ALTAIR AERIAL

THE HORNET

Equipped with 120° wide-angle 720P HD WIFI Camera

AA818 Plus

Operations Guide

Catalog

Liability

Thank you for buying our product. People who are under 14 years of age are not qualified to use this for important safety reasons. Please read this brochure carefully before using it to ensure that you readily understand how to use it to the best of your current ability.

This product is not an ordinary toy. It is a piece of complicated equipment which is integrated with professional knowledge by mechanics, electricians, aviation specialists, and high-frequency emission technicians. The user must be responsible for their behavior when using this drone and the app that is used with it. The user is also in charge of making sure to obey all laws and regulations set by their government, local authorities, and the FAA.

We undertake no liability for any accidents caused by the environment, illegal behavior, improper operation or refitting of the drone after the final sale.

We have entrusted the distributor to provide technical support and after-sale service. If you have any questions about use, operation, repair, etc., please contact your local distributor.

Please only use attached spare parts or purchase original UDIRC accessories for   replacement. However, if any incident arises from the spare parts or original purchased spares, we at UDIRC do not assume any responsibility. Keep the packing and user manual to refer to the important information within.

Safety Precautions:

This drone is suitable for experienced RC drone users at the age of 14 years and up. This product contains small parts that should be kept out of the reach of small children.

(1) Flying Area

The flying field must be legally approved by your local government. Do not fly the drone near or into any of your local airports. By law, you must not fly a drone anywhere near an airport that is at least 3 miles away. The area you choose to fly in must be spacious enough to ensure that no accidents occur. We suggest flying in an area that is at least 26 feet in length by 26 feet in width.

(2) Correct Use of the Drone

For safety reasons, please only use UDIRC's spare parts to replace the damaged ones if the need arises. Improper assembly, a broken main frame, defective electronic equipment or unskilled operation may cause unpredictable accidents, potentially resulting in damage to the drone or bodily injury. Please pay special attention to safety measures during operation and understand the potential accidents that the user may cause as a result of ignoring such measures.

(3) Keep Away from Obstacles and Crowds

The speed and status of a flying RC drone is uncertain at times and may cause potential danger. With this in mind, keep away from crowds, buildings, power lines, etc., when operating a drone. For the safety of the user, do not fly a drone in the rain, during a storm, through thunder or lightning, or around other people and their property.

(4) Keep Away From Humid Environments
The internal components of the drone consist of precise electronic equipment. Humidity and water vapor may cause damage to them and result in an accident, so take care to watch where you are flying it.

(5) Safe Operation
Please operate the drone in accordance with your flying skill and overall experience level. Fatigue, lightheaded episodes, and improper operation may increase your chances of an accident occurring.

(6) Keep Away From Rotating Parts
Rotating parts, such as the propellers and even the motors, may cause serious bodily injury and damage to the drone. Keep your face, hands, and all body parts away from rotating parts of the drone.

(7) Keep Away From Heat
The RC drone is made of metal, fiber, plastic, electronic components, etc. You must therefore keep the drone away from heat and sunshine to avoid distortion and damage. This is only relevant for areas that experience extreme heat.

(8) The drone should be controlled within the maximum control distance. Do not fly the drone near buildings, high-voltage cables, or any other area that could cause signal interference. An interference in the signal will cause the drone to go out of control, resulting in a possible accident.

(9) Do not touch the hot motor to avoid being burnt.

(10) Please use the recommended charger only.

(11) Power off the drone before cleaning it. Not doing so will result in bodily injury and damage to the drone.

(12) Check the USB cable and charging plug regularly to ensure that they are both functioning properly. If there is any damage, are they are not working as they should be, stop using the cord immediately until it can be replaced or fixed.

Safety Warning for the Drone's Battery

- Keep LiPo batteries away from children and animals.
- Never charge a LiPo battery that has ballooned or swelled in size.
- Never charge a LiPo battery that has been punctured or damaged.
- After a crash, inspect the battery pack for signs of damage.
- Never overcharge a LiPo battery.
- Do not charge LiPo batteries near flammable materials or liquids.
- Do not put the battery near high temperatures, such as an open flame, to reduce the risk of fires or explosions.
- Do not put battery packs in pockets or bags where they can short circuit or where they can come into contact with sharp or metallic objects.
- Do not attempt to disassemble, modify, or repair the LiPo battery.
- Do not use the battery after crashing or hitting a hard surface.
- Do not put the battery directly into any amount of water.
- Keep the battery stored in a dry place at room temperature.
- Do not leave the battery unsupervised when charging.
- Make sure that the power wire is not frayed or short circuiting before use.

- Only use the recommended charger only.
Check the charger's wire, plug, and surface regularly. Do not use a charger that is damaged or broken.

Charging Instructions for the Drone's Battery

1. Connect the battery to the USB cable and choose one of the charging methods below.
2. The red USB indicator light is red while charging and will turn green when fully charged.
* For faster charging, it is recommended to use an adapter with 5V 2A output current (not included) to charge the battery.

Phone Charger   Power Bank

Computer Charging   Car Charger

Drone Battery
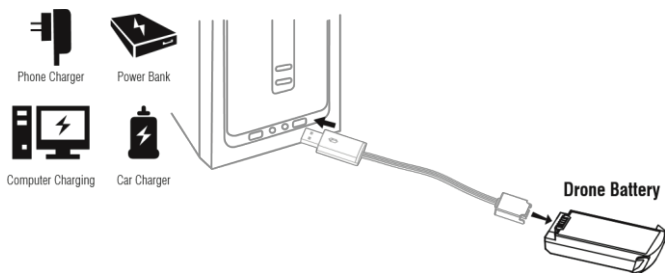
**Li-Po Battery Disposal & Recycling**
Wasted Lithium-Polymer batteries must not be placed with household trash. Please contact local environmental or waste agency or the supplier of your model or your nearest Li-Po battery recycling center.

Pre-Flight Checklist

- Make sure the drone transmitter batteries are fully charged.
- Make sure the left stick of the transmitter is in the middle position.
- Turn the transmitter on before turning on the drone and turn the transmitter off after turning off the drone.
- Make sure the connection between the battery and the motor is sold – the ongoing vibration may create a bad connection with the power terminal and may cause the drone to fly out of control.
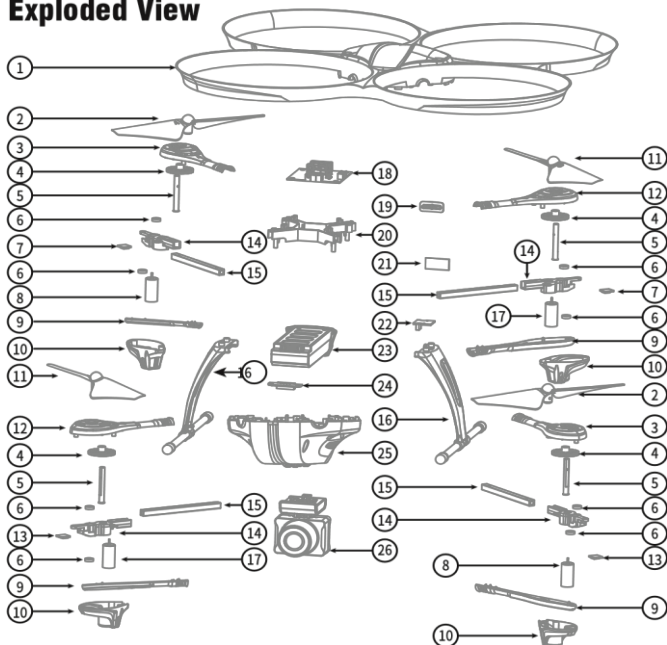
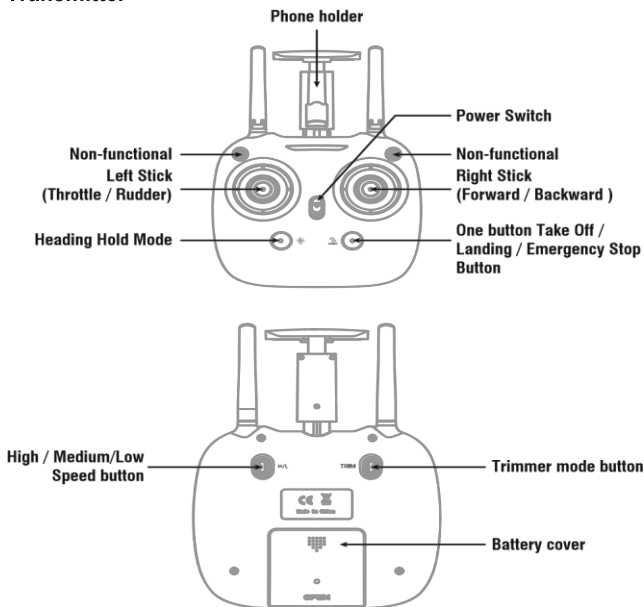## Instructions for Drone and Transmitter
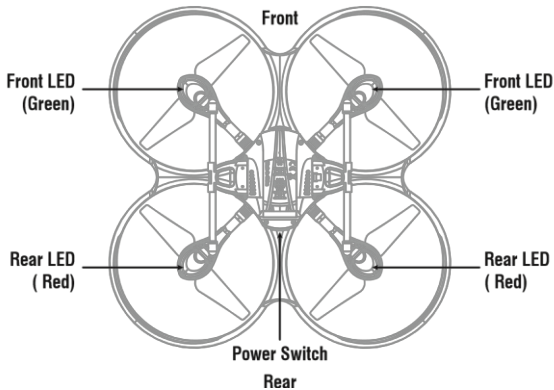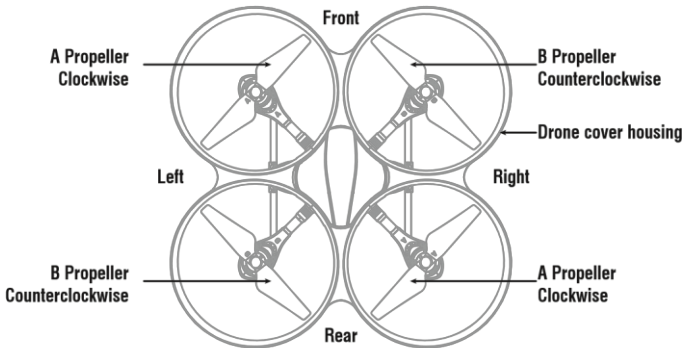
Specifications

Drone Size	334x334x127mm	Charging Time for Drone Battery	180mins
Drone Weight	248g	Max Flight Distance/Radius	150m
Propeller Diameter	147mm	Streaming video range	50m
Flying Time	13~15mins	Camera Resolution	1280x720P
Drone Battery	7.4V 1000mAh	Main Motor	1020x4
Frequency	2.4Ghz		

Exploded View

No.	Name	No.	Name	No.	Name
1	Drone Cover Housing	10	Lampshade	19	Switch
2	A Propeller	11	B propeller	20	Receiver Board Holder
3	Upper Motor Cover A	12	Upper Motor Cover B	21	Power Board
4.	Gear	13	Front LED Board (Green)	22	Camera Adapter Board
5	AL Main Shaft	14	Motor Holder	23	Battery Box
6	Bearing	15	C-Pb Square Tube	24	Battery Adapter Board
7	Rear LED Board (Red)	16	Landing Gear	25	Lower Drone Cover
8	A Motor	17	B Motor	26	Camera
9	Lower Motor Cover	18	Receiver Board		

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Transmitter

Phone holder

Power Switch

Non-functional
Left Stick
(Throttle / Rudder)

Non-functional
Right Stick
(Forward / Backward)

Heading Hold Mode

One button Take Off /
Landing / Emergency Stop
Button

High / Medium/Low
Speed button

Trimmer mode button

Battery cover

Brief Introduction to Button Functions

Left Stick	Move the Stick forward / backward / left / right up / down / turn left / turn right.
Right Stick	Move the Stick to go forward / backward / left / right
Power Switch	Push up the power switch to turn on the transmitter, and pull down to turn off.
Heading Hold Mode	Press the button to enter heading hold mode, and press again to exit from heading hold mode.
Take Off / Landing / Emergency Stop Button	Press the button and the drone will fly up automatically. Press the button again and the drone will land on the ground automatically. Press and hold the button more than 1s, the drone propellers will stop and fall down immediately.
High / Medium / Low Speed button	Press down this button to switch to High /Medium/ Low Speed.
Trimmer mode Button	Press down this button, move the right stick to the required trimmer direction, then it will adjust the direction accordingly, when loose the stick, then ESC from the trimmer mode.

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Battery installation:

Open the battery cover on the back side of the transmitter and put 4 alkaline batteries (AA, not included) into the box in accordance with the electrode instructions, as shown below.


4*1.5V
Alkaline Batteries

Picture 1   Battery Cover   Picture 2
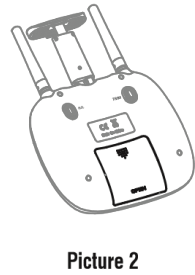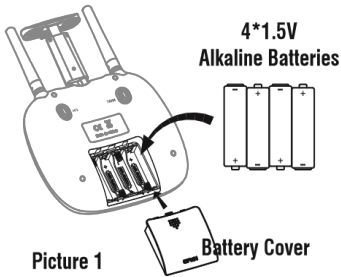
| Notice:	1. Make sure the electrodes are correct. 2. Do not mix new and old batteries. 3. Do not mix different kinds of batteries. 4. Do not charge the non rechargeable battery.

Phone Installation Instruction:

1. Pull up the phone holder (Picture 3), open the lower clamp, then pull the   upper holder until you can hold the phone (Picture 4).
2. Put the phone into the holder and release the clamp. The clamp will hold the phone tightly (Picture 5/6).


Picture 3   Picture 4   Picture 5   Picture 6

9
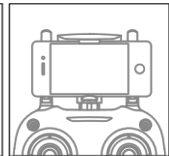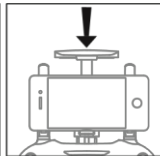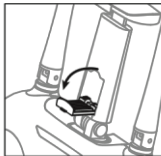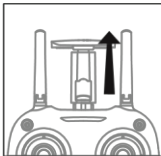
Pre-flight Operation Instructions

Frequency Pairing

1. Turn on the transmitter switch (Picture 7) and the power indicator light will flash rapidly. Push the Left stick all the way down to the lowest position and then release. The Left stick will move back to the middle position automatically (Picture 8/9). The power indicator light flashes slowly, which indicates the transmitter is ready for frequency pairing.
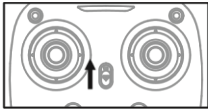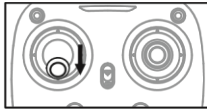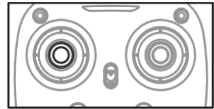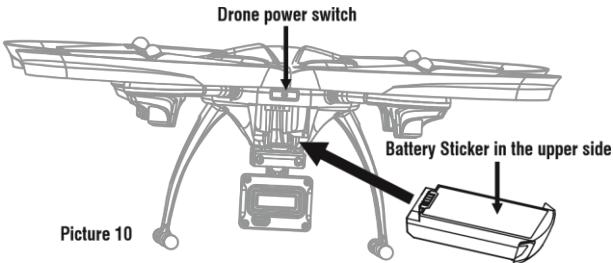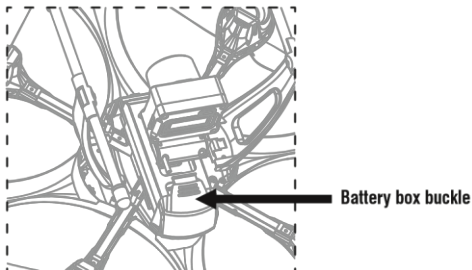
Picture 7   **Picture 8**   **Picture 9**

2. Install the LiPo battery into the drone as shown (Picture 10). You will need to press down the buckle and then push the battery in until it is securely fastened (Picture 11).

Drone power switch

Battery Sticker in the upper side

Picture 10

Battery box buckle

Picture 11

3. Hold the power button down for about two seconds (Picture 10), then place the drone on a flat surface. When the drone body lights stop flashing and hold on a solid bright color, the pairing has been successful.
Important Notice: Please make sure the drone is placed in a horizontal position after powering on so that it will function properly.

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Flight Checklist

1. Make sure the camera is in front of the drone and facing away from you.
2. Power on the drone and check the direction of the rotating propellers; the left front and right rear A propellers should be rotating clockwise, while the right front and left rear B propellers should be rotating counterclockwise.
3. Activate (unlock) the motors: Move the Left stick and Right stick at the same time as shown in picture 12 to start the motors. Then repeat the previous step again to lock the motors.

Picture 12

4. After activating the motors, push the Left stick up slowly upwards and then pull it slowly down to safely land the drone. Repeat this step a few times until you feel confident that you can land the drone with ease.
5. If the drone is tilted to one side when flying, adjust the relative remote Trimmer button.
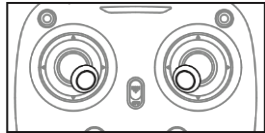
Calibration Instruction

Please follow the steps below to calibrate the drone if it becomes imbalanced after crashing during the flight and cannot be adjusted using the trimmer button.
1. Power off the drone and the transmitter.
2. Turn on the transmitter switch, push the Left stick all the way down to the lowest position (Picture 13) and then release it. The Left stick will move back to the middle position automatically to indicate that it is ready for frequency pairing (Picture 14).
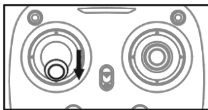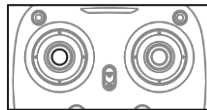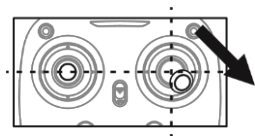
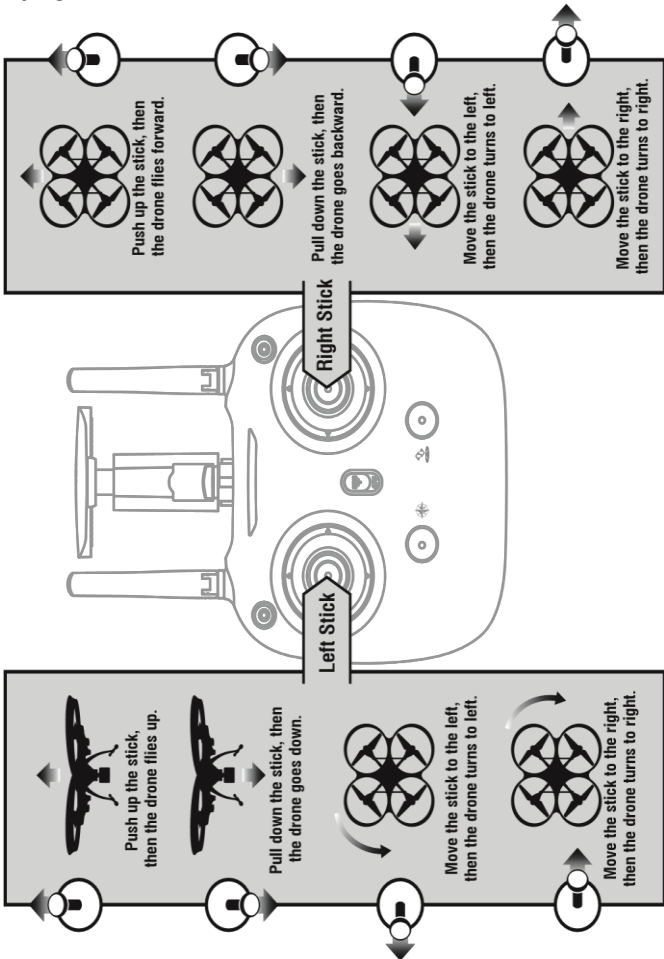**Picture 13**   **Picture 14**

3. Power on the drone and place it in a horizontal position on a flat surface. The drone's body lights will change from rapid flashing to a solid color to indicate that the pairing has been successful.
4. Do not move the Left stick during the remainder of the calibration process.
5. Push the Right stick as indicated in Picture 15 and then release it. The drone's body lights should flash to indicate that the drone is now calibrating.
7. When the drone is finished with a successful calibration, the body lights will once again turn to a solid color.

Picture 15

Notice: When the drone is fiercely impacted, the gyros may not recover and make the vehicle difficult to control. If this is the case, you will need to power off and power on again to calibrate.

Flying Control

Right Stick

Push up the stick, then the drone flies forward.

Pull down the stick, then the drone goes backward.

Move the stick to the left, then the drone turns to left.

Move the stick to the right, then the drone turns to right.

Left Stick

Push up the stick, then the drone flies up.

Pull down the stick, then the drone goes down.

Move the stick to the left, then the drone turns to left.

Move the stick to the right, then the drone turns to right.

Notice: Always start the motors by moving the Left stick and Right stick as indicated in picture 12 before takeoff.
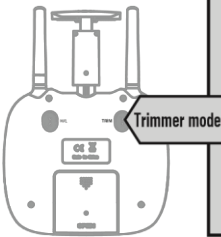
Forward and backward trimmer
When take off, if the drone tilts forward, press down the trimmer button, and push the right stick backwards. Otherwise push forwards.

Left and right side flying trimmer
When take off, if the drone tilts to left, then press down the trimmer button and push the right stick to right to adjust. Otherwise push to left.

Left and right turning trimmer
When take off, if the drone head rotates to left, then press down the trimmer button and push the left stick to right. Otherwise push to left.

Introduction to the Functions
Take off/ One button take off/Landing modes

Method 1 (Take off): After frequency pairing is successful, push the Left and Right sticks, as shown in Picture 12, to start the motor. Release the sticks and push the Left stick upward until you achieve the desired altitude. Then release the Left stick.

Method 2 (One Button Take Off): After frequency pairing is successful and the motors have activated, press the Take Off/Landing/Emergency Stop Button as shown in Picture 16 and the drone will automatically fly to an altitude of approximately 1.2 meters.
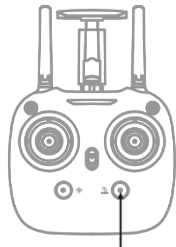
Take Off / Landing /
Emergency Stop
Button
Picture 16

Landing Methods

Method 1 (Landing): When flying, push the Left stick all the way down to the lowest position (Picture 13) and hold it until the motors stop. From there, the drone will land itself.

Method 2 (One Button Landing): When flying, press the Take Off / Landing / Emergency Stop Button once (Picture 16), and the drone will land itself automatically. Do not touch the Left stick while the drone is landing.

Emergency Stop: If the drone is in an emergency situation (if it's about to hit people, dangerous obstacles, etc.) press the Emergency Stop Button and hold it for more than one second to stop the propellers.

Do not use the emergency stop function unless you are in an emergency situation. The drone will fall out of the air very suddenly after the propellers stop.

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Altitude Hold Mode

Altitude hold mode indicates that the drone maintains a consistent altitude while allowing roll, pitch, and yaw to be controlled normally. This mode makes controlling the drone much easier for beginners and makes the drone more stable for aerial photography.
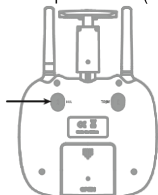Note: The Altitude Holding Mode cannot be used if the blades are deformed or damaged.
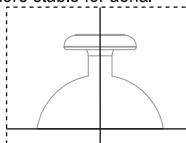
High/Medium/Low Speed Mode Switch

Press down this button to change speed modes. One beep indicates that the drone is in Low Speed Mode "L", two beeps indicates Medium Speed "M", and three beeps indicates high speed mode "H".
Low Speed Mode(Mode 1)
1. This mode is suitable for first-time fliers and beginners.
Medium speed Mode(Mode 2)
2. This mode is suitable for skillful pilots to play in the gentle breeze.
High Speed Mode(Mode 3)
3. This mode is for experts to experience aerial stunts in an outdoor setting.

Heading Hold Mode

Drones generally have a front and rear that is indicated by LED lights or colored propellers. By default, the users are required to tell the front and the rear of the drone apart from each other when flying. In Heading Hold Mode, the users can operate the drone without worrying about the orientation of the drone. Left is left and right is right all the time, regardless of what your drone is facing. Heading Hold Mode is designed for beginners and users who are flying in daylight, from a far distance, or who are having trouble identifying the drone orientation.

Heading Hold Mode is NOT the default setting.

You can activate this function before taking off or while already in flight. When flying with Heading Hold Mode, ensure that the front of the drone is always facing away from you. DO NOT change the direction of your transmitter.
WARNING: DO NOT USE HEADING HOLD MODE BEFORE YOU ARE SURE THAT THE DRONE'S FRONT IS YOUR FRONT. OTHERWISE, IT MIGHT GO OUT OF CONTROL OR FLY AWAY.