

# Drones open up a new world by building drone highways in the air.

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Drone highways will be built over the three major rivers in Daejeon. Amid the Fourth Industrial Revolution, all our citizens will be able to enjoy convenience and safety and also benefit from the Korean version of the New Deal through the latest drone technology and our 'Guardian Angel Drone Service.' Digital education will be provided for the underprivileged as well.



## Establishment of drone infrastructures and expansion of drone services

With a view to creating the optimal conditions for drone flying, we are poised to develop a drone station, which is composed of takeoff and landing sites and maintenance and charging facilities, as well as a situation room for real-time monitoring. For the effective utilization of information gained from drones, integrated management systems will be introduced in the near future.

The situation room will be established in Daejeon Technopark—which will allow us to monitor systematically the flight of different types of multiple drones, and a drone station, in the Special Drone Zone—designated by the Ministry of Land, Infrastructure & Transport, where simple maintenance and charging services are offered.

For the convenience of our residents, we will carry out the ‘Guardian Angel Drone Service’ in the Special Drone Zone along the three major rivers of Daejeon. The goals of the planned services are delivery of emergency kits, neighborhood safety, night patrol, and environmental preservation.

Conceptual diagram of Daejeon’s Guardian Angel Drone Service



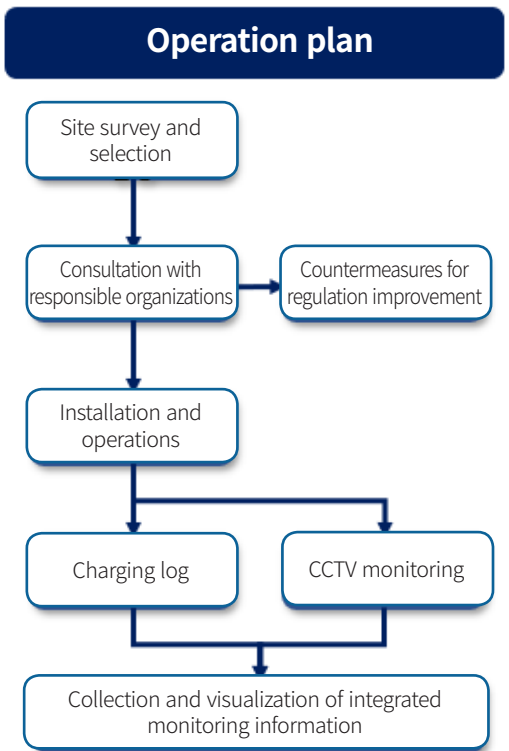
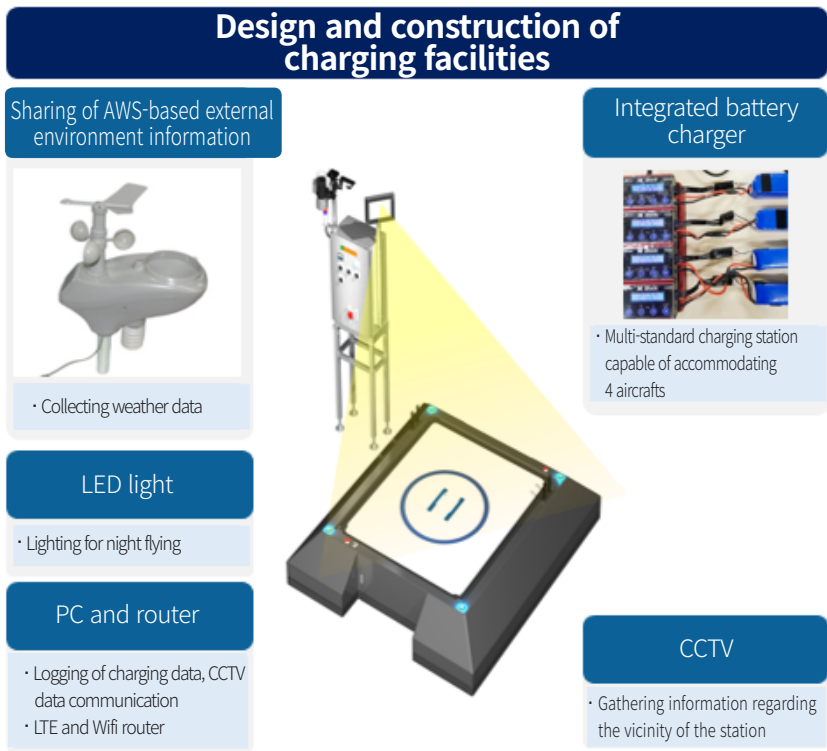


► Construction of drone infrastructures

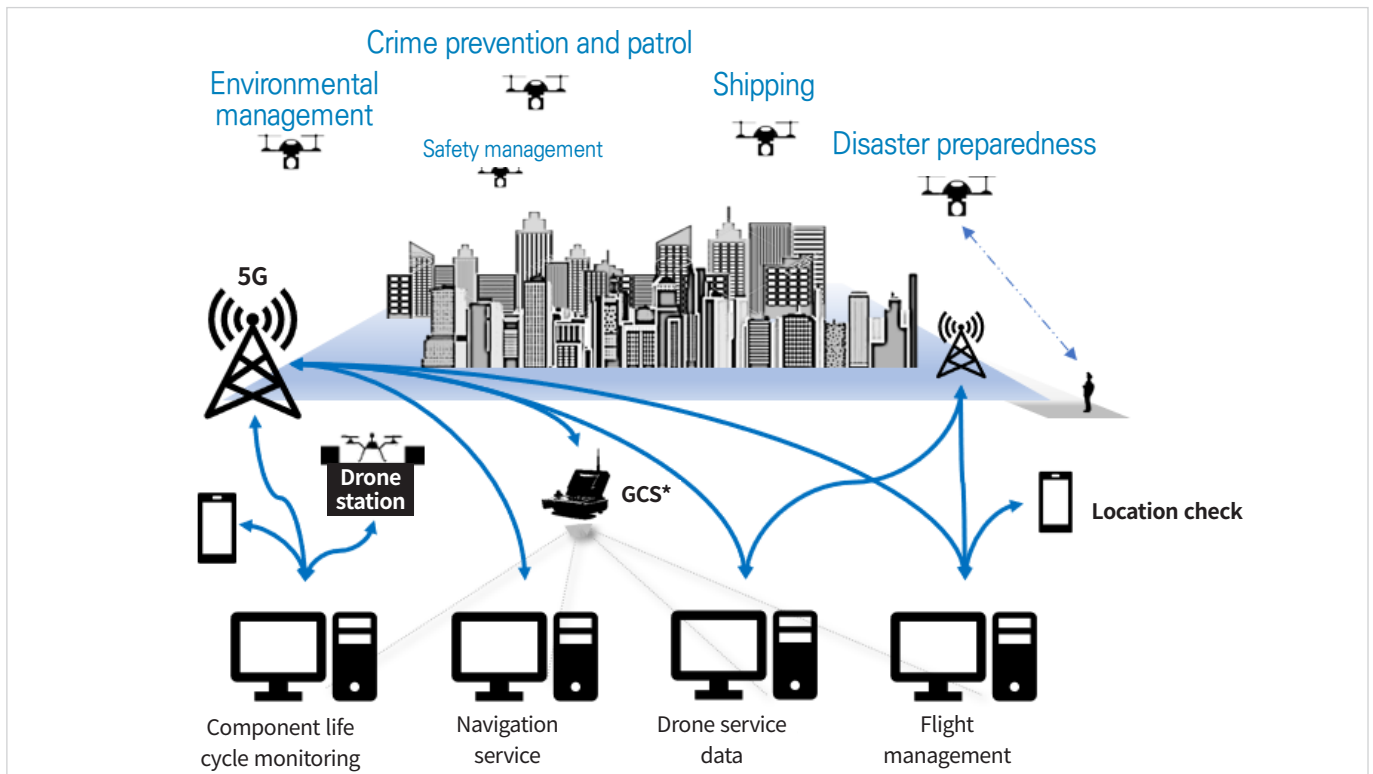
- Situation room (1) : representing the location and number of drones on the map of Daejeon Metropolitan City
- Drone station : takeoff and landing sites, maintenance and charging facilities, and training centers to support safe drone services

- Location : 4 stations/ Drone Park, Munji-dong, Hanbat Arboretum, Yurim Park (subject to change)
- Features : AI-based autonomous flight drone infrastructure (4 sets), communication network (4 sets), monitoring system and data device (1 set), safety equipment (4 sets)

Proposal for a drone charging station



► Demonstration of Daejeon's Guardian Angel Drone Service



- System configuration

- 3 sets of drones (including a spare) and mission equipment
- 1 set of ground control apparatus
- More than 3 types of mission data analysis tools

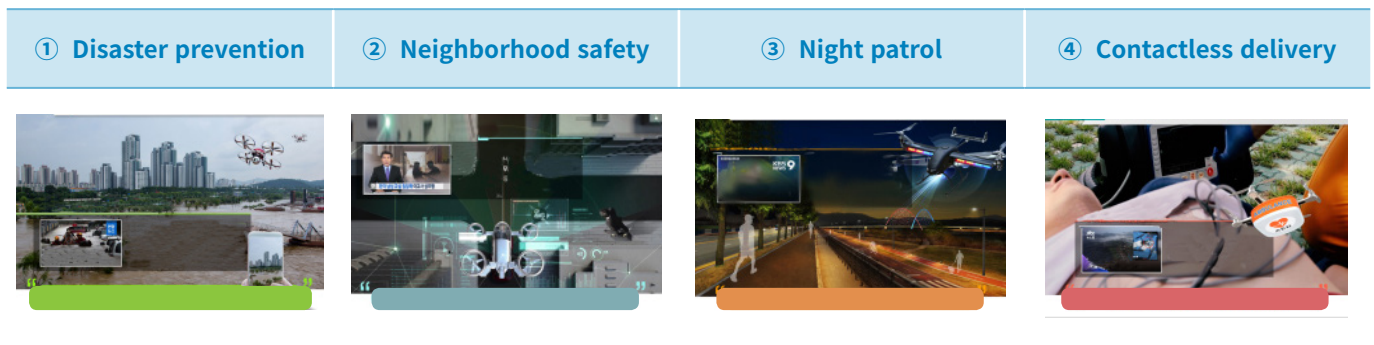
- Infrastructure

- Data link, maintenance / charging facility, flight management, drone data collection system





## Types of drone services



- Let's take a closer look at our drone services.

- ① Disaster prevention
  - Examine eco parks and public amenities along the water
  - (River information) Monitor streamflow, water conditions, and facilities
- ② Neighborhood safety
  - Detect risk factors (trespasser, suspicious individual) in school, parks, and sports facilities
  - (Increase of user convenience) Establish risk reporting systems in public facilities (school, park, sport facility) and critical facilities (sewage treatment plant)
- ③ AI-based night patrol
  - (Citizen's night activity support) Look after people who take a walk alongside the river and (appreciate cultural activities)
  - Deter crime by monitoring surveillance drones in desolated places and build safety systems in districts that lack CCTV monitoring
- ④ Contactless delivery
  - (Emergency supplies) Cardioverter defibrillator and first aid kit
  - (Self-quarantine supplies) Household items and food
  - (Delivery) Pizza, chicken, and other dishes in connection with restaurants