

Reshaping our lifestyle: Demonstration of drone food delivery in urban areas

Drone food delivery service demonstrated on September 19 using 5 drones at Sejong Lake Park

 The Ministry of Land, Infrastructure and Transport (MOLIT, Minister: KIM Hyun-mee) demonstrated the use of delivery drones to carry packages of food at Sejong Lake Park, in an effort to proactively respond to the "new normal" of non-contact culture brought by the COVID-19 pandemic and prepare for the expansion of drone services in the post-COVID era.

* (Demonstration) Sejong Lake Park, 17:00 KST, September 19 (Sat), 2020

- The demonstration, under the theme of "Safe Drones for Convenient Life", took place without prior announcement to prevent the spread of COVID-19 and was conducted through spontaneous participation from the citizens who were visiting the Lake Park at the time.
- □ Five drones were used in the demonstration. They were sent to two different areas: three drones flew 2.5km across the Geum River from Sejong City Hall to Sejong Lake Park; and two drones took off from the commercial district in Naseong-dong, flew 1.5km through high-rise buildings and landed at Sejong Lake Park. The drones delivered face

masks, hand sanitizers, and food in an average of 10 minutes.

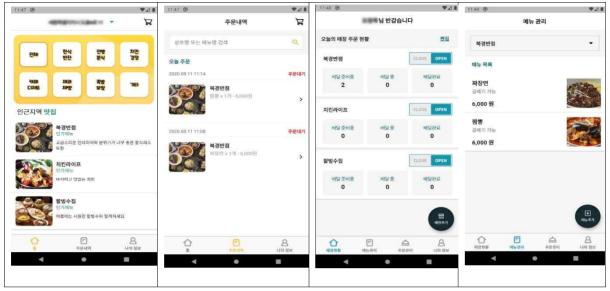
Order	Company	Delivered goods	Take-off point	Altitude	Speed
1	XDRONE	Face masks & hand sanitizers	Sejong City Hall	50m	5m/s
2	PNU DRONE	Hamburger	Parking lot, Naseong- dong	80m	8m/s
3	P-Square 1	Chicken	Sejong City Hall	45m	5m/s
4	P-Square 2	Bacchus drink flavor jelly	Sejong City Hall	45m	6m/s
5	Doosan Mobility Innovation (DMI)	Macaron	Parking lot, Naseong- dong	80m	4m/s

<Demonstrated Drone Delivery Services>

* Altitude and speed are subject to change depending on wind direction and speed

- Saturday's event validated the possibility of safely using drones in midto-long distance delivery services in urban areas, and also demonstrated applicable technologies, such as automated take-off and landing of multiple drones, waypoint flights, order and delivery confirmation on drone-only delivery apps*, and drone stations.
- * Delivery apps developed for drone delivery services under the Drone Regulatory

Sandbox Project



<Drone-only Delivery App>

- The five drones used in the demonstration are multi-purpose drones made by Korean drone manufacturers with advanced technology. They include hydrogen fuel cell drones suitable for long flights, as well as drones used in logistics, port surveillance, and infrastructure inspection and monitoring.
- * (Participating Companies) DMI, XDRONE, P-Square, PNU DRONE
- □ Drone delivery is an area where competition is fierce among global logistics powerhouses, such as Amazon and DHL, who are laying the foundation to secure their shares in the market, and Korea is also focusing on this newly emerging sector by advancing related technologies through diverse demonstration projects including the Drone Regulatory Sandbox.

- However, as of now, drone delivery services do not have a competitive edge over the existing methods of land delivery such as courier services. Therefore, the current objectives for promoting the domestic drone delivery industry are to find a niche in the delivery market and identify and test specialized business models such as delivery services to remote and isolated areas.
- Mr. JEONG Yong-sik, Director General for Aviation Policy of MOLIT, said "In order to promote the drone delivery industry, the government and businesses need to address many challenges including delivery to highrise buildings, maximum payload limits, and inclement weather-related issues."
 - "The government plans to provide multifaceted support so that drone delivery, as well as other drone services related to our everyday lives, would take root and grow soon."