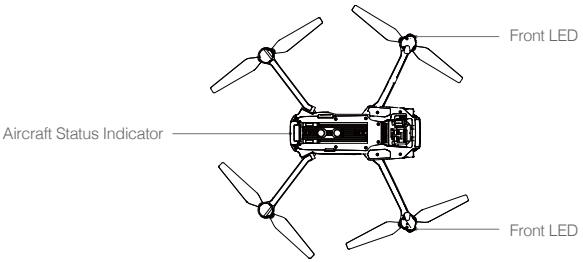
Flight Status Indicator

The Mavic Pro has Front LEDs and Aircraft Status Indicator. The positions of these LEDs are shown in the figure below:



The Front LEDs show the orientation of the aircraft. The Front LEDs glow solid red when the aircraft is turned on to indicate the front (or nose) of the aircraft (the Front LED can be turned off in the DJI GO 4 app). The Aircraft Status Indicator communicates the system status of the flight controller. Refer to the table below for more information about the Aircraft Status Indicator.

Aircraft Status Indicator Description

Normal	
Ⓡ-Ⓖ-Ⓨ ····· Alternating red, green and yellow flashes	Turning On and Self Diagnostic Testing
Ⓨ-Ⓖ ····· Alternate yellow and green flashing	Warming Up
Ⓖ ····· Slow green flashing	P-mode with GPS
Ⓖ×2 ····· Two green flashes	P-mode with Forward and Downward Vision Systems
Ⓨ ····· Slow yellow flashing	No GPS and Forward and Downward Vision Systems
Ⓖ ····· Fast green flashing	Braking
Warning	
Ⓨ ····· Fast yellow flashing	Remote Controller Signal Lost
Ⓡ ····· Slow red flashing	Low Battery Warning
Ⓡ ····· Fast red flashing	Critical Low Battery Warning
Ⓡ ····· Red flashing	IMU Error
Ⓡ —— Solid Red	Critical Error
Ⓡ-Ⓨ ····· Fast alternating red and yellow flashing	Compass Calibration Required

 © 2017 DJI All Rights Reserved.

Return-to-Home (RTH)

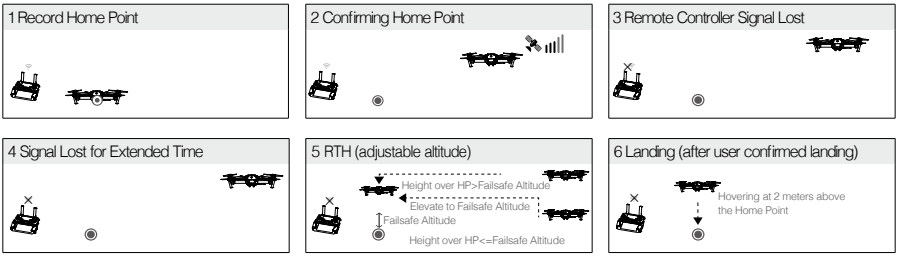
Return-to-Home (RTH) function brings the aircraft back to the last recorded Home Point. There are three types of RTH: Smart RTH, Low Battery RTH, and Failsafe RTH. This section describes these three scenarios in detail.

	GPS	Description
Home Point		If a strong GPS signal was acquired before takeoff, the Home Point is the location from which the aircraft launched. The GPS signal strength is indicated by the GPS icon ( ). The aircraft status indicator will blink rapidly when the home point is recorded.

- Aircraft can sense and avoid obstacles when Forward Vision System is enabled and the lighting conditions are sufficient. The aircraft will automatically climb to avoid an obstacle and fly to the Home Point at the new altitude. To ensure the aircraft returns home forwards, it cannot rotate or fly left and right during RTH while the Forward Vision System is enabled.
- Forward Vision System can be enabled during flight or RTH only.

Failsafe RTH

If the Home Point was successfully recorded and the compass is functioning normally, Failsafe RTH will be automatically activated if the remote controller signal is lost for a specified amount of time (3 seconds when using the remote controller and 20 seconds when using Wi-Fi). Return-to-Home can be cancelled by the pilot, allowing them to regain control when the remote controller signal connection is re-established.



- Aircraft cannot return to the Home Point when the GPS signal is weak or unavailable.
- Aircraft will stop ascending and immediately return to the Home Point if you move the left stick in the aircraft reaches 20 meters (65 feet) altitudes or beyond during Failsafe.
- The aircraft cannot avoid obstruction during Failsafe RTH if Forward Vision System is disabled. It is important to set a suitable Failsafe altitude before each flight. Launch the DJI GO 4 app, enter “Camera” and tap to set the Failsafe Altitude.
- User cannot control the aircraft while it is ascending to its failsafe altitude. However, user can press RTH button to exit the ascent and regain control.

© 2017 DJI All Rights Reserved.

Smart RTH

Use the RTH button on the remote controller or tap the RTH button in the DJI GO 4 app and follow the on-screen instructions when GPS is available to initiate Smart RTH. The aircraft status indicator will blink to display the current status. The aircraft will sense and avoid obstacles on its flight path during Smart RTH. The aircraft may choose to navigate or hover in place to avoid collision. User can manually navigate the aircraft to avoid obstacles if the Forward Vision System is disabled or if light levels are low. The pilot can also immediately exit Smart RTH using the Flight Pause Button on the remote controller or by pressing the Stop icon in the DJI GO 4 app.

Landing Protection will activate during Smart RTH, Precision Landing and when using Auto Landing in the DJI GO 4 app:

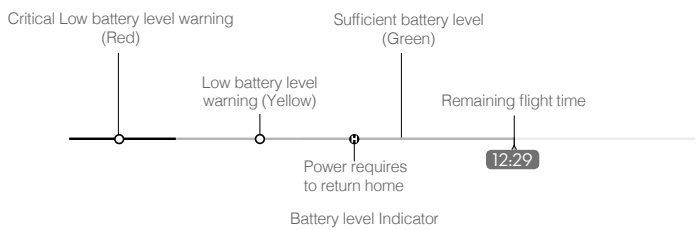
1. When Landing Protection determines that the ground is suitable for landing, the Mavic Pro will land gently.
2. If Landing Protection determines that the ground is not suitable for landing, the Mavic Pro will hover and wait for pilot confirmation.
3. If Landing Protection is not operational, the DJI GO 4 app will display a landing prompt when the Mavic Pro descends below 0.5 meters. Pull down on the throttle or use the auto landing slider to land.

Low Battery RTH

The low battery level failsafe is triggered when the DJI Intelligent Flight Battery is depleted to a point that may affect the safe return of the aircraft. Users are advised to return home or land the aircraft immediately when prompted. The DJI GO 4 app will display a notice when a low battery warning is triggered. The aircraft will automatically return to the Home Point if no action is taken after a ten-second countdown. The user can cancel the RTH procedure by pressing the RTH button on the remote controller. The thresholds for these warnings are automatically determined based on the aircraft's current altitude and distance from the Home Point.

The aircraft will land automatically if the current battery level can only support the aircraft long enough to descend from its current altitude. The user can still use the remote controller to alter the aircraft's orientation during the landing process.

The Battery Level Indicator is displayed in the DJI GO 4 app, and is described below:



Battery level Indicator

 © 2017 DJI All Rights Reserved.

Battery Level Warning	Remark	Aircraft Status Indicator	DJI GO 4 App	Flight Instructions
Low battery level warning	Battery power is low. Land the aircraft.	Aircraft status indicator blinks RED slowly.	Tap “Go-home” to have the aircraft return to the Home point automatically, or “Cancel” to resume normal flight. If no action is taken, the aircraft will automatically go home after 10 seconds. Remote controller will sound an alarm.	Fly the aircraft back and land it as soon as possible, then stop the motors and replace the battery.
Critical Low battery level warning	The aircraft must land immediately.	Aircraft status indicator blinks RED quickly.	The DJI GO 4 app display will flash red and the aircraft will start to descend. The remote controller will sound an alarm.	Allow the aircraft to descend and land automatically.
Estimated remaining flight time	Estimated remaining flight based on current battery level.	N/A	N/A	N/A

- When the Critical low battery level warning is triggered and the aircraft begins to land automatically, push the left stick upward to make the aircraft hover at its current altitude, giving you an opportunity to navigate to a more appropriate landing location.
- The colored zones and markers on the battery level indicator bar reflect the estimated remaining flight time. They are automatically adjusted according to the aircraft’s current location and status.

Precision Landing

The Mavic Pro automatically scans and attempts to match the terrain features underneath during Return to Home. When current terrain matches home point terrain, the Mavic will start landing immediately to achieve precision landing. The DJI GO 4 app will show a terrain feature mismatch prompt if matching fails.

- Precision Landing performance is subject to the following conditions:
  a. Home point is recorded upon take off, and cannot not be refreshed during flight.
  b. Aircraft must take off vertically. Take off altitude must be greater than 10 meters.
  c. Home point terrain features remain largely unchanged.
  d. Home point terrain with no distinctive features will affect the performance.
  e. Lighting conditions cannot be too light nor too dark.
- The following actions are available during landing:
  a. Pull throttle down to accelerate landing.
  b. Moving the control sticks in any other direction will stop Precision Landing. The Mavic Pro will descend vertically and Landing Protection will remain active.

© 2017 DJI All Rights Reserved.

RTH Safety Notices

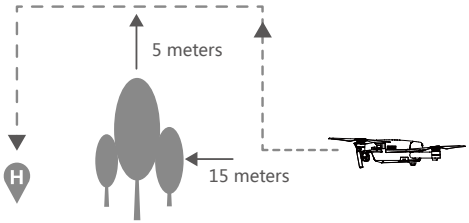
	The aircraft cannot avoid obstructions during RTH when the Forward Vision System is disabled. Therefore, it is important to set a suitable Failsafe altitude before each flight. Launch the DJI GO 4 app and enter "Camera" and tap to set the Failsafe altitude.
	If Return to Home (RTH), including Smart RTH and Low Battery RTH, is triggered and the aircraft is further than 20 m from the home point: 1. It will return to home at the current altitude if flying at or above the RTH altitude. 2. It will ascend to the RTH altitude if flying below it.
	If RTH, including Smart RTH and Low Battery RTH, is triggered between 16 ft and 66 ft (5 m and 20 m) from the home point, and Forward Vision System is activated: 1. If aircraft's current altitude is greater than 32 ft (10 m), the aircraft will return to the home point at the current altitude. 2. If aircraft's current altitude is lower than 32 ft (10 m), the aircraft will first automatically ascend to 32 ft (10 m), from the current altitude. The flight speed will be adjusted to 9 mph (14 kph). The aircraft will start landing immediately if the Forward Vision System is deactivated. When entering Failsafe RTH, the Forward Vision System status is evaluated and RTH will adapt accordingly.
	Aircraft automatically descends and lands if RTH is triggered when the aircraft is within a 16 ft (5 m) radius of the Home Point.
	Aircraft cannot return to the Home Point when the GPS signal is weak or is unavailable.
	Press the Flight Pause button to exit from RTH. The aircraft will stop ascending and hover.

Obstacle Avoidance During RTH

Aircraft can now sense and actively attempt to avoid obstacles during RTH, provided that the lighting conditions are adequate for the Forward Vision System. Upon detecting an obstacle, the aircraft will act as follows:

1. Aircraft decelerates when an obstacle is sensed at 49 ft (15 m) ahead.
2. Aircraft stops and hovers then starts ascending vertically to avoid the obstacle. The aircraft will stop climbing when it is at least 16 ft (5 m) above the detected obstacle.
3. RTH procedures resume. The aircraft will continue flying to the Home Point at the current altitude.

 © 2017 DJI All Rights Reserved.



⚠ • To ensure the aircraft returns home forwards, it cannot rotate during RTH while the Forward Vision System is enabled.
• The aircraft cannot avoid obstacles above, beside, or behind the aircraft.

Intelligent Flight Mode

TapFly

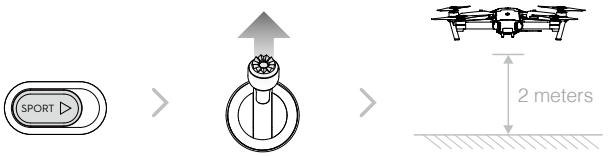
Introduction

With the TapFly feature, users can now tap on the mobile device screen to fly in the designated direction without using the remote controller. The aircraft will automatically avoid obstacles it sees or brake and hover provided that the lighting is appropriate (< 300 lux) nor too bright (> 10,000 lux).

Using TapFly

Ensure the battery level is more than 50% for the Intelligent Flight Battery, and the aircraft is in P-mode. Then follow the steps below to use TapFly:

1. Take off and ensure the aircraft is flying at least 6ft (2m) above the ground.



2. Launch the DJI GO 4 app and tap , then tap , read and understand the prompts.

© 2017 DJI All Rights Reserved.