Skydio X10

2D Mission Planning Procedures

1. Power on your Drone and Remote Controller

Start by powering your controller on. If you like, you can also power your drone on as then you won't have to select the drone type and sensor in the map mission settings.

2. Connect the Remote Controller to WiFi or a Mobile Hotspot

Connect your remote controller to a WiFi network or mobile hotspot for seamless mission planning. This connection ensures that base maps load properly, providing essential context for your route planning.

To connect, pull down from the top of the screen and tap the WiFi icon.

3. Switch Modes

From within the Skydio App main screen:

a. Select **Switch Modes**

b. Select **"3D Scan"**

c. Select the **"Fly Now"** button to open the Planning Menu

4. Scan Mode – Map Capture

When selecting the Scan mode, always ensure you have selected Map Capture. After selecting, you can adjust the name of your Mapping Mission.

5. Selecting the Area Route and Boundary Points

From within the Map View, select various boundary points to create your Area Route.

6. Overview and Edit Scan Settings

All information prompted within this screen is extremely important to ensure high-quality data capture. Select Edit Scan Settings.

7. Scan Settings

Settings	Recommendation	Pro Tips	
Height over Launch	Personal Preference	Set to desired height. Recommend 400ft in forested areas; lower for urban.	
Overlap	RGB = 80 / IR = 80	Sets forward overlap for RGB (EO) sensor. Adjust IR overlap via "IR Overlaps" at bottom of screen.	
Side Lap	RGB = 70 / IR = 80	Sets side overlap for RGB (EO) sensor.	

		Adjust IR overlap via “IR Overlaps” at bottom of screen.	
Gimbal Pitch	Down 90 deg		
Cross Hatch	Disabled / Off		
Perimeter	Disabled / Off		
Diagonal	Disabled / Off		
Speed	11–20 mph	Higher flight = faster speed	
Geofence	Strict		
Boundaries	Disabled / Off		
Stop for Photo	Disabled / Off		
Custom Flight Direction	Disabled / Off		
Perpendicular Camera Heading	Disabled / Off		
Wide or Narrow	See Pro Tips	On L models: Use wide for RGB only. If capturing IR, IR overlaps with Wide will be lower; increase overlap or use Narrow.	

8. Review Map Settings

To edit your Map Settings, select the icon with a Gear and Map on the right-hand side of your screen.

Map Settings	Recommendation	Pro Tips	
Layers (Base Map)	Satellite		
Show Coordinates	Enabled / On		
Show Crosshairs	Disabled / Off		
Coordinate System	MGRS		

9. Thermal Camera Settings

To edit your Thermal Settings, select the icon with a Gear and Flame on the right-hand side of your screen. You will be prompted with 3 drop-down sections: Tools, Settings, and Parameters.

Thermal Camera – Tools

Tools	Recommendation	Pro Tips

Isotherm	Disabled / Off	
Spot Measuring	Disabled / Off	
Region of Interest	Disabled / Off	

Thermal Camera – Settings

Settings	Recommendation	Pro Tips
Color Palette	Black Hot	
Thermal Mode	Inspect	
Temp Range	Narrow	
Capture Thermal Photo	Enabled / On	
RJPG	Enabled / On	

Thermal Camera – Parameters

Parameters	Recommendation	Pro Tips
Emissivity	Auto	
Humidity	Auto	
Distance	Auto	

10. Photo Settings

To edit your Photo Settings, select the icon with a Gear and Camera on the right-hand side of your screen.

Photo Settings	Recommendation	Pro Tips
File Type	JPG	
Resolution	1/4	
Camera Mode	Standard	
Interval	Disabled / Off	

11. Full Settings Reference Chart

Below is a comprehensive walk-through of all settings covered in this procedure.

Setting	Set To	Pro Tips	
Scan Mode	Map Capture		
Boundary Points	Personal Preference		
Height over Launch	Personal Preference	Recommend 400ft forested; lower urban	
Overlap	RGB=80 / IR=80	Adjust IR via “IR Overlaps” reference	
Side Lap	RGB=70 / IR=80	Adjust IR via “IR Overlaps” reference	
Gimbal Pitch	Down 90 deg		
Cross Hatch	Disabled / Off		
Perimeter	Disabled / Off		
Diagonal	Disabled / Off		
Speed	11–20 mph	Higher altitude = faster speed	
Geofence	Strict		
Boundaries	Disabled / Off		
Stop for Photo	Disabled / Off		
Custom Flight Direction	Disabled / Off		
Perp. Camera Heading	Disabled / Off		
Wide or Narrow	See Pro Tips	Wide for RGB only; Narrow for IR capture	
Base Map Layers	Satellite		
Show Coordinates	Enabled / On		
Show Crosshairs	Disabled / Off		
Coordinate System	MGRS		
Isotherm	Disabled / Off		
Spot Measuring	Disabled / Off		
Region of Interest	Disabled / Off		
Color Palette	Black Hot		
Thermal Mode	Inspect		
Temp Range	Narrow		
Capture Thermal Photo	Enabled / On		
RJPG	Enabled / On		

Emissivity	Auto		
Humidity	Auto		
Distance	Auto		
File Type	JPG		
Resolution	1/4		
Camera Mode	Standard		
Interval	Disabled / Off		