AUTEL ROBOTICS

Autel Explorer™

App Manual

Applicable to EVO II, EVO II Pro, EVO II Dual

2019-12-30

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1. About This Manual

EVO™, EVO II™, Autel Explorer™, Starpoint™, and the Autel Robotics® logo are trademarks of Autel Robotics Co., Ltd., registered in China, the United States, and other countries. All other products and company names mentioned in this manual are registered trademarks of their respective holders.

Welcome to the Autel Robotics family. Use this manual to get a detailed look at the features and functions of the Autel Explorer™ app and connected aircraft. Please read it in its entirety before pairing your aircraft with your mobile device for the first time and keep it on hand for quick consultation while you get to know how your aircraft, remote control, and mobile device work together.

1.1 Legend

Pay extra attention to the callouts appear throughout this manual.

WARNING: Points out a potentially hazardous situation

IMPORTANT: Something to be aware of during flight operation

NOTE: Supplementary information

TIPS: How to get the most out of your Autel Explorer™ App experience

1.2 Before Your First Flight

Prior to flying the Aircraft for the first time, make sure you have reviewed all the documentation that will help you get started:

- **Packing List:** Use this list to verify that all the items are in the box. Contact Autel Robotics or your local retailer if anything is missing.
- **Disclaimer & Safety Instructions:** Notes on how to operate the Aircraft safely and responsibly.
- **Quick Guide:** This guide provides the basics of the Aircraft operations.
- **Autel Explorer Mobile App Manual:** This guide will walk you through the specifics of using your mobile device to enhance the Aircraft flight experience.
- **Aircraft User Manual:** Contains the finer points of the Aircraft mastery. Visit autelrones.com/pages/downloads to download it.

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⚠ WARNING:
Make sure the aircraft and other components are all included in the box. Do not use incompatible components or attempt to modify the Aircraft in any way inconsistent with the instructions in the official aircraft documentation.

2. Mobile Device Preparation

When you use the Autel Explorer™ app with EVO or EVO II, your mobile device becomes a First-Person View (FPV) monitor and ground station for remote piloting and flight configuration and operation.

2.1 Installing the App

Autel Explorer™ works with both iOS and Android smartphones and tablets. Search the App Store or Google Play by entering the keyword Autel Explorer (case insensitive) to download and install the app on your mobile device.

Supported systems:

- iOS 9.0 or later (compatible with iPhone 5s or later)
- Android 4.4 or later

IMPORTANT:
Autel Explorer™ will be updated regularly. Please check occasionally for the latest updates.

2.2 Pairing Your Mobile Device

When your aircraft, remote control, and mobile device are properly connected, a network is established enabling your mobile device to receive real-time flight data and video footage.

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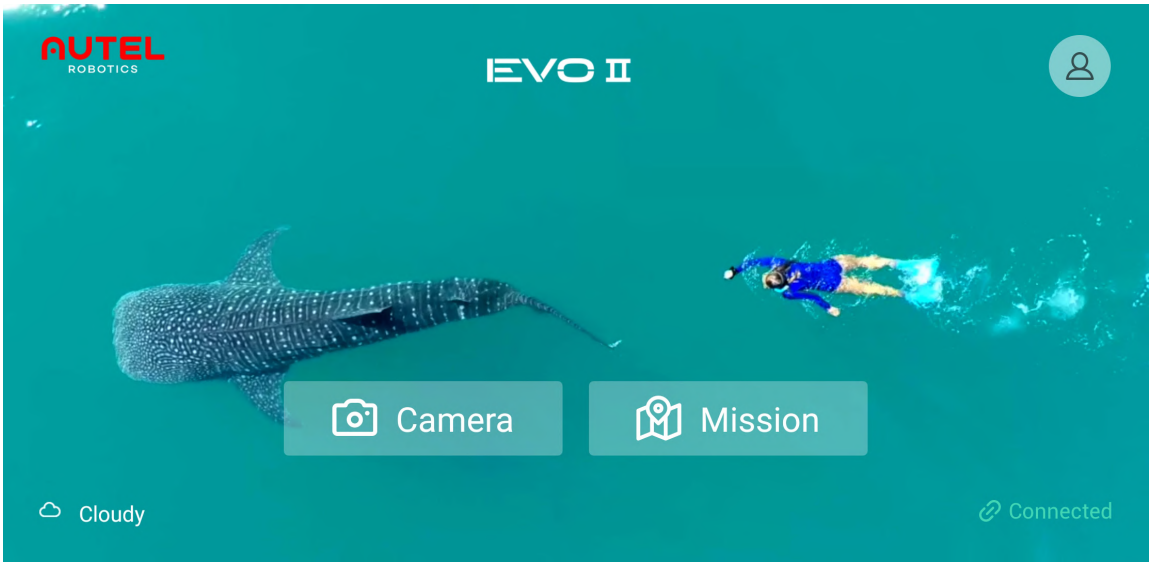
2.3 Connecting the Mobile Device to the Aircraft

Follow the steps below to connect your mobile device to the aircraft:

- Power on the remote control.
- Power on the aircraft.
- Connect your mobile device as shown below.
- The Autel Explorer™ app should open automatically. If the Autel Explorer™ app does not auto-start, tap the app icon on your mobile device to open the app. When the connection is successful, the aircraft model EVO or EVO II will be displayed in the upper center screen. At the same time **Connected** in green will be displayed in the lower right corner.



3. Home Screen and Flight Mode

The Autel Explorer™ App is designed for use with both EVO and EVO II aircrafts. Its functions include intelligent photography, mission flight, and intelligent flight modes . The unique features of Smart Photography will give you the perfect aerial photography experience and the monitoring capabilities of mobile devices can achieve the best flight experience. Mission flight provides route and mission planning functions allowing the aircraft to automatically perform search and rescue, reconnaissance, and aerial survey missions to meet the needs of various industries.

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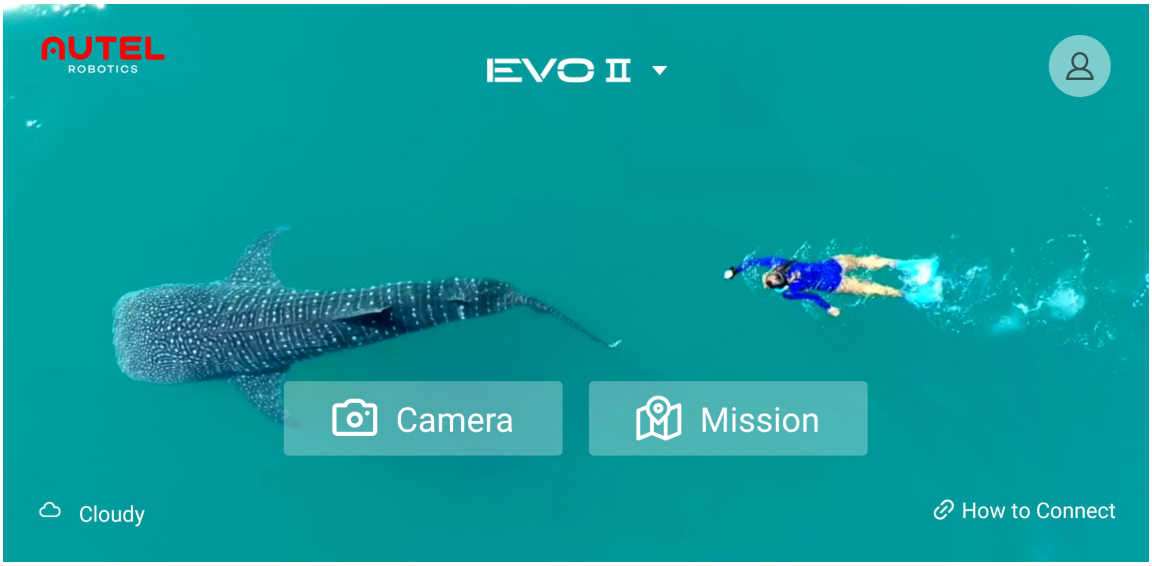
3.1 Home Screen

The following figure shows the Home screen of Autel Explorer™.



3.1.1 Weather Conditions

The current weather conditions summary is displayed in the lower left corner of the home screen.

- **Pleasant Weather:** Temperature, visibility, and wind speed are all well-suited for flight.
- **Weather Cautious:** Pay close attention to the weather conditions during flight.
- **Severe Weather:** Dangerous weather conditions. DO NOT FLY THE AIRCRAFT.

For additional weather details tap the current weather condition and the report will open an expanded weather reporting panel.

Weather conditions
Satellites
Temperature
Visibility
Wind speed

3.1.2 Connected Aircraft

The connected aircraft model will be displayed in the top-center of the main screen. If you are using the Explorer App without a connected aircraft you will need to choose the aircraft model in order to see the correct display.

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IMPORTANT:

Selecting the correct aircraft model is especially important with creating missions when not connected. Mission files are only compatible with the aircraft model selected at the time the mission was created.

3.1.3 Open the Aircraft Interface

There are 2 aircraft interfaces available. Choose the correct interface based on the type of flight and camera operations you will be performing.

Camera

Tapping the **Camera** button opens the **Consumer-Grade Smart Photography Operations** interface. Here you have access to a full range of Intelligent Flight.

Mission

Tapping the **Mission** button opens the **Professional Mission Flight Operations** interface. Use this interface to create, manage, and fly the various types of automated missions. Waypoint, Rectangular, and Polygon missions are all available and can cover most flight operations requiring automated flight.

Operations include: agricultural, industrial and environmental inspection, search and rescue, surveying, mapping, reconnaissance, and accident investigations to name a few.

3.1.4 How to Connect

Before connecting your mobile device to the remote control tap "How to Connect" in the lower right corner then follow the pop-up instructions. When the connection is established "How to Connect" will be replaced with “Connected”.

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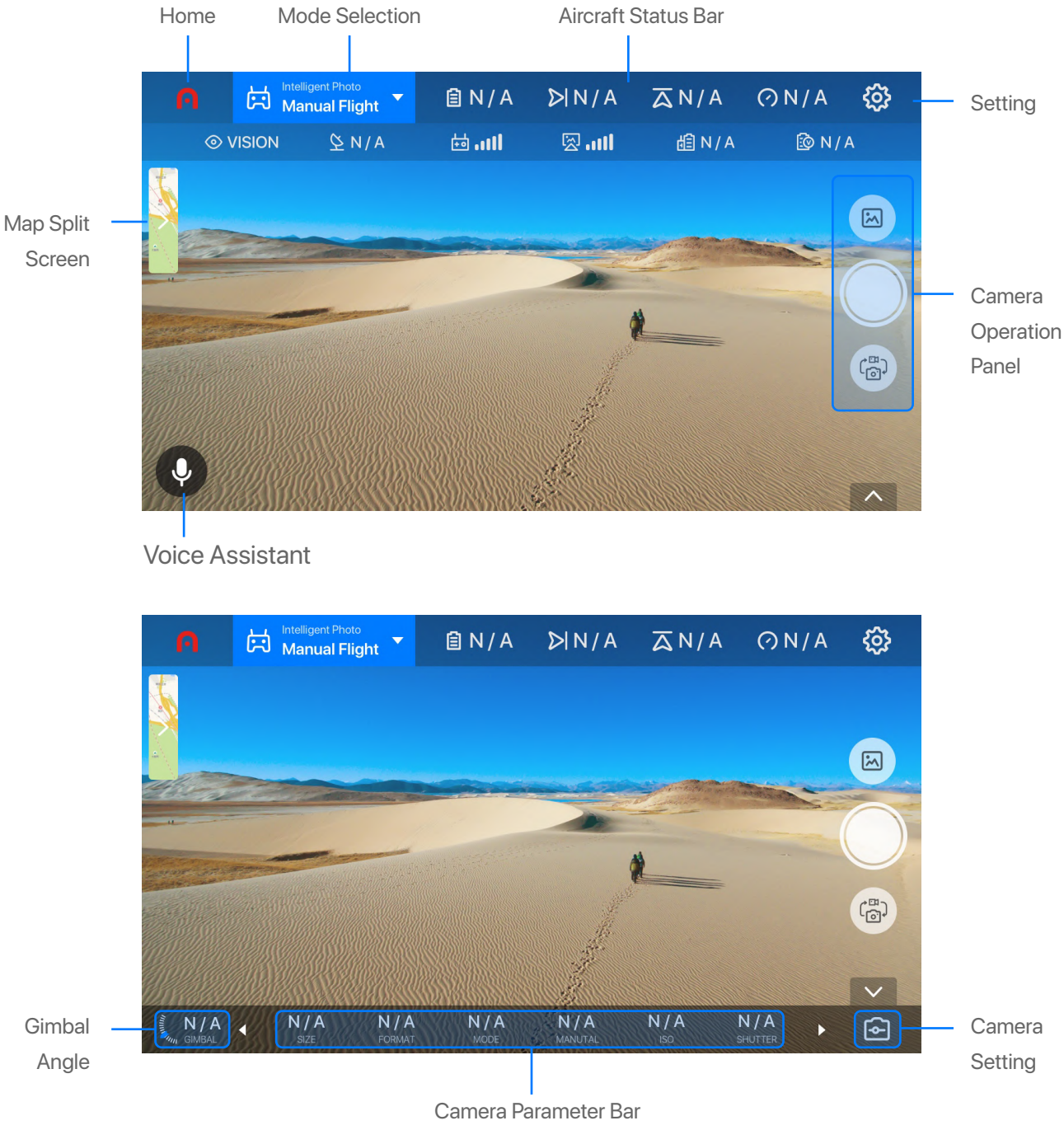
4. Camera Screen

Tap **Camera** to enter the camera screen for a first-person view.

After you connect your mobile device to the Aircraft, the system will run a self-check to ensure that it is ready to be flown safely. On-screen prompts will walk you through each step in the overall status.

The camera screen can be divided into 10 parts as shown in the following figure.



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4.1 Aircraft Status Bar

The aircraft status bar resides on the top of the camera screen. The bar displays flight critical information. Tapping the flight bar displays an expanded information panel with additional flight, aircraft, and remote control information.

The following table describes the aircraft status bar's icons and their function.

Icon	Name	Description
	Home	Tap this icon to go back to the Home screen.
	Aircraft Operations	Tap this icon to select Intelligent Flight modes.
	Aircraft Battery Level	This icon displays the current aircraft battery level. The number to the right of the icon indicates the remaining flight time.
	Altitude	The altitude of the aircraft relative to the home point.
	Distance	The horizontal distance between the aircraft and home point.
	Flight Speed	The current flying speed of the aircraft.
	Settings	Tap this icon to open the Settings screen. There you can access Flight Control, Visual Navigation, Remote Control, Image Transmission, Aircraft Battery, Gimbal, and General settings. For details see Settings.
	Visual Navigation	Visual Navigation status indication: represents On and represents Off.
	Satellites	Displays the number of GPS satellites whose signals are being received by the flight control system.
	Remote Control Signal Strength	Displays the signal strength received by the remote control.
	Image Transmission Signal Strength	Displays the strength of image transmission signals.
	Remote Control Battery Level	Displays the remaining remote control battery level.
	Aircraft Battery Voltage	Displays the cell voltage of the aircraft battery.

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4.2 Camera Operation Panel

The vertical panel on the right-hand side of the **Camera** screen is the camera operation panel.

The following table describes the camera operation panel's icons and their function.

Icon	Name	Description
	Album	Tap this icon to browse the recorded pictures or videos.
	Shoot/Record	Tap this icon to take pictures or record videos. **NOTE:** Before taking a photo, select a shooting mode from the photo parameter bar. For details see **Camera Parameter Bar.** • When recording video tap this icon again to stop recording. • The icons in the camera parameter bar will vary according to the selected shooting mode.
	Shoot/Record Switch	• This button switches between photo and video shooting modes.
	Camera Settings	Tap this icon to access **Camera Settings** for taking pictures and recording videos.

4.2.1 Camera Settings

The following table lists the parameters and values that you can configure in **Camera Settings.**

Parameter	Available Values	Default Value
Grid	None, Grid, Grid + Line	None
Center Point	• None • Square (Without Center Point) • Square (With Center Point) • Cross • Circle (With Center Point) • Circle (Without Center Point)	None
MF Focus Assist	In manual focus mode, open this function and click the Center Point on the screen, the area will be enlarged and display for 3s to help check the clarity.	
Histogram	On, Off	Off

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Over Exposure Warning	On, Off	Off
Subtitle .ASS File	On, Off	Off
Anti-Flicker	Auto, 50 Hz, 60 Hz	Auto
Video Encoding Format	H.264, H.265	H.264
Save Location	SD Card, Flash Card	Flash Card
Reset Camera	Tap to reset all Camera Settings to their default values.	
Format SD Card	**NOTE:** Always format the SD card using the Autel Explorer™ app. Other format utilities can render the SD card unusable for storing photos and videos. **WARNING:** Always back up your photo and video files before formatting.	
Format Flash Card	Formats the internal storage card **WARNING:** Always back up your photo and video files before formatting.	
Anti-Fog	Open and set the Anti-Fog grade intensity of 1-10, 10 is the strongest value.	Close
ROI	The clarity of the interested area will be enhanced. Open and set the intensity from 1 to 10, among which 10 is the strongest. Then click the interested area to see a more clear picture, which only works when the bit stream is lower under long distance image transmission.	Close
Model	Camera model	
Camera Version	Camera firmware version	

4.3 Camera Settings

The camera parameter bar displays the active photo and video settings.

EVO II includes 3 models: EVO II (8K camera), EVO II Pro (6K 1″camera), and EVO II DUAL (8K camera + Thermal imaging camera)

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4.3.1 EVO II Camera

The EVO II's 8K camera takes photos with a resolution of up to 48 MP (8000 x 6000) and records 8K video at 25 fps or 6K video at 30 fps, with a bit rate of up to 120 Mbps.

Photo Parameters

In Photo mode the camera parameter bar reflects the following parameter settings.

Parameter	Available Values	Default Value
Size	8000 x 6000 (4:3) 7680 x 4320 (16:9) 4000 x 3000 (4:3) 3840 x 2160 (16:9)	4000 x 3000 (4:3)
Format	JPG, RAW, JPG+RAW	JPG
Mode	• Single • Burst (3/5) • Time Lapse (2/5/7/10/20/30/60) • AEB (3/5) • Night Beat	Single • The default **Burst** value is 5 • The default **Time Lapse** is 5 • The default **AEB** value is 3
Exposure Mode	Auto, Manual, Shutter Priority	Auto
ISO	100, 200, 400, 800, 1600, 3200	• If **Exposure Mode** is set to **Auto**, the ISO is dependent on the selected EV value.
Shutter	1/30, 1/8000 to 8	• If **Exposure Mode** is set to **Auto**, the default EV is **1/30**. • If **Exposure Mode** is set to **Manual**, the default EV is dependent on the selected ISO and Shutter values.
EV (Exposure value)	-3.0, -2.7, -2.3, -2.0, -1.7, -1.3, -1.0, -0.7, -0.3, 0, +0.3, +0.7, +1.0, +1.3, +1.7, +2.0, +2.3, +2.7, +3.0	• If **Exposure Mode** is set to **Auto**, the default EV is **0**. • If **Exposure Mode** is set to **Manual**, the default EV is dependent on the selected ISO and Shutter values.
WB (White balance)	Auto, Sunny, Cloudy, Incan, Neon, Custom (2,000K to 10,000K)	**Auto** • The default value for **Custom** is 6000K

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Color	NONE, LOG, B&W, NOSTALGIC	NONE
Style	STD.(Standard) 000, NEUT.(Neutral) -100, LAND.(Landscape) +1+10, Custom	**Standard 000** • The default value for **Custom** is 000
Digital Zoom	1.0X - 8.0X	1.0X

Video Parameters

In Video mode the camera parameter bar reflects the following parameter settings.

Parameter	Available Values	Default Value
PIV (picture in video)	Manual, 5s, 10s, 30s, 60s	Manual
Format	MOV, MP4	MOV
Resolution	• 8K (7680 x 4320) • 6K (5760 x 3240) • 4K (3840 x 2160) • 2.7K (2720 x 1528) • 1080P (1920 x 1080)	• 4K (3840 x 2160)
Frame Rate	120 FPS, 60 FPS,50FPS, 48 FPS, 30 FPS, 25 FPS, 24 FPS	The default value depends on the selected resolution.
Exposure Mode	Auto, Manual	Auto
ISO	100, 200, 400, 800, 1600, 3200	• If **Exposure Mode** is set to **Auto**, the default ISO is dependent on the selected resolution and frame rate.
Shutter	1/30, 1/8000 to 1/30	• If **Exposure Mode** is set to **Manual**, the default value is **1/30**. • If **Exposure Mode** is set to **Auto**, the default shutter speed is dependent on the selected resolution and frame rate.

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EV	-3.0, -2.7, -2.3, -2.0, -1.7, -1.3, -1.0, -0.7, -0.3, 0, +0.3, +0.7, +1.0, +1.3, +1.7, +2.0, +2.3, +2.7, +3.0	• If **Exposure Mode** is set to **Auto**, the default value is **0**. • If **Exposure Mode** is set to **Manual**, the default EV is dependent on the selected resolution and frame rate.
WB	Auto, Sunny, Cloudy, Incan, Neon, Custom (2,000K-10,000K)	**Auto** • The default value for **Custom** is 6000K
Color	NONE, LOG, B&W, NOSTALGIC	NONE
Style	STD.(Standard) 000, NEUT.(Neutral) -100, LAND.(Landscape) +1+10, Custom	**Standard 000** • The default value for **Custom** is 000
Digital Zoom	1.0X - 8.0X	1.0X

4.3.2 EVO II Pro Camera

The EVO II Pro's ultra-HD camera with a 1-inch sensor takes photos with a resolution up to 20 MP (5472 x 3648) and records 5.5K video at 30 FPS, with a bit rate of up to 120 Mbps. The lens aperture is adjustable within the range of f2.8-11.0.

Photo Parameters

In Photo mode the camera parameter bar reflects the following parameter settings.

Parameter	Available Values	Default Value
Size	5472 x 3648 (3:2) 5472 x 3076 (16:9) 3840 x 2160 (16:9)	3840 x 2160 (16:9)
Format	JPG, RAW, JPG+RAW	JPG
Mode	• Single • Burst (3/5) • Time Lapse (2/5/7/10/20/30/60) • AEB (3/5) • Night Beat	Single • The default **Burst** value is 3 • The default **Time Lapse** is 5 • The default **AEB** value is 3

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Exposure Mode	Auto, Manual, Aperture Priority, Shutter Priority	Auto
ISO	100, 200, 400, 800, 1600, 3200	• If **Exposure Mode** is set to **Auto**, the ISO is dependent on the selected EV value.
Shutter	1/80, 1/8000 to 1/30	• If **Exposure Mode** is set to **Auto**, the default EV is **1/80**. • If **Exposure Mode** is set to **Manual**, the default shutter speed is dependent on the selected EV value.
EV	-3.0, -2.7, -2.3, -2.0, -1.7, -1.3, -1.0, -0.7, -0.3, 0, +0.3, +0.7, +1.0, +1.3, +1.7, +2.0, +2.3, +2.7, +3.0	• If **Exposure Mode** is set to **Auto**, the default EV is **0**. • If **Exposure Mode** is set to **Manual**, the default EV is dependent on the selected ISO and Shutter values.
WB	Auto, Sunny, Cloudy, Incan, Neon, Custom (2,000K to 10,000K)	**Auto** • The default value for **Custom** is 6000K
Color	NONE, LOG, B&W, NOSTALGIC	NONE
Style	STD.(Standard) 000, NEUT.(Neutral) -100, LAND.(Landscape) +1+10, Custom	**Standard 000** • The default value for **Custom** is 000
Digital Zoom	1.0X - 8.0X	1.0X

Video Parameters

In Video mode the camera parameter bar reflects the following parameter settings.

Parameter	Available Values	Default Value
PIV (picture in video)	Manual, 5s, 10s, 30s, 60s	Manual
Format	MOV, MP4	MOV

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Resolution	• 6K (5472 x 3076) • 5K (4800 x 2700) • 4K (3840 x 2160) • 2.7K (2720 x 1528) • 1080P (1920 x 1080)	• 4K (3840 x 2160)
Frame Rate	120 FPS, 60 FPS, 50 FPS, 48 FPS, 30 FPS, 25 FPS, 24 FPS	The default value depends on the selected resolution.
Exposure Mode	Auto, Manual, Aperture Priority, Shutter Priority	Auto
ISO	100, 200, 400, 800, 1600, 3200, 6400	• If **Exposure Mode** is set to **Auto**, the default ISO is dependent on the selected resolution and frame rate.
Shutter	1/80, 1/8000 to 1/30	• If **Exposure Mode** is set to **Manual**, the default value is **1/80**. • If **Exposure Mode** is set to **Auto**, the default shutter speed is dependent on the selected resolution and frame rate.
EV	-3.0, -2.7, -2.3, -2.0, -1.7, -1.3, -1.0, -0.7, -0.3, 0, +0.3, +0.7, +1.0, +1.3, +1.7, +2.0, +2.3, +2.7, +3.0	• If **Exposure Mode** is set to **Auto**, the default value is **0**. • If **Exposure Mode** is set to **Manual**, the default EV is dependent on the selected resolution and frame rate.
WB	Auto, Sunny, Cloudy, Incan, Neon, Custom (2,000K-10,000K)	**Auto** • The default value for **Custom** is 6000K
Color	NONE, LOG, B&W, NOSTALGIC	NONE
Style	STD.(Standard) 000, NEUT.(Neutral) -100, LAND.(Landscape) +1+10, Custom	**Standard 000** • The default value for **Custom** is 000
Digital Zoom	1.0X - 8.0X	1.0X

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4.3.3 EVO II Dual Camera

The EVO II Dual's dual-sensor camera includes an 8K camera plus an infrared imaging camera. It can operate in two modes: single-sensor or dual-sensor PIP. In addition the camera takes infrared images at a resolution of 640 x 512 and records videos at ~~60FPS~~ (United States) or 9FPS (Other countries).

Display modes switch: Three display modes can be selected:

Visible --Only 8K camera displays

Infrared --Only infrared imaging camera displays

PIP --Both cameras display

You can click the button in the upper right corner to switch modes.

FFC (flat-field correction) : FFC is a process whereby the NUC terms applied by the camera's signal processing engine are recalibrated to produce optimal image quality. In Infrared mode and PIP mode, click the button

in the upper right corner to complete.

Photo Parameters (Visible)

In Photo mode of visible light the camera is the same as the 8K camera of EVO II, please refer to its settings.

Video Parameters (Visible)

In Video mode of visible light the camera is the same as the 8K camera of EVO II, please refer to its settings.

Photo Parameters (Infrared)

In Photo mode the camera parameter bar reflects the following parameter settings.

Parameter	Available Values	Default Value
Size	640 x 512	640 x 512
Format	JPG	JPG
Color	White hot, Black hot, Rainbow, RainHC,Iron-bow,Lava,Arctic,Glowbow,Graded Fire,Hottest	Lava
Digital Zoom	1.0X, 2.0X, 3.0X, 4.0X, 5.0X, 6.0X, 7.0X, 8.0X	1.0X

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Video Parameters (Infrared)

In Video mode, the camera parameter bar reflects the following parameter settings.

Parameter	Available Values	Default Value
Format	MOV, MP4	MOV
Resolution	640 x 512	640 x 512
Frame Rate	9 FPS, 30 FPS, 50FPS	~~60 FPS~~ (United States) 9 FPS (Foreign)
Color	White hot, Black hot, Rainbow, RainHC,Iron-bow,Lava,Arctic,Glowbow,Graded Fire,Hottest	Lava
Digital Zoom	1.0X, 2.0X, 3.0X, 4.0X, 5.0X, 6.0X, 7.0X, 8.0X	1.0X

Photo Parameters (Picture in Picture)

In Photo mode each snap will generate 3 photos at the same time including:

1. 640x512 thermal imaging photo 2. 4K visible photo 3. Picture-in-picture photo.

The camera parameter bar reflects the following parameter settings.

Parameter	Available Values	Default Value
1. Size	640 x 512	640 x 512
2. Size	4K (3840 x 2160)	4K (3840 x 2160)
3. Size	• 1920 x 1080 • 1280 x 720	According to the image transmission settings, if set to HD, it will record 1080P video.
Format	JPG	JPG
Color	White hot, Black hot, Rainbow, RainHC,Iron-bow,Lava,Arctic,Glowbow,Graded Fire,Hottest	Lava

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Video Parameters (Picture in Picture)

In Video mode each recording will generate 3 videos at the same time including:

1. 640x512 thermal imaging video 2. 4K visible light video 3. Picture-in-picture video.

The camera parameter bar reflects the following parameter settings.

Parameter	Available Values	Default Value
Format	MOV, MP4	MOV
1.Resolution(Visible)	• 4K (3840 x 2160)	• 4K (3840 x 2160)
2.Resolution(PIP)	• 1080P (1920 x 1080) • 720P (1280 x 720)	According to the image transmission settings, if set to HD, it will record 1080P video.
3.Resolution(Infrared)	• 640 x 512	• 640 x 512
Frame Rate	9 FPS, 30 FPS	30 FPS (United States) 9 FPS (Foreign)
Color	White hot, Black hot, Rainbow, RainHC,Iron-bow,Lava,Arctic,Glowbow,Graded Fire,Hottest	Lava

4.4 PIV Settings

At times you may want to take photos at the same time as recording video. Autel Explorer™ allows you to do so.

In video mode set **PIV** to **Manual** if you are going to take photos by yourself or **Auto** if you want the camera to take photos at predetermined intervals.

Manual

If **PIV** is set to **Manual** you can tap the **Shoot** icon shown in the following figure to take photos while recording videos.

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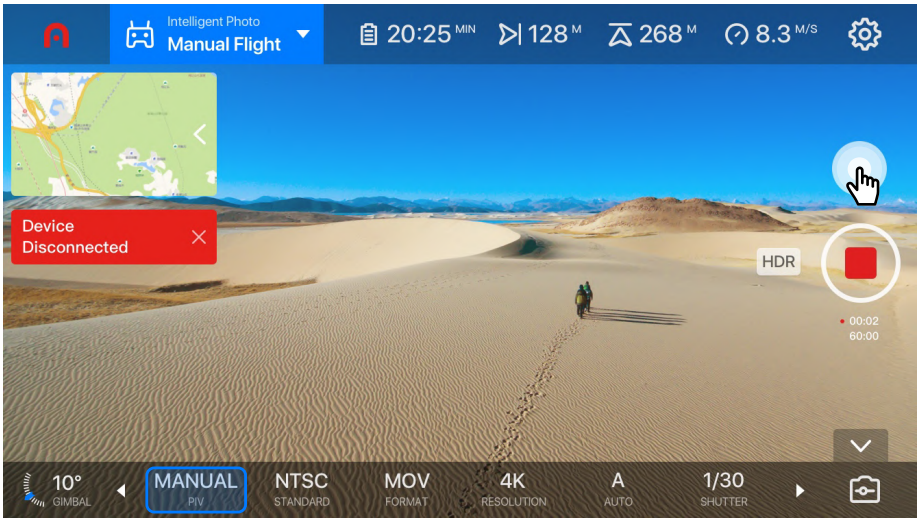
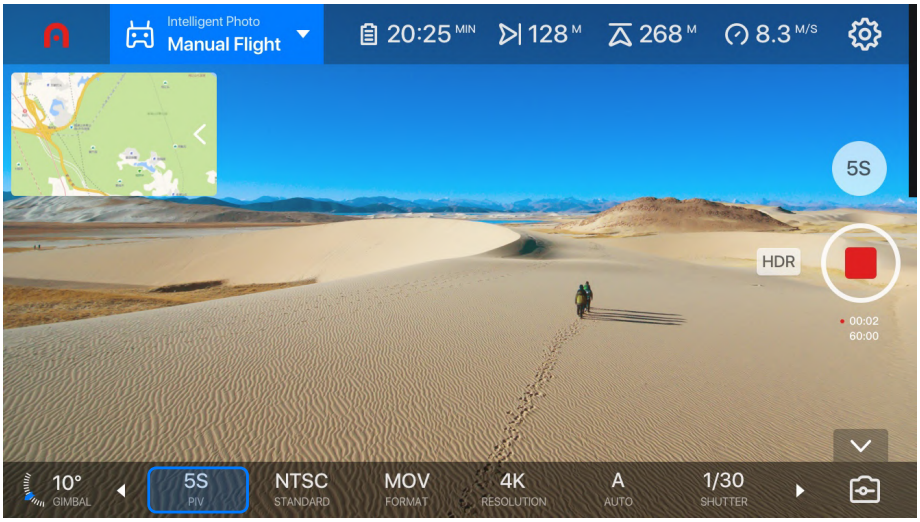


Auto

If **PIV** is set to **Auto**, the camera will automatically take photos at predetermined intervals during video recording. There are 4 time intervals available in Auto mode: 5, 10, 30, and 60 seconds.



4.5 Gimbal Angle

The gimbal angle icon

is located in the lower left corner of the camera screen. The number in the icon displays the current gimbal angle in degrees. The blue arrow rotates as the angle changes.

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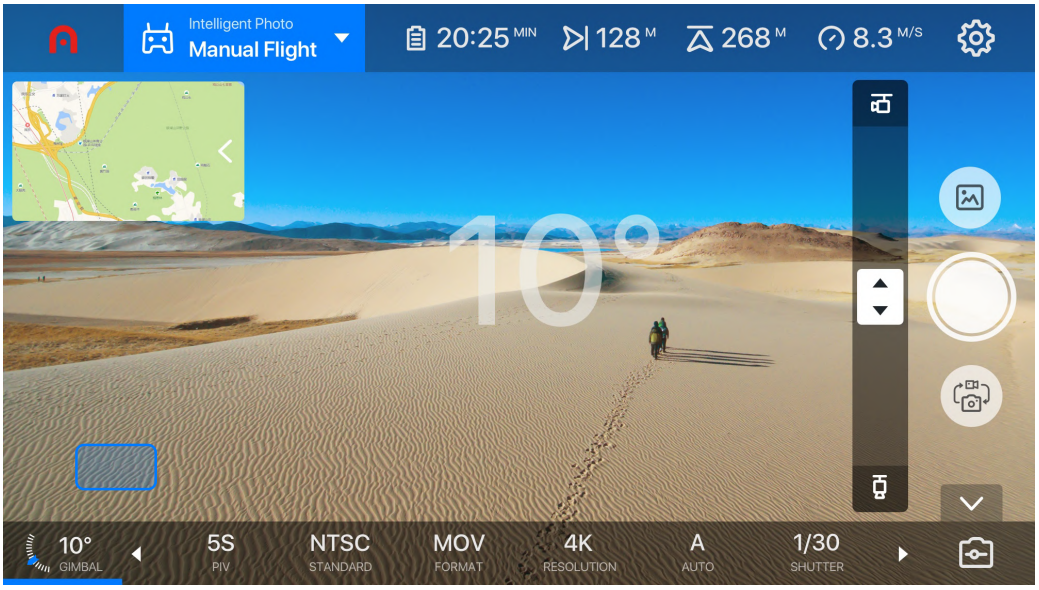
4.5.1 Adjusting Gimbal Angle

The gimbal angle can be adjusted using one of 2 methods. The camera gimbal will rotate accordingly as shown in the following figure.

Adjust Gimbal Angle by APP

Click the icon 0° GIMBAL in the lower left of the screen, a scroll bar will show on the right side, press and hold the middle button and drag to change the gimbal angle. Press icon to set the gimbal angle to 0 degrees and press icon to set the gimbal angle to 90 degrees.



The Gimbal Pitch Dial

Move the gimbal pitch dial, located on the remote control, forward or backwards. The number indicating the gimbal angle in degrees will change accordingly.

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4.6 Voice Assistant

To activate the voice function you can use three methods:

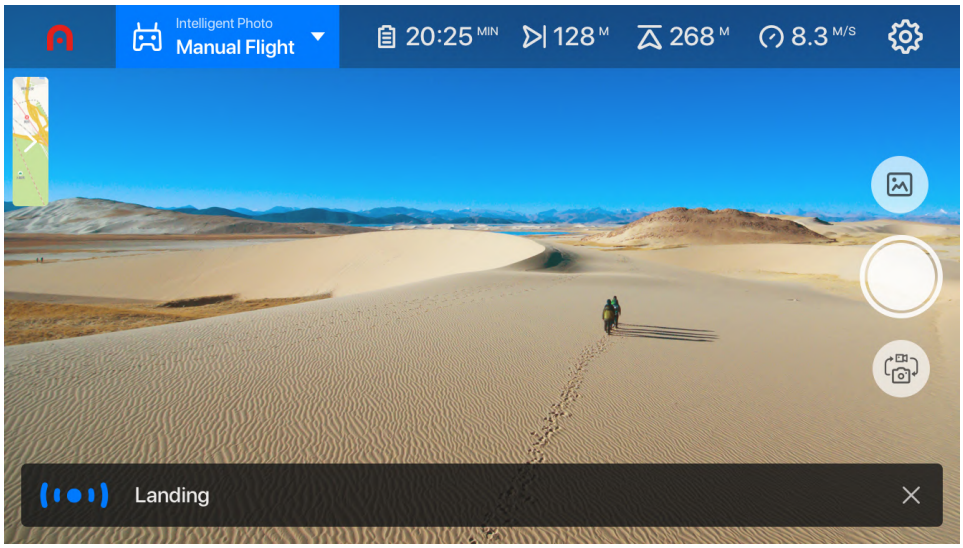
1. Click the icon in the lower left screen.

2. Press the left button on the back of the remote control.

3. Say “Hello, EVO”.

Make sure to open microphone access before operation with a good network connection. You can use this voice function to access the flight controls, camera control, switch pages, and execute missions on the aircraft.

You can say “Take off", "Landing", "Take photo", "Record", "Start recording", "Stop recording", "Dynamic track", "Start tracking" and other instructions. Each page may support different functions, you can learn more from the page. For more instructions please click “More Instructions”.



4.7 Map/Live Feed Split Screen

In the upper left corner of the camera screen you will see a smaller screen displaying the area surrounding your aircraft. Tapping this small display switches the map view with the live camera view. Tapping again switches the screen display back.

To view different areas, you can pinch to zoom in and out or relocate the map using a touch, hold and drag motion.

On the right of the screen 3 function icons supply different methods to control how the map is viewed.

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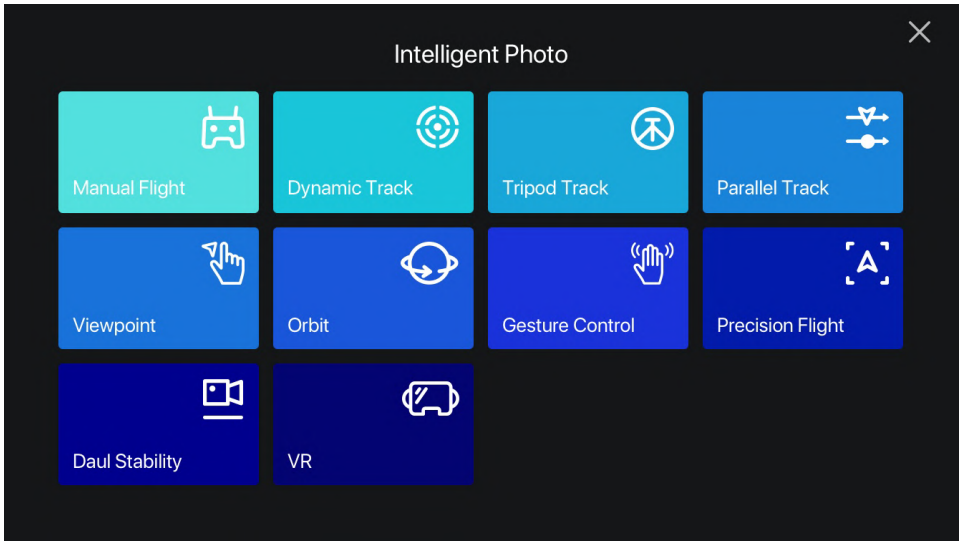
Icon	Name	Description
	Direction	Tap this icon to unlock the map's orientation. When locked, the map is oriented north. When unlocked the map will track the mobile device's orientation. The red arrow always indicates north.
	Location	**Me:** Centers the map to your current location
		Home: Centers the map to the current home point
		Aircraft: Centers the map to the current aircraft's location
	Map Settings	**Map View:** Choose between **Normal, Hybrid,** and **GPS** map views.
		Show Flight Route: Show or hide the flight route
		Clear Flight Route: Resets existing flight path lines

5 Intelligent Photo

Autel Explorer™ supports multiple Intelligent Flight Modes. Intelligent Flight Modes enable users in capturing advanced aerial shots without the additional learning curve required to produce the effects manually.

Tap the Camera Mode icon located in the upper left of the screen to access the list of Intelligent Flight Mode operations available. Before using please make sure the aircraft has been connected and is in the air.



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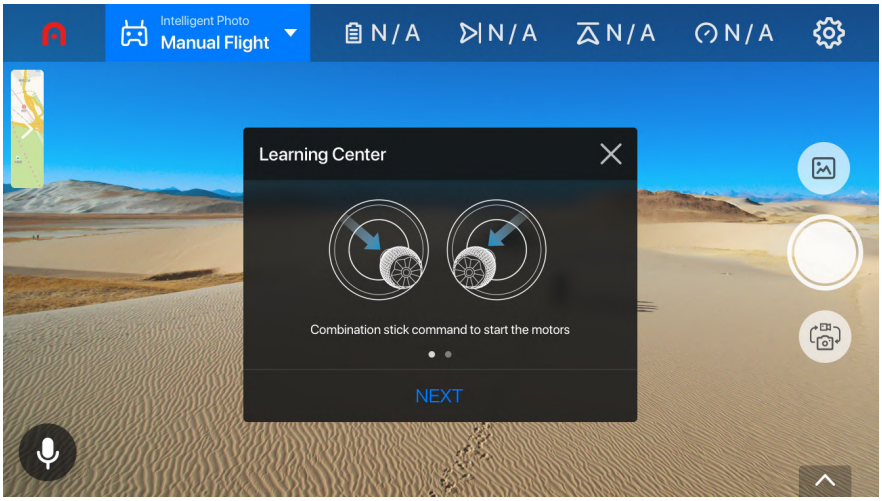
5.1 Manual Flight

When the APP is opened, the default flight mode is Manual Flight which allows the user to manually operating via remote control to take off, movement, and landing the aircraft. When not being operated, the aircraft will hover in place. Under manual flight, the aircraft will stop flying when it encounters obstacles when the vision system is on.

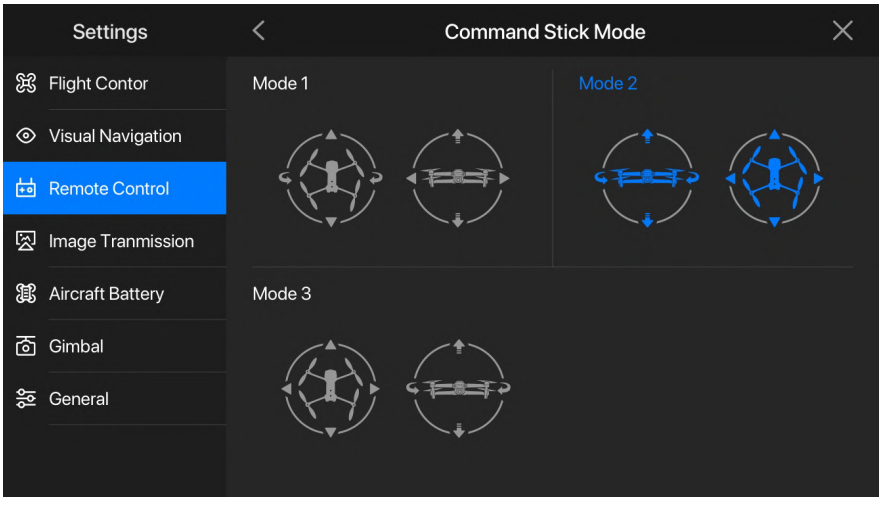
Switching to manual flight will stop other intelligent photography modes and exit the original modes.

You can use the following three methods to let the aircraft take off:

- Press and hold the take off/landing button on the remote control.
- Push the command sticks to start as the below picture shows.
- Say "Take off" to your voice assistant.



Gesture controls allow you to control the ascent, descent, forward, backward, left, right, and rotation of the aircraft. If you are using Mode 2, please refer to the below picture, for others please go to settings-remote control- remote control mode to adjust the settings.



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5.2 Dynamic Track

Aircraft automatically tracks the target at a fixed distance. The aircraft will try to maintain the flight behind the target. If the target stops moving, the aircraft hovers until the target starts moving again.

Dynamic Track allows you to highlight and mark moving objects using the mobile device. Once marked and the operation started, the aircraft will track the object as it moves. The aircraft will fly over and around objects automatically while maintaining track on the object. Tracking status is indicated using color and on-screen information. The tracking rectangle will change from green (tracking) to orange (partial loss of object) to red (target lost) indicating the current state of the tracking operation.

EVO II's Dynamic Track is able to identify and track many types of objects for example:

- People
- Boats
- Car
- Bicycles

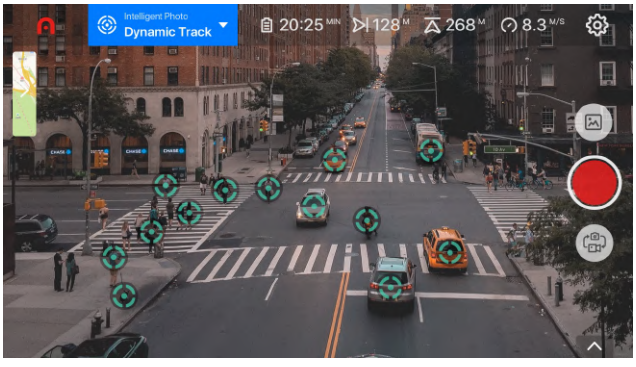
NOTES:
The aircraft should stay in the air and keep a distance of 10-40ft (3-12 meters) from the tracking target. When operating please keep a safe distance from the aircraft to avoid injury or damage.

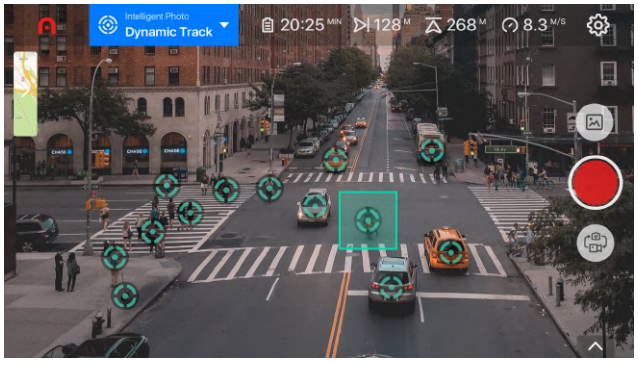
5.2.1 Setup and Start Dynamic Track

The first time you perform a Dynamic Track operation, it is suggested that you follow the on-screen prompts. On-screen prompts display a step-by-step narrative for configuring Dynamic Track.

The following are the procedures for configuring and starting a Dynamic Track operation.

- Locate the target on your screen and use your finger to draw a box around the target. The target can also be automatically recognized; there will be a button on the target . Click the button.





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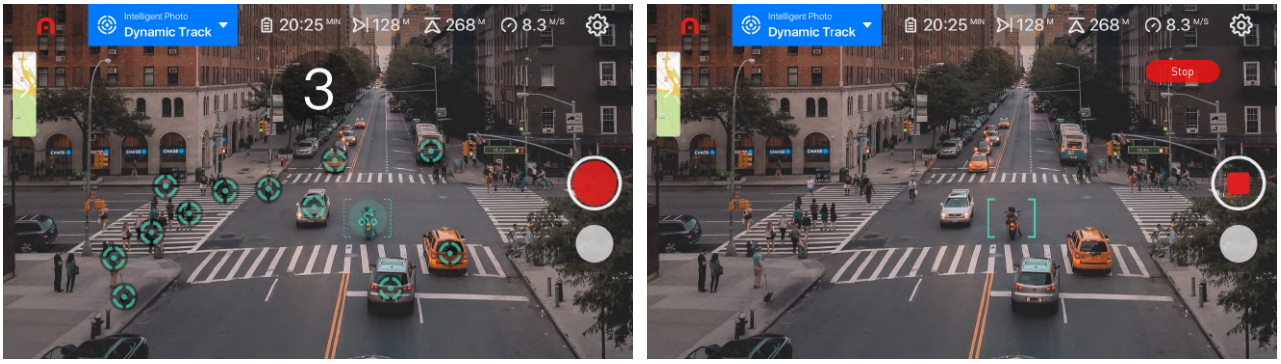
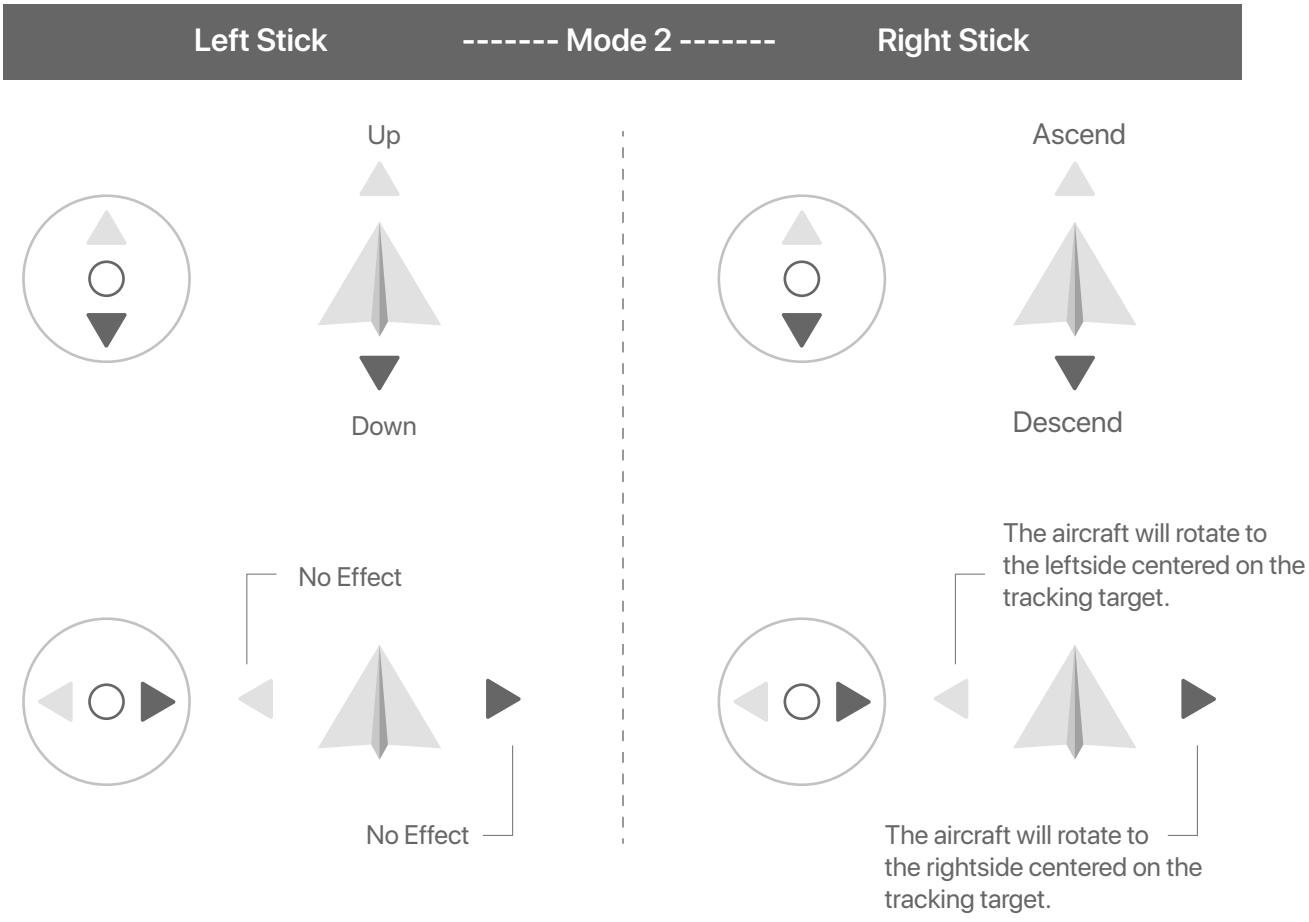
- A 3 second countdown will start automatically. After the aircraft successfully starts the tracking, the target will be surrounded by a green rectangle.



- Set the height and distance of the tracking target. The default tracking distance will be about 10ft (3m). At this time, you can also adjust the setting through the remote control. For best results while tracking, the system will keep a distance 10-40ft (3-12m) between the aircraft and target.



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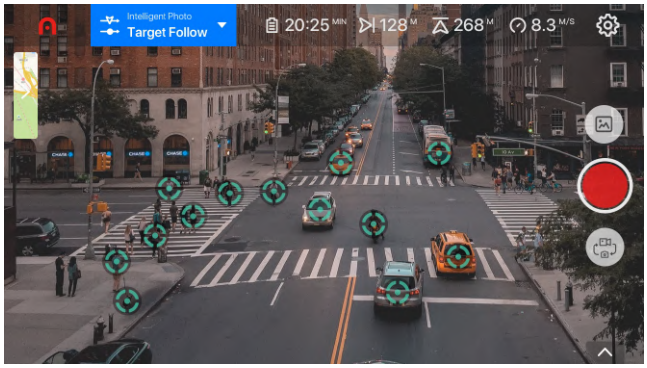
5.3 Parallel Track

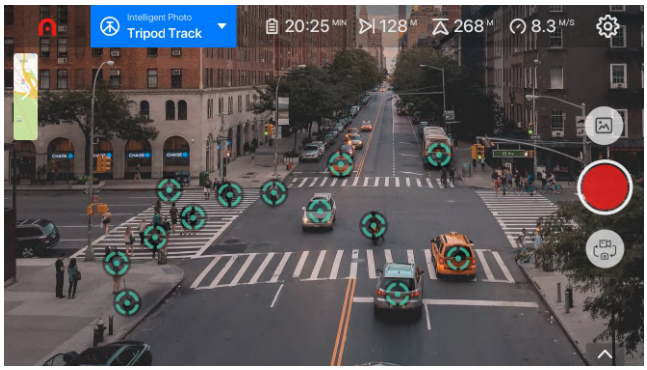
- Aircraft tracks the target from the side at a relative fixed distance.
- Parallel track is similar to dynamic track. The flight trajectory of the aircraft will remain parallel to the target trajectory. If the aircraft starts tracking while on the side of the target, the aircraft will remain in the same position when tracking. The types of target recognition, target selection, startup, etc. are consistent with the dynamic tracking. Parallel Track page is shown below:



- Set the height, distance, and direction with the tracking target. At this time you can also make adjustments from the remote control. To ensure the best tracking results, please set a distance of 3-12m between the aircraft and the target.

5.4 Tripod Track

- Aircraft hovers and continuously changes its direction and gimbal pitch to keep the nose and camera pointing at the target.
- Tripod track is similar to dynamic track, the only difference is that the aircraft will be in a stationary hovering state, whose position can only be set by the remote control, by adjusting the aircraft flight direction and gimbal angle. This function is applicable for a target reciprocating in a small range. The types of target recognition (target selection, startup, etc.) are the same as dynamic tracking. Tripod Track page is shown below:



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5.5 Viewpoint

Viewpoint allows you to send the aircraft towards a selected destination using a touch of the screen.

Follow the instructions in the **Learning Center** of the Autel Explorer™ app before performing a Viewpoint mission for the first time. After closing the **Learning Center**, you will see a horizontal line in the middle of the screen.

- Tap above the horizontal line to make the Aircraft take off.
- Tap below the line to make the Aircraft land.

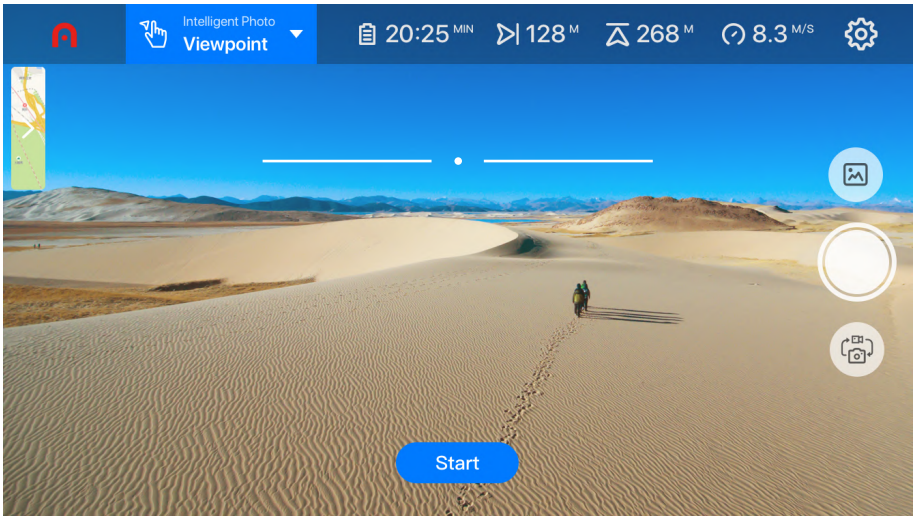
The dotted red line along the bottom of the screen indicates a safety zone, below which the aircraft will not land.

NOTES:
Before using this intelligent photo mode the aircraft must be in the air. Always maintain a safe distance from the aircraft when beginning operations to prevent injury or damage.

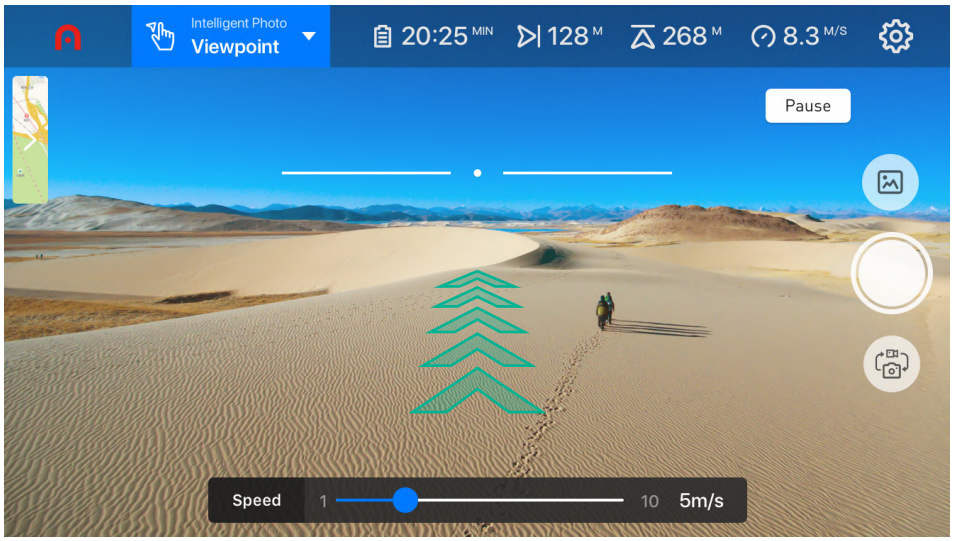
5.5.1 Setup and Start Viewpoint

The following procedure describes how to configure and start a Viewpoint mission.

- Click the point to be viewed on the screen and the below screen will appear, which indicates you can start a viewpoint flight.
- Click the Start button and the aircraft will fly towards the viewed point.



- The aircraft will fly towards the selected target and will try to avoid obstacles. During the flight you can tap other points on the screen to change the flight direction. To change the flight speed, you can adjust the speed bar in the lower center of the screen.



Default Flight Speed

The default flight speed of the aircraft in a Viewpoint mission is dependent on the number of connected GPS satellites.

- If the number of connected GPS satellites is less than or equal to 5, the flight speed of the aircraft is between 1 and 2 m/s (2.25 and 4.5 mph).
- If the number of connected GPS satellites is more than 5, the flight speed of the aircraft is between 1 and 10 m/s (2.25 and 22.5 mph).

You can tap the top bar on the screen to see how many GPS satellites are available.

5.6 Orbit

Follow the instructions in the Learning Center of the Autel Explorer™ app before performing an Orbit mission for the first time.

NOTES:

Before using this intelligent flight mode the aircraft must be in the air and 10 meters (30 feet) or more above the subject. Always maintain a safe distance from the aircraft when beginning operations to prevent injury or damage.

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5.6.1 Setup and Start Orbit

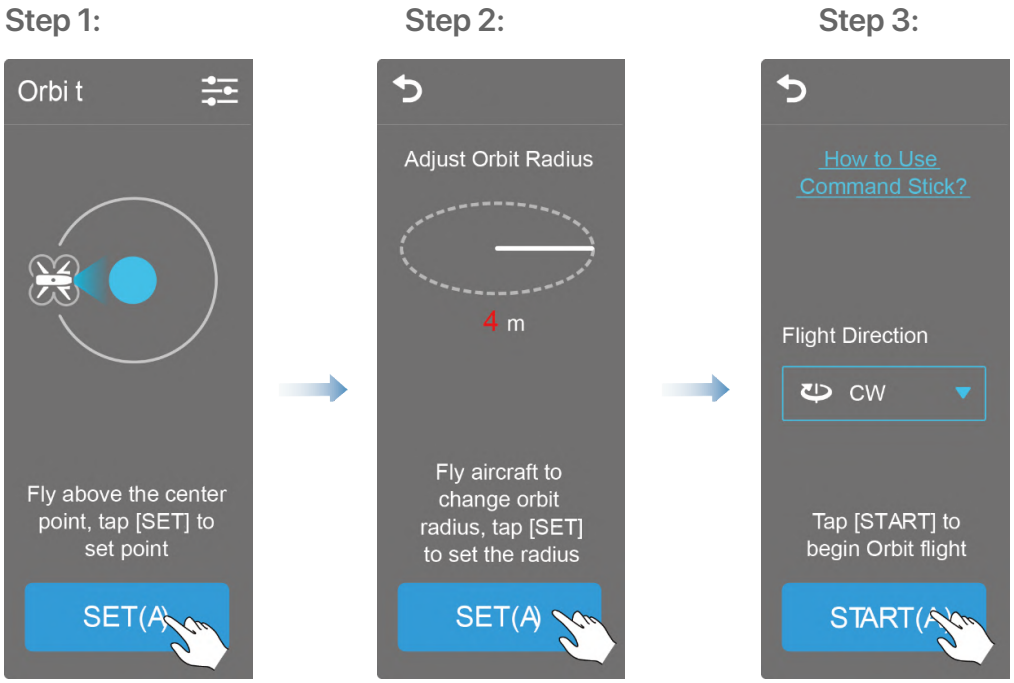
After the aircraft takes off, increase the flight altitude to at least 10 m before using the **Orbit** function.

> **NOTES:**
> On the **SET** or **START** button of the app screen, the capital "A" enclosed in the brackets stands for the **Customizable Button A** on the back of the remote control. You can also press that button to create the same setting.

Creating an Orbit Mission Using Basic Settings

When setting an Orbit mission via **Basic Settings**, the aircraft location is the determining factor. Follow the 3 steps below.

- Tap **SET** to create a center point based on the current aircraft location.
- Use the command sticks on the remote control to move the aircraft and increase the orbit radius. The radius must be set between 10 m and 100 m. If the radius value is less than 10 m, a red number will be displayed as shown in the figure.
- Choose clockwise or counter clockwise as the flight direction. Then tap **START** to begin the mission.



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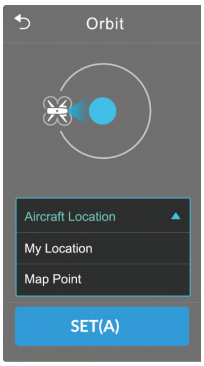
Creating an Orbit Mission in Expert Mode

Tap the Settings icon in the upper right corner of the app screen to enter the Expert Mode. Follow the steps below to create an Orbit mission:

1. Tap the drop-down box to select a center point of the orbit. There are 3 ways available for selecting a center point:
   - Select **Aircraft Location** and tap **SET** to set the current aircraft location as the center point.
   - Select **My Location** and tap **SET** to set your current location as the center point.
   - Select **Map Point**, tap the displayed map to select a center point, and then tap **NEXT**.



2. Set the altitude, radius, and flight direction of the Orbit mission. Specifically, enter values in the **Altitude** and **Radius** input boxes and select **CW** (clockwise) or **CCW** (counter clockwise) from the **Flight Direction** drop-down box. Then tap **START** to start the mission.

NOTES:

Tap **How to Use Command Sticks** for instruction on remote control operation.

The **Radius** must be set between 10 to 100 m.

If you have configured **Altitude Limit** in **Settings > Flight Control** (see **Altitude Limit**), the altitude of the Orbit mission will be limited by this value.

5.7 Gesture

Gesture control allows an individual, located in front of the aircraft, to perform simple tasks using hand and arm motions. Gesture recognition requires a person to be locked before recognizing the person's actions such as taking photos or videos. At the same time, when the person locked is moving, the aircraft will follow as well. During the gesture recognition, you may also use the remote control to adjust the distance and direction between the aircraft and the tracking target.

NOTES:

Always maintain a safe distance from the aircraft when beginning operations to prevent injury or damage.

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5.7.1 Setup and Gesture Mode

Lock the tracking target

The person in the camera raises both hands into a V shape and holds for more than 0.5 seconds until being surrounded by a rectangular frame.

Start or stop recording

The locked person raises one hand and holds for more than 0.5 seconds.

Take a photo

The locked person raises both hands horizontally and holds for more than 0.5 seconds.

5.8 Virtual Reality (VR)--Only for Android

VR mode is a simulated experience that places you, the pilot, in the virtual drivers seat inside the aircraft. The mobile device, when paired with a high quality VR headset, can give the pilot a unique immersive experience; nearly identical to that if the pilot was physically sitting inside the aircraft.

While VR operations can be a truly unique and exhilarating experience it is not without drawbacks. For example, some people may experience dizziness and vertigo when flying in VR. It is also common for the pilot to become disorientated while turning, especially when the pilot can see themselves in the frame.

NOTES:
VR requires the use of a mobile device connected to a compatible pair of VR goggles.

In VR mode the gimbal pitch tracks the movement of your head.

Refer to: https://en.wikipedia.org/wiki/Virtual_reality.

NOTES:
When experiencing VR for the first time it is suggested that you are seated as many individuals experience dizziness and vertigo.

Always maintain a safe distance from the aircraft when beginning operations to prevent injury or damage.

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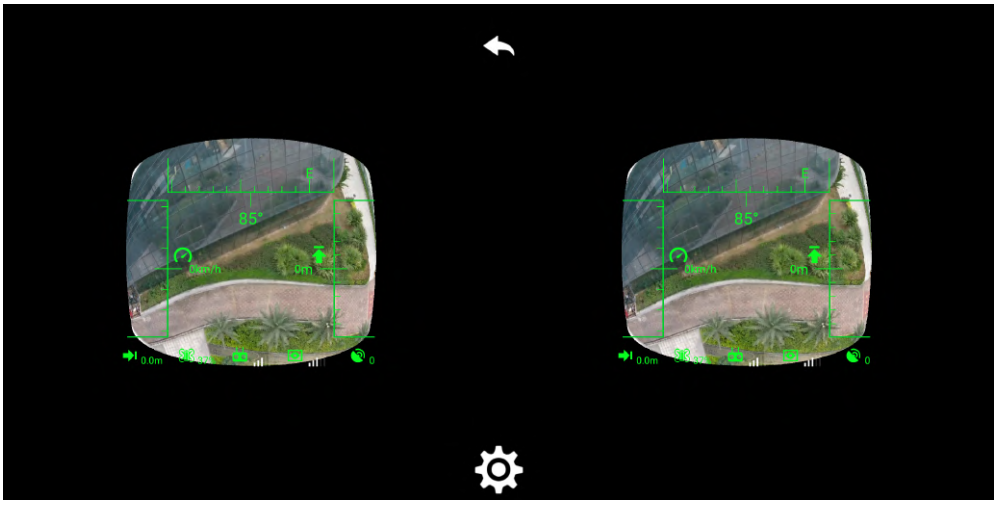
5.8.1 Setup and Start Virtual Reality Mode

There are no user settings for this mode. Entering this mode will start automatically as shown below:



5.9 Precision Flight

Precision flight limits the aircraft's speed, vertical angle, and rotational speeds in order to provide a more stable platform for video recording at low altitudes and when shooting slow or non-moving objects.

Follow the instructions in the **Learning Center** of the Autel Explorer™ app before using Precision flight for the first time.

NOTES:

Before using this intelligent flight mode the aircraft must be in the air and 2 meters (6 feet) or more above the subject being tracked. Always maintain a safe distance from the aircraft when beginning operations to prevent injury or damage.

5.9.1 Setup and Start Precision Flight

Proper setup of Precision Flight is required in order to achieve the best video recording. The following steps ensure the highest quality recording and can vary depending on the environment of the operation.

- Set the maximum horizontal and vertical acceleration speeds
- Set the maximum rotation speed desired for the operation

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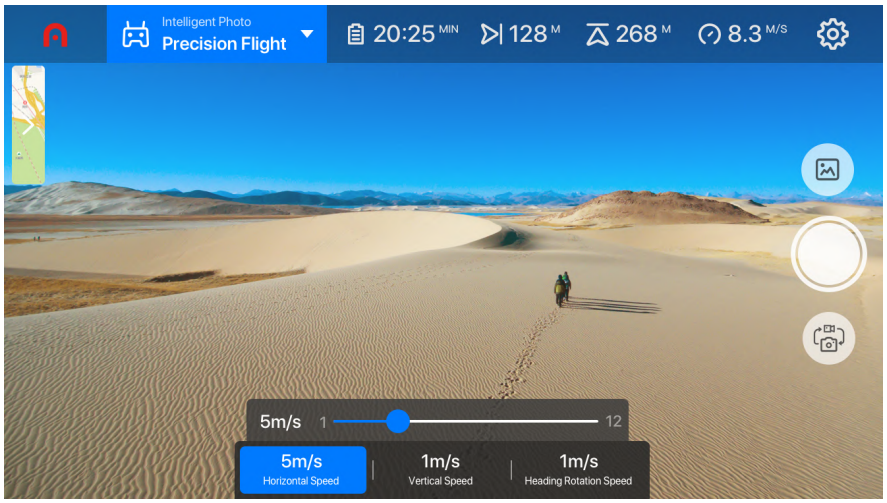


5.10 Dual Stability

Dual Stability mode limits the aircraft's speed and braking characteristics in order to achieve a more stable platform for video recording during flight.

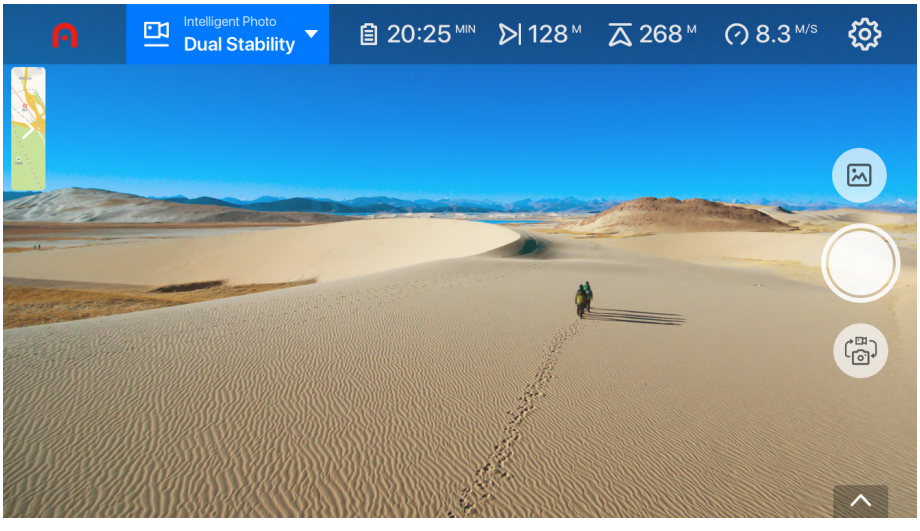
Follow the instructions in the **Learning Center** of the Autel Explorer™ app before performing using Dual Stability mode for the first time.

NOTES:

Before using this intelligent photo mode the aircraft must be in the air . Always maintain a safe distance from the aircraft when beginning operations to prevent injury or damage.

5.10.1 Setup and Start Dual Stability Mode

There are no user settings for this mode. Entering this mode will start automatically as shown below:



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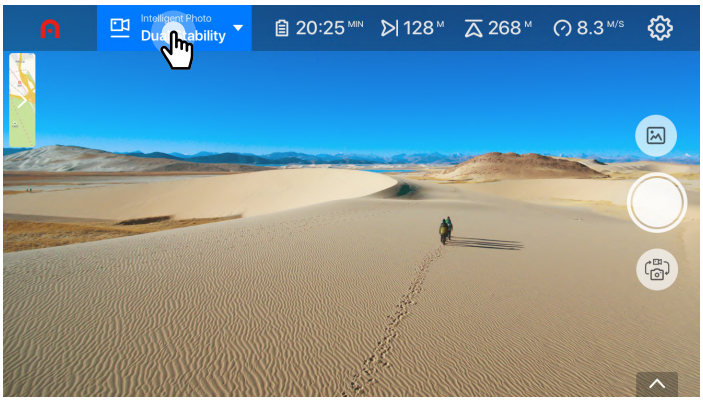
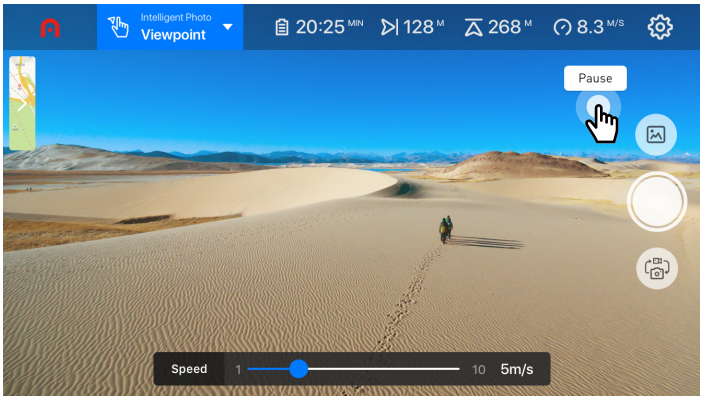
5.11 Intelligent Photo Operations Control

All Intelligent photo operations can be paused or canceled at any time during the operation. If paused, the operation remains active and the aircraft will hover in place. If need to cancel, you can click the intelligent photography icon to switch back to manual flight.



Pause Operation

To pause the operation, press the Pause button on the remote control for 1s or tap the **Pause** icon on the screen of the Autel Explorer™ app.



Automatic Cancel

If any of the following conditions are detected the **Intelligent Photo** operation will be automatically ended. Once ended the aircraft may perform additional operations depending on the condition as indicated below.

- Low battery level: A message will pop up on the app screen, telling you that the aircraft is returning home automatically.
- Critically low battery level: The operation will end and the aircraft will automatically land on-site.
- If the GPS signal strength is too weak, the Aircraft will enter into ATTI mode. In this case, the operation will be ended and you will return to manual pilot control.

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6. Mission Planner

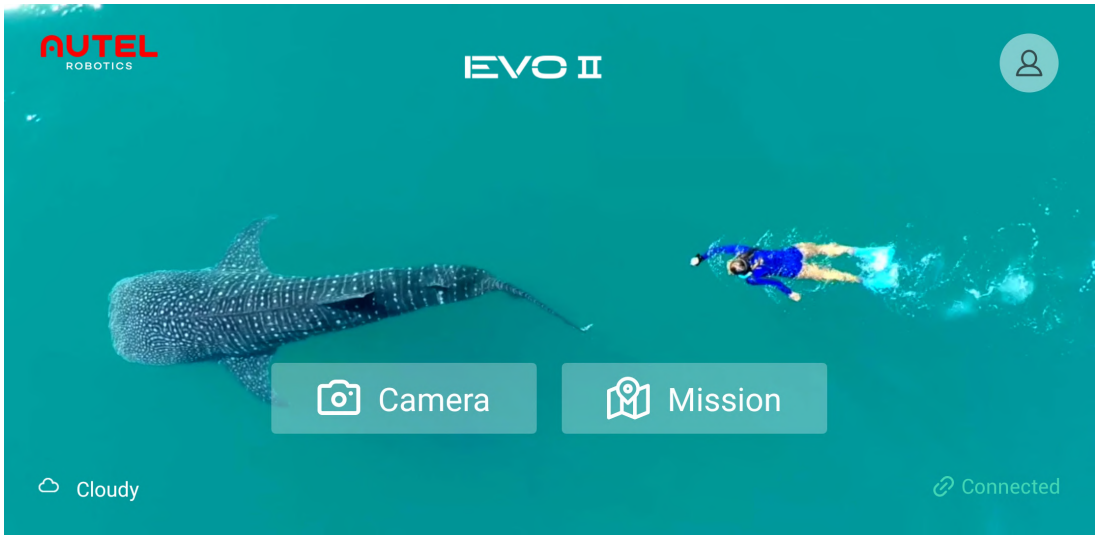
6.1 Overview

The Autel Explorer Mission Planner is a full-featured, waypoint mission creation and editing tool. The planner includes many advanced capabilities useful for the professional pilot using your EVO II aircrafts to cover a variety of industrial applications. Examples of industrial applications include (but not limited to):

- Photogrammetry (2D and 3D). See: https://en.wikipedia.org/wiki/Photogrammetry
- Crop and Agriculture Management and Analysis (3rd party analysis tools required)
- Construction Project Inspection
- Site Inspection
- Search and Rescue Operations
- And many more...

> **NOTES:**
> Refer to https://en.wikipedia.org/wiki/Waypoint for detailed definition of "waypoint".

6.2 Accessing the Mission Planner



The Autel Explorer Mission Planner can be accessed from the Home screen by tapping the "Mission" button.

Once opened, several types of mission creation operations will be presented along with a listing of previously saved missions.

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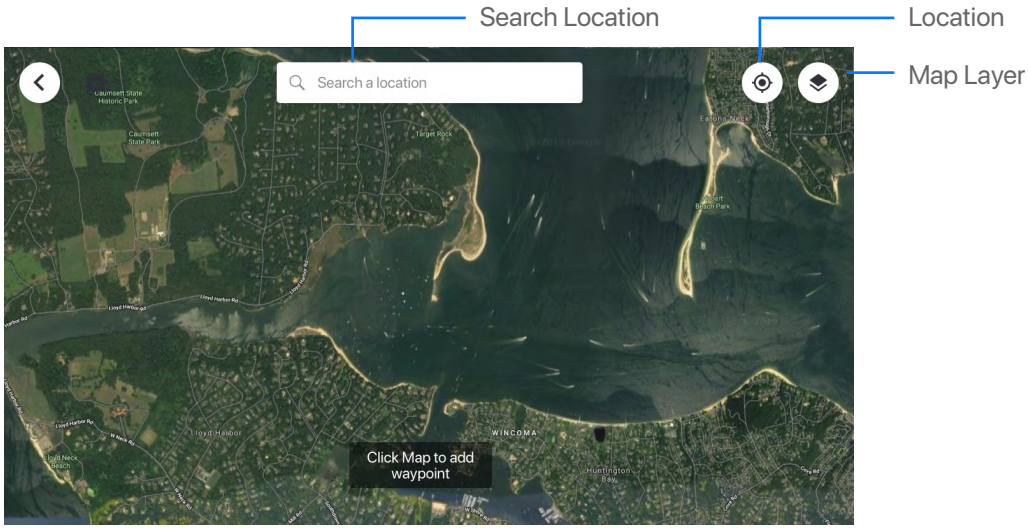
- **Waypoint :** A Free-form mission provides the most flexible waypoint mission operation. The user is responsible for all waypoint locations and flight parameters.
- **Area Routes:** User can choose from 2 area route types (Rectangular or Polygon). Area missions provide advanced, automated flight operations and include flight path calculation and camera controls tuned for many professional flight operations.
- **Loading a Saved Mission:** Loads a previously saved mission file and opens the operation's screen in preparation for flight. Missions are displayed in order of last saved with more recently saved missions near the top of the list and older missions near the bottom.
- **Search:** Built-in search functionality allows you to easily locate saved missions by name

6.3 Mission Flight Screen

All mission operation home pages share a common set of displayed information elements and user entry and operation items. The following image details the common components presented for all mission and route types.



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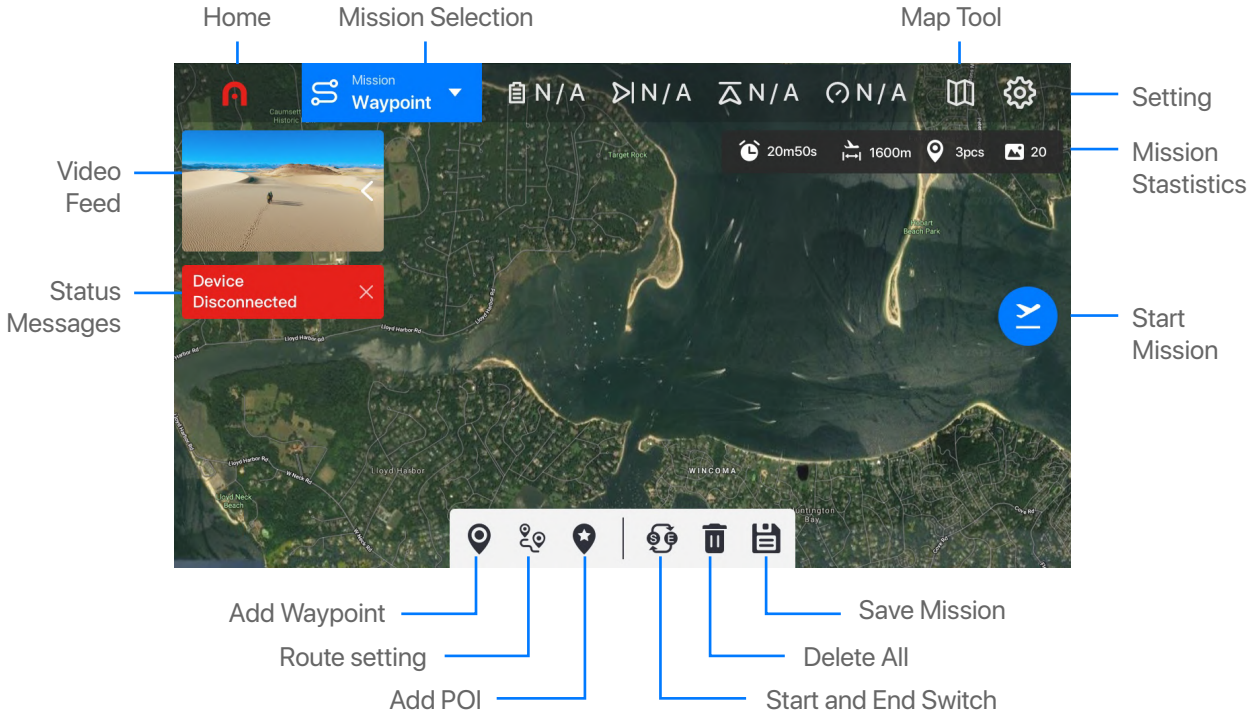

- **Home** – Return to Home.
- **Mission Selection** – Return to the pages of new missions or historical missions. You can create a new area, waypoint mission, or open historical missions.
- **Map Tool**
  - **Location**
    a. **Me** – Centers the map to your current location.
    b. **Aircraft** – Centers the map to the current aircraft location.
  - **Center Map** – Relocates the map to center the current mission flight plan.
  - **Map Layer** – Sets the current map display type:
    a. **Normal** – Displays a minimal detail map including street and local attributes.
    b. **Hybrid** – Displays a satellite image overlaid with street names.
    c. **Satellite** – Displays an aerial satellite image.
- **Mission Status** – Displays relevant details about the current mission plan.
- **Start Mission** – Performs mission upload to aircraft and begins the flight.
- **Mission Editing Panel** :
  - **Add Waypoint** – Select the Add Waypoint icon and then click one location on the map to add a waypoint.
  - **Route setting** – Click icon to enter route settings.
  - **Add POI** – Click icon and then click one location in the map to add POI.
  - **Start and End Switch** – Click icon and the end waypoint will become the starting waypoint.
  - **Delete all** – Click icon, all waypoints will be deleted and return to the waypoint creation page.

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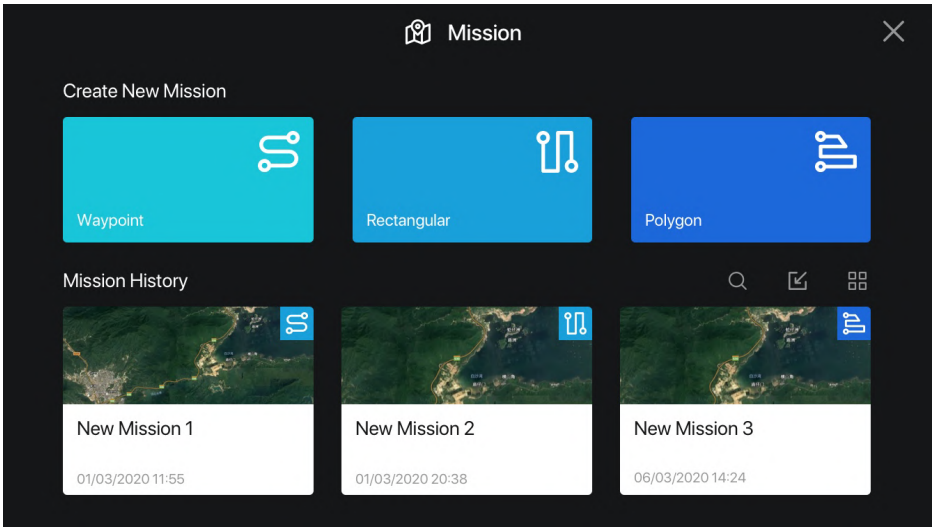
- **Save Mission** – Click icon to name and save the waypoint mission.

- **Status Messages** – Status and information messages are displayed in time order on the left of the screen.
- **Video Feed** – The live video feed from the aircraft.

6.4 Mission Operations



6.4.1 Creating A New Mission

New missions are created using 1 of 3 available pre-defined mission patterns:

- **Waypoint** – The user must define all individual points and (optionally) settings for each point.
- **Rectangular** – Created a rectangular shaped area commonly used in mapping and other industrial applications in which the area of interest is rectangular.
- **Polygon** – Created an irregular shaped area also commonly used in mapping and other industrial applications but allowing for an irregularly shaped flight area.

Each pre-defined pattern embeds a set of flight rules appropriate for the selected mission type.

Once selected the Autel Explorer App will open the aerial map image and position the map to the location of your of your mobile device.

6.4.2 Free-form Waypoint Route

The free-form mission allows the user complete control over the mission settings, waypoints, and their properties.

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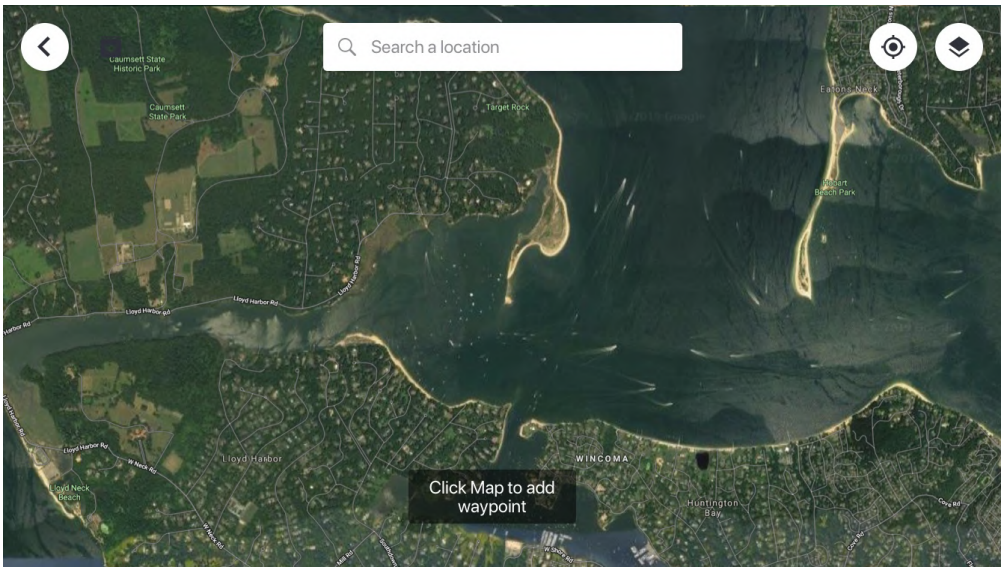
Create The First Waypoint

- The first page after entering a waypoint will be as shown below:

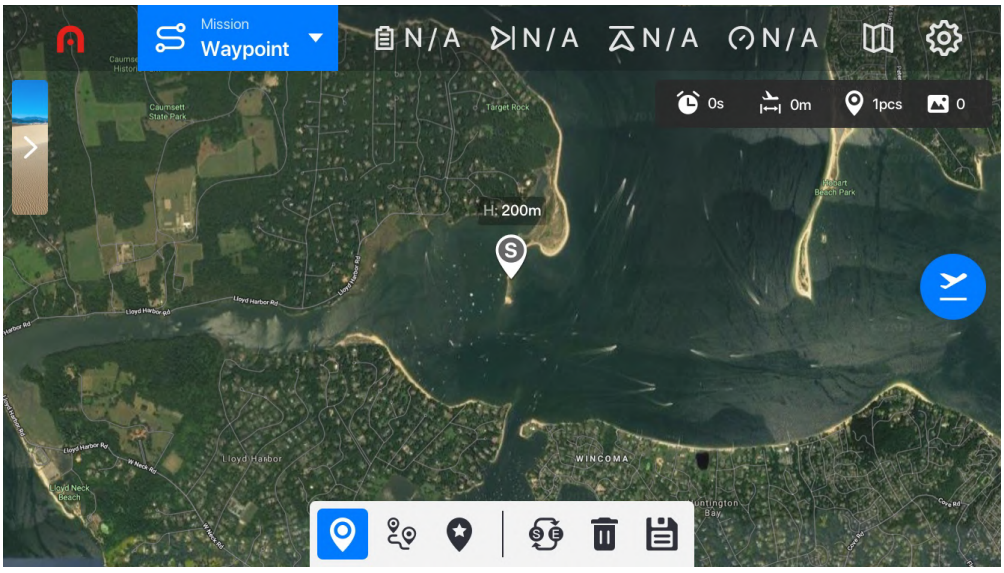


- Please make sure the network is available, the page will automatically load the map of the current location. You can also manually move, zoom the map , or search the place in the upper middle of the page. Find the location as your first waypoint and click it to add the first waypoint.

Edit Waypoint Mission

- Location, altitude, speed, camera, gimbal, and various additional settings are set individually per waypoint.

  After creating the first waypoint mission, the following page will be as below:



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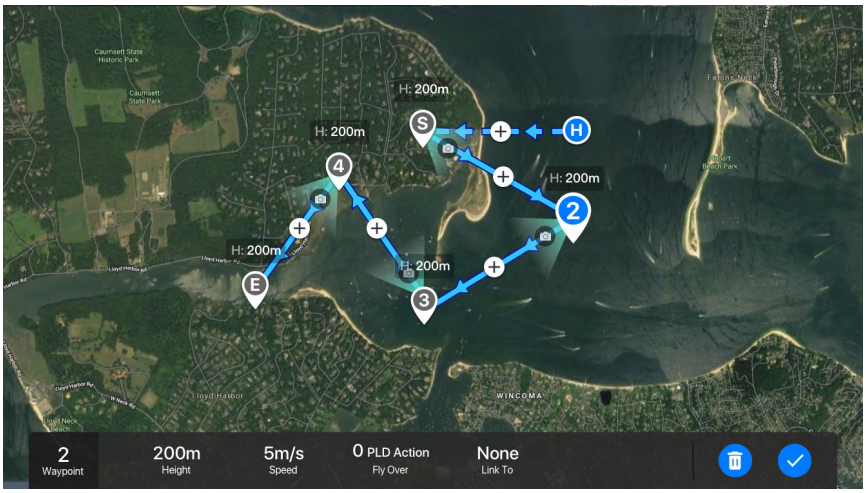
Waypoint Settings

- **Height –** Defines the aircraft elevation (above take-off point).
- **Speed –** The speed the aircraft will travel. Individual speeds take effect from the selected aircraft and are maintained until the next waypoint containing a different speed setting.



- **Action –** A waypoint could include one waypoint action (Flyover and Hover) and camera actions. When the waypoint action is "Fly Over", it can only have one camera action. When the waypoint action is hovering, it can include multiple camera actions.
  - **Waypoint Action –** When set to "Hover" the aircraft will pause and complete any configured camera actions (see Camera Actions below). If "Fly Over" is selected the aircraft will start the camera action at the waypoint but will not pause until camera actions are complete.
  - **Add Action –** Tap the ⊕ button to create additional mission actions and allow separate heading and camera operations to be added to the waypoint. Tap the ⊖ button to delete 1 mission action.
  - **Camera Actions –** Defines the operations the camera should take upon reaching the waypoint.
    a. **When Waypoint Action = "Fly Over"**
      - **Take Photo –** take one (1) photo as the aircraft flies through the waypoint.
      - **Time Lapse –** The camera will take a photo every 'n' seconds as indicated by the "Time Lapse Interval".
      - **Distance Lapse –** The camera will take a photo every 'n' distance as indicated by the "Distance Interval".
      - **Record –** Start/stop video recording.

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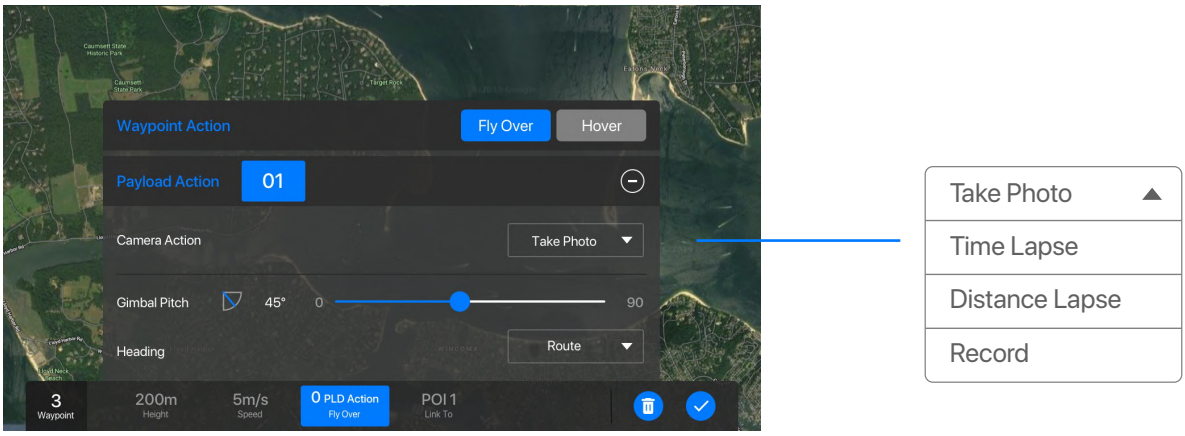
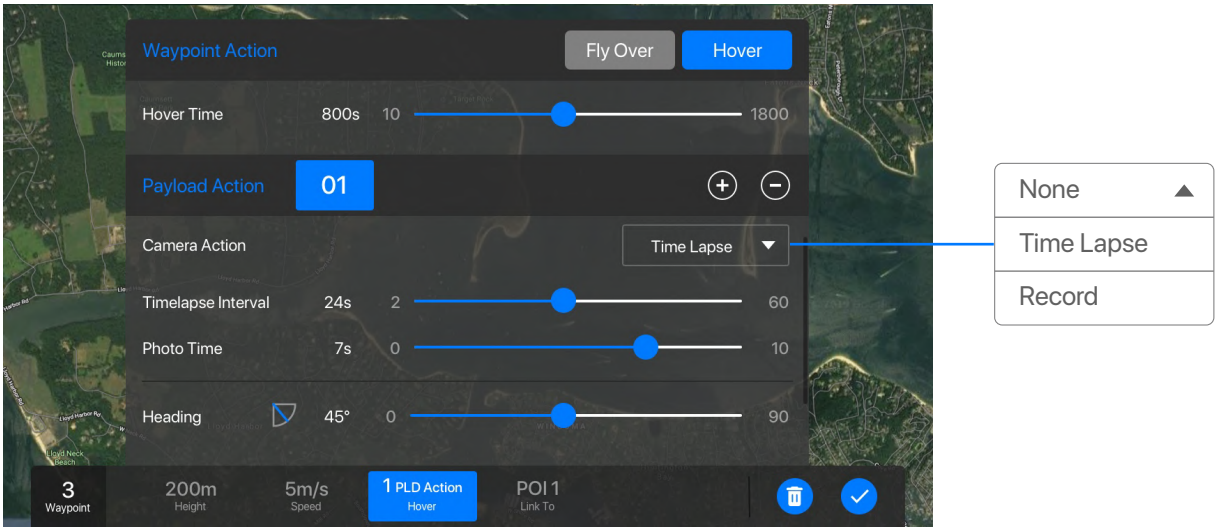


b. When Waypoint Action = "Hover"

- **Time Lapse** – The camera will take photos for "Photo Time", in seconds every "Time Interval" second.
- **Record** – Start recording video for the duration configured in "Video Time".



- **Gimbal Pitch** – The camera gimbal will move the gimbal to the configured pitch when the waypoint is reached.
- **Heading**
  - **Route –** The aircraft turns towards the next waypoint (default). Individual waypoints can override the heading direction as required.
  - **Free –** User controls the aircraft heading using the remote control.
  - **Custom –** User can set route direction of each waypoint.

NOTES:

The aircraft remains at the waypoint until all configured camera actions are completed.

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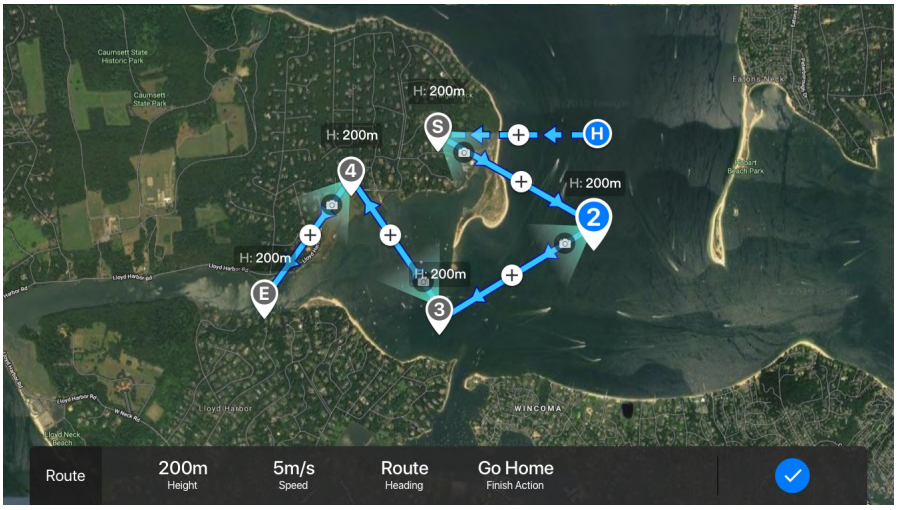
Route Settings

Click the icon to enter route settings, the page is shown below:



- **Height –** Indicates the common elevation for all waypoints.
- **Speed –** Indicates the common speed for flight.
- **Heading**
  - **Route –** The aircraft turns towards the next waypoint (default). Individual waypoints can override the heading direction as required.
  - **Free –** User controls the aircraft heading using the remote control.
  - **Custom –** User can set route direction of each waypoint.
- **Finish Action**
  - **Go Home –** Return and lands at the take-off location.
  - **Hover –** Hover at the location and altitude of the last waypoint.

6.4.3 Area Route

The mission planner includes 2 types of area route planning. The **Rectangle** creates a rectangular flight area while the **Polygon** allows for the creation of a contouring flight area.

The one you chose should correspond to the shape and contours needed for your specific operation and location.

Settings for both Rectangle and Polygon are identical and are covered in the Area Route Configuration section below.

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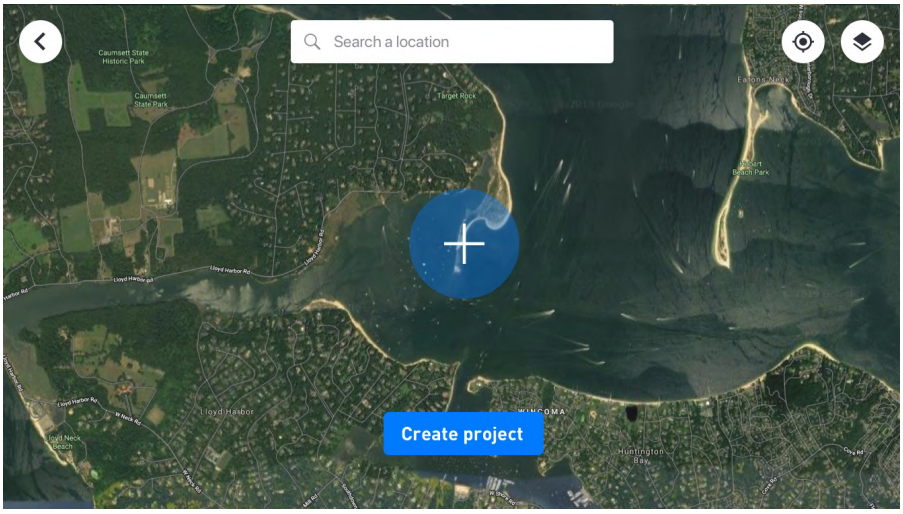
Create Rectangular or Polygon

The first page after entering a regional route plan is shown below:



- Please make sure the network is available, the page will automatically load the map of the current location. You can also manually move, zoom the map , or search the place in the upper middle of the page. Find the location you want to create the area mission and click it to complete the rectangular or polygon area route mission. The default flight area will be placed at this position.

Rectangular

The Rectangle (see above) is best for mission flights where the area to be photographed is uniform in shape.

Touch, hold, and drag the white circles on the border of the flight path to allow you to adjust the flight path to match the flight area.

Touch, hold and drag the center indicator allowing you to move the entire flight path to cover a different

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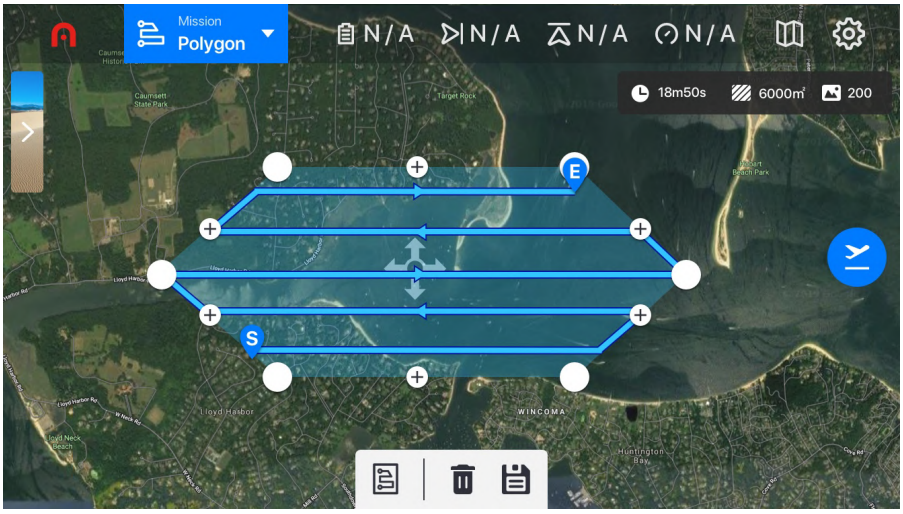
area. Touch, hold, and drag the rotate indicators allow you to rotate the flight path around its center.

Once the position of the flight path is correct, the settings (see **Area Route Configuration**) are configured correctly, you are ready to save (see **Saving a Mission**) and fly (see **Flying the Mission**).

Polygon



Area Route Configuration

The following settings are common to all aerial mission types.

- **Height** – (Default 60m) The distance above the takeoff point that the drone captures photos. Flying higher can make image stitching easier at the expense of resolution. Mapping difficult subjects such as vegetation, a desert, or water will benefit from using a higher elevation. If the area you are flying requires a lower altitude, increase your overlap to make photos stitching easier. Range: 30 - 800 meters.
- **GSD** – (Display-only) Ground Sampling Distance refers to the number of (camera) pixels per centimeter of ground image. The higher the GSD the greater level of detail and accuracy. Range: 0.4 cm/px -10.3 cm/px.
- **Front OverLap** – (Default 80%) The percentage of overlap between the front and back of the flight area. Range: 10% - 90%.
- **Side OverLap** – (Default 70%) The percentage of overlap between the sides of the images. Increasing the ratio results in the aircraft flying closer to the previous flight line, decreasing the ratio increases the flight distance. Range: 10% - 90%.
- **Gimbal Pitch** – The camera gimbal will move the gimbal to the configured pitch when the waypoint is reached.

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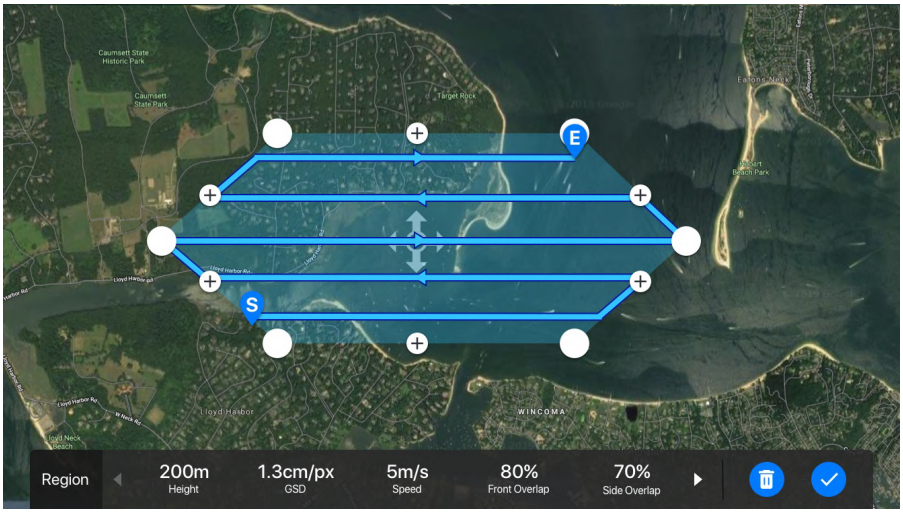
- **Course Angle** – (Default AUTO) Sets the orientation of the flight path. When set to AUTO, the app calculates the path for most efficient battery consumption. Range: 0-360 degrees.
- **Finish Action**
  - **Go Home** – (Default)Return and lands at the take-off location.
  - **Hover** – Hover at the location and altitude of the last waypoint.



NOTES:

Front OverLap and Side OverLap have a direct relationship to image processing. Increasing overlap makes image stitching and processing easier especially at lower flight altitudes or when the area being photographed is very uniform (e.g., water, desert, fields, trees, etc.). The downside of increased overlap comes in the number of additional images captured. In addition, flights in areas where you might encounter movement, those objects can add increased difficulty for image processing tasks.

6.5 Saving a Mission

Click the mission save icon to rename and save the mission.

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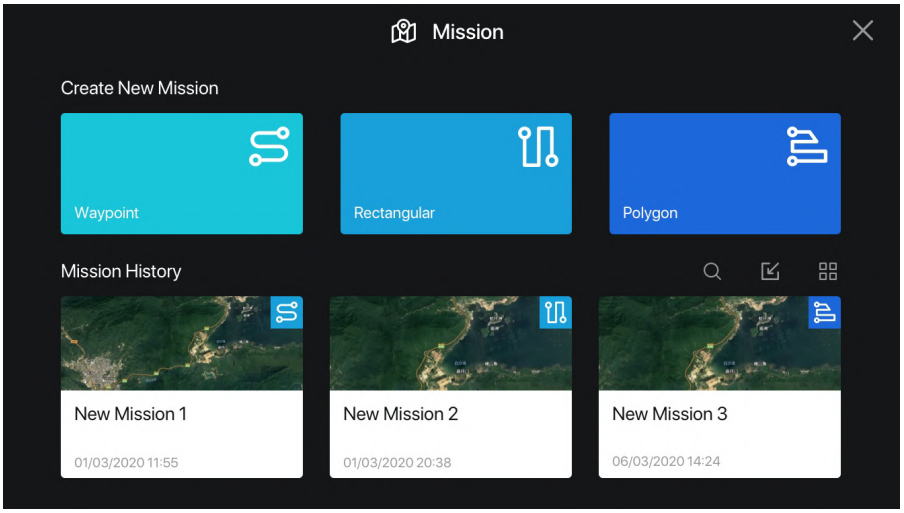
6.6 Loading a Saved Mission



All saved missions located on the device appear under the Create New Mission in the Mission History section. The mission's save date and a small image representing the mission area are displayed to assist in located the mission to load.

Missions are displayed in the "most recent saved" order with recently saved missions appearing near the top and older missions towards the bottom of the list. Scroll through the list until you locate the desired mission and tap the mission to load it into memory. Once loaded the mission is ready to fly. You can also edit and/or save the mission under a new name if required.

NOTES:

Only missions for the currently connected aircraft will be displayed. Missions created for the EVO aircraft are not compatible for use with the EVO II and missions created for EVO II are not compatible with EVO.

6.7 Flying the Mission

Once onsite, make sure the aircraft is connected, the correct mission loaded, and ready to fly; all that remains is to tap the button and the flight operation will begin.

The first step will be flight inspection to check the flight status and SD card storage. Once the inspection is passed, click "**FLY**" to perform the mission.

There is very little user interaction once the operation begins. The gimbal is positioned and camera photo shoots are all configured and started automatically.

The aircraft will fly the complete mission as defined. Once completed the aircraft will either Return to Home or Hover at the Last Waypoint depending on the Finish Action set in the Mission Properties.

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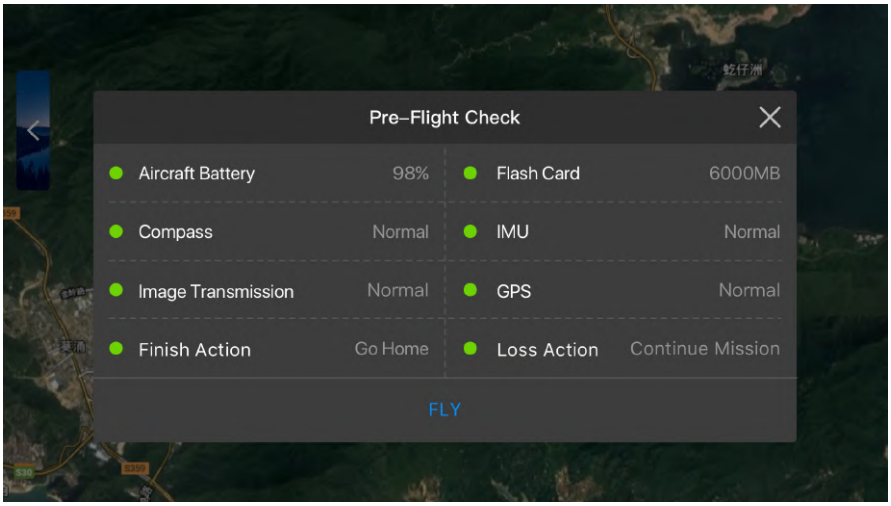


6.8 Waypoint Flight Operation's Control

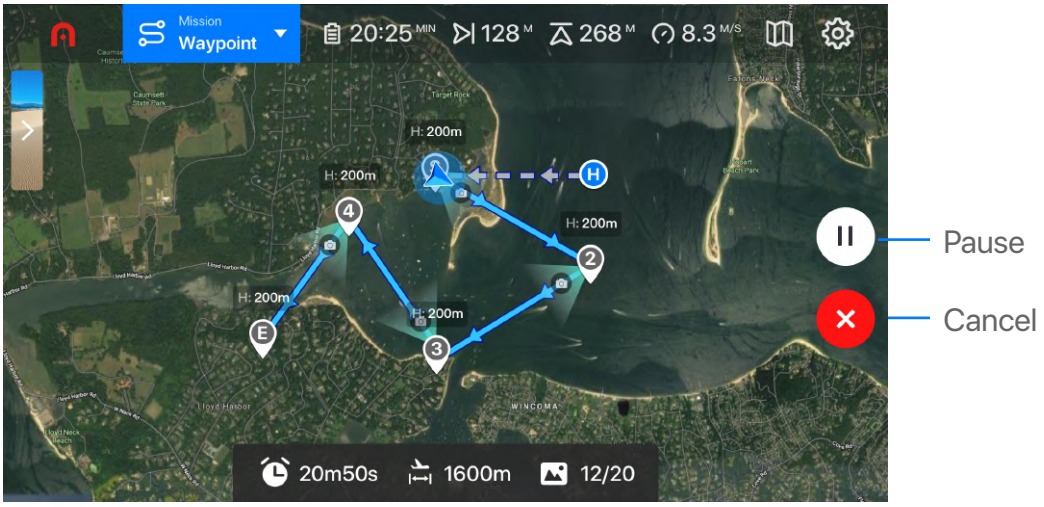
All Waypoint Flight Operations can be paused or canceled at any time during the operation. If paused, the operation remains active and the aircraft will hover in place. If canceled the flight operation is halted.

Pause Operation

To pause the operation, press the ⏸ button on the remote control for 1s or tap the Pause icon on the screen of the Autel Explorer™ app.

Cancel Operation

To cancel the operation, press and hold the Pause button on the remote control for 3s or tap the ✕ icon on the screen of the Autel Explorer™ app. The operation will be cancelled and control of the aircraft will be returned to the pilot.



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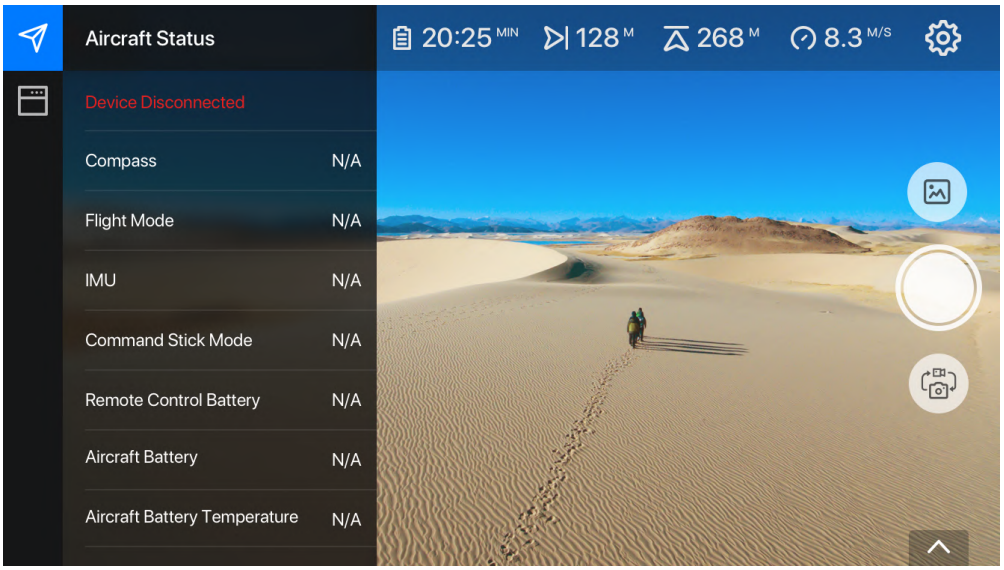
NOTES:

If any of the following conditions are detected the operation will be automatically ended. Once ended the aircraft may perform additional operations depending on the condition as indicated below.

- Low battery level: A message will pop up on the app screen telling you that the aircraft is returning home automatically.
- Critically low battery level: The operation will end and the aircraft will automatically land on-site.
- If the GPS signal strength is too weak, the Aircraft will enter the ATTI mode. In this case, the operation will be ended and you will return to manual pilot control.

7 Aircraft Status Settings

After the aircraft self-check completes, the Aircraft Status screen will display some important functions and parameters allowing you to perform configurations for the Aircraft.



Compass Calibration

Follow the steps below to calibrate the aircraft compass.

1. Tap the Calibrate button on the screen, follow the on-screen instructions that help you monitor the calibration status. The rear LED indicators on the aircraft will turn flashing yellow when you initiate the calibration process.

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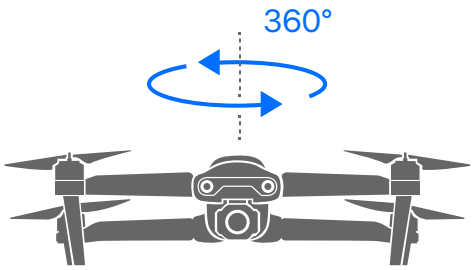
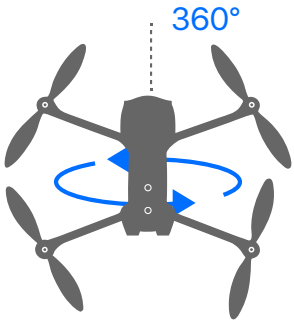
2 Hold the aircraft horizontally and rotate it until the rear LED indicators on the aircraft turn solid green.



3 Hold the aircraft vertically with the nose facing ~~downward~~ and rotate it until the rear LED indicators on the aircraft turn solid green, indicating that the calibration is successful.



Flight Mode

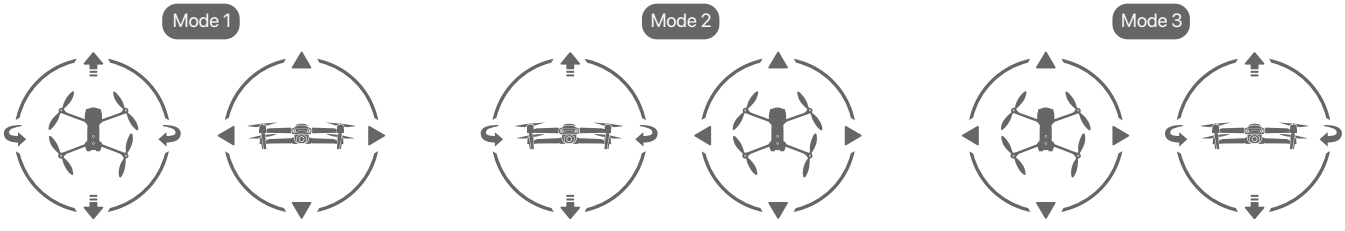
The Aircraft automatically selects the most suitable flight mode based on the GPS signal strength.

IMU

This option enables you to monitor the status of the inertial measurement unit (IMU) of the aircraft.

Command Stick Mode

After the aircraft self-check completes the screen will display the current command stick mode. You can also choose a different command stick mode to control your aircraft. There are three modes available: Mode 1, Mode 2, and Mode 3 to control the aircraft in different manners. The following figures show these 3 command stick modes.



The following table describes the icons in these command stick modes.

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Icon		Aircraft Movement	
		Ascend	Descend
		Rotate Left	Rotate Right
		Move Forward	Move Backward
		Move Left	Move Right

Remote Control Battery

This parameter displays the current remote control battery level. You can also check the remote control battery level on the camera screen. For details see **Aircraft Status Bar**.

Aircraft Battery

This parameter displays the current aircraft battery level.

Aircraft Battery Temperature

This parameter displays the current temperature of the aircraft battery.

Image Transmission Signal

This parameter displays the strength of image transmission signals. You can also check the image transmission signal strength on the camera screen. For details see **Aircraft Status Bar**.

Gimbal Status

This parameter displays the current status of the aircraft gimbal.

SD/Flash Card

This parameter displays the current status of the SD/Flash card.

8. Settings

Tapping the Settings icon on the aircraft status bar gives you the access to adjust the parameter settings of the following categories:

- Flight control
- Image transmission
- General
- Visual navigation
- Aircraft battery
- Remote control
- Gimbal

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8.1 Flight Control Settings

Novice Mode

You can toggle the switch to enable or disable the Novice mode. If this mode is enabled, the maximum flight speed is fixed at 5 m/s, altitude at 30 m, and distance at 100 m.

> NOTES:
> If the Novice mode is enabled aircraft motors can be started only in GPS mode.

Go-Home Altitude

A safe altitude can be set for your aircraft to go home automatically. If you set **Go-Home Altitude** to a certain value, the aircraft will automatically adjust its altitude to this value and then return to the home point. The default go-home altitude is 30 m (90 feet).

> NOTES:
> You are advised to set a proper **Go-Home Altitude** based on the flight environments before each flight mission.

Speed Limit

This parameter restricts the maximum flight speed of the aircraft when the Novice mode is disabled. The default speed limit is 10 m/s.

Ludicrous Mode

After being set to ludicrous mode, the aircraft will reach the fastest speed and acceleration; the maximum flight speed could reach 20m/s. Due to the distance limitations of the avoidance systems, the automatic obstacle avoidance function will be shut off. When using this mode fly cautiously.

Altitude Limit

This parameter restricts the maximum flight altitude of the aircraft when the Novice mode is disabled. The altitude limit protects the aircraft from flying out of sight or losing signals due to high altitude flying. The default altitude limit is 120 m (360 feet).

Distance Limit

You can toggle the switch to enable or disable the default distance limit (800 m) when the Novice mode is disabled.

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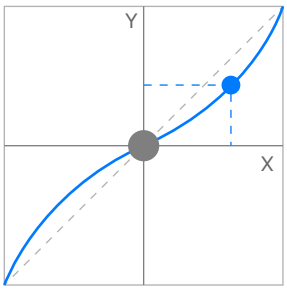
Compass Calibration

When calibrating the compass, please make sure there are no metal objects around to prevent interference.

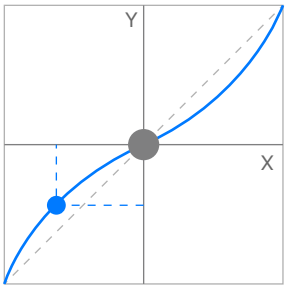
Advanced Settings

- **Front LED indicators** – You can toggle the switch to turn on or off the front LED indicators.
- **EXP** – This parameter is used to control the aircraft's rotation speed when you push the command stick. Command stick mode 2 is used in the following instructions to illustrate how to adjust **EXP:**

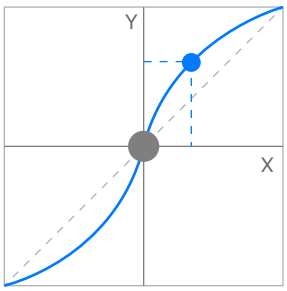
1. Drag your finger across the screen in the pattern of the green curve toward the blue dot, as shown in the right figure. Push the left command stick to the right. The aircraft will rotate right, slowly at first, then quickly.



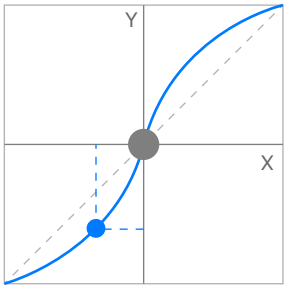
2. Drag your finger across the screen in the pattern of the green curve toward the blue dot, as shown in the right figure. Push the left command stick to the left. The aircraft will rotate left, slowly at first, then quickly.



3. Drag your finger across the screen in the pattern of the green curve toward the blue dot, as shown in the right figure. Push the left command stick to the right. The aircraft will rotate right, quickly at first, then slowly.



4. Drag your finger across the screen in the pattern of the green curve toward the blue dot, as shown in the right figure. Push the left command stick to the left. The aircraft will rotate left, quickly at first, then slowly.



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8.2 Visual Navigation Settings

The Aircraft has many visual navigation features to protect itself during the flight. These features include:

- Visual obstacle avoidance
- Landing protection
- Show radar map
- Accurate landing
- Auxiliary Bottom Light

For each of these features you can toggle the switch to turn it on or off. The Autel Explorer™ app provides detailed instructions related to these visual navigation features.

8.3 Remote Control Settings

Remote control settings grant you the access to perform remote control calibration and set the command stick mode.

Remote Control Calibration

When you tap Start Calibration, the remote control will display the steps to help you complete the calibration process.

Command Stick Mode

A total of 3 command stick modes are available and you can choose any of them. For details, see **Command Stick Mode.**

Remote Control Matching

The aircraft and remote control will re-pair under this function, including the pairing of the primary & secondary remote controls and the aircraft.

8.4 Image Transmission Settings

Channel Mode

The channel mode is fixed to 2.4G.

Broadband Settings

The Aircraft supports 2 broadband options: 20 Mbps and 10 Mbps.

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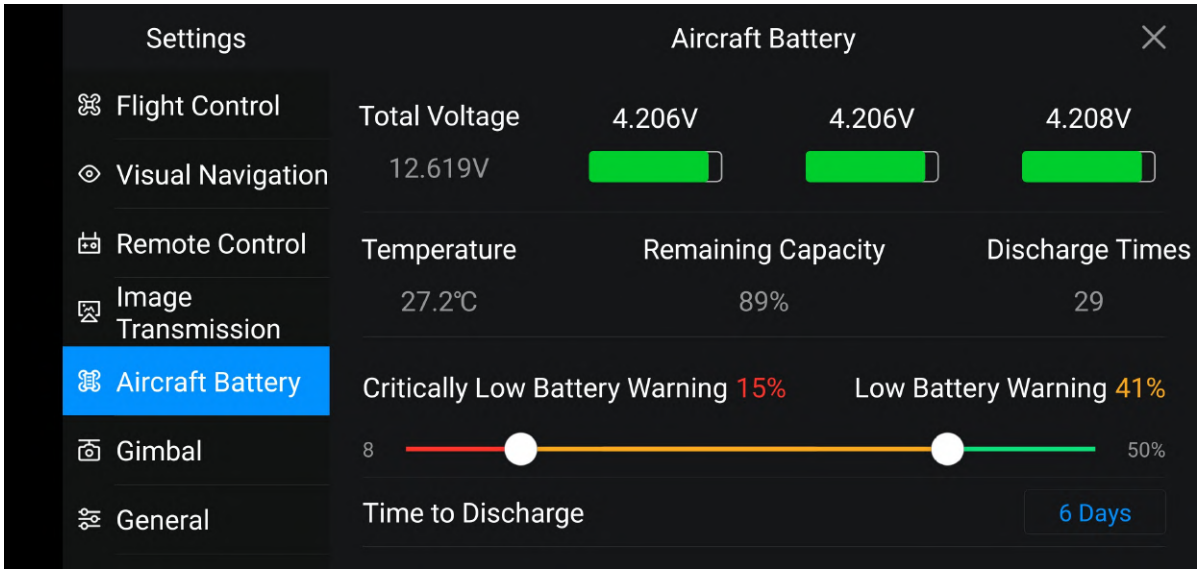
Image Transmission Mode

The image transmission mode can be High Definition or Smooth.

8.5 Aircraft Battery Settings

Aircraft battery settings provide a series of readings. Using these readings you can monitor and manage the current aircraft battery levels and warning status.



IMPORTANT:

For safety purposes, do not set Low Battery Warning below 25%, as this is the minimum battery level for Go Home to function properly.

Do not set Critically Low Battery Warning below 8%, as this is the minimum battery level required for safe on-site landing.

8.6 Gimbal Settings

Gimbal Mode

Two gimbal modes are available:

- **Stabilized mode:** The gimbal's orientation will remain aligned with the aircraft's nose, but the gimbal will remain horizontal even when the aircraft tilts.
- **FPV mode:** The gimbal will be synchronized with the aircraft's movements, including rotation and tilt, yielding the first-person view.

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Adjust Gimbal Roll Axis

This setting allows you to adjust the roll axis of the gimbal to find the best angle for your photos.

Gimbal Pitch EXP

This setting allows you to adjust the sensitivity of the gimbal pitch.

8.7 General Settings

Home point

Set your current location or the current aircraft location as the home point.

Units

Choose your preferred unit system: Metric (km/h), Metric (m/s), or Imperial (mph). These units are used in the Speed Limit, Altitude Limit, and Distance Limit in Flight Control Settings.

Show Aircraft Coordinates

There are 3 different kinds of coordinate modes: GPS, UTM, and DMS.

Firmware Version

View the firmware version of the different components.

Switch to Google or A Maps

You can use Google or A maps as needed.

Restore "Do Not Show Again"

If you ever selected "Do Not Show Again" in the prompt messages, the corresponding messages will no longer be displayed in the app, tap Reset to restore all Do Not Show Again prompt messages.

About

View the currently installed version of the Autel Explorer™ app.

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