Module 4

How to Navigate Quadrotor UAVs
Manual Control App – Altitude Control

- Use the Altitude Controller to control the altitude.
- Slide the altitude controller above the center line to increase the altitude.
- Slide the altitude controller below the center line to decrease the altitude.
Manual Control App – Altitude Control (Video)
Manual Control App – Rotation Control

- To change the heading while staying at the current position, the drone needs to turn.
- Use the Rotation Controller to turn left or right.
- It makes the drone rotates around its up-down axis.
Manual Control App – Rotation Control (Video)
Manual Control App – Lateral Movement

- Use the right joystick to move the drone laterally in the air.
- It will not change the drone’s current altitude.
Manual Control App – Lateral Movement (Video)
Supervisory Control App – How it works

- The Supervisory Control App works by setting waypoints and then executing the flight plan.
Supervisory Control App – Setting Waypoints

- To add a waypoint, tap and hold your finger at the desired point on the map until it shows the pop up slider, and then adjust the altitude (in meters) of the waypoint in the menu.
Supervisory Control App – Setting Waypoints (Video)
Supervisory Control App – Editing Waypoints

- To change an existing waypoint, press and hold the waypoint and drag it to a new location.
- Then adjust the altitude of the waypoint in the pop up slider menu.
Supervisory Control App – Editing Waypoints (Video)
Supervisory Control App – Removing Waypoints

- To remove the waypoint or change the altitude, click on it and it will show a pop up menu where you can change the altitude or remove the waypoint.
Supervisory Control App – Removing Waypoints (Video)
Supervisory Control App – Executing Flight Plan

- Once the waypoints have been set as desired, press the Execute Flight Plan button.
- This will cause the drone to fly through the waypoints sequentially as indicated by the path on the map.
Supervisory Control App – Executing Flight Plan (Video)
Supervisory Control App – Mid-Flight Adjustments

- To edit waypoints during flight, you need to interrupt the drone.
- In order to interrupt the drone and hover at its current position, press the Pause Flight Plan button.
Supervisory Control App – Mid-Flight Adjustments

- Once the drone stops, you can freely change waypoints, by either adding a new waypoint or changing existing ones.
- However, remember that order of waypoints is important because the drone will fly through the waypoints in the order you set them.
Supervisory Control App – Mid-Flight Adjustments

- After setting a new set of waypoints, press Execute Flightplan button. It will direct the drone through the flight path.
- There is an inspection mode that allows fine control of the drone whenever needed. This will be explained in the next module.
Supervisory Control App – Mid-Flight Adjustments

(Video)
Congratulations!

End of Module 4