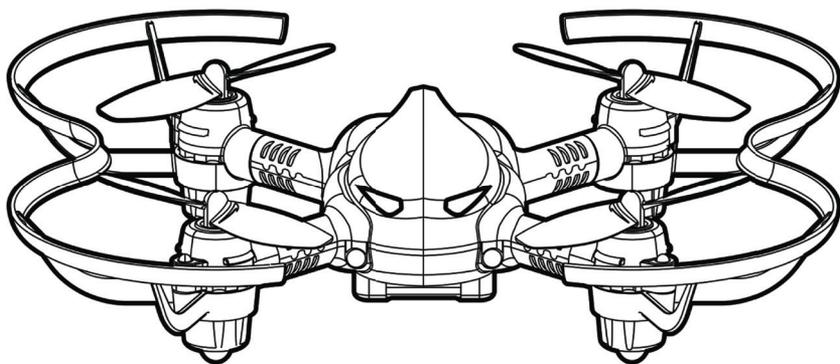


BYROBOT DRONE FIGHTERS PETRONE



QUICK START GUIDE

Customer Support:

BYROBOT USA Service Center

Business Hours: Mon-Fri 9am-5pm PST | (657) 284-4312

Customer Supports | support.usa@byrobot.co.kr

Warranty Support | partsandservice.usa@byrobot.co.kr

LIMITED WARRANTY, End User License Agreement and User Guide

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Section 1. Introduction

1. Features

(Optional) Driving Mode transformation

(Optional) CameraDrone transformation

LED Light color change

2. Requirements

Smart device (Android phone/tablet, iPhone or iPad) with Bluetooth® 4.0 or higher.

Powered USB port (computer, wall charger)

3. Warning/safety regulations

Things to point out in the section

- * Fly the drone out in the open area - Caution!
- * Always keep the guards on - Caution!
- * Precautions for using Petrone
- * This product is suitable for age of 14 and up.
- * Sufficiently learn the control techniques by watching the tutorial provided in the application before flying the product. Make sure to follow all the instructions and precautionary procedures.
- * Small components may pose a risk of choking. Keep them out of reach of children and pets.
- * This product can be used both indoors and outdoors. Do not intentionally fly over unprotected persons or moving vehicles, and remain at least 25 feet away from individuals and vulnerable property.
- * In flight, the propellers of the Petrone can cause injury to people and property. Do NOT touch the Petrone while it's flying. Wait until the propellers have completely stopped before handling the Petrone.
- * It is recommended NOT to fly the product at below-freezing or high temperatures (40°C/104°F or higher) as it may reduce the performance of the drone and battery.
- * Depending on the environment, the function for maintaining altitude following take-off (approx. 10 seconds) may not work properly.
- * Fly the product within the user's range of vision.
- * Do not randomly change the structure of this product.
- * Lithium polymer batteries must be used. Follow the rules for lithium polymer battery use.
- * After a flight, remove the battery from the product.
- * Keep the product at a safe distance from other electronic devices, magnetic objects or wireless equipment.
- * To charge the battery, make sure to use only the charger provided by Byrobot.
- * Touching the battery with wet hands or using a wet object may result in product failure.
- * Children who are not experienced in controlling the product must use the product under the guidance of an adult.
- * Use the Petrone only in the specified configurations. Wheels for the drive kit should only be attached on the front of the Petrone.

- * Precautions for using battery
- * Failure to comply with instructions may cause permanent damage to the battery or its surroundings, and may cause injury.
- * Do not charge the battery for long periods. The battery may become overcharged.
- * Make sure to charge the battery by using the enclosed charger.
- * Do not disassemble the battery.
- * Avoid using the battery in a hot environment or near combustible objects.
- * Charge the battery in locations with good air ventilation and be mindful of it throughout the process.
- * Do not store or transport the battery together with a metallic object.
- * Do not heat the battery or place it in or near a fire.
- * When not using the battery, store it in a cool, dry environment.
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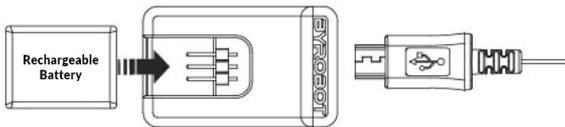


MANY VIDEO TUTORIALS CAN BE FOUND ON THE BYROBOT YOUTUBE CHANNEL!
[HTTPS://WWW.YOUTUBE.COM/USER/BYROBOTCO](https://www.youtube.com/user/byrobotco)
GO TO THE BYROBOT PETRONE: HOW TO DO PLAYLIST WHENEVER YOU SEE THE LOGO, AND FIND THE MATCHING TITLE FOR A VIDEO TUTORIAL!

Section 2. Petrone Setup

1. Battery Charging

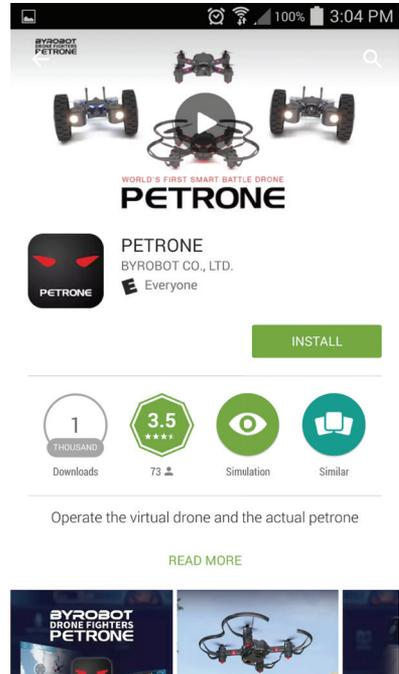
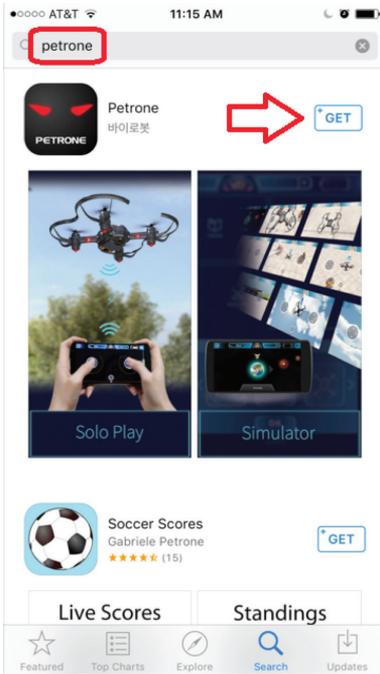
- a. Insert the battery into the charger (see below).



- b. Connect the small end of the USB cable to the charger, and connect the large end to an available USB port (computer, wall charger). Allow approximately 40 minutes for full charge. Alternatively, set up the optional 4-bay multi-charger to an electrical socket.
- c. The LED light on the charger will turn on to indicate that the battery is charging.
- d. When the LED light turns off, the battery is charged and ready for use. Remove battery when fully charged.

2. App Download

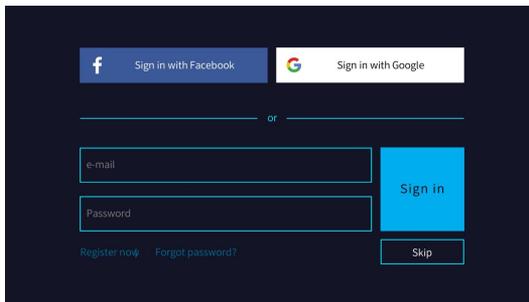
From your smartphone or tablet, search for “PETRONE” in the Apple App Store or in the Google Play Store, and download the free app*.



* Please make sure that you agree to the terms for the app prior to installation.

3. Registration

Start the application and login. Registration is required to enjoy the online battle games.



If you do not have your own account, you will be connected to the app in the “guest” mode which does not allow full access to all the features including the battle game records and virtual battle items. Turn off Auto Login (toggle to the left) when playing as a guest.

4. Battery installation

Slide a charged battery into the battery slot on the bottom of the Petrone. Make sure the pin holes on the battery line up with the pins on the Petrone. Press firmly to make sure the battery is secured. (see image below).



When the battery is fully inserted into the Petrone, the LED lights will light up.

- * Only insert the battery when ready to use the Petrone.
The battery is in use as soon the lights turn on after insertion.

5. Smartphone connection



[BYROBOT PETRONE] HOW TO PAIR PETRONE WITH SMART PHONE

- Place the Petrone on the floor and check that the green LED light on its back is blinking.
- Turn on the Bluetooth function for the device you will use as a controller.
- Note: Please make sure your smartphone is fully charged before use. An active Bluetooth connection will use extra battery power.
- Start the Petrone app on your smartphone.
- Pair your smartphone with the Petrone by following the onscreen instruction. If there is more than one Petrone, you will have to select the one you control.



- f. When the device connected to the Petrone, the green LED light on the back of the Petrone will stay on, instead of blinking.
- g. Note: It is best to check for the latest firmware for your Petrone after connecting.
- h. Tap the “Solo Play” button on your smartphone to start using your Petrone.



Section 3. Flight Mode

1. Pre-flight inspection

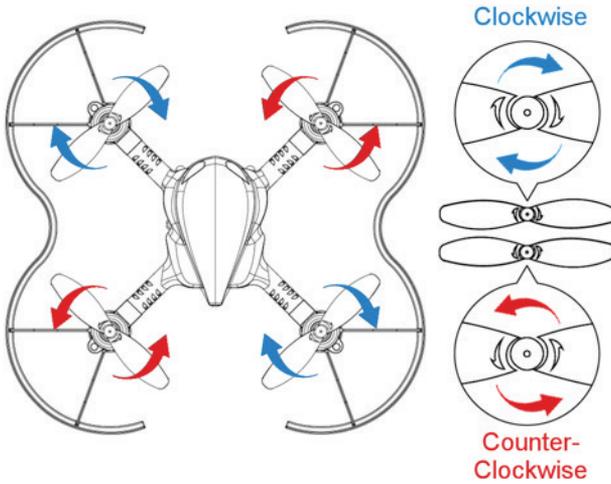
Before each flight, check that the Petrone is in good condition.

To remove or replace a component, please see the Maintenance section.

- a. Check the propellers.
 - i. Check the condition of the propellers.
Bent or heavily damaged propellers can cause trouble with lifting off or controlling the Petrone. Minor chips and scratches may be okay.
 - ii. Check the direction of rotation for the propellers.
Check the arrow marks on the propellers to ensure they are all installed properly.



iii. For proper lift, the propellers need to be arranged as shown below.



b. Check the motors.

After the Petrone is enabled for liftoff, gently apply some vertical acceleration so that all the propellers turn without leaving the ground. If one turns slower than the rest or does not turn at all, that motor bracket may need to be replaced.

2. General flying control

Practicing with the Simulator is recommended to help learn how to control the Petrone.

The default controls are for the Joystick mode which gives you control of two joysticks on your smartphone.

How fast the Petrone moves and turns depends on how far the joysticks move from their neutral center positions.

Settings for sensitivity and handling can also be adjusted in the app.



The left joystick handles vertical controls (moving up and down) and orientation (turning left and right).

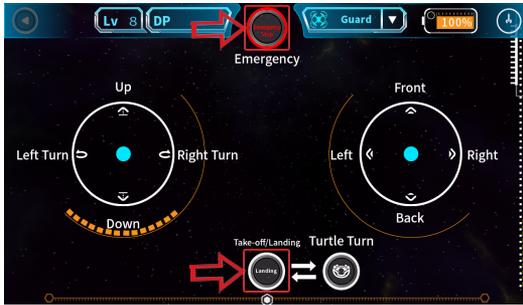
The right joystick handles movement based on the direction the Petrone is facing (forward, back, left, and right).

This is the same basic setup as many video games.

When you are ready to takeoff, press the 'Takeoff' button.

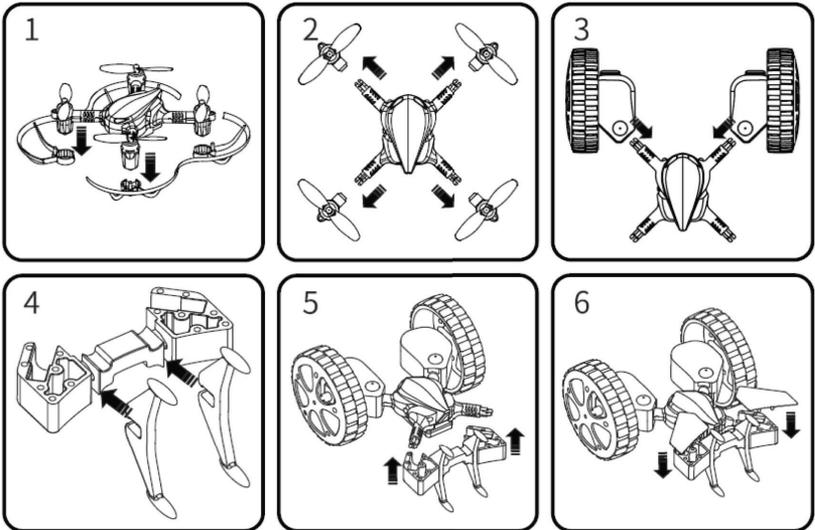
When you are ready to land, press the 'Landing' button.

If you need to stop the flying immediately, press the 'Emergency' button.



Section 4. Driving Mode

1. Transform Petrone from flight mode to drive mode.



- a. Remove the two propeller guards.
- b. Remove the four motor brackets.

- c. Attach the two wheel brackets onto the front of Petrone body.
- d. Snap the two vertical wings onto the rear side of the wing bracket.
- e. Attach the wing bracket onto Petrone.
- f. Attach the clear wings on the wing bracket on both sides.



[BYROBOT PETRONE] HOW TO TRANSFORM PETRONE INTO PETRONE DRIVE

2. Change the mode to Drive Mode.

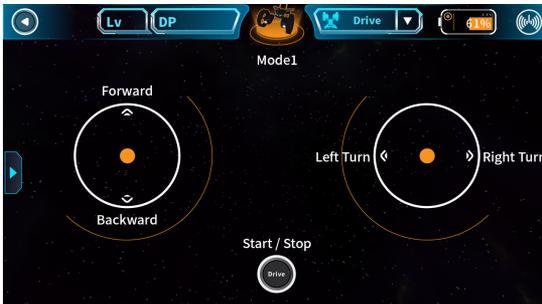
Click on the **Mode Settings** and select **Drive**.



3. Driving

Use the onscreen controller to drive your Petrone.

How fast the Petrone moves and turns depends on how far the joysticks move from their neutral center positions. Settings for sensitivity and handling can be adjusted in the app.



The left joystick (on screen) handles forward and backward movement of the drone.

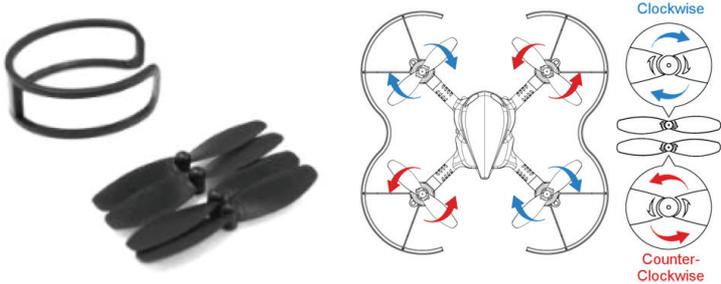
The right joystick (on screen) handles turning (left and right).

When you are ready to start, press the **Drive** button.

Section 5. Maintenance

1. Replacing a propeller

You will need to have the propeller remover tool and the correct spare propeller available for replacement. Check the arrow marks on the propeller to determine which way it rotates. (*Refer to the pictures on Page 6, Section 3.*)



[BYROBOT PETRONE] HOW TO REPLACE PROPELLERS

a. Removing a propeller

Start by removing the propeller by using the included propeller remover. Position the tool so that the propeller blades are inside the openings.



Then firmly pull upward from the center to remove the propeller.



b. Attaching a propeller

Attach the propeller by lining up the the opening of the propeller with the pin on the motor bracket. Push the propeller on to attach it. Rotate the propeller to ensure it is locked in.



2. Replacing a motor

You will need a replacement motor available.



[BYROBOT PETRONE] HOW TO REPLACE MOTOR BRACKETS

- Remove the propeller guard and propeller attached to the motor bracket you plan to replace.
- Firmly hold the Petrone with one hand and grip the motor bracket with your other hand, then pull the motor bracket away from the Petrone. It should slide out easily.



- Line up a replacement motor bracket such that the propeller would point toward the top of the Petrone. Carefully slide the motor bracket on so that you do not bend any pieces.
- Reattach the propeller and propeller guard to the replaced motor bracket.

Section 6. Additional Features

More details including Petrone battles, sensitivity adjustment, firmware updates, and information on the various modes and app features are available at the website below:

<http://en.byrobot.co.kr/eng/costco/>

LED color change

Customize the colors of the eyes and the arms on your Petrone using the color sliders in the app.

Open the menu and select the Settings button to make changes to your Petrone.



Tap the arrows to move between Settings screens. Tap the right arrow until you reach the Color setting. The RGB sliders can be used to create custom colors.



Auto hovering

When the Petrone is positioned at a certain height, it will remain hovering at that height. About 20 seconds after liftoff is required for sensor stabilization before hovering will function correctly.



Follow Me Mode

Set the Petrone to follow you by tracking your smartphone camera. This option will turn on the smartphone camera and follow it based on what it sees while moving. The camera needs to be uncovered and facing the ground for it to track movement.



[BYROBOT PETRONE] FOLLOW ME

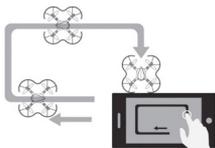


Turtle Turn

When the Flight Petrone is upside-down, the Take off/ Stop button becomes the turtle turn button. Tap this button, and the Petrone will flip over to the upright position.



[BYROBOT PETRONE] TURTLE TURN TECHNOLOGY



Pattern Flight Mode

Draw a pattern on your smartphone, and the Petrone will fly along the same path.



[BYROBOT PETRONE] PATTERN FLIGHT



Voice control (with Android devices only)

Basic flight operations can be performed using voice commands.

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