AGRAS T70 P / T100 Lift System

User Manual

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In the event of divergence among different versions, the English version shall prevail.

○ Searching for Keywords

Search for keywords such as "battery" and "install" to find a topic. If you are using Adobe Acrobat Reader to read this document, press Ctrl+F on Windows or Command+F on Mac to begin a search.

Navigating to a Topic

View a complete list of topics in the table of contents. Click on a topic to navigate to that section.

Printing this Document

This document supports high resolution printing.

Using this Manual

Legend

▲ Important

♥ Hints and Tips

🖽 Reference

Read Before Use

Watch all the tutorial videos first, then read the documentation included in the package and this user manual.

If you have any questions or issues during installation and use of this product, contact the official support or an authorized dealer.

Video Tutorials

Go to the address below or scan the QR code to watch the tutorial videos, which demonstrate how to use the product safely:





https://ag.dji.com/t70/video

https://ag.dji.com/t100/video

Downloading DJI SmartFarm

Scan the QR code to download DJI SmartFarm, which provides end-to-end service support for the operation.



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1 Notices

1.1 Flight Environment Requirements

- During takeoff, landing, and flight, keep away from roads, water surfaces, and obstacles such as utility poles, high-voltage lines, and trees. Maintain a safe distance of more than 10 m from crowds and animals.
- Only fly in moderate weather conditions with temperatures between 0° to 40° C (32° to 104° F). DO NOT use the aircraft in severe weather conditions including wind speeds exceeding 6 m/s, heavy rain (precipitation rate exceeding 25 mm (0.98 in) in 12 hours), snow, ice, fog, and lightning.
- DO NOT fly more than 4.5 km (14,763 ft) above sea level.
- Only fly in open areas.
- DO NOT fly the aircraft in areas that severely affect GNSS signal, such as indoors or under bridges. Only operate the aircraft with a strong GNSS signal.
- Avoid flying in areas with high levels of electromagnetism, including mobile phone base stations and radio transmission towers.
- The payload capacity will decrease with increasing altitude. Be careful when flying 2 km (6,560 ft) or more above sea level as battery and aircraft performance may be reduced.
- In low temperature environments, make sure that the flight battery is fully charged and be sure to reduce the payload of the aircraft. Otherwise, it will affect the flight safety or a takeoff limit will occur.
- DO NOT use the aircraft near accidents, fire, explosions, floods, tsunamis, avalanches, landslides, earthquakes, dust, or sandstorms.

1.2 Pre-Flight Checklist

- Make sure all devices are fully charged.
- Only use genuine components. Unauthorized parts may cause system malfunctions and compromise flight safety.
- Make sure all components are in good condition and not blocked by foreign object, including but not limited to motors, propellers, vision system, radar module, and antennas. Replace aged or broken parts in time.
- Make sure the LiDAR surface of the aircraft is clean and free of foreign matter, otherwise it may affect the performance of the LiDAR.

- Make sure all parts are mounted securely and cables are connected correctly and firmly, including but not limited to the aircraft battery, payload system, and arm locks.
- Make sure the aircraft and its components are all in good working order, damagefree, and functioning well. Components include, but are not limited to, the remote controller, compass, propulsion system, radar module, and payload system.
- Compass is calibrated after being prompted to do so in the app.
- Always wear a helmet during the operation and maintain a safe distance of more than 6 m from the aircraft. Make sure there are no other personnel, vehicles, or obstacles around the aircraft.
- Make sure to clear any debris in the task area that may affect flight, such as plastic bags, empty fertilizer bags, and plastic films that can be easily blown away.
- Make sure DJI Agras is functioning properly. Without the flight data recorded by the app and stored in your remote controller, in certain situations such as the loss of your aircraft, we may not be able to provide aftersales support or assume liability.
- Examine and check all warning messages on the aircraft status list displayed in the app prior to each flight to ensure there are no errors.
- The DJI Agras app will intelligently recommend the payload weight limit according to the current status and surroundings of the aircraft. DO NOT exceed the recommended payload weight limit. Otherwise, the flight safety may be affected.
- Before each use, ensure the sling and hook are secure. If the sling is visibly worn or cracked, replace it immediately in accordance with the following requirements.
 - Length: 10 to 15 m
 - Diameter: ≥8 mm
 - Material: ultra-high molecular weight polyethylene or aramid fiber (high-strength polyester can be used as the inner core)
 - Hook: withstands a pulling force of ≥500 kg

1.3 Safety Precautions

- After loading the cargo, ensure the cargo is properly secured and that the sling is not tangled or knotted. After completing ground operations, ensure that the ground crew has moved to a safe area before operating the aircraft to continue the task.
- Set an appropriate flight altitude according to the task environment. Make sure to enable **Altitude Stabilization** before flying the aircraft to the destination point.
- Ensure that the ground crew maintain a safe distance of at least 6 m from the aircraft. DO NOT unload/load cargo while directly underneath the aircraft.

- During operation, always pay attention to the status of the aircraft and cargo. If any abnormality occur, promptly land or return.
- Users can tap \$\$> \$\$ in DJI Agras to enable Auto Balance Control and set the angle.
 If Auto Balance Control is not enabled, users can tap Balance Control in the operation view if the swing angle is too large. When balancing, pay attention to the surrounding environment to avoid collisions.
- During continuous operations, if the app indicates that the battery is overheating, promptly land the aircraft to prevent battery damage.

2 Usage

2.1 Installation

Visit the website or scan the QR code to watch the tutorial video for installation and connection of the lift system.





https://ag.dji.com/t70/video

https://ag.dji.com/t100/video

- ▲ Strictly follow the official guidelines to install the product. Users take full responsibility for any losses caused by incorrect installation.
 - Before installation, ensure the Intelligent Flight Battery is removed.
 - Before removing the spraying system, make sure to clean the residual liquid in the hose.
 - When installing the lift system on T70, it is recommended to remove the spray lance to prevent entanglement with the sling.

2.2 Weight Sensor Calibration

When the aircraft is hovering without cargo but the measured weight does not equal 0, weight sensor calibration is needed.

- 1. Place the aircraft on level ground, ensuring the aircraft is unloaded and the sling is not pressed by other objects.
- 2. In Operation View, tap ♥ > ♥, then tap **Calibration** of **Tare Calibration** and the weight will reset to zero.

3 Lift Operation

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Click the link or scan the QR code to watch the tutorial video.





https://ag.dji.com/t70/video

https://ag.dji.com/t100/video

3.1 Planning Task Point

- 1. Go to Operation View in the app, tap the mode switch button on the upper left side and select **Agras Lift** to enter the settings view.
- When using Crosshair to add points, add task points on the map. If Add Point with RC or Add Point with Aircraft is selected, walk with the remote controller to the desired position or fly the aircraft to the desired position and tap Add.

If the operation should be performed by multiple users, tap $\Rightarrow \otimes$ Invite to Join in DJI Agras to display a QR code. Users joining the operations scan the code using the DJI SmartFarm, and then can add the location of their phone as a point in DJI SmartFarm. The points will be displayed on the remote controller simultaneously.

- 3. Set parameters in the Task Settings.
- Users can tap to select a point on the map and set it as a loading or unloading point. If selecting a point and tapping Go, the aircraft will fly directly to it.
 - When adding points using a mobile phone, it is recommended to install the RTK dongle on the phone to improve the accuracy.
- ▲ When planning task points, observe the surroundings of the task points and task routes. Make sure to avoid areas where people, livestock, or obstacles may be present.
 - During lift operations, the aircraft cannot automatically bypass obstacles. If there is an obstacle on the task route, users can add a destination point nearby so that the aircraft can avoid the obstacle by flying to the point.

3.2 Performing an Operation

- 1. Manually control the aircraft to take off, then select the destination point on the map. The aircraft will automatically fly to the destination.
- 2. When the aircraft reaches the destination, tilt the FPV camera downward and the AR projection will allow users to confirm the safety of the surrounding environment.
- 3. Control the aircraft to fly above the destination point, then lower the aircraft until the sling/cargo touches the ground, then continue descending 3 to 4 m.
- 4. Control the aircraft to fly backward (or in any direction where there are no people) about 6 m and hover, then the ground crew can unload/load cargo.
- 5. After completing ground operations, fly the aircraft directly above the destination point, then select the next destination on the map to proceed the task.
- Users can also manually control the aircraft to fly to the unloading/loading location without planning the task points. The rest of the operations are the same as described above.
 - The descent height and movement distance are recommended values. Make appropriate adjustments according to the actual sling length and surrounding environment during operation.

4 Appendix

4.1 Specifications

Visit the following website for specifications.

https://ag.dji.com/t70/specs

https://ag.dji.com/t100/specs



Contact DJI SUPPORT

The content is subject to change without prior notice. **Download the latest version from** https://ag.dji.com/t70/downloads https://ag.dji.com/t100/downloads

If you have any questions about this document, contact DJI by sending a message to **DocSupport@dji.com**.

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