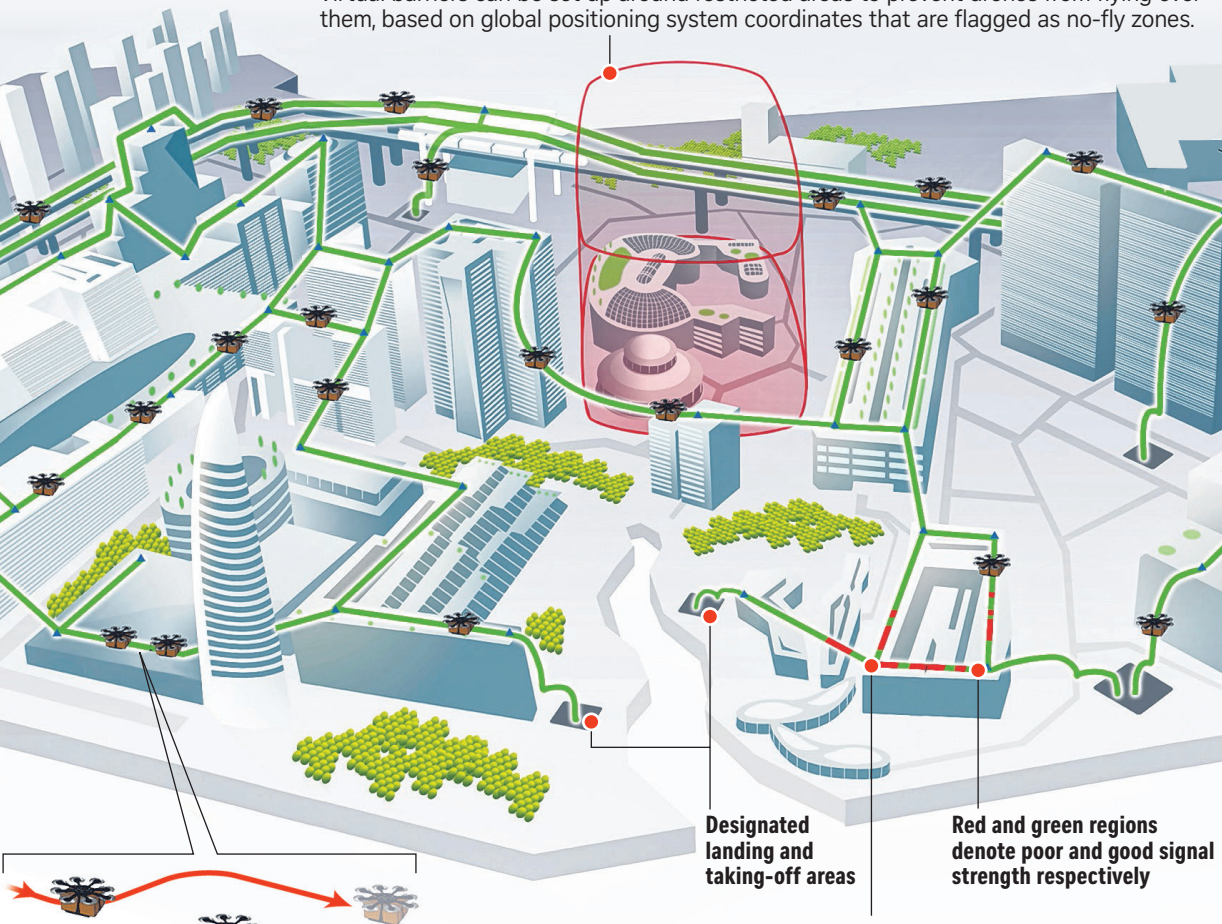
Managing urban airspace

NTU researchers are looking into how Singapore's urban airspace can be open to the safe and efficient flying of drones for commercial or industrial purposes.

- By dividing the airspace into various air blocks, hundreds of drones can be allocated safe flight paths in various blocks depending on traffic conditions and drone density.
- This, along with features like geofencing, collision avoidance and signal strength monitoring, forms the basis of an aerial traffic management system for drones.

GEOFENCING

Virtual barriers can be set up around restricted areas to prevent drones from flying over them, based on global positioning system coordinates that are flagged as no-fly zones.



COLLISION AVOIDANCE

Drones will be able to automatically detect potential collisions and re-route themselves mid-flight to avoid crashing into each other.

CONTROL STATIONS FOR DRONE MONITORING

Various control stations can be set up across the island to monitor the number of drones in the air, their speed and traffic flow, as well as the signal strength between drones and their operators to ensure that drones fly safely.

Source: NTU ILLUSTRATION: NTU STRAITS TIMES GRAPHICS