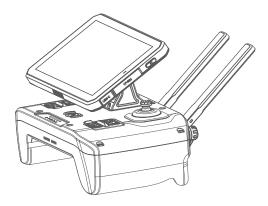
# XAG Smart Remote Controller 4 User Manual

Version 1.0 🔳





## To User

Dear user, thank you for choosing XAG's products.

For safety purposes and better user experience, it is highly recommended that you read this manual carefully and strictly follow the instructions hereof.

## **Contact Us**

Manufacturer: Guangzhou Xaircraft Technology Co., Ltd. Add: XSpace, No.115, Gaopu Road, Guangzhou, Guangdong Province, China Technical Support Team: support@xa.com

# Introduction

The XAG Smart Remote Controller 4 (SRC4 or "remote controller") is a two-handed agricultural remote controller equipped with a screen. Its dual knobs and multiple buttons are specifically designed for XAG's agricultural drones. The integration of Wi-Fi communication technology enables smooth operation of agricultural equipment, significantly improving the efficiency of manual remote control operations.

## List of Items

Please see that all of the following items are present when unpacking the boxes. Should there be any item missing, please contact your seller immediately.

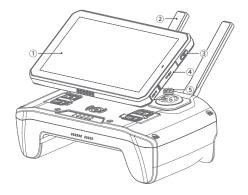


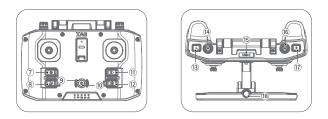




Type-C Cable ×1

## Overview





- ① Screen
- 2 Antenna
- ③ Screen Power Button
- ④ TF/SIM Card Slot<sup>[1]</sup>
- ⑤ Joystick
- 6 USB-C Port

- ⑦ RTH
- (8) Obstacle Avoidance
- ④ Joystick Lock Indicator
- 10 Power Button
- 11 Hover/Resume
- IPV View Switching
- (3) L
  (4) F1 Knob
  (5) USB Charging Port
  (5) F2 Knob
  (7) R
  (8) Camera

[1]: Insert the TF/SIM card into the slot with the metal contact facing upward and the cut corner facing inward.

#### Button

Button	Action	Description
() RTH	Long Press	Return to home
ID Hover/Resume	Short Press	Short press to hover. Long press to resume operation.
Obstacle Avoidance	Long Press	Enable obstacle avoidance
	Short Press	Disable obstacle avoidance
(@) FPV View Switching	Short Press	Short press for a downward view. Press again for a forward view.
<b>⊚</b> Power Button	Long Press	Long press for 2 seconds to power on/off.
	Short Press	Short press to lock the joystick. Press again to unlock.
L	Long Press	Fly to Mark: Close marked points
	Short Press	Fly to Mark: Mark Flight Assistance: To the left row
R	Short Press	Fly to Mark: Unmark Flight Assistance: To the right row
ි F1 Knob	Rotate	Adjust flowrate
	Long Press	Enable spraying
	Short Press	Disable spraying
© F2 Knob	Rotate	Reorient the route
	Long Press	Enable Flight Assistance <sup>[1]</sup>
	Short Press	Resume Flight Assistance

<sup>[1]:</sup> In Flight Assistance, you can move the "Throttle" joystick to adjust the height of the drone. When you release the "Throttle", the drone will automatically return to the default height.

#### Status Indicators

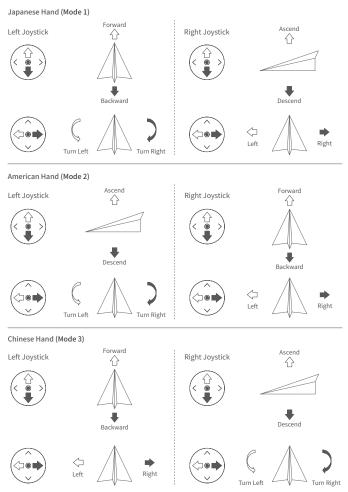
When the remote controller is on, indicators will show the status of the remote controller and the drone.

Power 🖲	Description
Solid Green	Battery level 51%-100%
Solid Yellow	Battery level 21%-50%
Solid Red	Battery level 1%-20%
Blinking	Fast charging
Off	Power off
Device Connection Status 🗇	Description
Solid Green	Connected to drone
Solid Yellow	Wi-Fi initialization completed. Not connected to drone
Blinking Yellow	Wi-Fi initializing
Flight Assistance 🛱	Description
Solid Green	Flight Assistance ON
Off	Flight Assistance OFF
Obstacle Avoidance 🖉	Description
Solid Green	Manual obstacle avoidance ON
Off	Manual obstacle avoidance OFF
Spraying 🕰	Description
Solid Green	Spraying ON
Off	Spraying OFF
Off	Spraying OFF
Joystick Lock ©	Description
	. , ,

#### Joystick Mode

The Joystick Mode is classified into Japanese Hand, American Hand, and Chinese Hand, with American Hand (Mode 2) as the default factory setting.

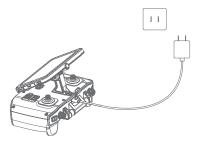
You can change the mode in "System Settings" - "Joystick Mode".



# How to Use Charging

Insert one end of the Type-C cable into the charging port of SRC4 and the other end into the charging adapter, then connect the adapter to a power source.

While charging with the fast charger, the power indicator will blink rapidly and the buzzer will beep. The power indicator will turn solid green when the SRC4 is fully charged.



#### <u></u>∧Note

▲ When you are using SRC4 while it is slow charging, the battery level will only stay around the same level. To achieve a full charge, please turn it off.

#### Power on/off

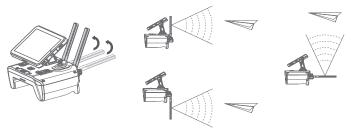
- Power on: Press and hold the power button for 2 seconds, the power indicator light will turn solid while the joystick lock indicator will blink, indicating the system is booting up. Once the joystick lock indicator turns solid and you hear the voice prompt "power on", it means the SRC4 has been successfully powered on.
- Power off: Press and hold the power button for 2 seconds until all indicators turn off and you hear the voice prompt "power off".

#### ▲ Warning

- ▲ This product is intended for use exclusively with XAG's products. Using the remote controller with non-XAG products is likely to result in incompatibility issues. Any loss or legal liability arising from such usage shall be borne by the user.
- ▲ Keep the remote controller away from water while charging or in use, as it is not waterproof. You will be responsible for any product failure or damage resulting from exposure to water.

### Unfold Antenna

Spread out the antennas and adjust them to the appropriate positions. Rotate the antennas clockwise to change the orientation.



#### ▲Note

- $\triangle$  The signal strength varies depending on the position of the antenna. When operating the drone remotely, you can adjust the antenna orientation to optimize signal reception.
- ▲ Several factors affect the signal between the remote controller and the drone, including antenna position, antenna tightness, obstructions, and interference from other Wi-Fi signals. If the remote controller signal is weak, adjust the remote controller's antenna immediately or choose an area free of obstructions and interference from other Wi-Fi signals.

#### **RCN Pairing Mode**

In an environment without a 4G network, the remote controller and the drone can be networked and bound by RCN pairing mode, enabling the remote controller to manipulate the drone without internet. Users can follow these steps for networking:

- 1. Enable the remote controller's Bluetooth.
- 2. On the home screen, tap "System Settings" and then "Device Networking". After entering the

Device Networking screen, select the device that needs to be networked and tap "Confirm". After networking is completed, bind the remote controller and use it to start remote-controlled flight, aerial survey, etc.

#### Bind a Remote Controller

Before using the remote controller to manipulate the drone, please bind it by following these steps.

- 1. Keep the drone online and enable the remote controller's Bluetooth.
- 2. On the Device screen, tap Operation Device and then "Bind Remote Controller" and select the remote controller to be bound.
- 3. Tap "Bind" and wait for the binding to be successful.

After the remote controller is bound, you can view current remote controller's status and communication quality in the section of Bind Remote Controller.

#### Firmware Update

Before using the device, you must check if the firmware version is up to date. If not, make sure to install the latest version.

- 1. On the home screen, tap "System Settings" "Firmware Update" to check for updates.
- 2. When an update is pushed, select the firmware to be updated, and tap "Download and Install". After the update is complete, tap "Finish" and return to the update screen to see if all devices for the operation have the latest firmware. If not, repeat the above steps until all updates are complete.

## Joystick Calibration

If the remote controller is not used for an extended period of time, or when you fly the drone with the remote controller, and notice that the aircraft will fly toward a certain direction once you release the joysticks or if  $c_{\rm A}$  turns red, you will need to calibrate the joysticks. Please tap "Joystick Calibration" on "System Settings" screen, and follow the steps below to calibrate the joysticks manually.

#### How to Calibrate:

1. When the remote controller is in calibration mode, CA turns flashing green, and please keep the joysticks in the center for 3 seconds.





Left Joystick

**Right Joystick** 

2. Move both joysticks to the far end in four directions (forward, backward, left and right) simultaneously.



Left & Right Joystick

3. Keep the joysticks in the center for 3 seconds. When 😭 turns off, the calibration is completed.

#### Start Motors

Before take-off, you can start the motors by performing the following two joystick maneuvers. If the throttle is not applied within 3 seconds after releasing the joysticks, the motors will stop automatically.



#### \land Warning

 $\triangle$  Do NOT push the joysticks to start motors while the drone is flying because it will stop the motors and cause the drone to crash.

#### Stop Motors

After landing, pull and hold the throttle to the lowest position and the motors will stop after 1 second.



#### Hover & RTH

When the drone is flying, short press on the remote controller to make the drone hover. Press and hold to resume the operation.

When the drone is flying, press and hold 💽 to perform RTH.

#### ANote

▲ If the joystick malfunctions or the drone becomes uncontrollable, press the Hover button to make the drone hover, and then press the RTH button to bring it back.

## Fly to Mark

- 1. Tap "Mapping" on the home screen (main screen) to enter the Mapping screen. Tap ⊕ on the left side, and then 😽 to select the drone for mapping.
- 2. Fly the drone over the field that needs to be marked. Tap the FPV camera view on the screen to switch to downward FPV (or short press the FPV control button on the remote controller). Short press button "L" to mark the boundary points of the field (press button "R" to undo). Fly the drone to other boundary points and mark. After marking all the points, tap "Auto Close" on the screen, or long press button "L" to connect all the points, and a field will be generated.

- 3. Tap the "Field Boundary" it to switch between "Obstacle" and "Non-spraying Zone". Fly the drone around the obstacle/non-spraying zone, and short press button "L" (press button "R" to undo) to mark the boundary points of the obstacle or non-spraying zone.
- 4. After mapping the operation area, tap "Save" in the bottom right corner. Complete field information and tap "OK" in the upper right corner to save.
- 5. Pilot the drone to a safe area and land it, or long press RTH button to make it return.

#### **Flight Assistance**

Flight assistance is used to keep the drone on course when the flying drone is controlled by the remote controller. When flight assistance is enabled, the system will automatically adjust and correct the flight route if the drone is likely to be off course so as to make the drone fly steadily on the current route.

- After the remote controller is bound and connected, tap "Operation" on the home screen (main screen) to enter the Operation screen. Tap "More" and select "Manual Operation Settings" to complete the settings of spraying and remote-controlled flight.
- 2. Fly the drone to the operating field. Long press the F2 knob, and CA turns solid green, enabling flight assistance to generate a route and entering the flight assistance route (moving the joysticks left or right will exit the flight assistance mode; short press the F2 knob to resume flight assistance mode). Push the joystick forward to fly the drone forward along the standard route.
- 3. Push the joystick to start operation (automatically start spraying).
- 4. During the operation, rotate the F2 knob to adjust the route direction and rotate the F1 knob to adjust flowrate. Short press button L to shift left along the route direction and short press button R to shift right.
- 5. In the flight assistance mode, users can refer to "Button" on page 3 for other button instructions.
- After the operation is completed, pilot the drone to a safe area and land it, or long press RTH button to make it return.

#### **AB** Point Operation

- 1. After the remote controller is bound and connected, tap "Operation" on the home screen (main screen) to enter the Operation screen. Tap "More" and select "Enter AB Point Operation".
- 2. Tap "Operation Settings" to complete the spray settings and route settings.
- 3. Move both joysticks diagonally downward to take off, and fly the drone to the boundary of the field. Adjust the drone's position and the nose direction, then short press button L to mark line A.
- 4. Adjust the nose direction, and short press the button L to mark the route direction.
- 5. Fly the drone to the boundary of the other field. Adjust the drone's position and the nose direction, then short press button L to mark line B.
- 6. After lines are set, the route will be automatically generated.
- 7. Tap "Start Operation" to start AB point operation.

# Specifications

Model	M3SRC4AH
Dimensions	192×128.5×125 mm
Weight	1 kg
Operating Frequency	2.400 ~ 2.4835 GHz ; 5.725 ~ 5.850 GHz
Effective Isotropic Radiated Power (EIRP)	2.400 GHz~2.4835 GHz : ≤ 33 dBm (FCC) ≤ 20 dBm (CE/SRRC/MIC) 5.725 GHz~5.850 GHz : ≤ 33 dBm (FCC) ≤ 30 dBm (SRRC) ≤ 14 dBm (CE)
Operating System	Android
Charging Voltage/Current	5 V
Charging Protocol	Supports PD/QC charging protocol
Built-in Battery Capacity	20000 mAh (3.65 V)
Charging Ambient Temperature	5°C~40°C
Operating Ambient Temperature $^{\scriptscriptstyle [1]}$	-10°C~40°C
Storage Ambient Temperature	-20°C ~ 25°C (> 3 months, < 1 year) -20°C ~ 45°C (> 1 month, < 3 months) -20°C ~ 55°C (< 1 month)
Max. Signal Range <sup>[2]</sup>	SRRC: 2000 m FCC: 2000 m CE/MIC: 1000 m
Voice Prompt	Yes
Screen Brightness	700 cd/m2
Screen Resolution	1440×2560
Screen Size	6 inches
Screen Frame Rate	50 fps
Memory Card Type	Class10

A drop in the remote controller's battery performance may occur when the operating ambient temperature is below -5°C.

<sup>[2]:</sup> This is the result of tests conducted outdoors with no obstruction or interference. It is not necessarily the actual effective range and is for reference only.

## FCC/ISED Compliance Notice

This device complies with Part 15 of the FCC Rules and ISED licence-exempt RSS standard.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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Cet appareil est conforme à la section 15 du règlement de la FCC et à la norme RSS sans licence ISED. Son utilisation est soumise aux deux conditions suivantes:

(1) Cet appareil ne doit pas causer d'interférences nuisibles, et (2) Cet appareil doit accepter toutes les interférences reçues, y compris celles susceptibles de provoquer un fonctionnement indésirable.

Tout changement ou modification non expressément approuvé par la partie responsable de la conformité peut annuler le droit de l'utilisateur à utiliser l'équipement.

For FCC statement: The device complies with F specifications when the device is Handheld.

Highest reported SAR value:

Limbs SAR: 2.218 W/kg

The remote control cannot be used on your lap, and that it should only be used hand-held.

#### **RF Exposure Information**

For Remote Controller (model:M3SRC4AH),SAR tests are conducted using standard operating positions accepted by the FCC/ISED with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model is a available for sale to the public, it must be tested and certified to the FCC/ISED that it does not exceed the exposure limit established by the FCC/ISED, Tests for each product are performed in positions and locations as required by the FCC/ISED. For Handheld operation, this device has been tested and meets the FCC/ISED RF exposure guidelines when used with an accessory designated for this product or when used with an access sory that contains no metal.

## Informations sur l'exposition RF

L'aéronef est conforme aux limites d'exposition aux rayonnements FCC/ISED établies pour un environnement non contrôlé. Afin d'éviter tout risque de dépassement des limites d'exposition aux radiofréquences FCC/ISED, la proximité humaine de l'antenne ne doit pas être inférieure à 0 cm en fonctionnement normal.

Pour le contrôleur à distance (modèle M3SRC4AH), les tests SAR sont effectués sur des positions de fonctionnement standard acceptées par la FCC/ISED, le dispositif émettant à son niveau de puissance certifié le plus élevé dans toutes les bandes de fréquences testées, bien que le SAR soit déterminé au niveau de puissance certifié le plus élevé, le niveau de SAR réel de l'appareil en cours d'utilisation peut être bien inférieur à la valeur maximale. Avant qu'un nouveau modèle ne soit disponible à la vente au public, il doit être testé et certifié conforme par la FCC/ISED qu'il n'excède pas la limite d'exposition établie par la FCC/ISED. Les tests de chaque produit sont effectués à requis par la FCC/ISED. En mode portatif, cet appareil a été testé et respecte les directives d'exposition RF de la FCC/ISED lorsqu'il est utilisé avec un accessoire conçu pour ce produit ou avec un accessoire ne contenant pas de métal.

Pour le fonctionnement sur le corps, la télécommande (modèle M3SRC4AH) a été testée et répond aux directives d'exposition RF de FCC/ISED lorsqu'elle est utilisée avec un accessoire conçu pour ce produit ou avec un accessoire ne contenant pas de métal et positionnant le combiné au minimum de 0 cm du corps.

Le non-respect des restrictions ci-dessus peut entraîner une violation des consignes d'exposition aux RF.

**EU Compliance Statement:**Guangzhou Xaircraft Technology CO.,LTD.All Rights Reserved.hereby declares that this device is in compliance with the essential requirements and other relevant provisions of the RED Directive. This equipment must be installed and operated in accordance with provide instructions and the antenna used for this transmitter must be installed to provide a separation distance of at least 0 cm from all persons and must not be co-located or operation in conjunction with any other antenna or transmitter.End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.



Warning: Operation of this equipment in a residential environment could cause radio interference.

"Hereby, [Guangzhou Xaircraft Technology CO.,LTD.], declares that this [XAG Smart Remote Controller 4] is in compliance with the essential requirements and other relevant provisions of 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.xa.com/en/service/downloads"

For the countries that adopt the SAR limit of 4.0 W/kg over 10 grams of tissue. The device complies with RF specifications when the device is Handheld. Highest reported SAR value: Limbs SAR: 1.700 W/kg

Importer Name(EU): NIK ELECTRONICS LTD Importer Address (EU): Sofia, 11B Brussels Blvd., fl.13 Importer phone number and / or internet contact information: 00359899952228

KCC Warning Message 해당무선설비는운용중전파혼신가능성이있 해당무선설비는전파혼신가능성이있으므로인명안전과관련된서비스는할수 없음

#### FCC Importer's Declaration of Conformity

#### Brand name / model number: M3SRC4AH

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. Importer Name (USA) : Pegasus Spray Inc Importer Address (USA) : 2235 79th Ave NE, Medina, WA 98039, USA Importer phone number and / or internet contact information: +1 (503) 866-1228

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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 try to correct the interference by one or more 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 that to which the receiver is connected.
- □ Consult the dealer or an experienced radio/TV technician for help.

#### NCC statement

取得審驗證明之低功率射頻器材,非經核准,公司、商號或使用者均不得擅自變更頻率、加大功率或 變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信;經發現有干擾 現象時,應立即停用,並改善至無干擾時方得繼續使用。前述合法通信,指依電信管理法規定作業之 無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to a approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Management Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

減少電磁波影響,請妥適使用。

電波功率密度 MPE 標準值: 0.9mW/cm<sup>2</sup>,送測產品實測值: 0.088 mW/cm<sup>2</sup>,建議使用時設備天線 至少距離人體 20 公分。

警告使用者:此為甲類資訊技術設備,於居住環境中使用時,可能會造成射頻騷動,在此種情況下, 使用者會被要求採取某些適當的對策。

取得審驗證明之低功率射頻器材,非經核准,公司、商號或使用者均不得擅自變更頻率、加大功率或 變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信;經發現有干擾 現象時,應立即停用,並改善至無干擾時方得繼續使用,前述合法通信,指依電信管理法規定作業之 無線電通信低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

# Disclaimer

- Please read this Disclaimer carefully before using this product, as it has much to do with both operational safety and your legitimate rights and interests. You shall be deemed to have read, known, understood, agreed to and accepted all the terms and conditions as well as information stated herein upon the use of this product.
- 2. Not being a toy and with certain safety risks, this product is not suitable for those who are under 18 years old, those who have no or limited capacity for civil conduct, those with mobility impairments, or those without a UAS operator certificate accredited by XAG or existing laws, regulations and policies. Please keep children away from this product and be particularly cautious with children present.
- 3. Operators undertake to use the product within the bounds of the law for legitimate purposes only and agree to the terms and conditions stated herein as well as potential related policies and norms formulated by XAG. Users understand and accept that flight records and operation data created during use will be uploaded and saved to XAG's server. XAG shall resume no responsibility for the failure to analyze such flight records and operation data caused by the unsuccessful saving for any reason attributable to the user.
- 4. Please install, use, transport, and maintain the product under the instructions in this User Manual. Do NOT convert or disassemble this product on your own as any malfunction or damage arising therefrom or resulting from your improper use will not be covered by the warranty, and you shall solely assume the liability arising therefrom, both financially and legally.
- 5. To the maximum extent permitted by law, under no circumstances shall XAG offer an implicit or explicit guarantee for this product, including but not limited to implicit guarantees pertaining to vendibility, fitness for a particular use, or non-infringement.
- 6. To the maximum extent permitted by law, XAG shall not be liable for any loss caused by your use of this product outside the instructions in this Disclaimer and User Manual. Furthermore, XAG shall not be liable for any indirect, consequential, punitive, accidental, special or exemplary damage, including any loss incurred as a result of your purchase, use, or inability to use the product, even if you have been advised of the possibility of such loss.
- 7. To the maximum extent permitted by law, under any circumstances, the liability or compensation amount from XAG to you for all damage, losses and litigation arising therefrom will not exceed the amount that you paid to XAG for purchasing the product.
- 8. You understand that in the use of any products, accidents may occur as a result of a single or combined factors, including but not limited to improper operation, surroundings and communication networks. You understand that the aforesaid accidents are reasonable and acceptable in the use of the product, and that XAG shall not be held accountable for such accidents.
- 9. On any account, purchaser or user shall comply with the laws and regulations of the country and region where the product is used. XAG shall assume no liability arising from the violation of relevant laws and regulations by the purchaser or user.

- 10. Please note that the services provided by this product and its accessories might involve the collection, storage as well as processing of the geographic information and data of farmland. Before using this product, be sure to comply with local laws and regulations related to the collection, storage and processing of such geographic information and data. Make sure that you use this product in accordance with the law. Any financial and legal liability arising from user's violations of the laws and regulations shall be borne solely by the user.
- 11. As exclusion clauses may be prohibited by law in some countries, your rights in different countries may vary. However, this does not imply that partial or all terms contained in this Disclaimer are necessarily invalid.
- 12. To the extent permitted by law, XAG reserves the right for final explanation and revision of the terms and conditions stated hereinabove. XAG also has the right to update, modify or terminate these terms and conditions via its official website, User Manual, online App, etc., without prior notice.

#### Warning

Users are required to read through the User Manual and be fully familiar with the operation of this product before operating it. Otherwise, improper operation of the product may cause injury to the user or others, or cause damage to the product and property loss. Safety awareness is of great importance during operation. Do NOT use the parts that are not provided or suggested by XAG. Please install and use the product in strict accordance with XAG's instructions.



#### XAG ADVANCING AGRICULTURE

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