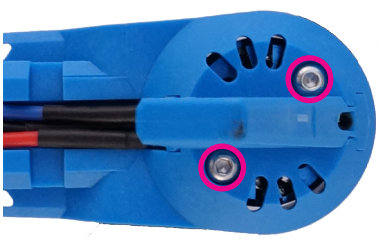
IRIS REPLACING THE MOTORS

These instructions require soldering. If you're unfamiliar with soldering, our friends at Sparkfun have some great tutorials that can get you started, including this comic: learn.sparkfun.com/curriculum/42.

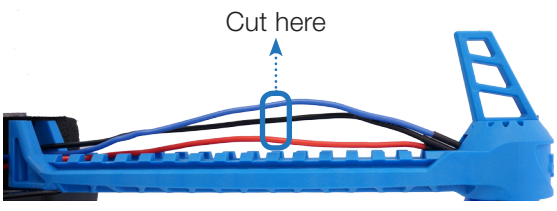
Iris' motors can be replaced by cutting and soldering the motor cables or soldering directly at the power board. Which method you choose depends on personal preference. If you choose to replace the motor by cutting the motor cables, ensure that you have heat shrink tubing.

Method 1: Cutting the motor cables

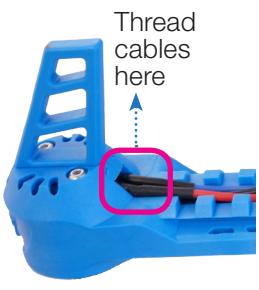
Detach the old motor from the arm by removing the two screws in the bottom of the motor using the regular 2 mm Allen key.



Remove the clips holding the motor cables to the bottom of the arm, and cut the motor cables halfway up the arm.



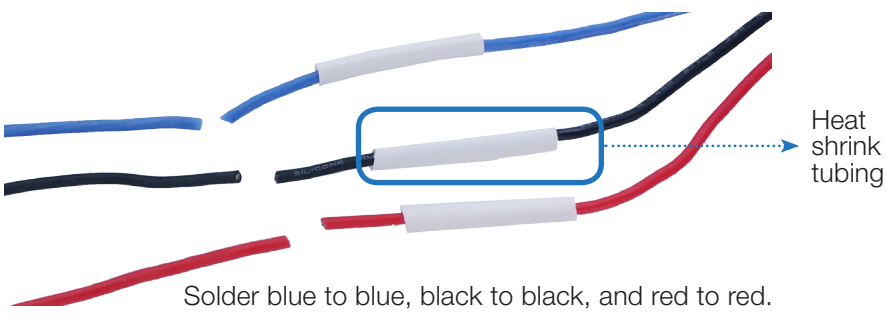
Remove the old motor. Place the new motor into position and thread the motor cables through the hole in the center of the arm. Don't forget this important step!



Secure the motor to the arm with the same two screws. Make sure to insert the screws into the holes in the bottom of the motor and not into the slots where they could interfere with the motor.

You should have motor cables protruding from the center of Iris and from the new motor at the end of the arm. Now you'll solder these two sets of cables together.

Cut the new motor cables to give you enough slack to solder with, but not so long that the excess cannot be fed back into the shell.



Solder blue to blue, black to black, and red to red.

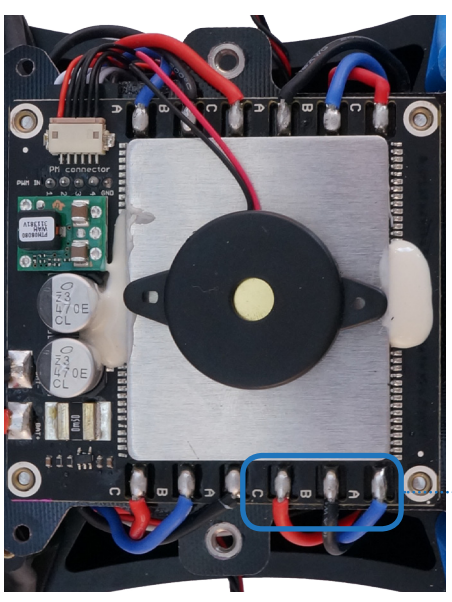
Add a 1-inch length of heat shrink tubing to each cable. Solder the new cables to the old cables of the same color. This will ensure that the motor rotation remains correct. When complete, shrink tubing over connections.

Feed the excess cable into the shell and secure the cables to the arm with the clips.

Method 2: Soldering at the board

Open the bottom shell to reveal the power board. Instructions for this can be found at 3drobotics.com/iris/info.

Locate the three motor cables for the motor you want to remove. They will be the red, blue, and black cables closest to that motor connecting to positions on the board labelled A, B, and C.



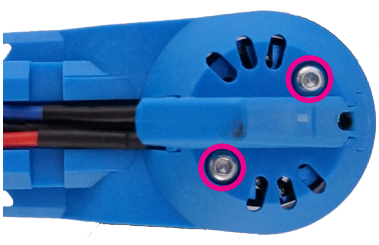
Write down which color cables connect to which lettered positions! This will ensure that the motor rotation remains correct.

For the pictured board
(but not for all boards)

A = blue
B = black
C = red

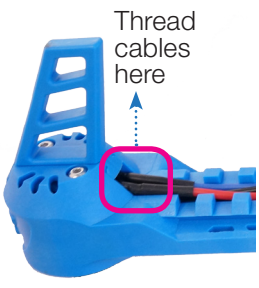
Desolder these three cables from the board.

Detach the old motor from the arm by removing the two screws in the bottom of the motor using the regular 2 mm hex key.



Remove the clips securing the cables to the arm, and remove the old motor completely.

Place the new motor into position and thread the motor cables through the hole in the center of the arm. Don't forget this important step!



Secure the motor to the arm with the same two screws. Make sure to insert the screws into the holes in the bottom of the motor and not into the slots where they could interfere with the motor.

Thread the new motor cables through the two prongs of the arm and up to the board. Solder the new cables into the same positions that you recorded for the old motor cables. Secure the cables to the bottom of the arm using the clips.

Support

For customer support, contact us at **help@3drobotics.com**
or call our support line at **+1 (858) 225-1414**
Monday through Friday, from 8 am to 5 pm, PST.