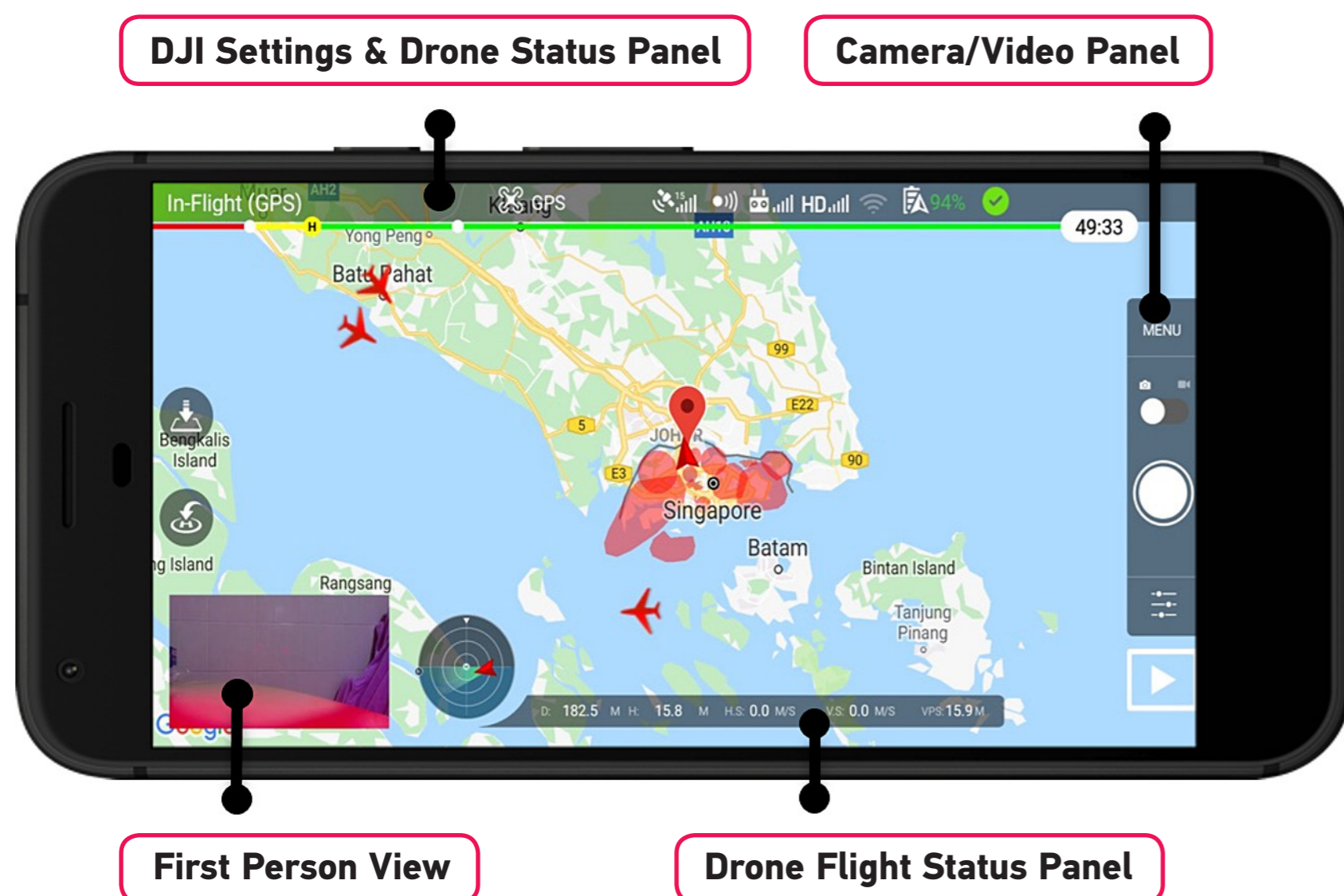


# iSkynet – Be The Eyes For The Drone

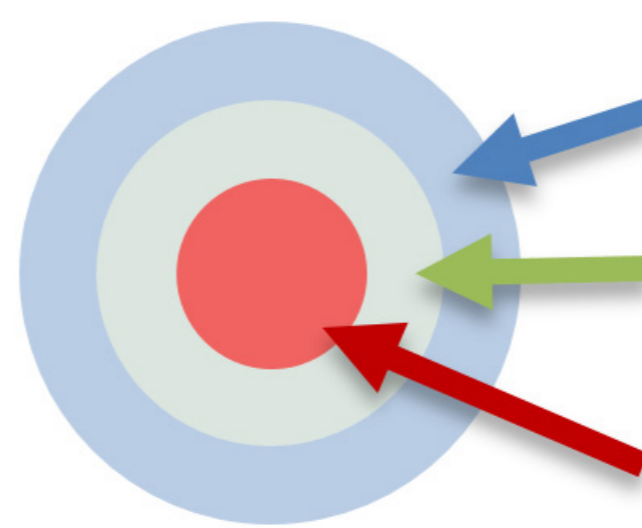
Having Safe Flight Without the Worries of Danger & Trouble

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**Supervisor:** Asst Prof Liu Wei Chen



## No-Fly Zone Restriction



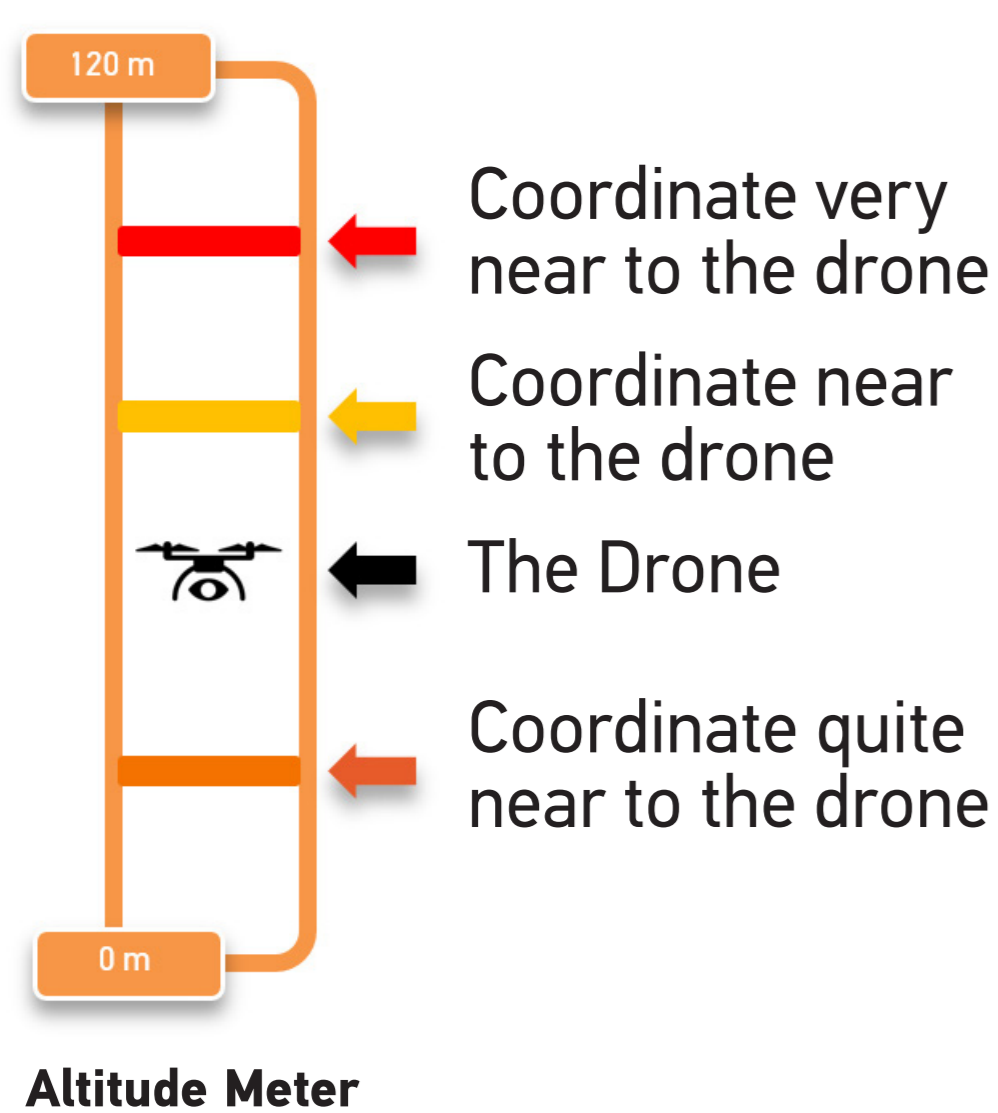
Record Drone's Coordinate

Ignore No-Fly Zone Detection

Activate Waypoint Mission to Drone's Last Recorded Coordinate

- ❗ Remote controller has the highest authority of drone control over Android/iOS App. Hence, **Waypoint Mission is used to overcome this problem.**
- ❗ For Polygon, a Math formula is use to calculate the center of polygon and use that to extend the nodes of each side.  
Eg.  $\text{New Latitude} = \text{OFFSET} \times \text{Latitude} + (1 - \text{OFFSET}) \times \text{Center Latitude}$ .  
Same formula applied to **New Longitude**.

## Collision Avoidance



## Surrounding Information



### Aircraft

Real-time tracking of airplane, drones, etc.



### Weather

Real-time tracking of the weather condition based on the drone's coordinate.



### No-Fly Zone

Real-time update of the changes in No-Fly Zone



### Country Law for Drone

Real-time tracking of the country law based on the drone's coordinate

## Technical Information



Firestore

Store drone information  
Store Law information  
Store No-Flu Zone information  
Store Account information  
Account Register & Login



Google Map

Display the airplanes and drones  
Display the No-Fly Zone



Node JS

Develop the Web Application



Android

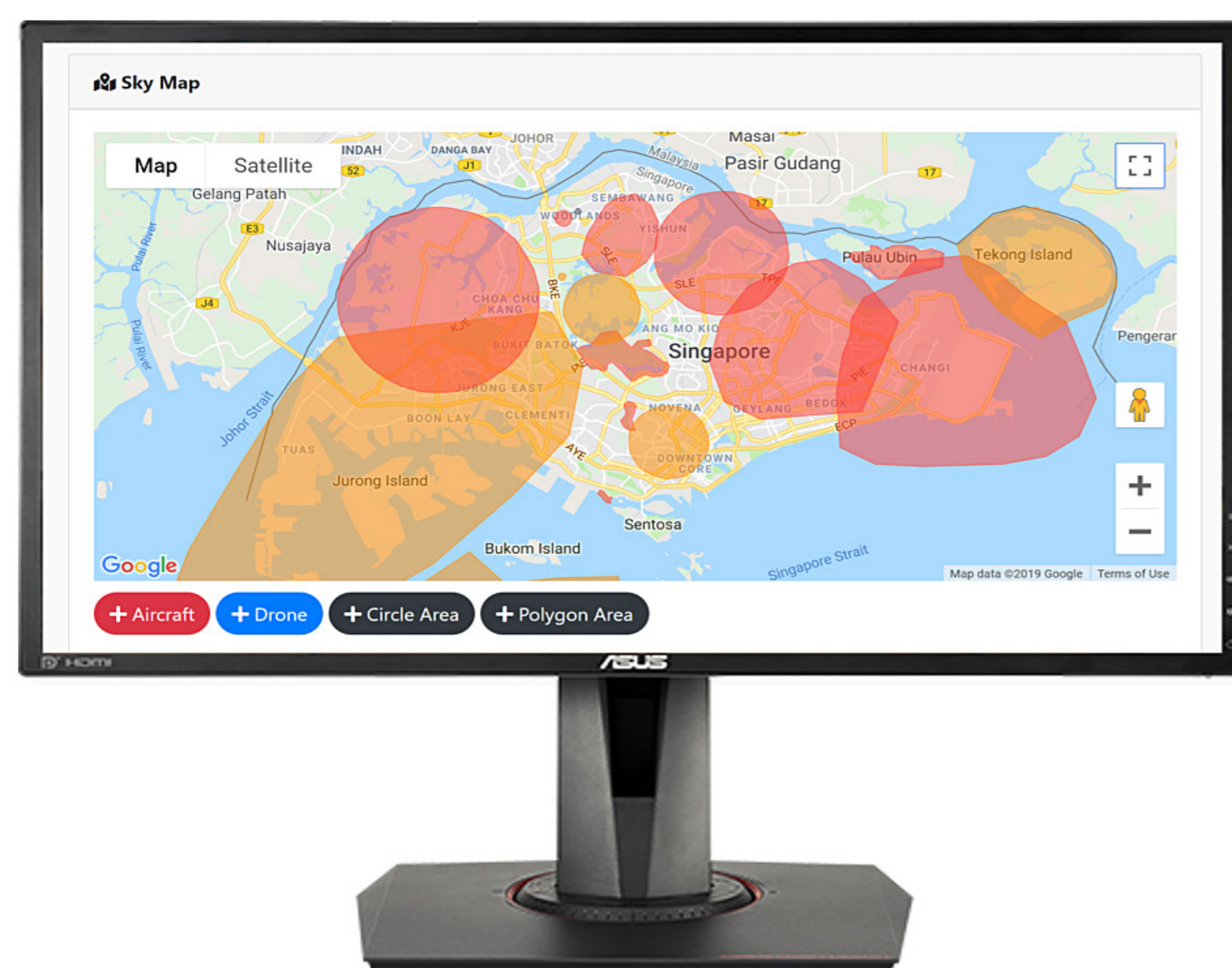
Develop the Android Application



DJI Mobile SDK

The basic features of DJI App

## Web Application



Create, Update, Delete of No-Fly Zone & Country Law



Real-time Tracking of Airplanes & Drones



Add Drone Simulator and Waypoint Mission Simulation