

Active tracking mode

Use Active tracking mode to track moving or specific objects in AI tracking mode.



In AI tracking mode, touch a specific target you want to record twice, then a square, yellow border will be created and active tracking mode will start.



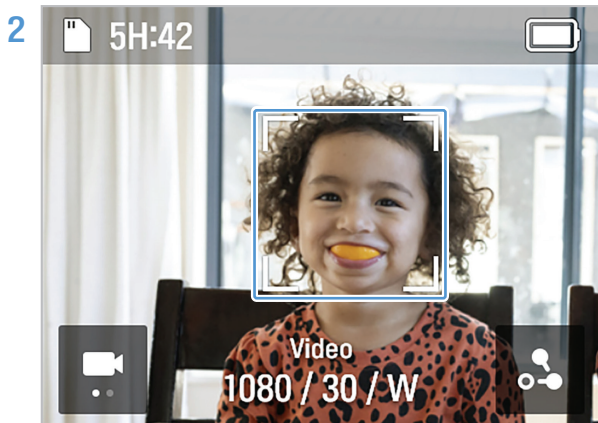
To end tracking, touch the square, yellow border.

3.2 Face tracking mode

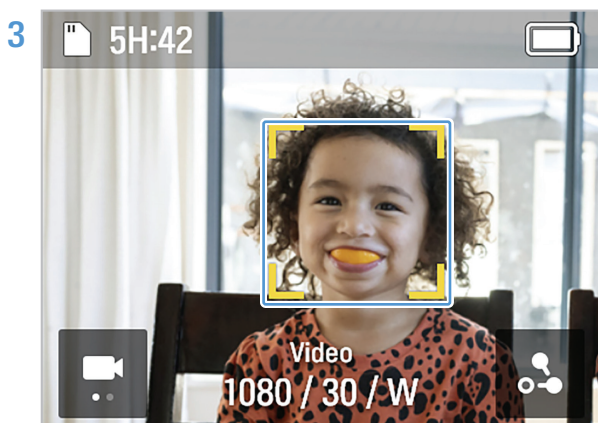
Face tracking mode recognizes and tracks a person's face.

Face tracking mode

- 1 Swipe left on the preview screen to open the gimbal quick settings, then change the tracking mode to Face tracking mode.



Face recognition mode will start in Face tracking mode. When a subject's face is detected, a square, white border is created around their face.



If you touch the inside of the square, white border, it turns yellow and tracking starts.

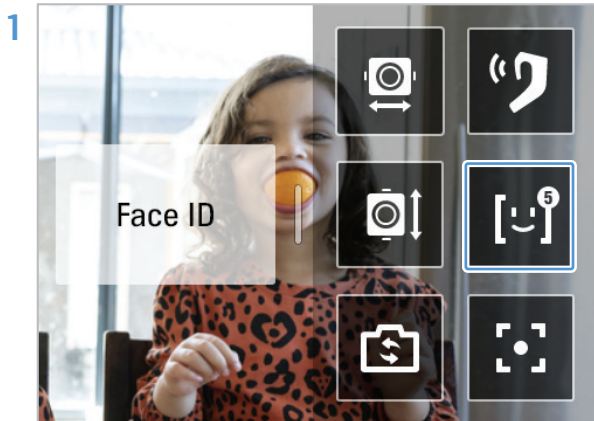


To end tracking, touch the yellow square border.

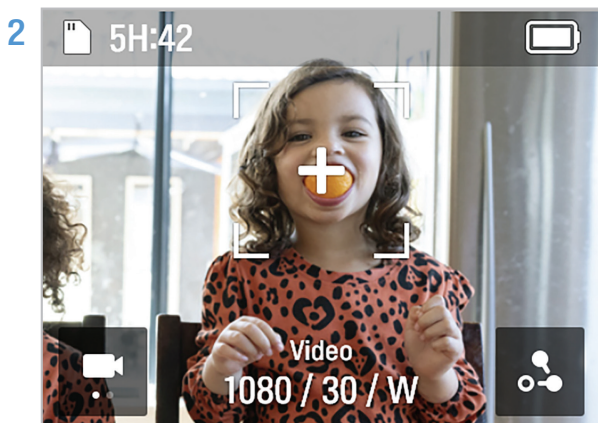
3.3 Using Face ID

Once you register people's faces on Face ID, the faces will be automatically recognized and tracked based on the camera angle without requiring any actions.

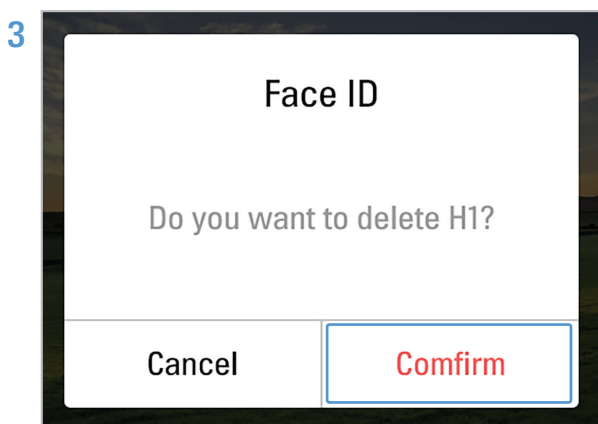
Face ID registration



Swipe left on the preview screen to open the gimbal quick settings, then touch the tracking button to activate the Face ID feature.




Start recording the person you want to register for Face ID. When the product recognizes a face, a white square border will be created around the face and the + button inside the box will become activated.



Touch the + button > **Confirm** to complete Face ID registration.

- The product tracks who has the highest registration priority.
- You can register up to five Face IDs.




Check/delete Face ID

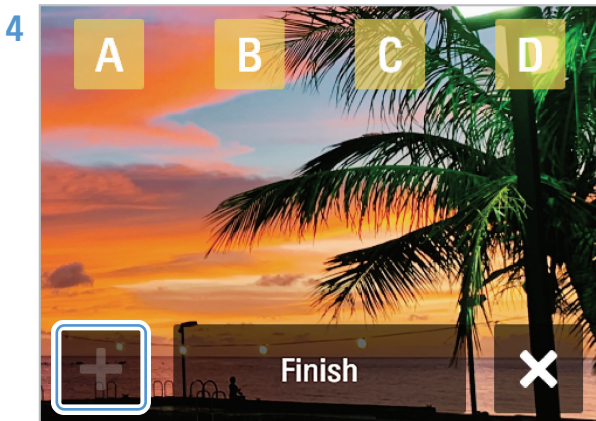
- 1 Touch **Settings** (⚙️) > **System Settings** > **Recording Settings** > **Face ID** to check the registered people by registration rank.
- 2 Touch the Face ID you want to delete, then press  on the top right to delete the Face ID.

3.4 Using dynamic motion recording mode

With the dynamic motion function, you can specify up to 4 recording points and set the path and time to record before recording.

Dynamic motion recording mode

- 1 On the Video preview screen, touch the  button to open the motion settings.
- 2 Set the time to record. The video length is automatically calculated and displayed based on the video settings value (speed, interval).
- 3 After setting the recording time, touch the () button to return to the Motion Settings screen, and then touch the () button in the upper-right corner to move to the Route Settings screen.



Use the joystick to move to the desired shooting points and press the + button to designate up to four shooting points (A-D).



- 5 Press the  button on the product. The product will shoot the selected points.



- The route can be set up to 4 points (A-D).
- Touching the **End** button on the Settings screen will move you to the End Selection screen, and at the end, it will delete all location information and move to the Motion Settings screen.
- While recording, all locations set as routes are displayed on the preview screen, and the route completed, the route being recorded, and the route to be recorded are displayed as images to help you recognize the route.

Recording in Repeat mode

You can set two shooting points and take continuous and repeating shots at set time intervals.

With the joystick, select two recording points by pressing the + button, press the Repeat mode () button, and press the  button on the product.



You cannot use the repeat mode if you set more paths than two recording points.

3.5 Updating the firmware

For optimal operation of the product, ensure that you keep the firmware up to date.

- 1 Visit www.thinkware.com/support.
- 2 Save the downloaded firmware file to the product's memory card.
- 3 Insert the memory card with the firmware to start updating the firmware.



- For more information on product updates, visit www.thinkware.com/support.
- If you save the firmware to the SD card and update the product at the same time, the update will proceed in the order of system firmware and gimbal firmware.


4. Using the National Geographic gimbal cam app

You can use various functions of the product by connecting the product to the **National Geographic gimbal cam app**.

4.1 Connecting the National Geographic gimbal cam app

- 1 On your smartphone, search for the **National Geographic gimbal cam app** in the Google Play Store or Apple App Store, or scan the QR code below to download and install the app.



- 2 Open the installed **National Geographic gimbal cam app**.
- 3 On your smartphone, turn on the Bluetooth and Wi-Fi features.
- 4 Swipe down on the preview screen to open the settings menu, then touch **Settings**  > **Connection Settings** > **National Geographic App** > **Use connected device** switch to activate it.
- 5 In the **National Geographic gimbal cam app**, touch the **Connect a camera** button, find and connect to a product name that starts with NC-200.



- The Wi-Fi password is **12345678**.
- If the product is connected to the head tracker, tap **Connect via Wi-Fi** to connect.

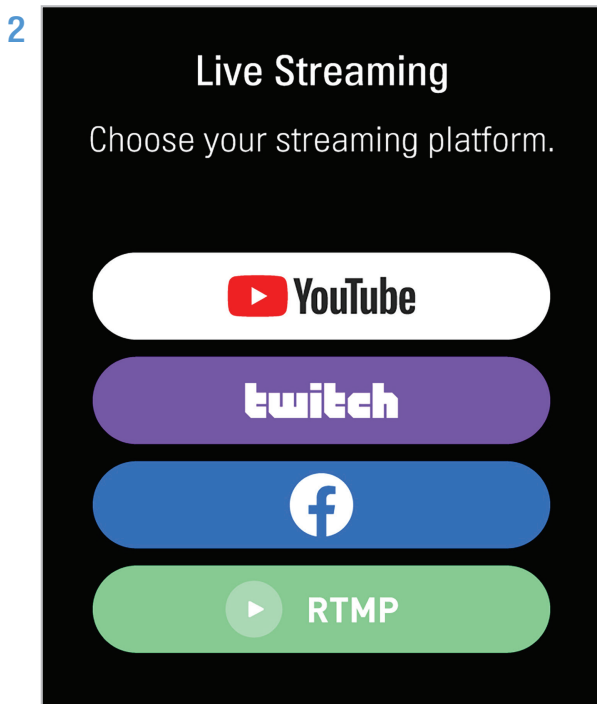
4.2 Using live streaming

You can use the live streaming feature in the **National Geographic gimbal cam app** to stream stable and high-definition broadcasts.


Live streaming




Swipe down on the preview screen to open the settings menu, then touch the app connection button and follow the on-screen instructions to connect the app and product.



Select the desired broadcasting platform from the **Live streaming** menu in the app preview screen or the app home screen's setting menu, and then go to the streaming settings.

 Twitch live streaming will be supported.

3 Sign in to the registered or newly registered account for each broadcasting platform, set the transmission resolution and network items, and touch the **Streaming Settings Complete** button.

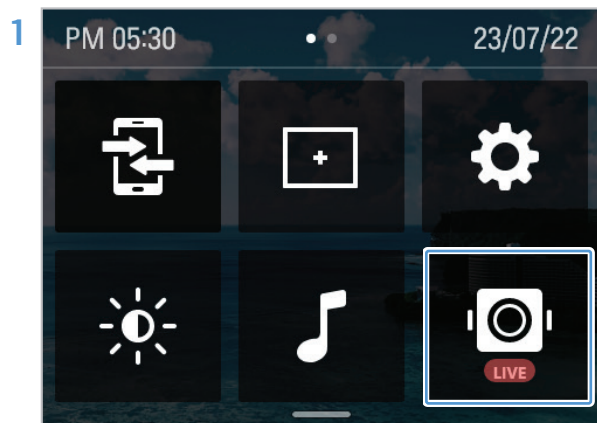
 To use mobile hotspot data, first enable hotspot data in your smartphone Wi-Fi settings, and then enter the hotspot's AP information.

4 When the streaming setup is complete, the setting information is delivered to the product and the connection between the app and the product is disconnected.



When the connection between the app and the product is disconnected, swipe down on the preview screen to open the settings menu and then touch the live streaming button to start live streaming.

Quick live streaming



Swipe down on the preview screen to open the settings menu, then touch the live streaming button to start live streaming.



This feature is available only when there is saved live streaming information. To save streaming information, connect to live streaming via the app.



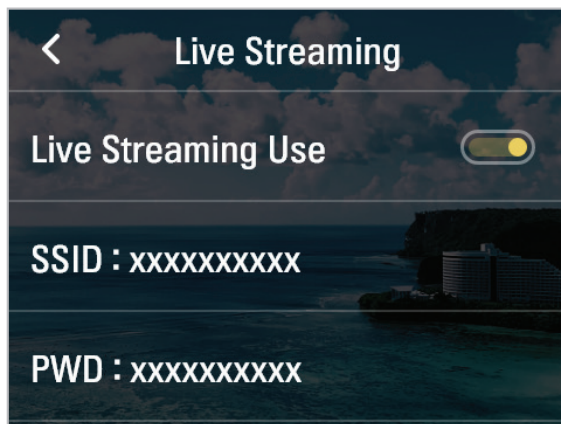
The broadcasting platform icon is displayed in the status bar if live streaming is proceeding normally.




The product connects with the AP set in the app. It will not connect in places where the corresponding AP is not present.

View live streaming information

1



Swipe down on the preview screen to open the settings menu, then touch **Settings**  **>** **Connection Settings > Live Streaming.**

2 Check the AP SSID and password stored in the product.



To change the broadcasting platform, connect to the new broadcasting platform in the app.

5. Using recording modes

You can check the screen of each recording mode and change the settings.

5.1 Using video modes

Video mode screen



Mode	Description
Video	Records high-definition videos with up to 4K @60fps resolution.
Slow motion	Suitable for fast-moving subjects, it records 4x slower.
Hyperlapse	You can record while moving with video frames at set intervals. Records long hours of activity in short, dynamic videos.
Timelapse	Records a short video of a long-duration activity with video frames at set intervals.
SNV	Records with optimal brightness at 4K @15fps resolution in extremely low light conditions.

Switching video modes

On the Preset settings screen, swipe left or right on the screen or touch the arrow to change the video mode. You can switch to 5 different video modes (Video, slow motion, hyperlapse, timelapse, SNV).



Video recording settings

Touch the Edit button to change the recording environment to the desired setting.

You can set the file format, the view angle when recording, the color temperature, and the brightness of the screen.

Video setting value

Settings	Detailed setting value
Resolution/ Frame	1080p @24, 30, 60, 120fps 2.7K @24, 30, 60fps 4K @24, 30, 60fps
File format	MP4/MOV
View angle	Wide/Linear/Narrow angle (4K @60fps linear/narrow angle not supported, 4K @30fps narrow angle not supported, 2.7K @60fps linear/narrow angle not supported)
Exposure	Auto/Manual
White balance	Auto/Sunlight/Cloudy/Incandescent/ Fluorescent/Manual

Slow motion setting value

Settings	Detailed setting value
Resolution/ Speed	Resolution: 1080p Speed: 4x
File format	MP4/MOV
View angle	Wide/Linear/Narrow angle
Exposure	Auto/Manual
White balance	Auto/Sunlight/Cloudy/Incandescent/ Fluorescent/Manual

Hyperlapse setting value

Settings	Detailed setting value
Resolution/ Speed	Resolution: 1080p, 2.7K, 4K Speed: 2x, 5x, 10x, 15x, 30x
File format	MP4/MOV
View angle	Wide/Linear/Narrow angle (4K linear/narrow angle not supported)
Exposure	Auto/Manual
White balance	Auto/Sunlight/Cloudy/Incandescent/ Fluorescent/Manual

Time lapse setting value

Settings	Detailed setting value
Resolution/ Interval	Resolution: 1080p, 4K Interval: 0.5, 1, 2, 3, 5, 10, 15, 30, 60
File format	Video/Photo + Video
View angle	Wide/Linear/Narrow angle (4K linear/narrow angle not supported)
Exposure	Auto/Manual
White balance	Auto/Sunlight/Cloudy/Incandescent/ Fluorescent/Manual

SNV setting value

Settings	Detailed setting value
Resolution/ Frame	Speed: 4K @15fps
File format	MP4/MOV
View angle	Wide/Linear angle
Exposure	Auto
White balance	Auto/Sunlight/Cloudy/Incandescent/ Fluorescent/Manual

5.2 Using photo modes

Using photo modes



Mode	Description
Photo	Takes a single 12-Megapixel picture.
Continuous	Takes 20 continuous shots based on the set timer.
Panorama	Takes multiple photos with the set aspect ratio and saves them to be edited into a single photo.



- When entering the album, the panoramic photos appear as a single preview photo. To check the original photos, connect the product to your computer and access the dedicated folder.
- When taking a panorama, subjects with unclear cuts may not be automatically composited. Avoid taking a panorama if the subject is out of focus due to the close distance of the lens to the subject, or if the details of the subject are blurred.

Switching photo modes

On the preset setting screen, swipe left or right or touch the arrow to change the photo mode. You can switch to 3 different photo modes (Photo/Continuous/Panorama).



Photo mode setting

Touch the Edit button to change the recording environment to the desired setting.

Photo settings value

Settings	Detailed setting value
Screen ratio	16:9, 4:3, 1:1
View angle	Wide/Linear angle
Exposure	Auto/Manual
White balance	Auto/Sunlight/Cloudy/Incandescent/ Fluorescent/Manual

Continuous setting value

Settings	Detailed setting value
Screen ratio	16:9, 4:3, 1:1
Continuous shots	20 pic/1 second, 3 seconds, 5 seconds
View angle	Wide/Linear angle
Exposure	Auto/Manual
White balance	Auto/Sunlight/Cloudy/Incandescent/ Fluorescent/Manual

Panorama setting value

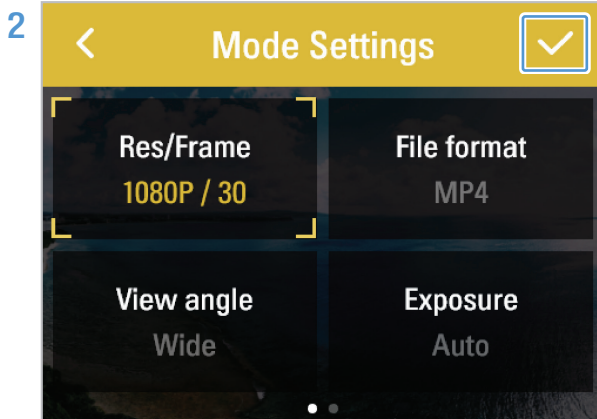
Settings	Detailed setting value
Screen ratio	180°, 360°, 3x3
Exposure	Auto/Manual
White balance	Auto/Sunlight/Cloudy/Incandescent/ Fluorescent/Manual

5.3 Setting presets

You can add presets with frequently used settings in photo or video mode.



Touch the + button on the photo or video preset screen.



Select the desired mode for setting the preset, set the detailed setting value, and touch the OK button to create a customized preset.

5.4 Connecting the product to the computer

You can use various functions of the product by connecting the product to the computer with a USB cable.

USB mode

In the connection mode pop-up window, touch **USB mode** to check the media files stored on the SD card on the computer.

Webcam mode

In the connection mode pop-up window, touch **Webcam mode** to use the product as a webcam. The product will restart when you disconnect the USB after connecting in webcam mode.



- Webcam mode supports the 1080p @30fps resolution.
- Webcam mode supports video display, but does not support sound.
- If you connect the product to the computer while recording a video, the recording will continue uninterrupted. The connection mode pop-up window will appear after the recording ends.

Charging mode

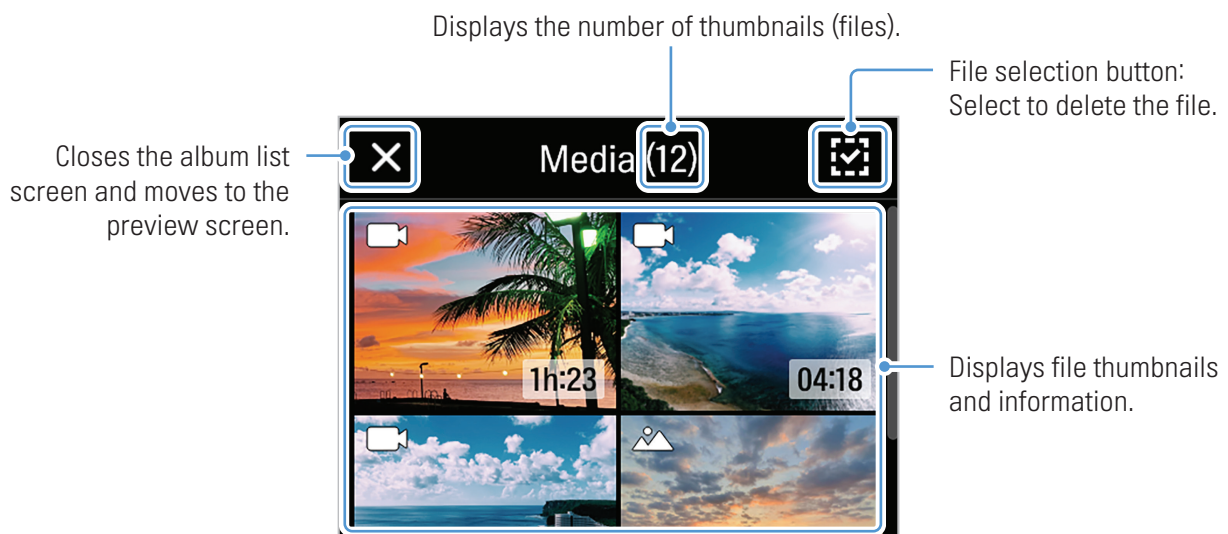
In the connection mode pop-up window, touch **Cancel (Charge)** to charge the product.

6. Viewing album

Swipe right on the preview screen to open the album and view the photos and videos.

6.1 Overview of the Album screen

Touch the thumbnails of each file to view them.



6.2 Deleting files in the album


You can delete files individually/selectively or all files with the File selection button.

- 1 Touch the File selection button and touch the file you want to delete.
- 2 Touch the Delete button on the top-right part of the screen.
- 3 In the Delete file pop-up window, touch **Delete** to delete the selected file.

7. Configuring the settings


You can set the product features according to your needs and preferences.

7.1 Gimbal settings

Swipe down on the preview screen to open the settings menu, then touch **Settings**  > **Gimbal Settings** to configure the gimbal usage environment.

Setting menu	Description
Gimbal Speed	Set gimbal speed.
Gimbal Sensitivity	Set gimbal sensitivity.
Welcome Mode	Turn Welcome mode on/off.
Calibration	Start the gimbal calibration.
Gimbal Mode	Set the default gimbal mode and the gimbal mode when holding the trigger. <ul style="list-style-type: none">• Pan mode: The roll and tilt directions are fixed and move according to the left and right movement of the user's hand.• Follow mode: The roll direction is fixed and moves according to the left and right movement of the user's hand.• FPV mode: Pan, roll, and tilt directions move based on the movement of the user's hand.• Lock mode: Pan, roll, and tilt directions are fixed in one direction.• None mode: The product does not employ any gimbal mode while holding the trigger (keeps the default gimbal mode).
Initialize	Initialize the gimbal settings.


7.2 Connection settings

Swipe down on the preview screen to open the settings menu, then touch **Settings**  > **Connection Settings** to configure the connection environment.

Setting menu	Description
National Geographic App	Display the information about Use connected device/National Geographic App Connect/Connect Info..
Head tracker	Set Head tracker Use/Head tracker Connect/LCD Off for Head Tracker/Head tracker calibration/Gaze point correction.
Live Streaming	Check live streaming information.


7.3 System settings

7.3.1 Recording settings

Swipe down on the preview screen to open the settings menu, then touch **Settings**  > **System Settings** > **Recording Settings** to configure the recording environment.


Setting menu	Description
Quick shot	Turn quick shot mode on/off.
Upside down	Flip the screen upside down.
Mic settings	Set the built-in microphone quality.
Ext. mic volume	Adjust the external microphone volume.
Output type	Select output type.
Face ID	Manage the registered Face ID.

7.3.2 Other settings

Swipe down on the preview screen to open the settings menu, then touch **Settings**  > **System Settings** > **Misc. Settings** to configure the usage environment.

Setting menu	Description
Auto power off	Set the product to turn off automatically when the specified time is exceeded.
Auto LCD off	Set the product's LCD to turn off automatically when the specified time is exceeded.
Date & time Settings	Set the date and time.
Indicator	Turn the indicator on/off.

7.3.3 System information

Swipe down on the preview screen to open the settings menu, then touch **Settings**  > **System Settings** > **System Info.**

Setting menu	Description
Language	Select the desired language from among English/한국어/中文/繁體中文/Español/Français/Deutsch/日本語.
Format SD card	Format the SD card.
Firmware information	Check the firmware information.
Regulation	Check the product's certification status.
System initialization	Initialize all the settings of the product.

8. Specifications

To see the product specifications, refer to the following table.

Item		Specifications
General	Size	53 x 161.4 x 49.8 mm
	Weight	234 g (with battery)
	Wi-Fi/Bluetooth	Internal
	Usage time	Approx. 2 hours 20 minutes (based on FHD @24fps / LCD brightness 100% and always on)
	Buttons	Recording / Power (M) / Joystick / Trigger
	Mount	1/4 mount, M4 mount
Battery	Type	Replaceable lithium-ion pack
	Storage	2,000 mAh
	Voltage	3.7 V
	Charging time	About 180 minutes
LCD	Screen size	2"
Gimbal	Pan mode	Software control angle -45° to 245°
	Tilt	Software control angle -42° to 122°
	Roll	Software control angle $\pm 45^\circ$
	Gimbal mode	Pan, Follow, FPV, Lock, None
APP	APP	National Geographic gimbal cam - only app

Specifications

Item		Specifications								
Camera	Sensor	1/2.3" CMOS / 12.3MP								
	Lens	FOV: 133.9° (diagonal) / F2.6								
	Image size	4,000 x 3,000								
	Photo mode	Photo / Continuous / Panorama								
	Video mode	Video, Hyperlapse, Time lapse, Dynamic motion recording, SNV mode								
	Tracking mode	Face ID auto tracking, AI tracking, Face tracking, Active tracking								
	Video resolution	<table border="0"> <tr> <td>[PAL]</td> <td>[NTSC]</td> </tr> <tr> <td>4K @50, 25, 24fps</td> <td>4K @60, 30, 24fps</td> </tr> <tr> <td>2.7K @50, 25, 24fps</td> <td>2.7K @60, 30, 24fps</td> </tr> <tr> <td>1920 x 1080p @100, 50, 25, 24fps</td> <td>1920 x 1080p @120, 60, 30, 24fps</td> </tr> </table>	[PAL]	[NTSC]	4K @50, 25, 24fps	4K @60, 30, 24fps	2.7K @50, 25, 24fps	2.7K @60, 30, 24fps	1920 x 1080p @100, 50, 25, 24fps	1920 x 1080p @120, 60, 30, 24fps
	[PAL]	[NTSC]								
	4K @50, 25, 24fps	4K @60, 30, 24fps								
	2.7K @50, 25, 24fps	2.7K @60, 30, 24fps								
	1920 x 1080p @100, 50, 25, 24fps	1920 x 1080p @120, 60, 30, 24fps								
	Photo ratio	16:9 / 4:3 / 1:1								
Photo file format	JPEG									
Video file format	MOV, MP4									
Memory card	microSD card (up to 512 GB), microSDXC, UHC-I U3 class, Class10									
Audio output	48 KHz AAC									

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC ID: 2ADTG-NC200

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 5mm between the radiator and your body.

IEEE 802.11b or 802.11g operation of this product in the USA is firmware-limited to channels 1 through 11.

Industry Canada Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Ce dispositif est conforme à la norme CNR-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

This Class (B) digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe (B) est conforme à la norme NMB-003 du Canada.

IC: 12594A-NC200

Industry Canada Radiation Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 5mm between the radiator & your body.

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 5mm de distance entre la source de rayonnement et votre corps.

<http://www.thinkware.com>