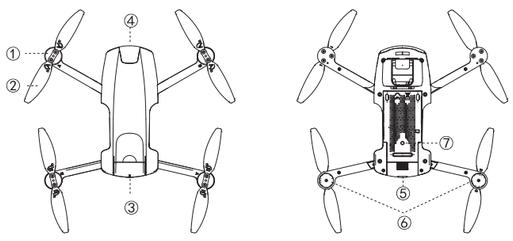
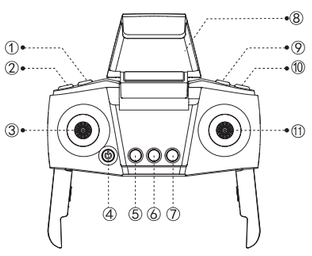
Aircraft components

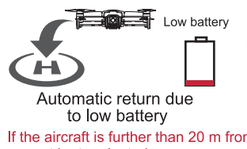


① Motor
② Propeller blades
③ Battery
④ Front camera
⑤ Power switch
⑥ Rront LED indicator
⑦ Bottom camera

Remote control



① Photo button
② Record button
③ Left joystick
④ On / Off button
⑤ One Key Take Off / Landing
⑥ Calibrating the compass
⑦ Home button
⑧ Phone holder
⑨ Lens up
⑩ Lens down
⑪ Right joystick



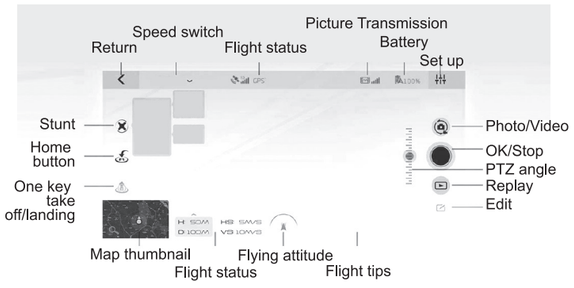
Automatic return due to low battery

When the aircraft battery is low, the aircraft will automatically return to the take-off position. During the return flight, you can use the joystick to control the aircraft ascend, descend and move left/right in order to avoid obstacles.

* If the aircraft is further than 20 m from the landing position, the return flight cannot be terminated.
* If the aircraft is less than 20 m from the landing position, the return flight can be terminated.

Landing position: The initial unlock/take-off position.

Smart app features



* Before using the smart app features, watch the video tutorial in the SYMA Pro
* Ensure that you pre-configure the flight altitude and distance in the SYMA Pro app.

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.

"This device complies with FCC radiation exposure limits set forth for general population (uncontrolled exposure).This device must not be collocated or operating in conjunction with any other antenna or transmitter."

RF frequency band :2409-2475MHZ
Transmitter power : -3.73dBm (Max.)
Sold to EU country
product name: [GPS DRONE]
model number: [W3]
Brand name :SYMA
Contact person: Mr.Huang
Tel:+86-0754-86381701

Hereby, [GUANGDONG SYMA MODEL AIRCRAFT INDUSTRIAL CO., LTD], declares that this [aircraft] is in compliance with Directive 2014/53/EU.The full test of the EU declaration of conformity is available at the following internet address:
http://www.symatoys.com/down/declaration-of-conformity.html
SIMPLIFIED EU DECLARATION OF CONFORMITY

Manufacturer:
Guangdong SYMA Model Aircraft Industrial Co., Ltd.
Address: 2 West Xingye Rd, Laimei Industrial Area,
Chenghai, Shantou, China
Postal Code: 515800
Sales department：+86 0754 86980668
After-sales service: +86 0754 86395095
Fax: +86 0754 86395098
Website: www.symatoys.com
Email: syma@symatoys.com

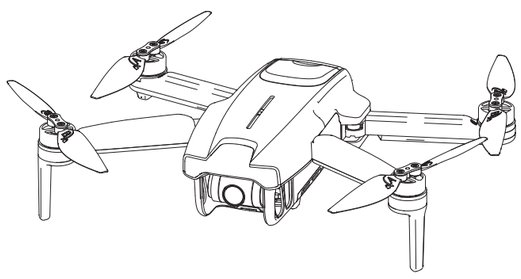
The company has the right of final interpretation of this user manual.

14+

SYMA®

W3

GPS BRUSHLESS DRONE



User Manual

Accreditation standard: GB/T26701-2011

Important safety information

Thank you for purchasing this SYMA product. To ensure that you operate the aircraft correctly, please read these instructions carefully before first use and store them in a safe place for future reference.

Safety Guide

1. Adult or experienced RC pilot's supervision is recommend for children.
2. Rechargeable batteries are to be removed from the toy before being charged.
3. Batteries are to be inserted with the correct polarity.
4. Rechargeable batteries are only to be charged under adult supervision.
5. Non-rechargeable batteries should not be recharged; Batteries should be inserted with a correct polarity; Different types of batteries, new or used batteries should not be mixing.
6. Turn off the drone/transmitter and remove the batteries when not in use.
7. The supply terminals are not be short-circuited.
8. Keep away from the rotating blades (rotating blades may cause bodily injuries, or damage to property).
9. Attention: Please assemble the aircraft with the guidance of adults.
10. Do not look directly into the LED lights of the drone as it can damage your eyes.
11. Exhausted batteries are to be removed from the aircraft.
12. Please store the smaller-sized drone accessories in places that are out of reach of children.
13. This drone is very powerful. For all first-time flights, the left joystick must be slowly pushed up in order to prevent the drone from ascending too fast to avoid unnecessary collision and possible damage and injury.
14. When the flight is ended, first turn off the power of the remote control. Then turn off the power of the drone.
15. Avoid placing the batteries in places with high temperatures and exposure to heat.
16. Please keep a safe distance from the spinning propellers to avoid injury.
17. To ensure the electromagnetic environment requirement of the aviation radio (station), using remote controls in the zone, which is in a radius of about 5000m zone from the circle center of the airport runway, is forbidden. All users also should abide by the regulation of the radio set forth by government and regulatory agencies including the duration and area.
18. Pay attention to keeping distance of 2-3 meters from the user or other people when the aircraft is flying, avoid the aircraft landin to hit the head, face or face or body of another person.
19. Attention: Drone assembly under adult supervision.
20. The packing has to be kept since it contains important information.

Repair and maintenance

1. Use clean and soft cloth to clean the product.
2. Keep away the product from heat sources.
3. Avoid water exposure to this product. Moisture may cause damages of the aircraft electronic parts.
4.Transformers used with the aircraft should be examined regularly,such as the cord,plug,enclosure and other parts,In case of any damages is found, please stop using it unless it is repaired or replaced.

About this product

Specifications

· Aircraft

Aircraft weight	246g
Aircraft Size	290x260x55 mm
Range	400m
Altitude	100m
Image transmission range	400m
Flight time	Hovers indoors for 26-28 minutes
Operating conditions	0°C to 40°C
Video transmission frequency	5 G
Motor	1503 Brushless motor
Battery	7.7 V 2100 mAh
Charging time	About 220 minute

· Remote control

Operating frequency	2.4 GHz
Range	400 m
Operating conditions	0°C to 40°C
Charging time	About 1 hours

· Package contents

Aircraft	1
Remote control	1
USB charging cable	1
Clockwise/anticlockwise propellers	4
Instructions	1

Download the SYMA Pro app and watch the video tutorial

Installing the SYMA Pro app
Scan the QR code with your mobile device or download the app from your app store.

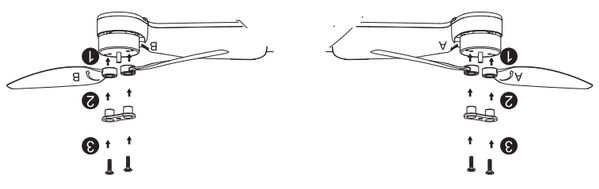
iOS　Android(Google play)　Android

* Note: For best results, use a device with iOS 8.0/Andrdoi 5.0 or later.

Assembling the product

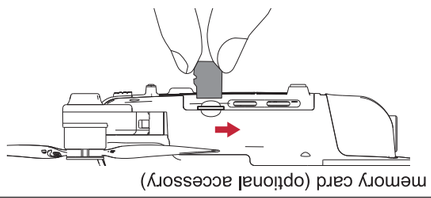
Installing the propellers

Clockwise propellers　　Anticlockwise propellers

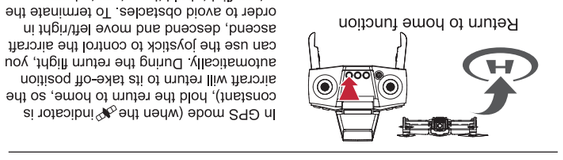


* Attach the propellers as shown in the diagrams above. Ensure that they are attached in the correct orientation.
* Ensure that the clockwise and anticlockwise propellers are attached to the correct arms. The aircraft will not fly correctly if the propellers are attached in the wrong position.
* The propellers are made from a delicate material. Pay attention when attaching them to the aircraft.
* Only use propellers that are supplied by the manufacturer.
* The propellers are consumable parts. If necessary, purchase replacements from the manufacturer.

Inserting a memory card (optional accessory)



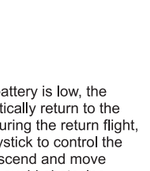
* The memory card speed should reach C10 or above.
* NTFS format is not applicable.



Return to home function

In GPS mode (when the indicator is constant), hold the return to home, so the aircraft will return to its take-off position automatically. During the return flight, you can use the joystick to control the aircraft ascend, descend and move left/right in order to avoid obstacles. To terminate the return flight, hold the return to home button.

* If the aircraft is flying at an altitude less than 20 m, it will automatically ascend to an altitude of 20 m before returning home.
* If the aircraft is flying at an altitude more than 20 m, it will return home at the same altitude.

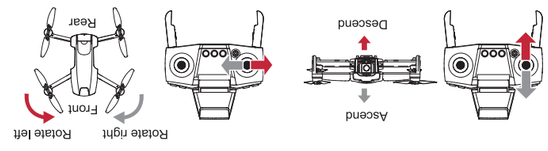


Automatic return due to loss of signal

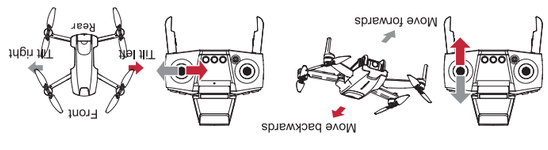
No signal

If the remote control signal is lost for more than 20 seconds, the aircraft will automatically return to the take-off position. If the signal is restored during the return flight, you can hold the return to home button to terminate the return flight.

* The aircraft cannot automatically avoid obstacles during the return flight.
* The automatic return to home function is not available when the GPS signal is weak (flashing indicator).
* If the aircraft does not receive a GPS signal and lost contact with the remote control for more than 20 seconds, it will not be able to return to home but will land automatically.

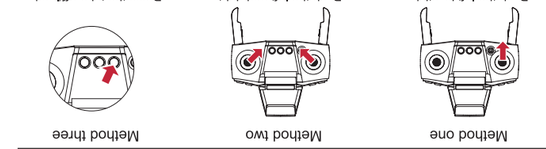


Using the remote control



Turning the aircraft off

Method one　　Method two　　Method three



Push the left joystick downwards for 2-3 seconds.

Push the left and right joysticks downwards in a V shape for 2 seconds.

Press the take-off/landing button to make the aircraft land automatically and switch off.

* The aircraft will switch off automatically if its angle of inclination exceeds 90 degrees.

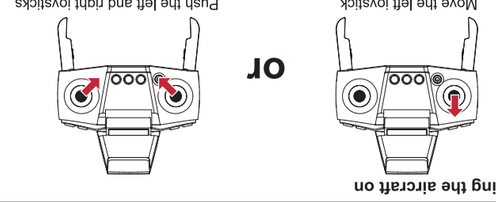
* Do not calibrate the compass near strong electromagnetic fields or large pieces of metal, e.g. magnetite, car parks or buildings with underground steel reinforcements.
* When holding the aircraft horizontally, the angle of inclination must not exceed 30 degrees.

Searching for satellites

The rear indicator will change from orange to green when the aircraft has locked on to a satellite and recorded the take-off location. The aircraft is now ready to fly.

* It takes about a minute to search for satellites for the first time. If the satellites cannot be searched, please re-calibrate the compass or move to an open environment.
* Before take-off, place the aircraft in an open space away from obstacles and ensure that GPS mode is enabled.
* When the rear green indicator flashes rapidly, this indicates that the GPS signal is weak. If this occurs, land the aircraft manually and restart the satellite search.

Turning the aircraft on



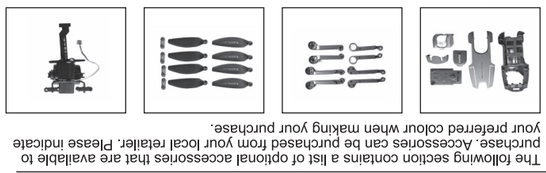
Move the left joystick upwards

or

Push the left and right joysticks downwards in a V shape for 1 second.

Accessories (available separately)

The following section contains a list of optional accessories that are available to purchase. Accessories can be purchased from your local retailer. Please indicate your preferred colour when making your purchase.



Understanding the aircraft LED indicators

No.	Indicator status	Meaning
1	The yellow LED is always on	Optical flow positioning
2	The green LED keeps on	GPS mode
3	After the LED 4S flashes	Headless mode
4	The LED flashes twice and then stops for 1.5S	Recording in progress
5	The LED flashes quickly	Pairing or level calibration in progress
6	After LED1S flashes twice	Low battery
7	After LED1S flashes 1 time	Signal lost
8	The LED flashes slowly	GPS fault
9	The LED flashes quickly	Poor GPS reception
10	The LED is steady red	

Troubleshooting

Problem	Cause	Cause Solution
The aircraft does not respond.	1. Undervoltage protection was enabled. 2. The remote control battery level is low.	1. Charge the aircraft battery. 2. Change the batteries in the remote control.
The aircraft's response is intermittent.	1. The remote control batteries are nearly empty. 2. There is interference from a remote control on the same frequency.	1. Change the batteries. 2. Move to a different area where there is no interference.
The aircraft drifts to one side whilst hovering.	The aircraft is not calibrated level to the ground.	Calibrate the aircraft.
The aircraft does not travel in a forwards direction in headless mode.	The aircraft was involved in a collision.	Reconfigure the forwards direction.
The aircraft does not hover properly/the aircraft keeps moving up and down.	1. The aircraft is not calibrated level to the ground. 2. The air pressure is unstable due to poor weather conditions. 3. A violent collision corrupted the gyroscope's data.	1. Calibrate the aircraft. 2. Avoid flying in poor weather. 3. Calibrate the aircraft.

Safety Guide

1. Adult or experienced RC pilot's supervision is recommend for children.
2. Rechargeable batteries are to be removed from the toy before being charged.
3. Batteries are to be inserted with the correct polarity.
4. Rechargeable batteries are only to be charged under adult supervision.
5. Non-rechargeable batteries should not be recharged; Batteries should be inserted with a correct polarity; Different types of batteries, new or used batteries should not be mixing.
6. Turn off the drone/transmitter and remove the batteries when not in use.
7. The supply terminals are not be short-circuited.
8. Keep away from the rotating blades (rotating blades may cause bodily injuries, or damage to property).
9. Attention: Please assemble the aircraft with the guidance of adults.
10. Do not look directly into the LED lights of the drone as it can damage your eyes.
11. Exhausted batteries are to be removed from the aircraft.
12. Please store the smaller-sized drone accessories in places that are out of reach of children.
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15. Avoid placing the batteries in places with high temperatures and exposure to heat.
16. Please keep a safe distance from the spinning propellers to avoid injury.
17. To ensure the electromagnetic environment requirement of the aviation radio (station), using remote controls in the zone, which is in a radius of about 5000m zone from the circle center of the airport runway, is forbidden. All users also should abide by the regulation of the radio set forth by government and regulatory agencies including the duration and area.
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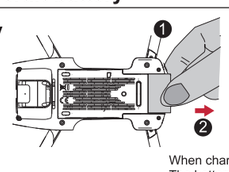
19. Attention: Drone assembly under adult supervision.
20. The packing has to be kept since it contains important information.

Repair and maintenance

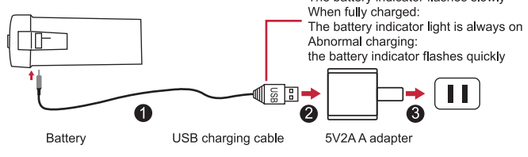
1. Use clean and soft cloth to clean the product.
2. Keep away the product from heat sources.
3. Avoid water exposure to this product. Moisture may cause damages of the aircraft electronic parts.
4.Transformers used with the aircraft should be examined regularly,such as the cord,plug,enclosure and other parts,In case of any damages is found, please stop using it unless it is repaired or replaced.

Charging the aircraft battery

Remove the battery

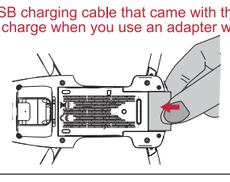


Charge the battery



* Charge the aircraft with the USB charging cable that came with the product.
* The battery will take longer to charge when you use an adapter with a smaller rated current.

Insert the battery



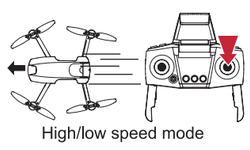
* Ensure that the battery holder clicks into place.

* Do not short circuit or compress the battery, as this may cause an explosion.
* Do not disassembling the battery or store it in a hot environment.
* If you do not plan to use the aircraft for at least 10 days, discharge the battery to 40%-50%. This helps to prolong the lifespan of the battery.
* Rechargeable batteries should be removed from the aircraft before charging charged.
* Rechargeable batteries should only be charged under the supervision of adults.and keep away from flammable materials.
* Exhausted batteries should be removed from the aircraft.
* Caution: Risk of explosion if battery is replaced with incorrect ones, please install the batteries according to the instructions.

Level calibration

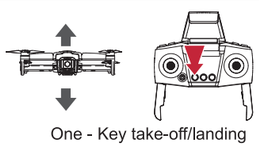
Place the aircraft on a level surface and move the left and right joysticks to the lower right corner for approximately 3 seconds. The indicator will flash rapidly and then stay constant to indicate that the calibration process is complete.

* The aircraft cannot be calibrated if the angle of inclination is greater than 10 degrees.



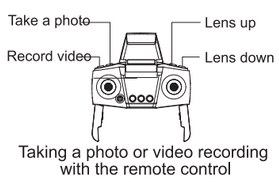
High/low speed mode

Briefly press the right joystick to switch between high and low speed mode.
1. Low speed mode is enabled by default when the aircraft is switched on.
2. The remote control beeps twice when high speed mode is enabled and once when low speed mode is enabled.



One - Key take-off/landing

1. When the drone is under standby mode,Press the take-off/landing button to make the aircraft take off automatically and hover at a height of 1.5 m.
2. When the aircraft is under active mode, it will automatically land on ground if you press the one key landing



Taking a photo or video recording with the remote control

1. Take a photo: Press the photo button. The indicator on the aircraft will flash to indicate that a photo is taken.
2. Record video: Press the record button. The indicator on the aircraft will flash twice to indicate that recording is in progress. Press the record button again to end the recording. The indicator on the aircraft will turn on to indicate that recording is complete.

Flight modes

Optical flow positioning
Front indicator is constant white, rear indicator is constant yellow.

* When the indicator light becomes red and steady, it indicates that the optical flow signal is poor and the point cannot be fixed.
* Performance may be impaired in dark surroundings, areas with reflective surfaces (e.g. water), or at altitudes of more than 6 m.
* Optical flow positioning only supports altitudes of less than 6 m.

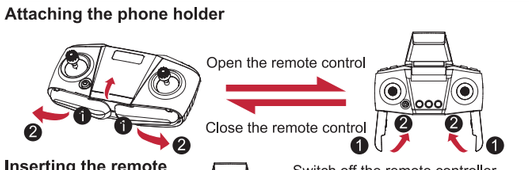
GPS mode
Front indicator is constant white, rear indicator is constant green.

* When the battery level is normal, the aircraft can fly to a distance of 500 m at a maximum altitude of 100 m.
* When the battery level is low, the aircraft can fly to a distance of 20 m at a maximum altitude of 20 m.
* If the rear indicator starts to flash rapidly, this indicates that the GPS signal is weak and the aircraft cannot determine its position.
* GPS mode cannot be used indoors.

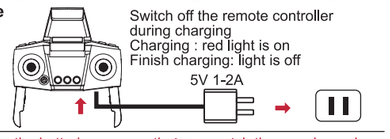
Headless mode
The indicator on the aircraft will flash once every 4 seconds.

1. Configuring the forwards direction
When you switch on the aircraft for the first time, the direction in which the front side of the aircraft is pointing will be set as the forwards direction.
2. Enabling headless mode
① After pairing the remote control with the aircraft, hold down the right joystick for approximately 3 seconds. The remote control will beep 8 times to indicate that headless mode is enabled. To disable headless mode, hold down the right joystick again for approximately 3 seconds.
② In headless mode, you do not need to determine the aircraft's orientation. You can move the joysticks on the remote control to make the aircraft move in the correspond-ing direction.

Attaching the phone holder



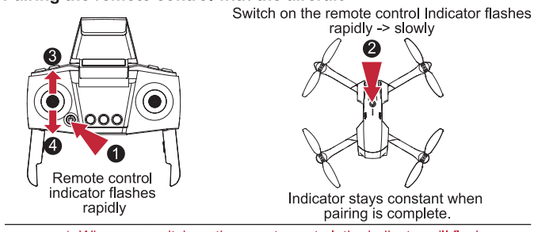
Inserting the remote control batteries



* When installing the batteries, ensure that you match the + and – ends of the battery with the + and – signs on the controller.
* During the battery installation, it must be ensured that the polarities of the batteries are matched with that of the battery box. No battery shall be installed with the opposite polarity.
* Please do not use new and old batteries together.
* Please do not use different types of batteries together.
* Do not use rechargeable batteries.
* Exhausted batteries are to be removed from the Remote control.

Flight preparation and turning the aircraft on/off

Pairing the remote control with the aircraft



* When you switch on the remote control, the indicator will flash rapidly for approximately 20 secs to indicate that the remote control is waiting for a signal. The indicator will then flash slowly to indicate that pairing mode has been disabled.