UAVs with an one operator



#### DRONEIT-UTM

- Provide information for the flight environment
- · Multiple UAVs management
- Video data streaming from multiple UAVs
- Collision monitoring between registered UAVs
- Flight approval process through the GCS

Geospatial data acquisition

















Buoyancy kit







13m/s

Wind Resistance

8kg 45min

### **DRONEiT-Parts**

#### DRONEIT-DL-V2 & DRONEIT-DS & Encryption module

DRONEIT DL-V2 is a compact size datalink dedicated to UAVs complying with UAV frequency band 5.030~5.150GHz also 2.4GHz and 5.3~5.825GHz.

- FHD video transmission (Up to 5km)
- · Additional expansion ports with the Drone-optimized Interface
- · Integrated transmission for video and flight information
- Compact size (80mm\*50mm\*25mm)







#### ■ DRONEIT-CC & DRONEIT-FC

CC (Image Recognition) + FC (UAV Control) Integrated board

- · Support AI functions including Image recognition, Collision avoidance and etc.
- · MAVLink communication between the CC and FC board
- · Easy Customization with compact size

#### DRONEIT-CC & DRONEIT-DL

CC (Image Recognition) + DL (DataLink) Integrated board

- Support RJ45 Ethernet (10/100/1000 Mbps)
- · Support HDMI, USB Type camera
- Support LTE networks





#### DRONEIT-PM | Power Module

- Shock and Vibration-resistance structure for stable performance
- · Voltage regulation function for each mission devices
- Providing up to 4A output for each port

#### DRONEIT-FC | Flight Controller

- Designed into Single-board flight controller type
- STM32H7 Series 32-bit Arm® Cortex®-M7 (Clock: 480MHz)
- · Support 8 sensors







## An innovative company that challenges creation of new opportunities through drone and IT technology convergence

PRENEU is a leading drone company in Korea that provides innovative drone systems and services through the convergence of drone and aviation H/W manufacturing technology, S/W development technology, and IT technology.



## **DRONEIT Service Platform**

We provide platform-based services that can maximize the utility of drones through convergence with IT technology.

#### Al-based task support Service

- · Real-time Image Analysis service
- · Analyze / forecast changes in terrains and major facilities
- · Fire detection and forecasting modeling
- Forecasting and monitoring crops and scanning vulnerable areas
- Estimating volume and weight of shipments
- Accurate AI analysis with the cloud-based learning Al engine

#### Logistics Delivery / Indoor Inspection / Diagnosis Service

#### Drone Logistics and Transportation Service

- · Mail delivery service for isolated area
- · Daily necessities delivery
- Medical / daily supplies delivery to isolated area

#### Indoor Mapping and Solar Panel Inspection Service

· Indoor Mapping and Inspection for buildings under

#### construction

- · Plant equipment inspection
- · Solar panel inspection

#### Cloud-based UAV Traffic Management Service

- · Provide information for the flight environment
- · Multiple UAVs and User management
- Video data streaming from multiple UAVs · Collision monitoring between registered UAVs
- · Flight approval process through the GCS
- · Geospatial data acquisition
- · Flight log data management
- · Compliance with UTM ISO Standard

#### Drone rental, education, matching and development Service

- Short-term drone rental and after-sales service
- Education for drone operator and developer (online-offline)
- · Simulation training for drone operation and maintenance
- Counselling and Supporting to make better outcome with drone operation
- R&D Cooperation

