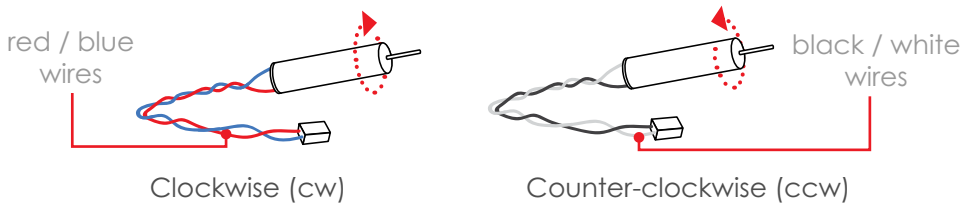
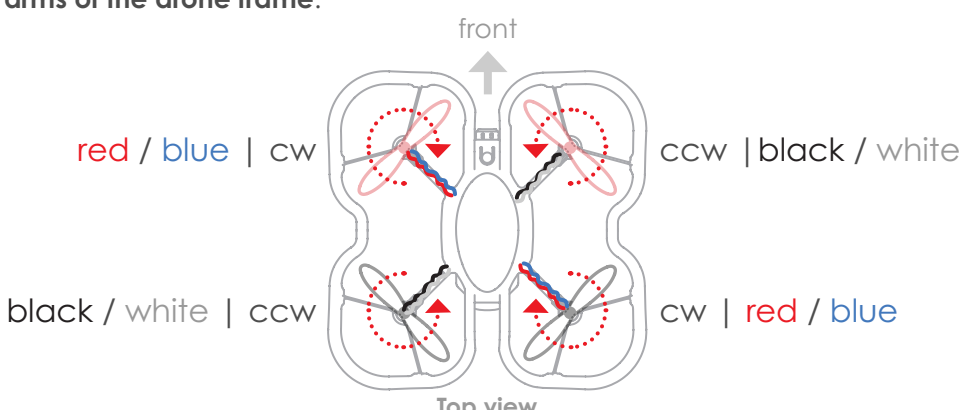
Motors

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.

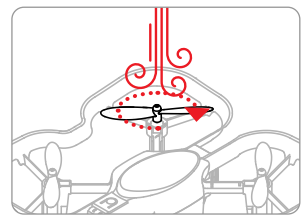


You can see the color of the motor wires by checking **underneath the arms of the drone frame**.

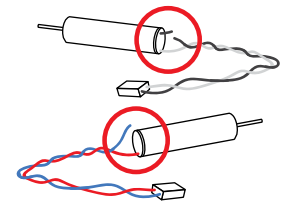


Inspecting motors

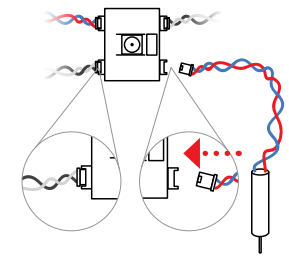
If your drone has issues flying, check propellers first. If the propellers don't seem to be the issue, check the motors. Motor issues usually result from hard crashes. Here are common signs that a motor should be replaced.



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.

robolink.com/codrone-edu-motors

Troubleshooting

Here are some common issues you might encounter with the CoDrone EDU, and how to address them.

My drone drifts when it flies.

1. Your drone may need trimming. Use the direction pad buttons to trim the drone. See page 17.
2. The flooring may be interfering with the optical flow sensor. Try changing the environment or flying over a different surface. See page 5.

My drone and controller are blinking red.

The drone and controller are probably un-paired. See page 14.

The controller is vibrating and my drone is beeping and flashing red

If the drone flashing and controller vibrating is accompanied by a beeping sound on the drone, your drone battery is probably low. Land and replace your battery.

The drone isn't flying after a crash.

1. Check propellers for debris or damage. Replace if necessary. See page 18.
2. Check for structural damage to motor wires and connectors. Replace if necessary. See page 20.
3. The drone may have sustained damage to one of the flight sensors. Contact Robolink Help to diagnose.

My controller is discharging too quickly.

Try turning off the LCD backlight to conserve your battery. Press H to toggle the backlight on and off.

The drone isn't responding to any of the controller buttons or joysticks.

If your controller is connected to a computer via USB, you're likely in the LINK state instead of the remote control state. Press the ⏻ button to switch to the remote control state. The LINK state is used for programming.

One or more propellers are spinning but my drone is not taking off.

1. Incorrect propeller or motor orientation may cause the drone to stay in place or behave erratically during take off. See page 18.
2. Check motor wires for damage or disconnection that may be preventing the motor from turning on. See page 21.
3. If the controller shows a "vibration" error, clean out the propeller hub and ensure the propeller is clean and spins freely without wobbling. Replace any motor or propeller as needed.

My battery isn't charging.

Try disconnecting the Micro USB cable and the battery. Then plug the battery back in first, then the Micro USB cable.

Robolink Help

For more complete troubleshooting help, head over to Robolink Help, where we have dozens of articles and videos for common issues.

You can also use Robolink Help to reach out to us for technical support.

help.robolink.com

Tips for the Classroom

Follow these tips to keep your classroom environment safe and fun.

- Divide your learning space into a "flight" area for drones and a "coding/piloting" area for people.
- Tie up loose hair, put away plastic bags, and tuck away thin hanging items such as strings hanging from clothing or around the room. These can get caught in the propellers.
- To avoid getting nicked by the propellers, never grab the drone body from above. Instead, only hold the drone by the guards or by the underside of its body. See page 27.
- To minimize wait time between flights, start class with at least 2 fully charged batteries per drone, and charge any depleted batteries immediately.
- Keep depleted batteries and charged batteries in two separate bins, so batteries are organized and students can swap batteries quickly.

Learning to Code with CoDrone EDU

Now you know all the basics! To start learning how to code, head to our lessons:

learn.robolink.com/codrone-edu

Resources

Use these resources to help you on your journey learning to pilot and code with CoDrone EDU.

For technical questions and help:

help.robolink.com

For library functions and documentation:

docs.robolink.com

How to update your drone and controller's firmware:

robolink.com/codrone-edu-firmware

Learn about the Aerial Drone Competition:

robolink.com/aerial-drone-competition

Access a digital version of this manual:

robolink.com/codrone-edu-manual

a. Rule Part 15.19(a)(3): This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

b. Rule Part 15.21: The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications 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

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

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