



***HAWK***

**QUADCOPTER DRONE**

*User's Guide for Model DR176 v1571-01*



# Warnings & Precautions

## Important Safety Instructions

- Read and follow all instructions.
- Keep these instructions for future reference.
- Heed all Warnings.
- Intended for children ages 14 and higher. Adult supervision is required.
- Only use attachments/accessories specified by the manufacturer.
- Before flying, always check the body, rotors, and battery for any damage or obstructions.
- Battery should be free from cracks or swelling.
- Keep the rotors clear of any obstructions and body parts to avoid potential damage and injury.
- Manufacturer and dealer assume no liability for accidental damages from improper use or installation of parts, or from damage incurred from worn or broken parts.
- Pilots are responsible for their actions and any damage caused from improper use.
- Pilots should keep the craft in sight at all times during flight. If you lose sight of the craft at any time, power down and cease flight immediately.
- Only fly in large, open areas that are free from obstacles or potential hazards, such as trees, power lines, ceiling fans, and the like.
- Flying over bodies of water is not recommended.
- Flying at night is not recommended.
- Never try to retrieve the craft from areas you cannot safely reach, such as rooftops or trees.
- Never launch the craft from your hand.
- Never leave the craft unattended while it is powered on or while the battery is charging.

## FCC Warnings

**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.

## Additional Warnings & Precautions

- **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain, moisture, dripping, or splashing.
- **CAUTION:** Use of controls or adjustments or performance of procedures other than those specified may result in personal injury.
- **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.
- **CAUTION:** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- Lithium batteries, like all rechargeable batteries, are recyclable and should be recycled or disposed of according to state and local guidelines. They should never be disposed of in normal household waste, and they should never be incinerated, as they might explode. Contact your local government for disposal or recycling practices in your area.
- **WARNING:** Shock hazard - Do Not Open.
- Battery shall not be exposed to excessive heat such as sunshine, fire, or the like.  
Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children.
- If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.
- Do not mix old and new batteries.
- Completely replace all old batteries with new ones.
- Do not mix alkaline, standard (carbon-zinc), or rechargeable (ni-cad, ni-mh, etc) batteries.
- Batteries should be recycled or disposed of as per state and local guidelines.
- **WARNING:** This product may contain chemicals known to the State of California to cause birth defects, or other reproductive harm (California Prop 65). Wash hands after handling.
- This product meets and complies with all Federal regulations.

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# SkyRider Hawk

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## FEATURES

- 360° flips & tricks
- 6-axis gyroscope
- 3 speeds: low, medium, high
- Control distance: up to 65 feet
- LED navigation lights
- Operating time: 6-8 minutes
- Charge time: 40-50 minutes

## INCLUDES

- 2.4 GHz remote control: requires 2 AAA batteries (not included)
- Built-in rechargeable lithium polymer battery
- USB cable for battery recharge
- 4 replacement rotors
- User's guide & warranty

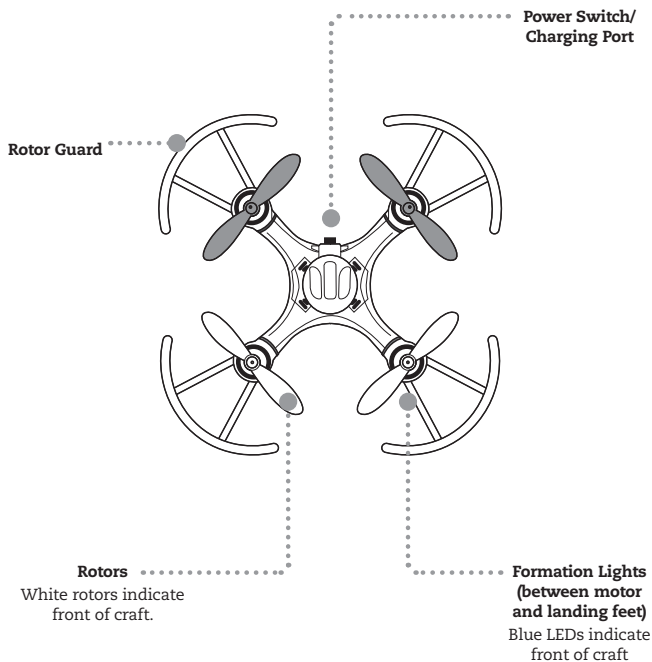


# Orientation

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## OVERVIEW



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## REMOTE CONTROL

### Left Control Stick

Increase Throttle:  
push forward.

Decrease Throttle:  
pull backward.

Yaw/Spin:  
push left or right.

Headless Mode: push  
down.

### Right Control Stick

Pitch:  
push forward/backward.

Roll/Bank:  
push left/right.

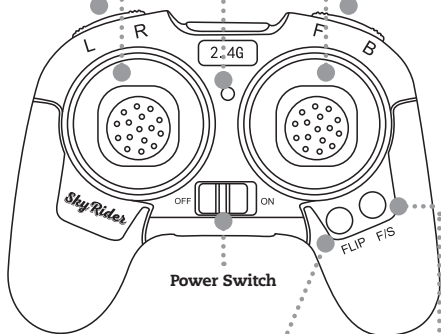
### Power/Status Indicator

### Trim Adjustment

Correct left/right drift.

### Pitch Adjustment

Correct forward/  
backward drift.



### Flip

Press and push Right Control  
Stick to perform a flip.

### Flight Control Speed

Press to adjust the control  
speed and sensitivity.

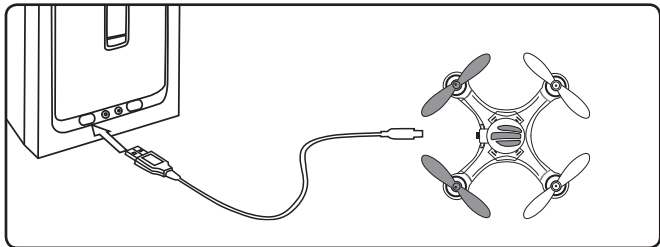
# Batteries & Charging

## BATTERY CHARGING PROCEDURE

The craft's battery must be charged before the unit can be flown. Before charging, be sure the hexacopter and remote control are powered off. Failure to do so may result in injury.

Using the included charging cable, connect to the USB port of a powered on computer or USB power adaptor (not included) to charge the unit. Charge fully before use for maximum performance and flight time.

Charging time is approximately 45 minutes.



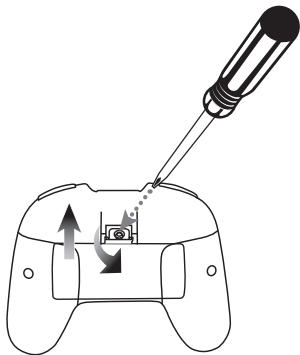
CHARGING LIGHT	STATUS
OFF	Charging
ON	Ready



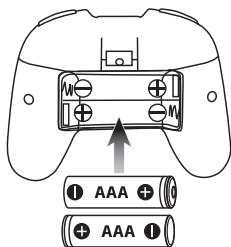
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## REMOTE CONTROL BATTERY INSTALLATION



Use screwdriver (not included)  
and remove battery cover.



Insert 2 x AAA Batteries  
(not included).

# Pre-Flight Calibration

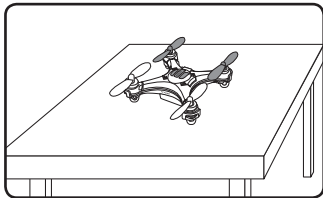
## CRAFT/REMOTE LINK

Before flying, the craft and the remote must be linked together, and the gyroscopes on the craft must be allowed to calibrate to ensure smooth and level flight.

Begin with the craft and remote powered OFF.

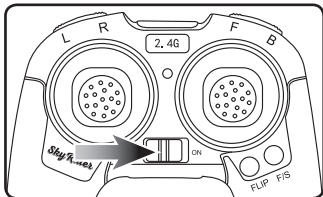
### STEP 1

Place the craft on a flat and level surface.



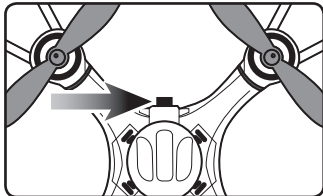
### STEP 2

Power the remote control ON. The light on the remote will blink as it searches for the signal from the craft.



### STEP 3

Power the craft ON. The LED formation lights will blink in unison as it searches for a signal from the remote. An audible chime will sound when the remote and the craft have linked with each other.



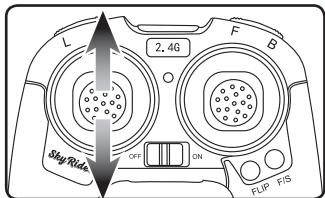
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## STEP 4

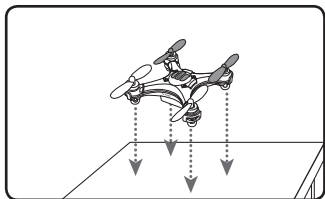
Push the Left Control Stick directly forward, wait for a chime to sound, then pull the stick directly backward, and wait for a second chime.

**When this last chime has sounded, the craft is calibrated and ready to fly.**



## STEP 5

Attempt a stable hover, low to the surface you started on. If you notice a tendency to drift, you may need to adjust the trim controls to fine tune the handling (see Trim Adjustment, pg.12).



## WHEN YOU'RE DONE FLYING...

After safely landing, keep the throttle in the lowest position (OFF) and wait for the rotors to stop spinning. **Power OFF the remote first.** This will ensure that no signals are accidentally sent to the craft, reducing the chance of injury. After this is done, it is safe to pick up and power OFF the craft.

## FACTORY RESET

If the craft is experiencing difficulty flying or is behaving erratically, and there is no physical damage and recalibrating did not solve the problem, the craft and remote may need to be reset to factory default settings.

Be sure that the remote and craft are linked and begin on a flat level surface. Reset by pulling both Control Sticks to the lower right position for 4 seconds, then release. The LED formation lights will blink while the craft resets. When the blinking has stopped the craft is reset and ready. **Do not attempt to do this while flying.**

# Trim Adjustment

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## SETTING TRIM & COUNTERING DRIFT

Even after the craft is calibrated, it may show a tendency to drift while airborne. Adjusting the trim will help counter this effect and allow you to better control the craft. To avoid potential damage, adjust the trim while in a stable hover, and do not make any sudden movements with the flight controls. Adjust one trim setting at a time to avoid confusion.

**Remember, the blue LEDs /white rotors indicate the front of the craft.**

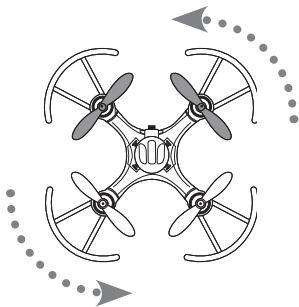
While adjusting the trim will help with drift, it is not guaranteed to eliminate it entirely. The small size of this craft makes it especially susceptible to physical, mechanical and environmental conditions (ex: strong winds).

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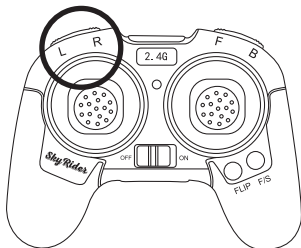
## DRIFT TYPE

Craft **yaws/spins** in place.

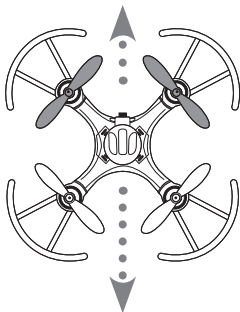


## SOLUTION

Adjust **Yaw Trim**.



Craft **pitches/angles**  
forward or backward.



Adjust **Pitch Trim**.



# Flying Tips & Features

## TIPS FOR SAFE OPERATION

- Only fly in large, open spaces, such as a field or a very large indoor area, free of obstacles like power lines, trees, ceiling fans, etc.
- When flying indoors, avoid walls and ceilings, as the craft will be drawn towards them if closer than 2 to 3 feet.
- Stand behind the craft when first taking off, so that it and you are facing the same “forward” direction. This will make it easier to determine which direction it is flying. Also, remember that the blue LED lights/white rotors indicate the front of the craft.
- Practice basic flight operations like take off, hovering and landing.
- Flying inside, at low speed and low to the ground will reduce the chance of turbulence that can negatively affect the stable flight of the craft.
- Novice pilots should move the controls slowly and deliberately, using one control at a time, to get used to the craft’s flying characteristics. Next, try combining the pitch and roll controls (forward/backward and left/right on the Right Control Stick) to fly the craft similar to the way an airplane flies. After mastering this, try the yaw controls (left/right on the left thumbstick) to spin the craft in place and perform more complex maneuvers.
- If anything obstructs the rotors for any reason, throttle down IMMEDIATELY and safely clear the obstruction. Check for possible damage before flying again.

## SPEED SETTING

The craft has three settings for the responsiveness of the flight controls: 30%, 60%, and 100%. The higher settings allow for faster and more precise control of the craft. It is recommended to start with the lowest setting, then as you become more skilled at flying, increase the speed as you see fit.

- **30%:** Intended for novice pilots. Gives smooth and predictable control.
- **60%:** Intended for intermediate pilots. The craft will move and respond faster to all control inputs.
- **100%:** Intended for expert pilots. Highest setting for maximum performance.

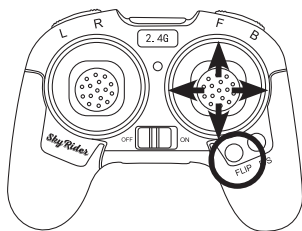
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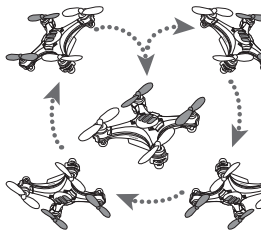
## FLIPS & TRICKS

Before attempting any stunts, be sure that there is ample clear space around the craft, ideally 9 to 10 ft. in every direction. It is not recommended to attempt to flip around or through any obstacles, as this may result in unintended damage.

To perform a flip, follow the diagram below.



Press the **Flip button**, then move the **Right Control Stick** in any direction.



Hexacopter will perform flip in the desired direction.

## HEADLESS MODE

Headless Mode disables the default orientation of the craft, where the blue LEDs/white rotors indicate the front of the craft. Instead, the craft will reorient its “front” based on the first **Right Control Stick** input from the user. This can be useful if you become disoriented while flying, or cannot visually determine which direction is “true front”.

To activate Headless Mode, press down (into the body of the remote control) on the **Left Control Stick**. Press again to deactivate Headless Mode. A chime will sound both times to indicate when Headless Mode is active or inactive.

# Repair

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**REMINDER:** Pilots are responsible for any damage caused by improper use.

## **ROTOR REPLACEMENT**

The craft comes with 4 replacement rotors, to be used if the originals are broken or badly damaged.

To replace a rotor, gently pull it upwards and off of the rotor and replace it with a new one. It is recommended to use small pliers or tweezers to remove the rotor from the motor shaft. Take special care not to bend or break the motor shaft.

**REMINDER:** It is extremely important to use the correct rotor (black/white) for replacement. Mismatching the rotor will cause the craft's flight to be erratic and difficult to control.

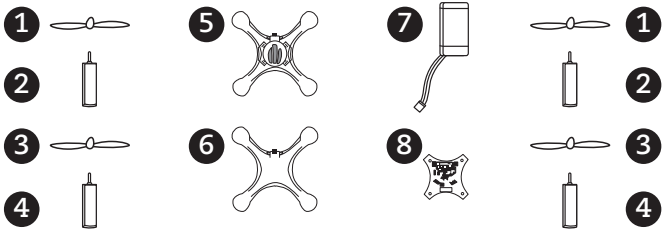


# Parts

## PARTS REPLACEMENT

If any major components of the craft are damaged beyond repair, use the contact information at the back of this manual to order replacements.

## PARTS DIAGRAM



## PARTS LIST

PART	NAME	QUANTITY
1	Rotor A	2
2	Motor A	2
3	Rotor B	2
4	Motor B	2
5	Upper Frame	1
6	Lower Frame	1
7	Battery	1
8	Receiver Board	1

# Troubleshooting

If you are experiencing problems using or flying the hexacopter, consult this table.

PROBLEM	POSSIBLE CAUSES	SOLUTION
<b>Craft is unresponsive</b>	<ul style="list-style-type: none"><li>• No power to remote or craft</li><li>• Poor contact between power plugs</li><li>• Craft is out of receiver range</li></ul>	<ul style="list-style-type: none"><li>• Check remote batteries, replace if needed</li><li>• Check craft's battery, be sure it is fully charged</li><li>• Be sure the power plugs are firmly connected</li><li>• Be sure the remote has an unobstructed line of sight to the craft</li><li>• Remain within the remote's 65 ft. range</li></ul>
<b>Craft flies erratically</b>	<ul style="list-style-type: none"><li>• Gyroscopes may be misaligned</li></ul>	<ul style="list-style-type: none"><li>• Perform Pre-Flight Calibration again (see pg. 11)</li><li>• Perform factory reset (see pg. 11)</li></ul>
<b>Craft drifts while in flight</b>	<ul style="list-style-type: none"><li>• Trim not set or needs adjustment</li></ul>	<ul style="list-style-type: none"><li>• Adjust trim settings (see pg. 12)</li></ul>
<b>Craft suffers from mechanical difficulty or vibrates excessively</b>	<ul style="list-style-type: none"><li>• Damage to body, rotors, or other major components</li></ul>	<ul style="list-style-type: none"><li>• Check to make sure the craft has not taken significant damage</li><li>• Replacement parts may be needed (see pg. 17)</li></ul>
<b>Formation lights ON, but craft no longer responds to throttle inputs</b>	<ul style="list-style-type: none"><li>• Low battery power</li></ul>	<ul style="list-style-type: none"><li>• Recharge the battery</li></ul>

# Company Information

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## CONTACT INFORMATION

Website: [www.gpx.com](http://www.gpx.com)

Email Support: [proinfo@dpiinc.com](mailto:proinfo@dpiinc.com)

Email Parts: [partsinfo@dpiinc.com](mailto:partsinfo@dpiinc.com)

Phone Support: 1-888-999-4215

## WARRANTY

See included 30 Day Warranty for warranty information. Warranty and the most up-to-date version of this User's Guide can also be found at: <http://gpx.com/dr176.html>

## INTERNATIONAL SUPPORT

To download this User's Guide in English, Spanish, and French, or to get answers to frequently asked questions, visit the support section at: [www.gpx.com](http://www.gpx.com)

Para descargar este Manual del Usuario en inglés, español y francés, o para obtener respuestas a preguntas frecuentes, visite la sección de apoyo en: [www.gpx.com](http://www.gpx.com)

Pour télécharger ce guide de l'utilisateur en anglais, espagnol ou français, ou pour obtenir des réponses à des questions fréquemment posées, consultez la rubrique d'assistance sur: [www.gpx.com](http://www.gpx.com)



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Sustain for Tomorrow*

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