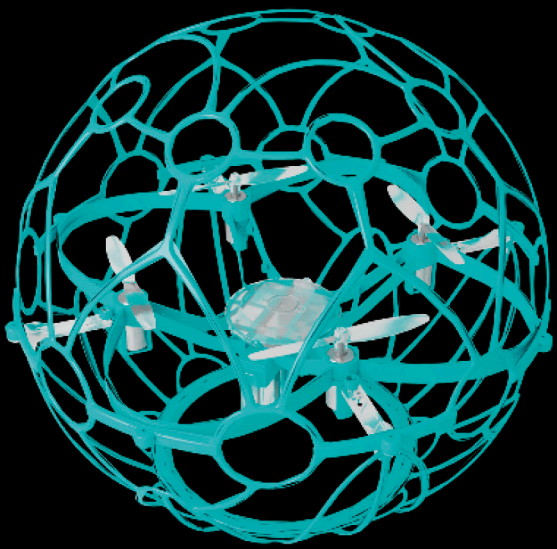
DRONEPANG

F1 PRO

USER MANUAL



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1. Caution (Please be carefule of the following.)

※ Do not put your hands inside the shell before the propeller stops completely.

※ Do not operate drones to fly towards people and animals.

※ Rotating propellers can be dangerous with long hair.
Wear a hat on the flight Or tie your hair.

※ Before removing the fitted shell, remove the battery or remove the propellers.

※ When changing the drone battery, keep the controller safe so that no one else accidentally activates it.

※ Dronepang is designed for indoor flight.

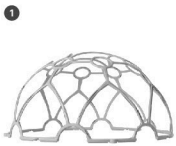
- If the drone is outside the control range of the controller's signal control, the drone may not be controlled.
- See and Operate.
- Outdoor flight affected by wind is the cause of the dysfunction. It is recommended to operate indoors.

Caution

※ **In Altitude hold mode, strong impacts are the reason why altitude retention is weakened. Repeated strong shocks make it difficult to rapidly increase or control when flying.**

- Switch to Altitude hold mode or recalibrate the IMU.
- Can't flip at low power(Voltage).
- Don't use bulging batteries.
- DronePang can only use a 2S (7.4V) lithium polymer battery.

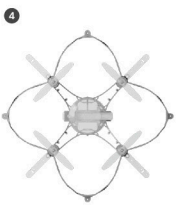
2. Components



① Upper shell

② Lower shell with screws

③ Battery charging cable



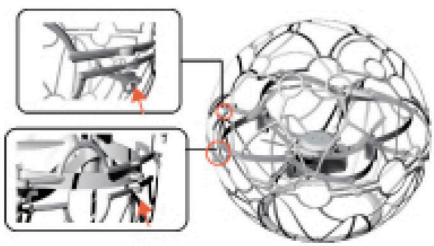
④ Main frame and control board

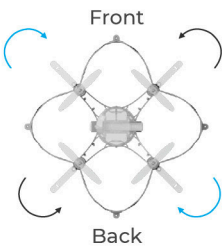
⑤ Controller

⑥ Battery * 1

3. Assembley

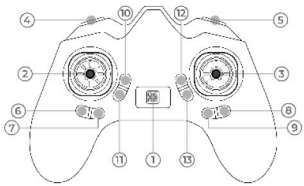
Insert the upper shell of the dronepang as shown, screw it in and finish the assembly of the sphere with the screws provided.





*The direction of rotation.

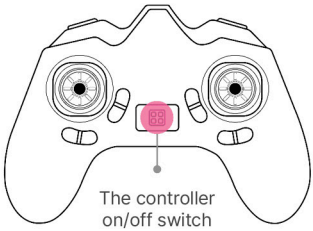
4. Instructions



STEP. 01

number	name	function
01	ON/OFF	ON, OFF
02	Left stick	Rudder (left and right rotation) and throttle (Up and Down)
03	Right stick	Aileron (left and right movement), elevator (forward and back movement)
04	Altitude Hold / Horizontal Mode	Pressing the Button switches from altitude hold mode to horizontal mode. The horizontal mode does not have altitude hold retention, unlike altitude hold mode. Be careful of throttle operation in the horizontal modes.
05	Adjust Speed	The buzzer is a beep. Beep : Slow / Beep, Beep : Normal / Beep, Beep, Beep : Fast
06	Flip	Press the button and turn it to the right stick and flip it in that direction.
07	One-touch takeoff and landing/ emergency stop key	Short: Take off and land Long: Emergency stop
08	Headless mode	The front and rear lights of the DronePang flash slowly at the same time at the push of a button. (Headless mode cannot be continue for a long time.)
09	LED color	Press the button to select the desired color from the seven colors.
10	Forward trim	If the drone pang moves backward during hovering, press this button.
11	Backward trim	If the drone pang moves Forward during hovering, press this button.
12	Left trim	If the drone pang moves Right during hovering, press this button.
13	Right trim	If the drone pang moves Left during hovering, press this button.

STEP. 02

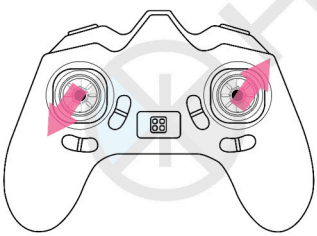


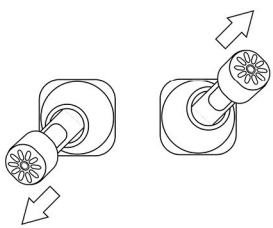
- Connect the battery to the DronePang and turn on the controller before turning on the DronePang
- You don't need to turn off the controller to replace the battery while in use.
- At the end of the flight, remove the drone's battery and then turn off the controller. If you turn off the controller during the flight or turn it off automatically due to the lack of battery in the controller, the DronePang may become out of control.
- If the controller's battery is low, the controller will beep.

The DronePang 1st low voltage alarm (low power)
: tail light flashes three times a second.

The DronePang 2nd low voltage alarm (low power)
: The rear light flashes several times a second. You can't fly anymore at this time.

** If the remote controller cannot be connected





- When the drone is powered on first, the LED flashes and enters the pairing standby state.
- When the stick is positioned as shown above after powering on the controller, the LED does not flash and alerts you to the success of pairing with a beep-sound.
- If you use the initially enclosed controller, you do not need to pair it again.
- If you use multiple drones at the same time, be sure to pair them separately.
- If the drone's LED keep flashing, connect them with the controller again using the method above.

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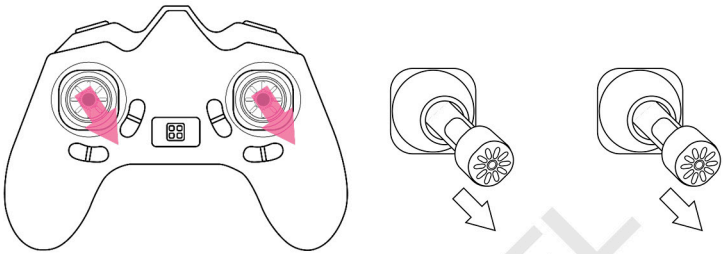
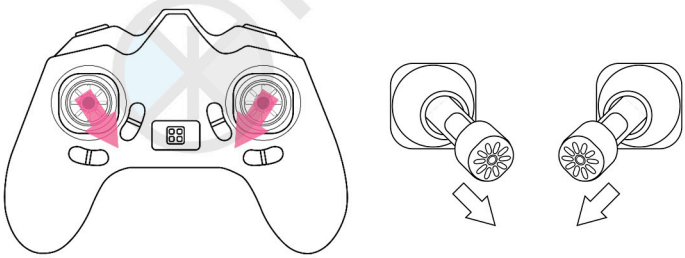
STEP. 03 IMU calibration



IMU calibration is recommended before every take off.

Place the DronePang horizontally and the left and right sticks simultaneously into the lower right corner to enter IMU Calibration. The dronefang LED flashes, and if you keep the stick for 3 seconds, the controller will beep the buzzer.

STEP. 04 How to start



Connecting The Controller & The DronePang, and holding the controller stick as above for about 2 seconds, the motor starts to rotate.

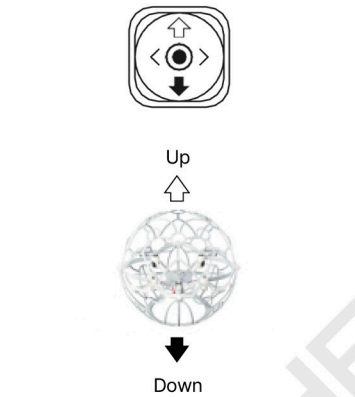
Turn the controller stick to neutral and take off with the throttle stick up.

TIP It is recommended to take off in altitude hold mode and switch to horizontal mode as needed. (Takeoff in horizontal mode is not recommended.)

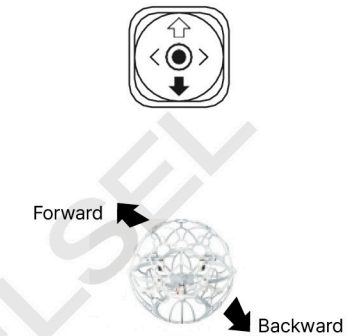
STEP. 05 About Controller

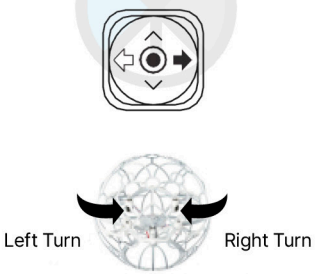
: The controller is basically a mode 2 setting.
(Mode changes cannot be possible.)

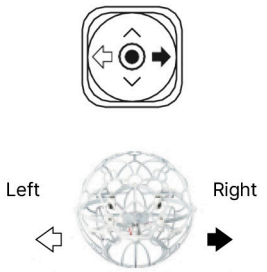
Left stick



Right stick







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STEP. 06 How to stop the motor : Three ways to stop the motor.

A

In Altitude hold mode, If the throttle stick is down to the end, The motor stops and stop the motor

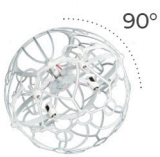
B

In horizontal mode, You can land by lowering the throttle lever. However, Cannot Disarming. Be sure to Disarm in Alt'hold mode.

C

Press button(7) to start the emergency landing. This method drops the DronePang from the air when running in the air. Safety must be checked and used.

D

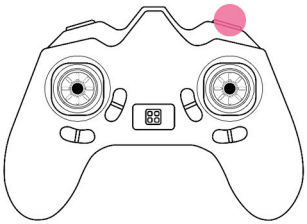


If the drone's angle is more than 90°, For safety reasons, Disarm automatically.

If the drone is impacted, this function can be activated.

Restart because it is not a defect.

STEP. 07 3step speed control



Beep: **Slow**

Beep, Beep: **Normal**

Beep, Beep, Beep: **Fast**

During the flight, you can change the flight speed through the controller's speed control key (5).

STEP. 08 Change flight modes

*Flight mode change is possible during flight. Press 'button(4)' to change it.

Altitude Hold Mode

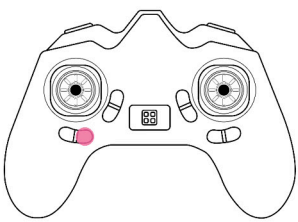
Drones maintain altitude through barometers. You can Use a throttle stick to go up or down.

Horizontal mode

When entering that mode, the drone cannot maintain altitude. Just keep it I Horizontal (When the throttle stick is placed in the middle, the DronePang is up.)

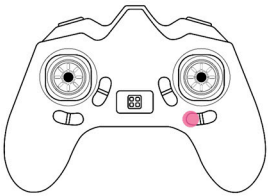
STEP. 09 One-touch takeoff and landing mode

(Works only in Altitude hold mode)



- After starting the DronePang, press the take-off and landing button (7) briefly once and the controller will beep.
  And The DronePang takes off automatically and hovers about a meter high.
- Briefly pressing the take-off and landing button (7) again will beep the Controller and the DronePang will automatically land in its current position and disarm

STEP. 10 Switch the LED colors



There is a variable LED light under the central cover of the DronePang. Pressing the controller light conversion key (9) changes the color of the LED.

STEP. 11 Headless mode

: Press the button to enter headless mode.
Press again to exit headless mode.

Front

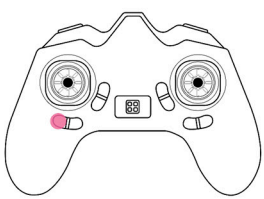
Back

How to

1. **Position the controller and drone so they can look in the same direction.**
   (At this point, the direction of the controller becomes the Standard of the front)
2. **Headless Mode ON**
3. **When flying, you can operate the drone based on the direction you first set, even if the direction of the DronePang is turned.**
4. **Headless mode reset is not possible during the flight.**
   If the Drone doesn't go in the desired direction, turn off headless mode.

|Notice| Headless mode cannot be maintained for a long time.
If it does not work properly, turn off headless mode. Land and reset to fly.

STEP. 12 Flip



DronePang can flip (forward, backward, left and right). Press the flip key (button 6) and turn it to the right stick to flip in that direction.

STEP. 13 charge the battery

Battery

Battery charging cable

Battery discharge	When you connect the battery to the battery charging cable, the greenest light on the right flashes.
Buffer battery	Connect the battery to the charging cable. When fully charged, the green light on the right is the highest. It's turned on.

1

After plugging in the battery charging cable, Connect the battery and the battery charging cable.

2

When the battery is fully charged, as shown in the image above, The lights are all turned on.

5. FAQ

The controller does not turn on.	The battery is not inserted correctly	Make sure it is fitted correctly according to + , - shown on the battery mount, and retry with the new battery.
	Defective controller power button	Please confirm and apply for A/S.
	If the controller is not turned on	Position the power button on.

The dronepang can't start(arm).	Check the battery connection status.	Check the connection status and connect in the right direction.
	Make sure that the range of the controller and drone is within the limit.	Fly within a radius of 200 M. We recommend that you fly indoors that you can see.
	Make sure that the controller is not connected	Check the controller and check how to connect the controller in the manual to try to reconnect.
I can't Armig / Disarming / IMU Calibration	Make sure it is in Altitude hold mode.	Turn on Altitude hold mode.
	Check the status of the controller.	Turn on the controller and rebind it.
The altitude is not maintained.	Altimeter failure	Please confirm and apply for A/S.
	Temporary operating errors due to excessive impact	IMU Calibration again
	Make sure it is in Altitude hold mode.	Turn on Altitude hold mode.
Altitude spikes in altitude maintenance mode.	Check the propeller for breakage.	Please check and replace.
	If the DronePang is too shaken and shocked	Turn it on&off and try again.
DronePang's flight performance (posture) is strange.	If the fastening of the screw is loose	Tighten it unwaveringly.
	Breakage of the central bracket	Please check and replace.
	Severe damage to the propeller or change in the mounting position depending on the direction.	Please check and replace.

The motor does not rotate.	Replace the motor.	Please confirm and apply for A/S.
Each switch does not work.	defective contact with the switch	Please confirm and apply for A/S.
DronePang doesn't rise up.	Low battery	Replacing the DronePang's battery
	Lack of battery in the controller	Replacing the controller's battery
The motor doesn't stop.	Pull the throttle stick all the way through.	Keep the throttle stick at least 2 seconds to the bottom.
	Disarm in Altitude hold mode.	Switch to The Altitude hold mode.

6. Product Information

Size	200*200*180 (mm)
Weight	75g
Battery	450mAh 2S
Maximum Take Off Weight	99g
Maximum Flight Time	More than 5 minutes
Recommended Flight Reflection	Distance : Within 100 meters. Height : Within 20 meters.

HELSEL official website.

https://helsel.co.kr/
https://skyballdrone.com
https://storehelsel.com/
https://helselgroup.com/

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