Manuals+ — User Manuals Simplified.

ROBO*LINK*
RL-CDE-SC-200
Drone with
Controller

ROBOLINK RL-CDE-SC-200 Drone with Controller Owner's Manual
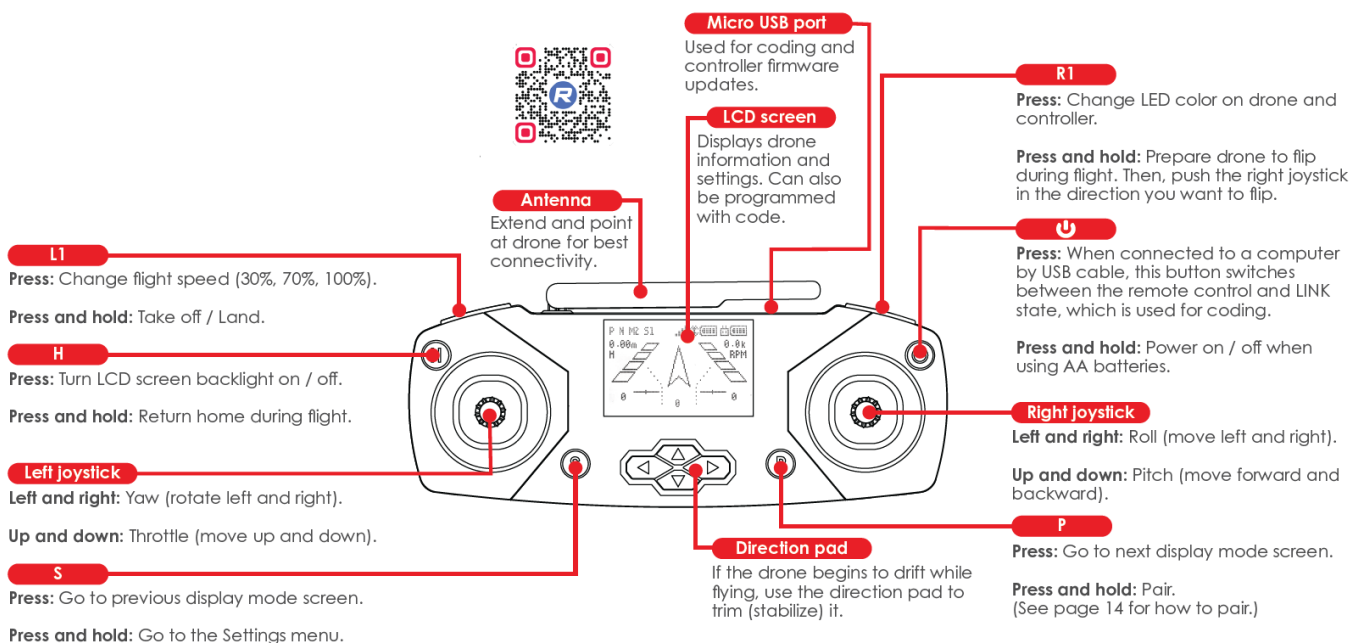
Contents

ROBOLINK

ROBOLINK RL-CDE-SC-200 Drone with Controller

Getting to Know Your Controller

Using your controller, you can pilot your drone or connect your controller to your computer for coding. These are the controls for the controller while in the remote control state.
For a complete video guide to the controller, visit: **robolink.com/codrone-edu-controller**

Micro USB port
Used for coding and controller firmware updates.

LCD screen
Displays drone information and settings. Can also be programmed with code.

Antenna
Extend and point at drone for best connectivity.

R1
Press: Change LED color on drone and controller.

Press and hold: Prepare drone to flip during flight. Then, push the right joystick in the direction you want to flip.

⏻
Press: When connected to a computer by USB cable, this button switches between the remote control and LINK state, which is used for coding.

Press and hold: Power on / off when using AA batteries.

Right joystick
Left and right: Roll (move left and right).

Up and down: Pitch (move forward and backward).

P
Press: Go to next display mode screen.

Press and hold: Pair.
(See page 14 for how to pair.)

L1
Press: Change flight speed (30%, 70%, 100%).

Press and hold: Take off / Land.

H
Press: Turn LCD screen backlight on / off.

Press and hold: Return home during flight.

Left joystick
Left and right: Yaw (rotate left and right).

Up and down: Throttle (move up and down).

S
Press: Go to previous display mode screen.

Press and hold: Go to the Settings menu.

Direction pad
If the drone begins to drift while flying, use the direction pad to trim (stabilize) it.
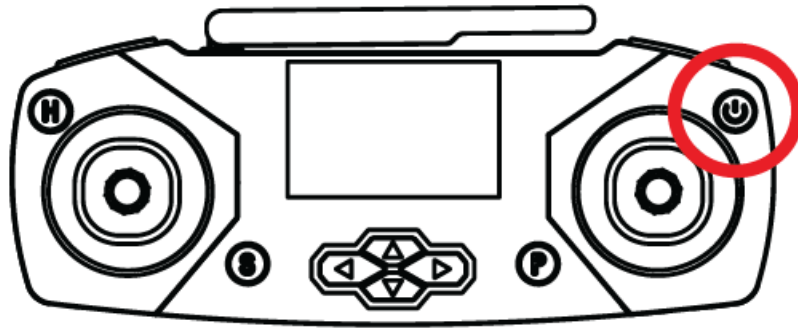
Powering On

Powering on the controller
The controller takes two AA batteries (not included). Press and hold the ⏻ button until you hear a chime to power on.

You can also use a Micro USB cable to power the controller with a computer or external power source. If you want to pilot the drone, make sure the controller is not in the LINK state by pressing the ⏻ button.
To power off, press and hold the ⏻ button or unplug the Micro USB cable.

Powering on the drone

Power on the drone by inserting the battery into the battery slot. Note the small tab on one side of the battery. Insert the battery so that the side with the small tab is facing downward.

To power off the drone, grab the battery firmly and pull the battery out fully.

front
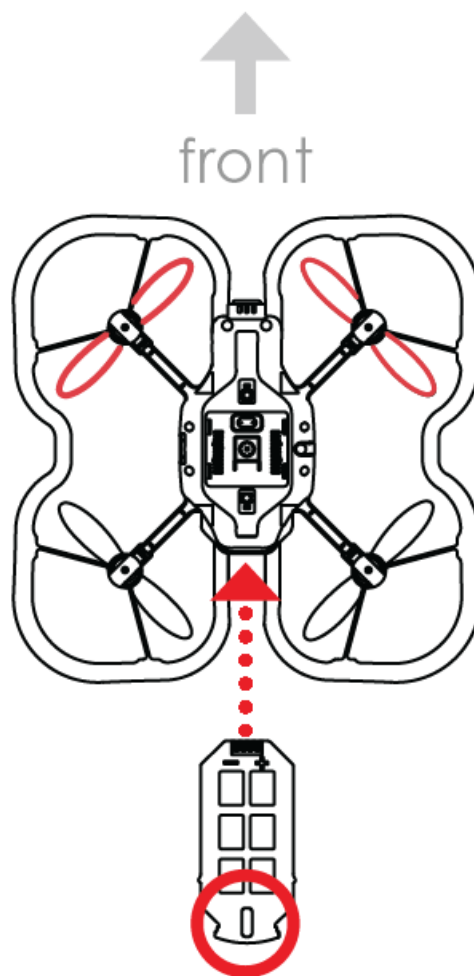
Bottom view

CAUTION Practice safe battery use. Don't leave charging batteries unattended. Store batteries away from extreme heat or cold. This will help extend its lifetime. Do not charge or use a damaged or expanded battery. Discard lithium polymer batteries safely according to local e-waste guidelines.

Charging

Low battery

You can check your drone and controller's battery levels on the LCD screen. When the drone battery is low, the

drone will beep, the LED will flash red, and the controller will vibrate.

The controller is not rechargeable. AA batteries can be replaced when the battery is low, or you can switch to an external power source.
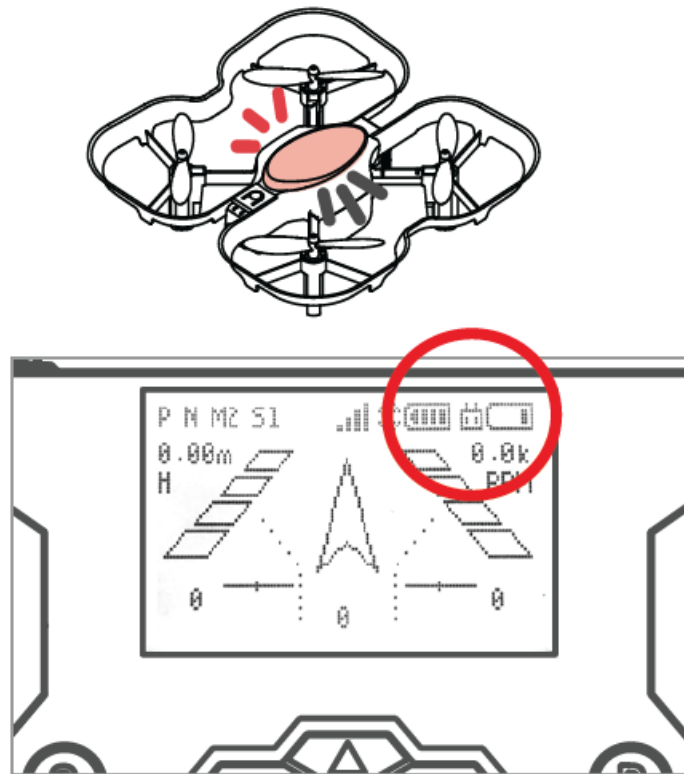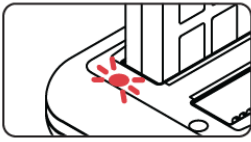

Charging the drone battery

1. Insert the battery into the charger, with the tab facing towards the middle of the charger.
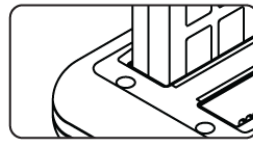2. Plug the Micro USB cable into the charger. Plug the other end into a power source, like a computer or external power source.
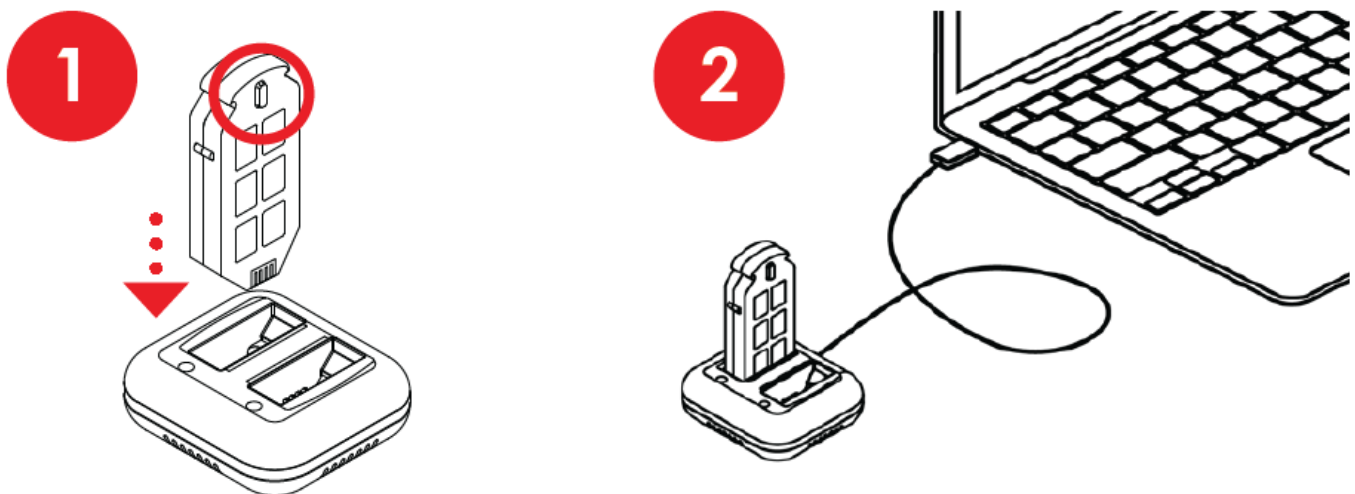
TIP

When charging two batteries, make sure the power source can deliver 5 Volts, 2 Amps.

If batteries appear not to be charging, try disconnecting and reconnecting the cable.

A solid red light means the battery is **charging**.

The light will turn off when the battery is **fully charged**.

Pairing

Your new drone and controller are already paired out of the box. If you want to pair the controller to another drone, you can pair by following these steps.

How to pair
Note, the drone and controller only need to be paired once. Once paired, they will pair automatically when powered on and within range.

1. Put drone in pairing mode

   Insert a battery into the drone. Press and hold the pairing button on the bottom of the drone until the drone LED is flashing yellow.

front

Bottom view

flashing yellow
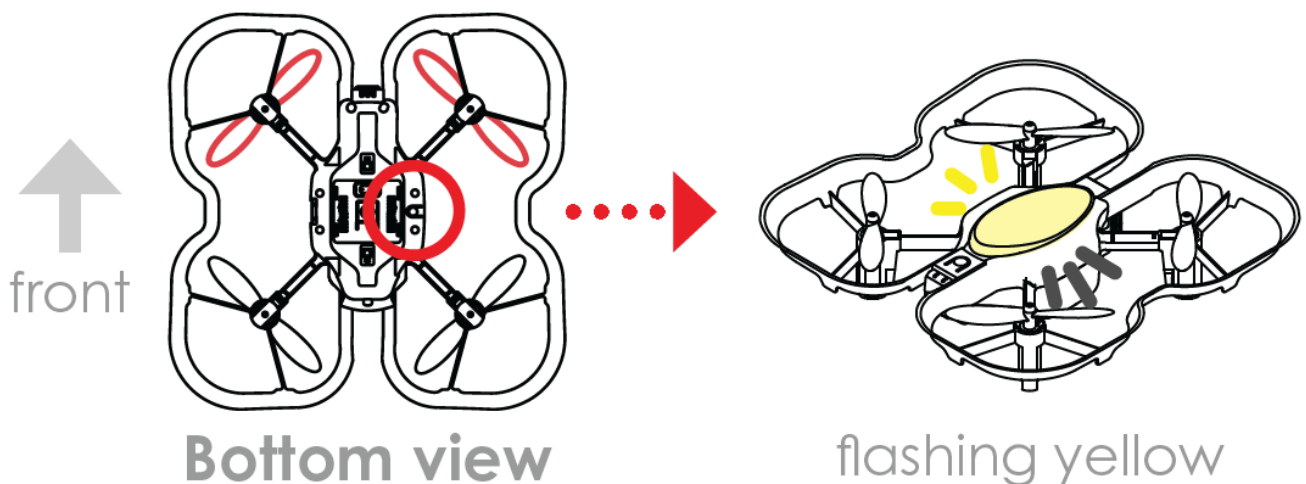
2. Press and hold P

   Power on the controller. Make sure you aren't in the LINK state (see page 12), if your controller is connected to a computer. Press and hold the P button until you hear a chime.

3. Verify that you're paired

   You should hear a chime, and the lights on the drone and controller should turn solid. You should see a symbol on the screen.
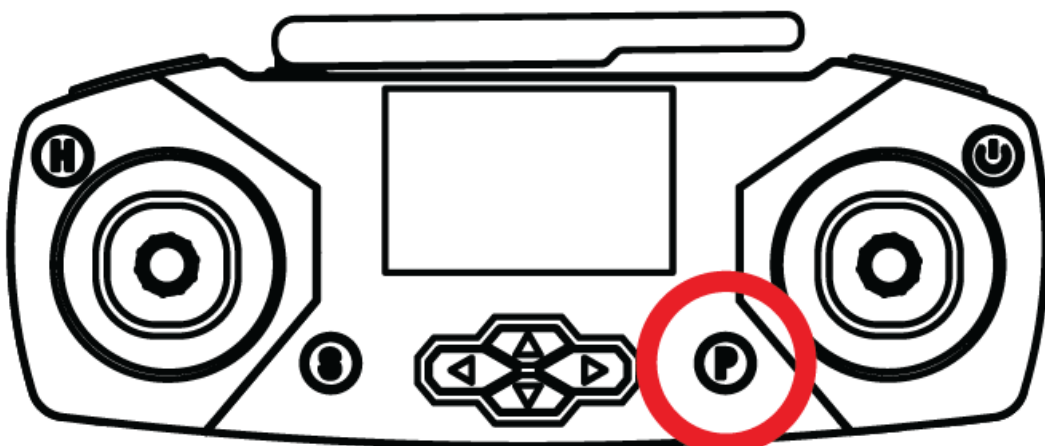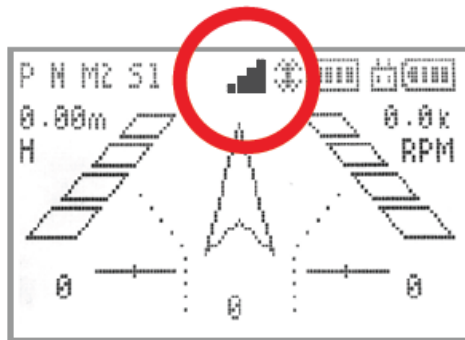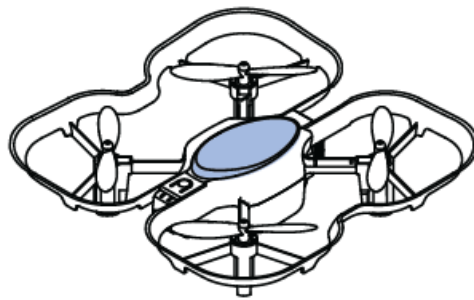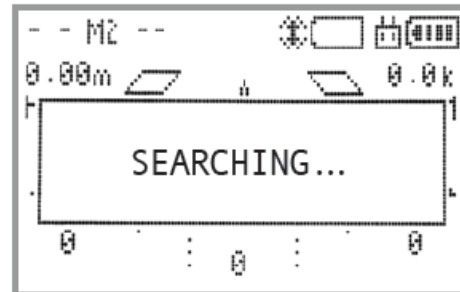
Verify that you are paired by pressing R1 a few times.
The colors of the drone and controller should change together.
If the LED on your drone is flashing red and the controller screen says "Searching…", your drone and controller are not paired.
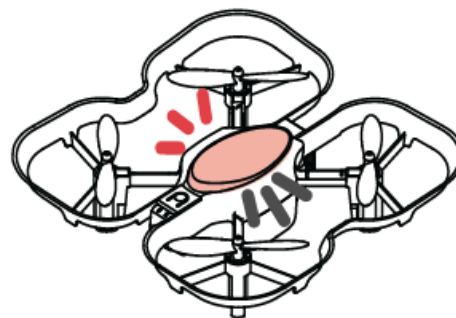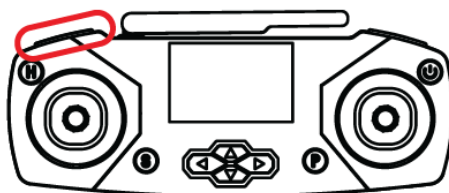

Paired!

Not paired
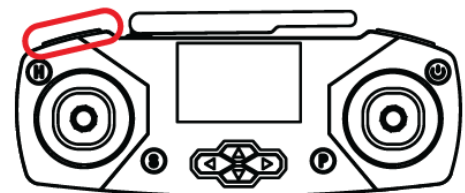
solid color

flashing red

Using the Controller

Here are a set of common commands you can use with the controller to pilot the drone.

Taking off, landing, stopping, and changing speed
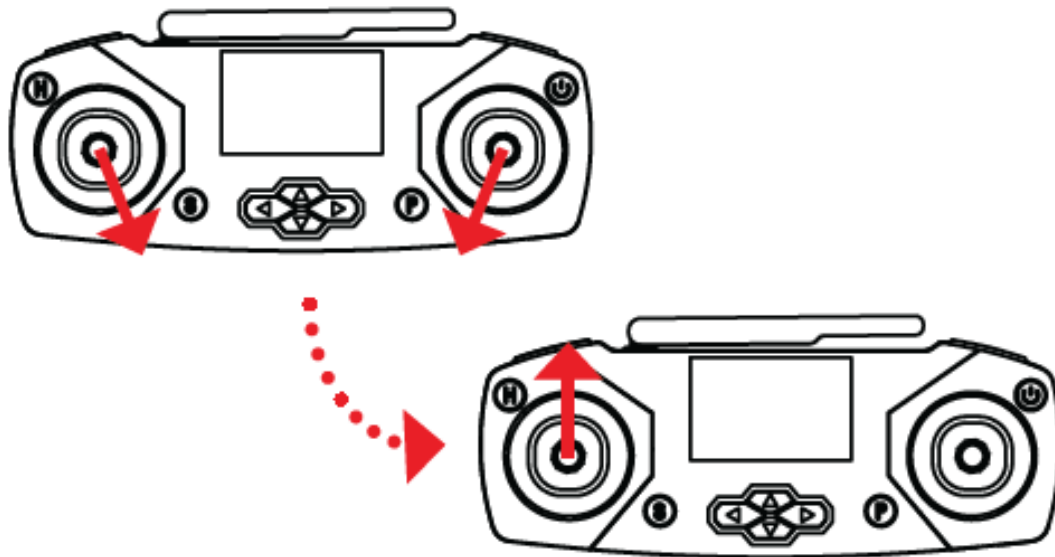

Take off
Press and hold L1 for 3 seconds.

Land
During flight, press and hold L1 for 3 seconds.

The drone will take off and hover at about 70-90 cm above ground.
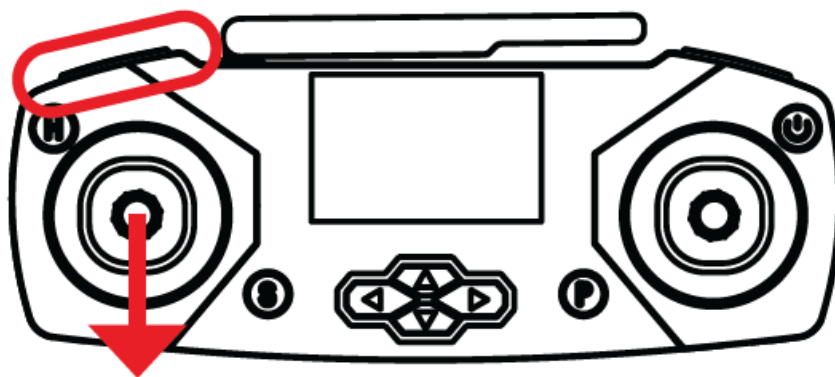
Quick take off
To start the motors, push both joysticks downward, angling them toward the middle. Then, push up on the left joystick to take off.
This method will take off more quickly than the L1 method.

Emergency Stop
Press and hold L1 and pull down on the left joystick.
Use this to shut the motors off immediately.

CAUTION
Whenever possible, press and hold L1 to land safely. However, if you've lost control of the drone, you can use Emergency Stop to shut off the motors. Memorize Emergency Stop, it will be useful if you lose control of the drone when testing code.
Using Emergency Stop from above 10 ft or at high speeds could damage your drone, so use it sparingly. It's always best to catch your drone whenever possible.
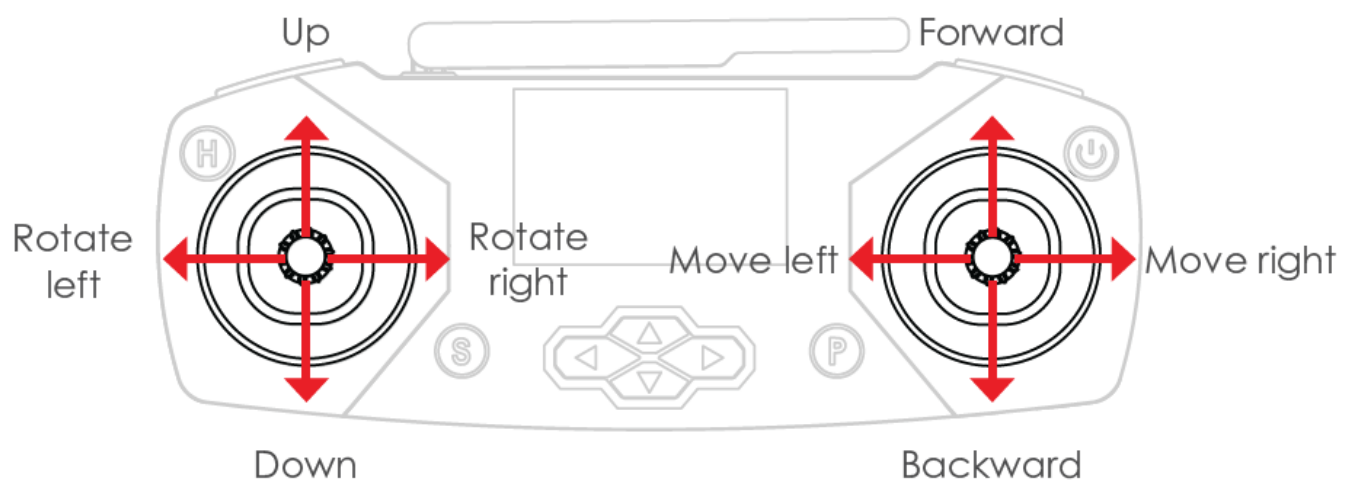
Change speed
Press L1 to change the speed between 30%, 70%, and 100%. The current speed is indicated in the screen's top left corner with S1, S2, and S3.
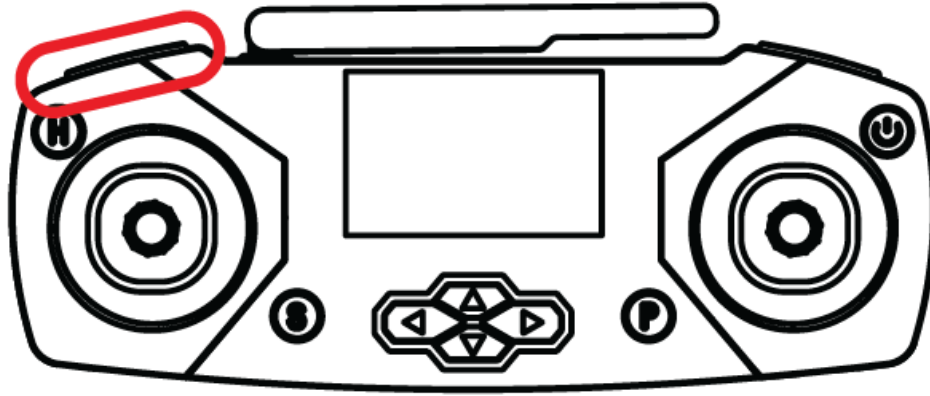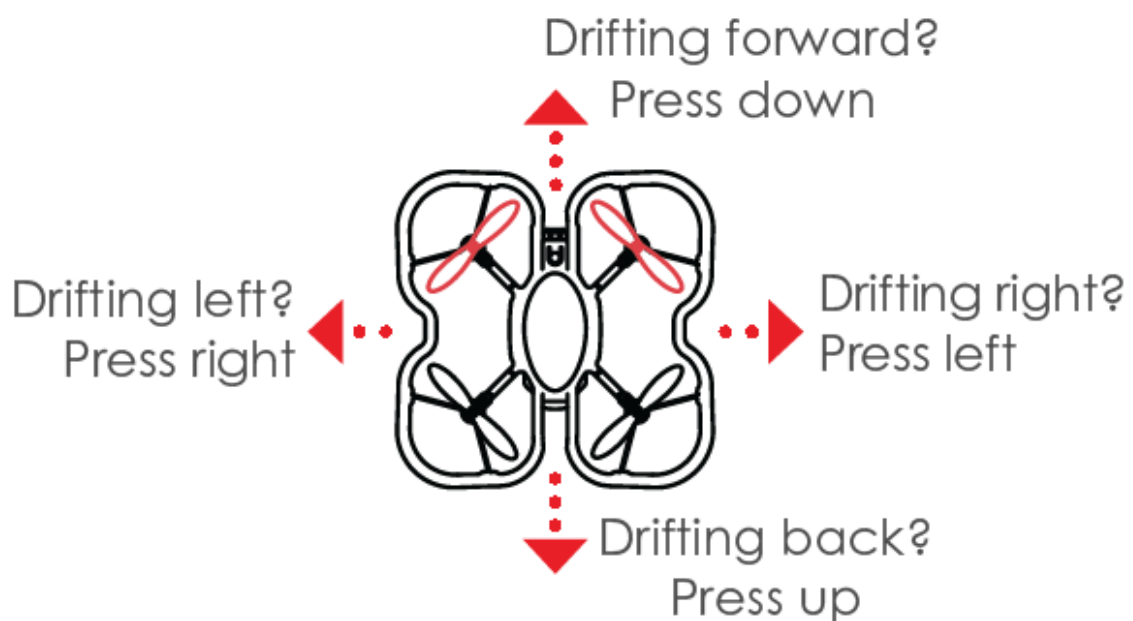
Movement during flight
While flying, these are the controls for the drone, using the joysticks. The following is using Mode 2 controls, which is the default.
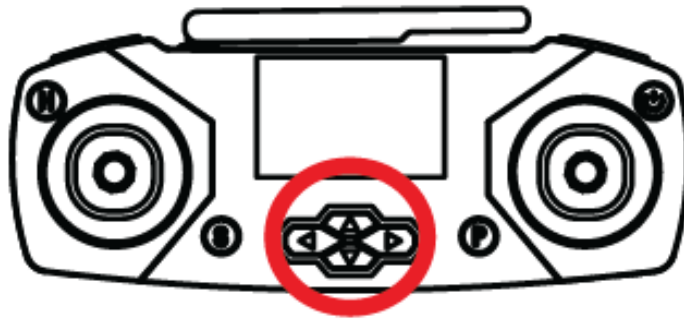

Up

Forward

Rotate
left

Rotate
right

Move left

Move right

Down

Backward

Trimming your drone

Drifting forward?
Press down

Drifting left?
Press right

Drifting right?
Press left

Drifting back?
Press up

Trimming to prevent drift

Use the direction pad buttons to trim the drone if it drifts when hovering.
Trim in the opposite direction that the drone is drifting.

Complete controller guide
Take a look at our complete video guide about the controller: **robolink.com/codrone-edu-controller**
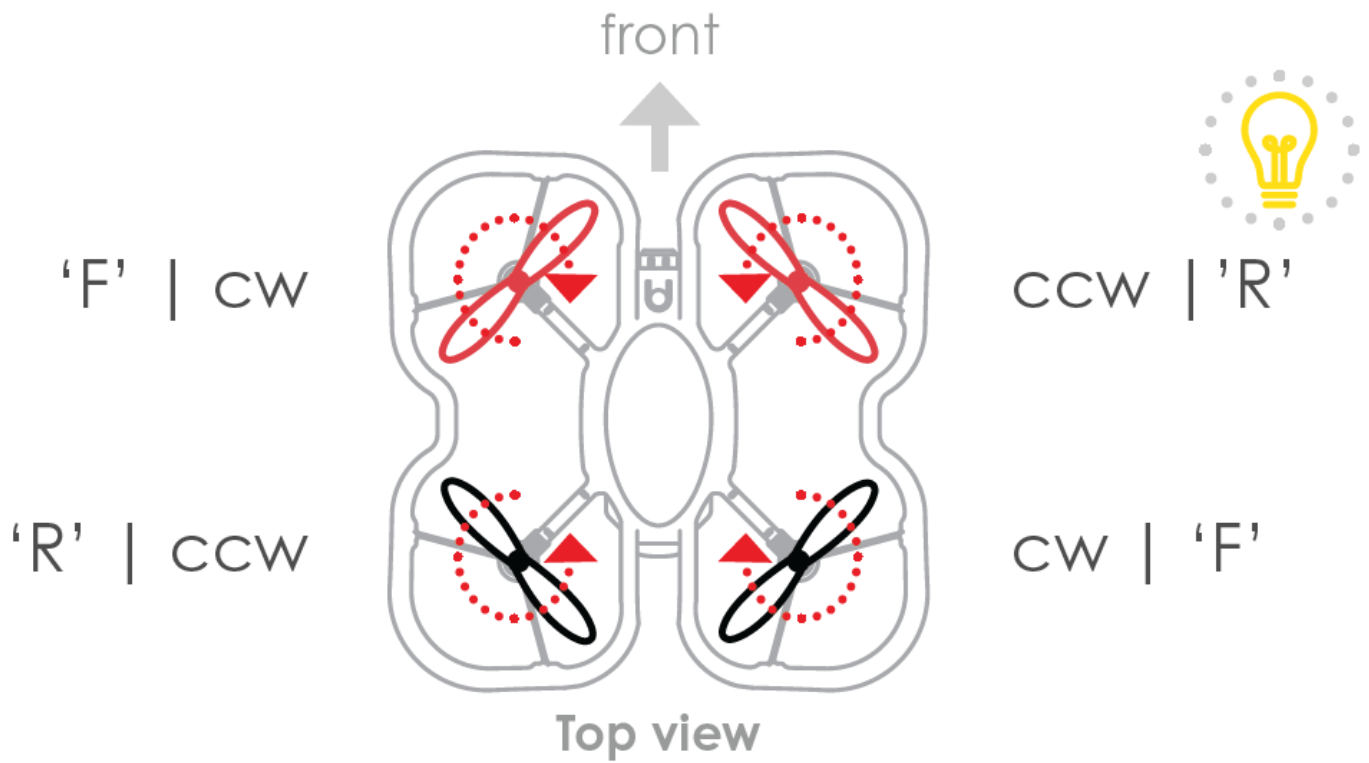

Propellers

Your CoDrone EDU comes with 4 spare propellers. You can use the propeller removal tool to remove them.
Propeller placement is important for the drone to fly correctly. There are 2 types of propellers.

Top view   Side view   Bottom view

Clockwise (cw)   Counter-clockwise (ccw)
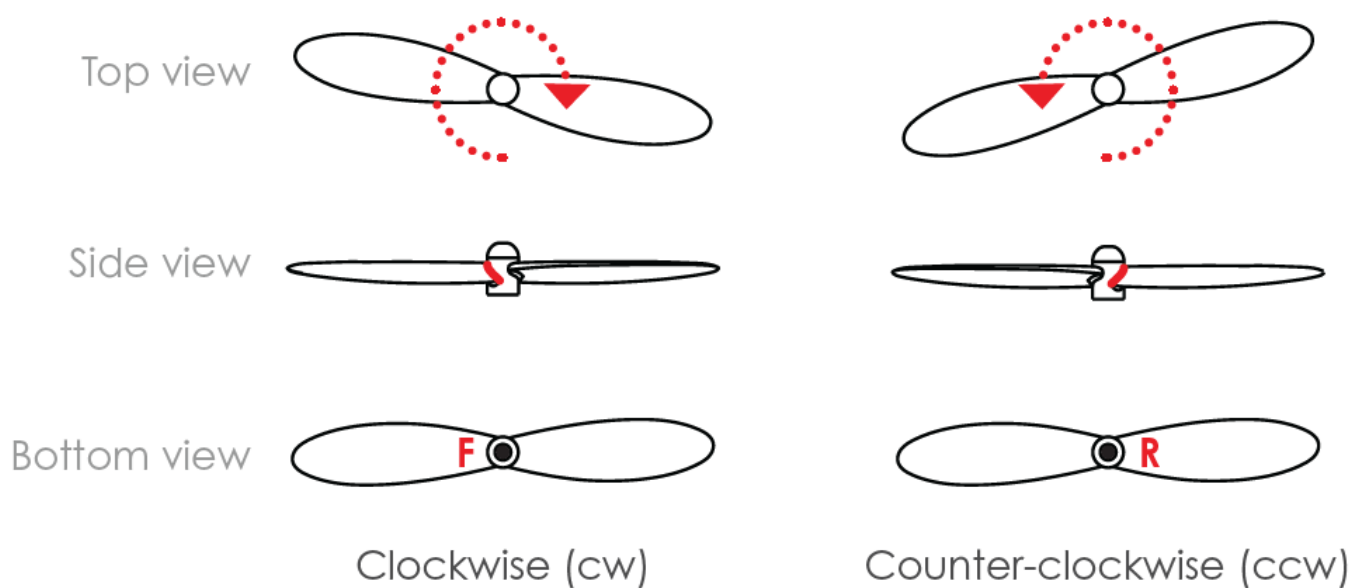
TIPS An easy way to remember the directions:
F for fast forward, so clockwise.
R for rewind, so counter-clockwise.

front

'F' | CW   CCW | 'R'

'R' | CCW   CW | 'F'

Top view

Please note, a propeller's color does not indicate its rotation. However, we recommend placing the red propellers at the front of the drone. This will help identify the front of the drone during flight.

Removing propellers
Propellers can be removed to clear out debris from under the propeller hub. A propeller should be replaced if it's bent, chipped, or cracked, and it begins affecting the drone's flight. Use the included propeller removal tool to remove the propeller.
Insert the fork-shaped end of the tool under the propeller hub, then push the handle down, like a lever. The new propeller can be pushed onto the shaft of the motor. Be sure it's fully inserted, so it doesn't detach during flight. Make sure that the replacement propeller's rotation is correct, and perform a quick flight check.
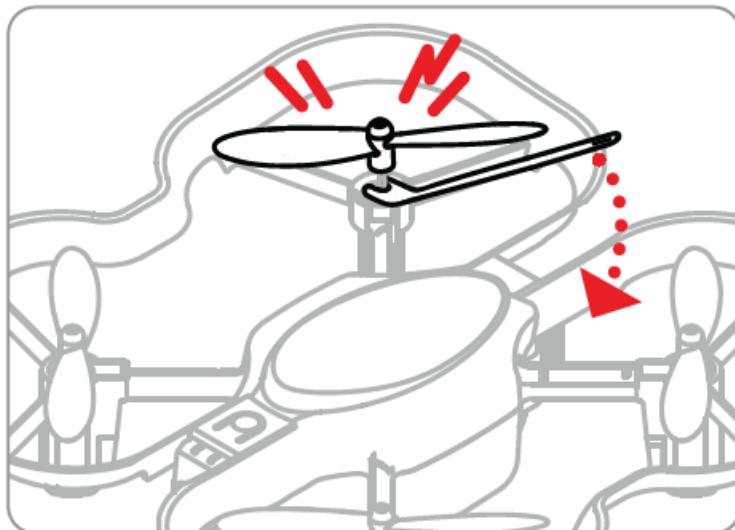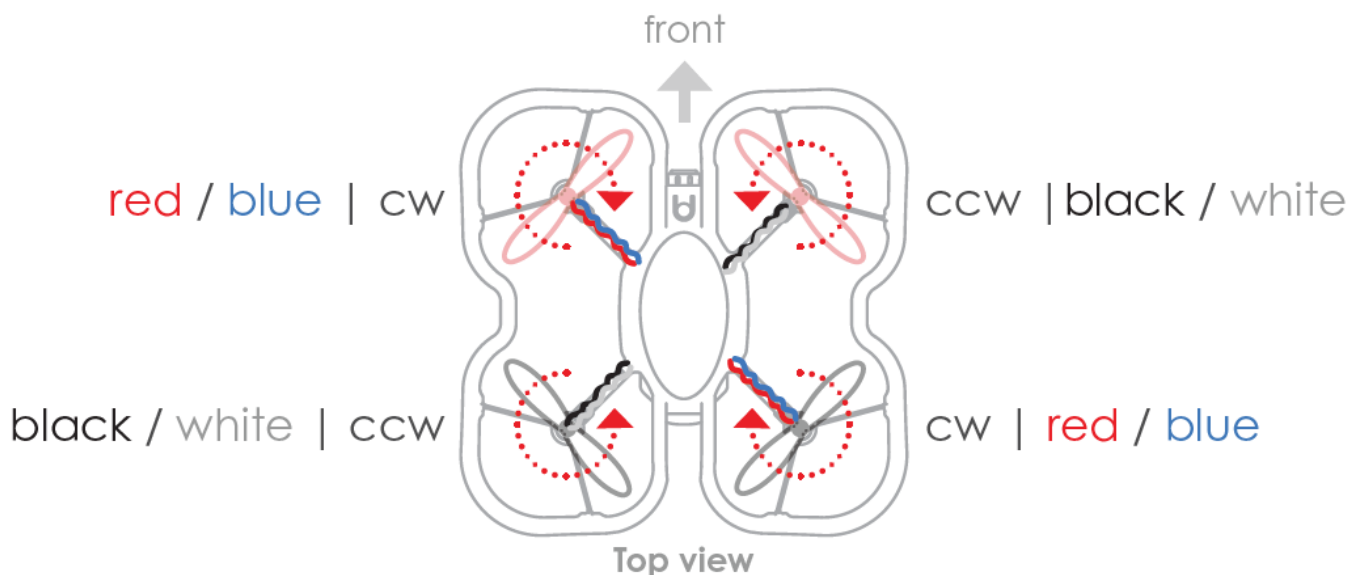
Motors

Motor placement is also important for the CoDrone EDU. Like propellers, there are 2 types of motors, indicated by the color of the wires. Motor directions should match propeller directions.

red / blue wires

black / white wires

Clockwise (cw)

Counter-clockwise (ccw)
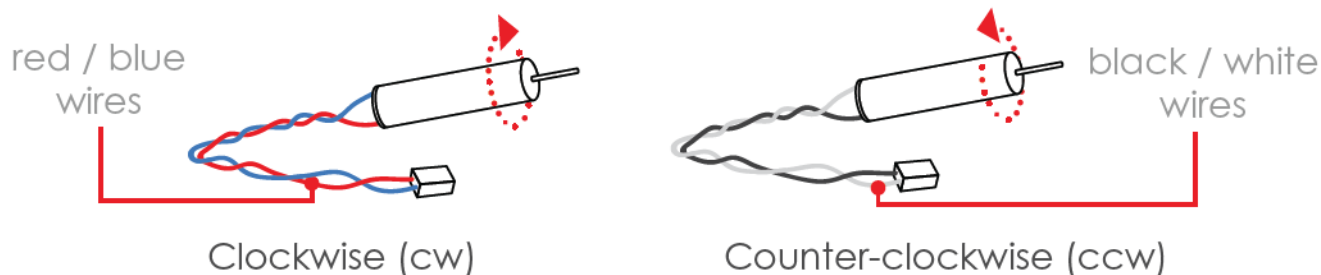
You can see the color of the motor wires by checking underneath the arms of the drone frame.

front

red / blue | cw

ccw | black / white
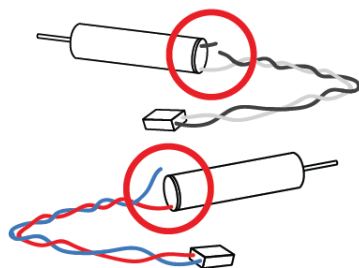
black / white | ccw

cw | red / blue

Top view

Inspecting motors

If your drone has issues flying, check propellers first. If the propellers don't seem to be the issue, check the motors. Motor issues usually result from hard crashes. Here are common signs that a motor should be replaced.
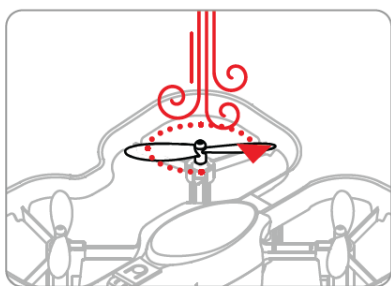
Blow on the attached propeller. Look for difficulty rotating or wobbling during rotation.

Check for breakages in the wiring. This can happen from hard crashes.
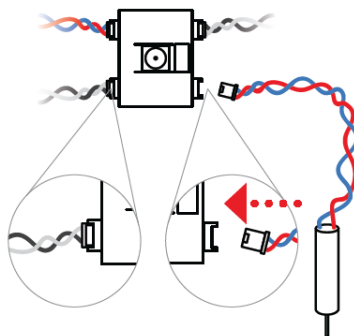
Remove the drone's bottom chassis. Then check if the motor is disconnected from the drone's board.

Replacing motors

Replacing motors is a more involved process, so we recommend carefully following our motor replacement video. Replacement motors are sold separately.

Specifications

- **Controller Functions:** Pilot drone, connect to computer for coding

- **Controls**: L1, Antenna, H, Left joystick, S, Micro USB port, LCD screen, Direction pad, R1, Right joystick, P
- **Power Source**: 2 AA batteries (not included) or Micro USB cable
- **Battery Type**: Lithium polymer
- **Charging Voltage**: 5 Volts
- **Charging Current**: 2 Amps

FAQ

What should I do if the controller does not power on?
If the controller does not power on, check the battery connections or try using a different set of AA batteries. Ensure that the Micro USB cable is securely connected to a power source.

How can I improve connectivity between the controller and drone?
To improve connectivity, extend and point the antenna towards the drone. Ensure there are no obstructions blocking the signal between the controller and the drone.

Documents / Resources
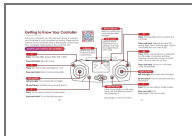
	ROBOLINK RL-CDE-SC-200 Drone with Controller [pdf] Owner's Manual 2BF8ORL-CDE-SC-200, 2BF8ORLCDESC200, rl cde sc 200, RL-CDE-SC-200 Drone with Controller, RL-CDE-SC-200, Drone with Controller, Controller, Drone

References

- **User Manual**