



Ridgid R86034 Motor Replacement

Replace a broken motor to return your RIDGID X4 18V Lithium-Ion Impact Driver to working condition.

Written By: Tommy Lovelace



INTRODUCTION

Soldering is required for some of the steps in this guide. Refer to the iFixit guide on [Soldering](#) if you need help learning how to solder. This replacement guide requires dealing with grease, make sure that you are wearing clothes that can get dirty and you are working on a surface that can get dirty.

TOOLS:

- [Metal Spudger](#) (1)
- [T10 Torx Screwdriver](#) (1)
- [T15 Torx Screwdriver](#) (1)
- [Flush Wire Cutters](#) (1)
- [Wire Stripper](#) (1)
- [Soldering Workstation](#) (1)

Step 1 — Disassembling Ridgid R86034 Housing



- Use the flat side of a metal spudger to peel the black rubber cover off of the casing.
 - **(i)** The rubber cover is securely attached to the housing so some force is necessary.
- When putting the rubber cover back, remember that its orientation is important. Rotate the casing until it fits onto the housing with no gaps between it and the clear cover.

Step 2



- Remove the plastic cover with your hands. The plastic cover should be much easier to remove than the rubber cover. There is no need to force it off.

Step 3



- Unscrew the four 16 mm long screws from the back panel with a T10 Torx Screwdriver.
- Use a firm grip to peel the the back panel off. It is sealed tight and requires a good amount of force to remove.

Step 4



- Unscrew the eight 15 mm T10 Torx screws from the housing

(i) The screw hole located nearest the battery port is deep and small. Most screwdrivers with replaceable bits will not fit into the hole. Instead use a conventional screwdriver that fits.

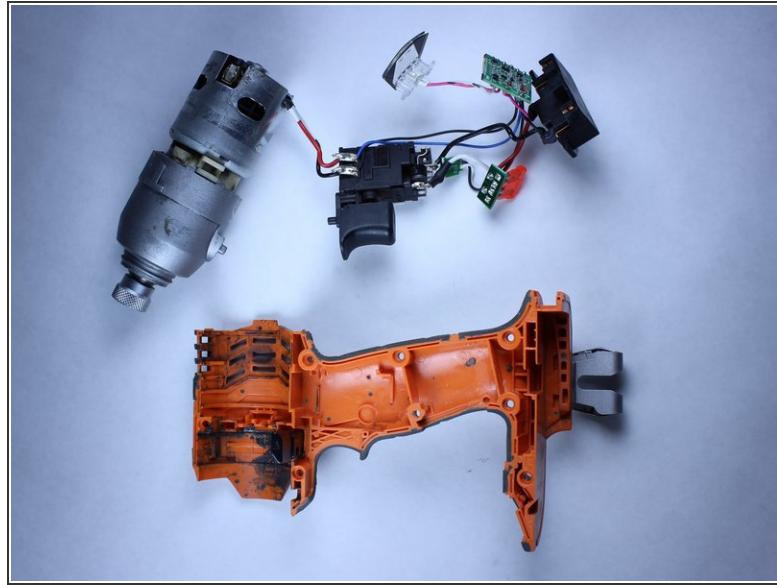
Step 5



⚠ Place the driver flat on a table before completely separating the two halves of the housing so components don't fall out during opening.

- Pry apart the two halves of the housing at the back side of the driver using the metal spudger .
- **ⓘ** The housing is easier to remove if you pry from multiple sides.

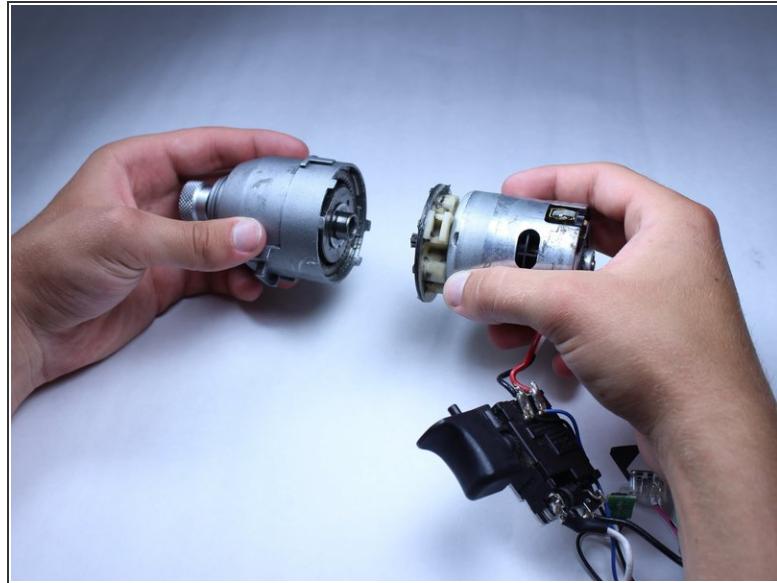
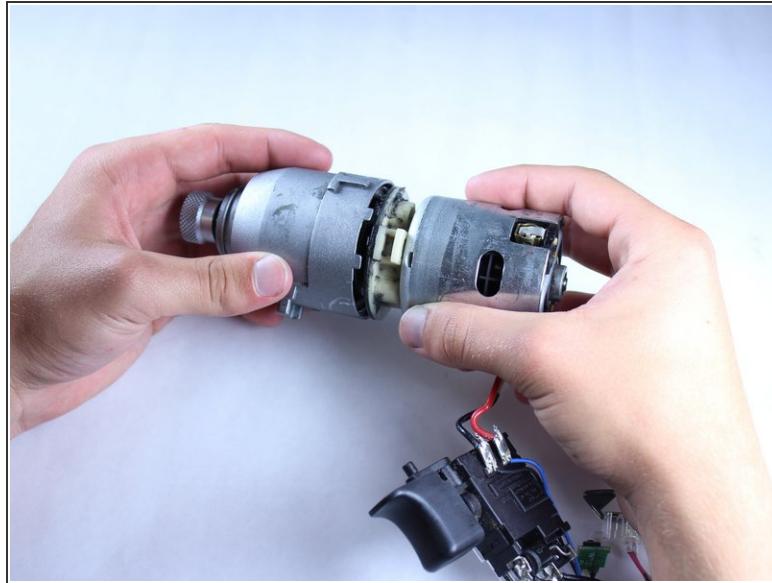
Step 6



⚠ Do not remove the direction switch. It isn't necessary.

- Pull out **all** electrical components from housing by hand. First, lift out the motor. Next, follow the wires, lifting out components until all components are outside of the housing.
- With two exceptions all of the components should come out of their respective slots with ease and require little force to lift out. The circuit board located nearest the battery pack and the LED light will be hard to pull out.
- When reassembling remember to precisely place all components in their correct slots with their correct orientations.

Step 7 — Motor



⚠ Do not invert gear assembly! Keep gear assembly oriented so that the chuck is lower and the place the motor was attached is higher or else gears could fall out.

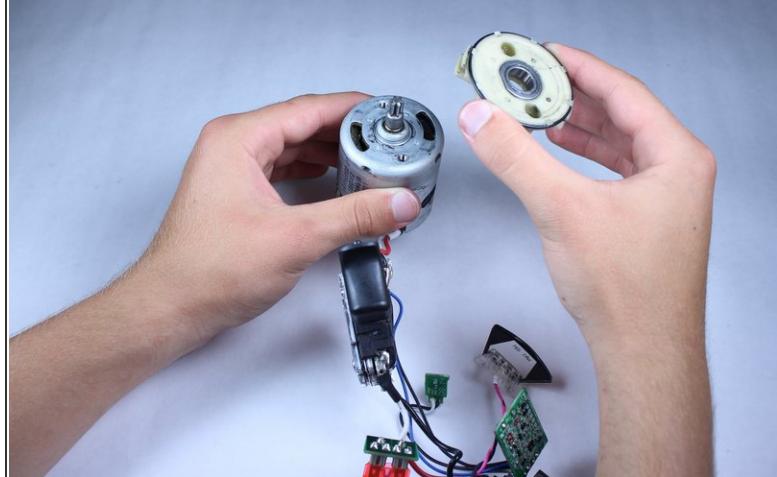
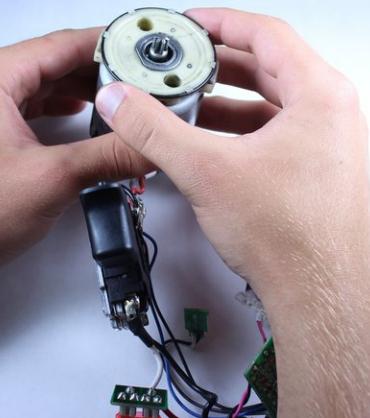
- Twist off and separate the gear assembly from the motor assembly.
- i*** Some force will be required to twist off the gear assembly.
- g*** When putting the motor back onto the gear assembly, make sure that the tabs on the edge of the gear assembly are oriented to fit the tabs found on the edges of the motor.

Step 8



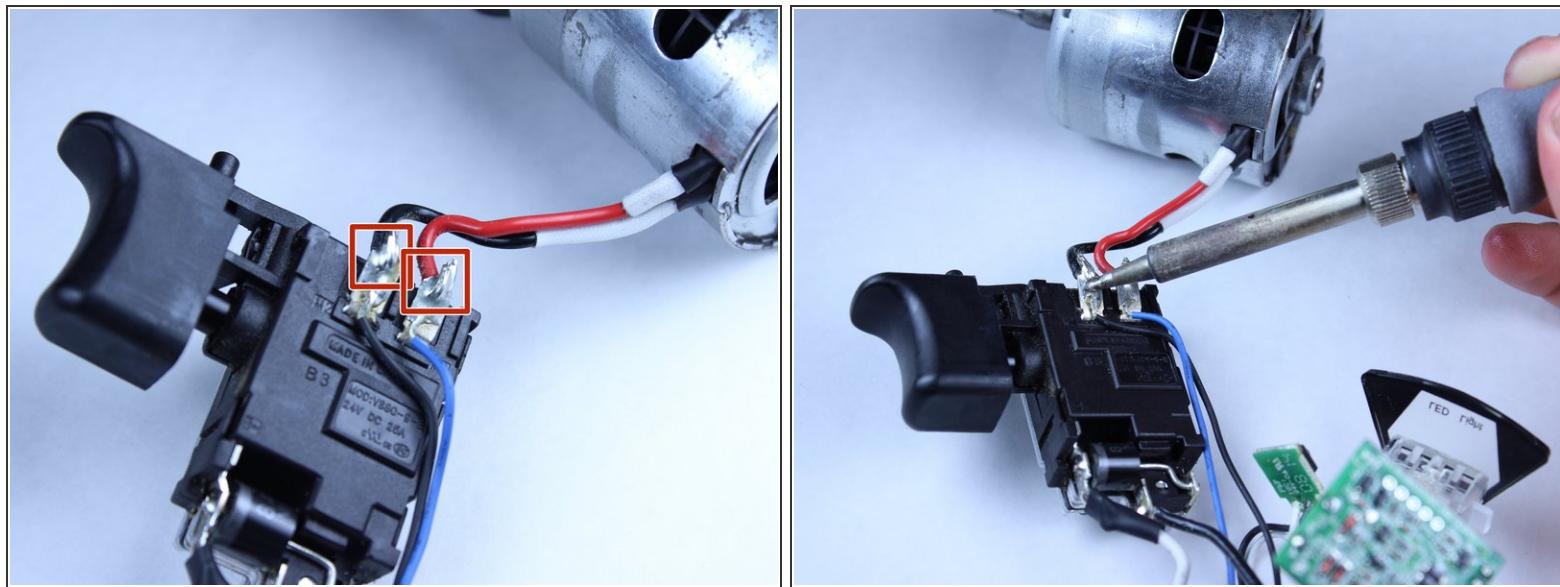
- Remove the two 14 mm long PH1 screws that connect the plastic object to the motor assembly.

Step 9



- Remove the plastic object from the motor assembly.
- *(i)* It should not require that much force to remove the plastic object.

Step 10



- Desolder and remove the red and black wires connecting the trigger assembly and the motor.
- ▣ Take note of the orientation of the wires for when they need to be resoldered.
- ⓘ You should only desolder the top-left black wire and the top-right red wire, not the bottom-left black wire or the blue wire.

To reassemble your device, follow these instructions in reverse order.