



# Aquarium Filter Impeller Replacement

Fix a broken hang-on-back (HOB) style aquarium filter by replacing the impeller and cleaning the shaft/cavity.

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## INTRODUCTION

If your hang-on-back (HOB) aquarium style filter is making a buzzing noise, has reduced flow, or has stopped working completely, the impeller inside the motor has most likely been chipped or cracked from long-term wear.

Use this guide to remove the damaged impeller and replace it with a new one. This involves removing the filter motor to access the damaged impeller and cleaning the impeller shaft before installing the new impeller.

This guide demonstrates this process on an AZOO Mignon 60 (AZ13097), but the procedure is the same for all HOB filters with a detachable motor. This includes brands like Aqua Clear, Fluval, Marineland, and Cascade. If you are using this guide for a different brand of filter, a larger impeller replacement may need to be purchased.

Working with water and electronics is a safety risk. When connecting and detaching your filter from a power source, ensure that your hands and the external area of the motor are completely dry.

Before beginning this guide, disconnect your filter from its power source and remove it from your aquarium.



### TOOLS:

- [ESD Safe Tweezers Blunt Nose](#) (1)
- [Q-Tips](#) (1)
- [Paper Towels](#) (1)
- [Distilled White Vinegar](#) (1)



### PARTS:

- [Nano Filter Replacement Impeller](#) (1)

## Step 1 — Impeller



- Remove the filter lid by pulling upwards.

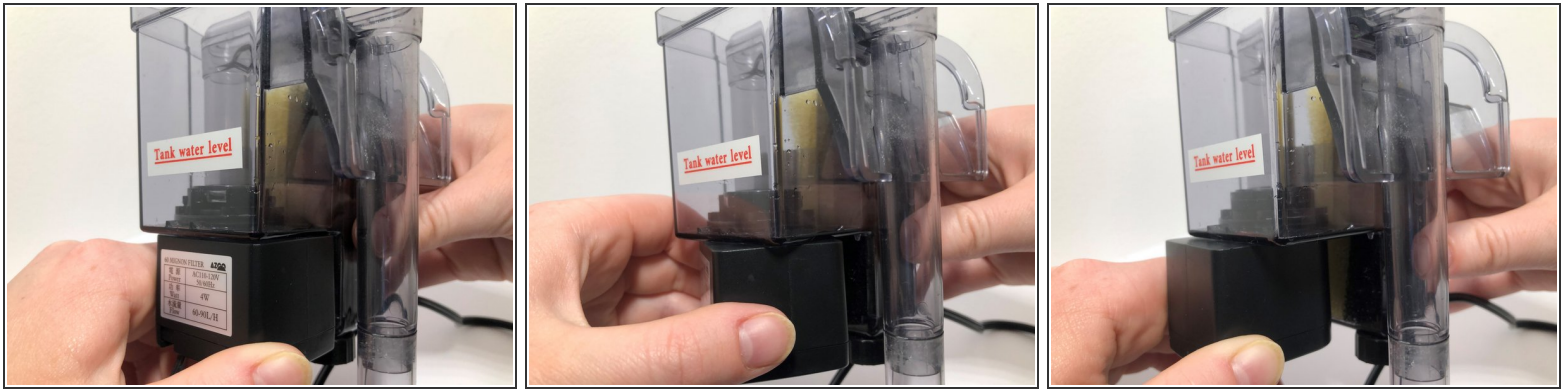
## Step 2



- Drain the filter completely of water.

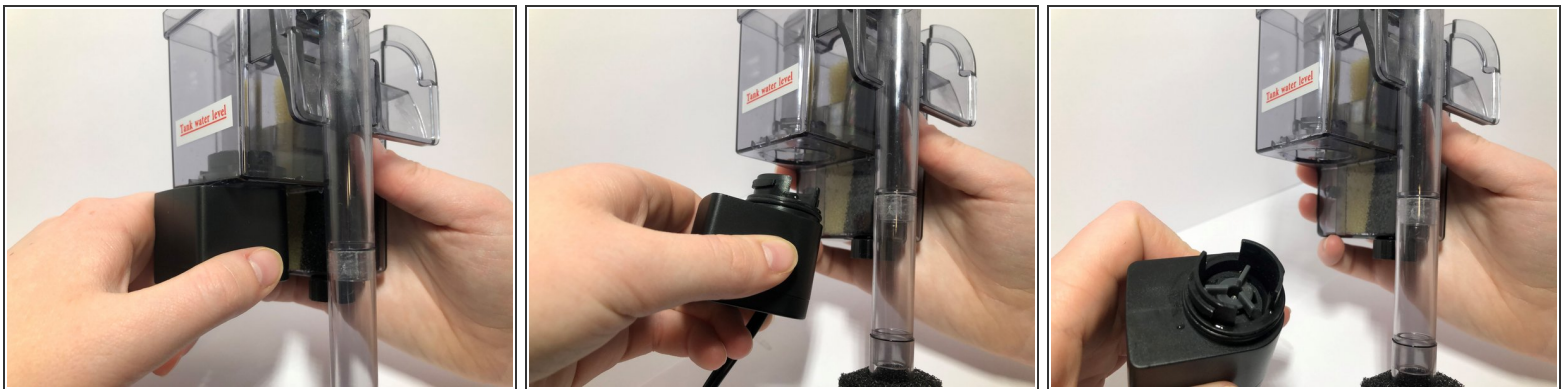


## Step 3



- Twist the motor component outwards away from the filter's center by 90 degrees.

## Step 4



- Pull down to separate the motor from the filter.

- ⓘ Steady force is needed to separate the pieces.

⚠ Potential for device damage: Pull straight down to avoid damaging the rubber water seal.

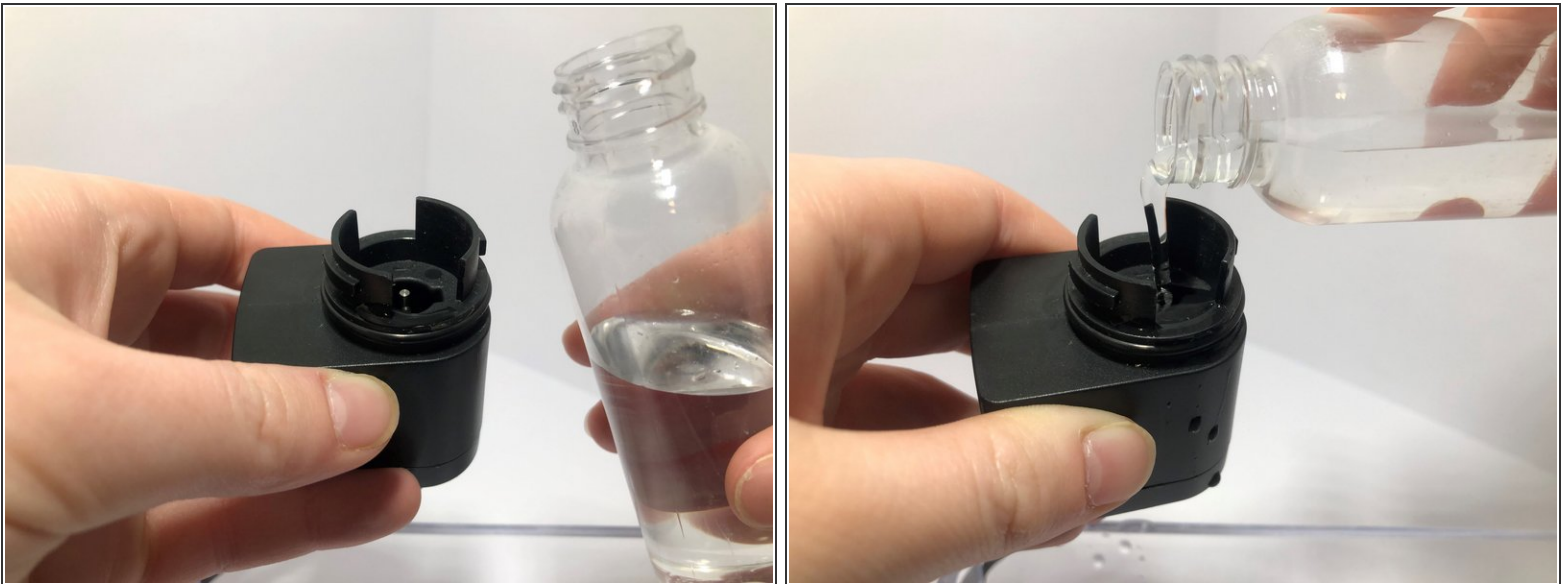
## Step 5



- Using tweezers, pull the damaged impeller upwards off the impeller shaft.

 The impeller is magnetized to the shaft causing a slight resistance to the impeller's removal.

## Step 6



- Fill the impeller cavity with water.

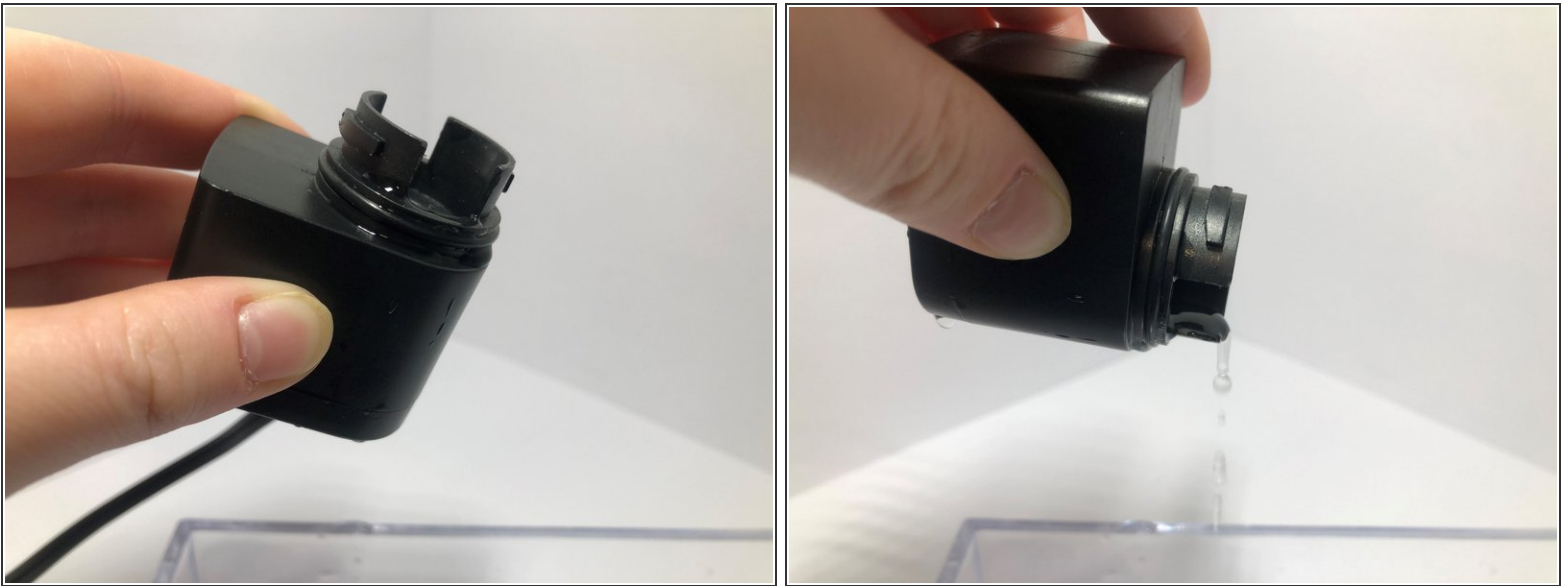
 Potential for device damage: Avoid getting water on other parts of the motor.

## Step 7



- Swirl the cavity with a Q-tip to scrape off any build up of sand or organic material.

## Step 8



- Drain the water and other contents of the cavity.



## Step 9



- Clean the shaft and the cavity with Q-tips dipped in vinegar in a scraping motion.

⚠ Potential for device damage: Avoid getting vinegar on other parts of the motor.

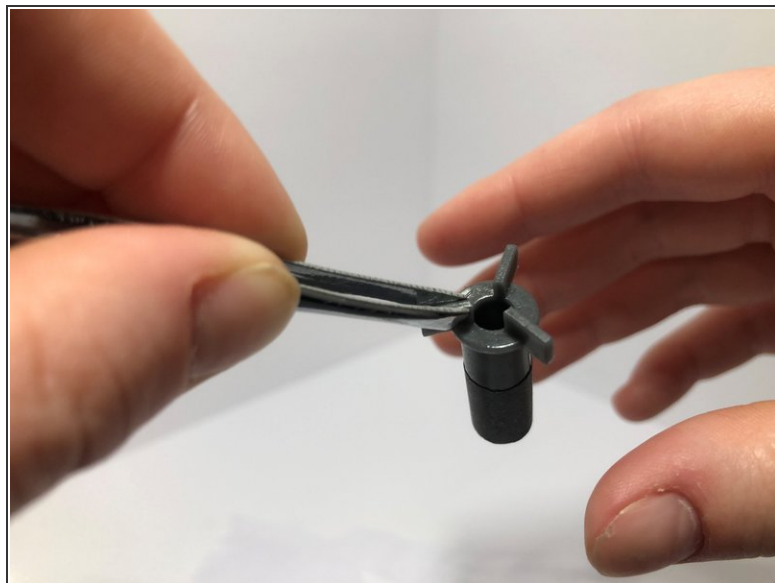
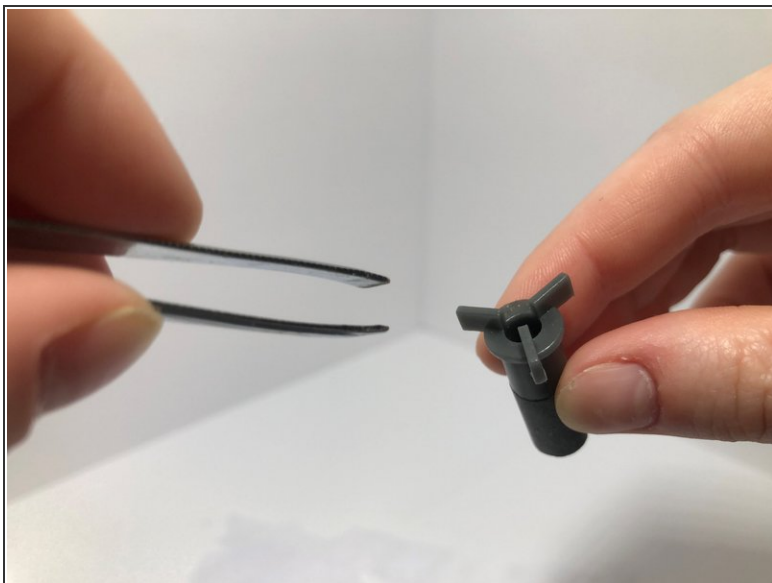
## Step 10



- Wipe the shaft and the cavity with a damp paper towel to remove vinegar.

⚠ Potential for device damage: Avoid getting water on other parts of the motor.

## Step 11




- Pick up the new impeller using tweezers.

## Step 12



- Lower the new impeller into the cavity so that the shaft runs through the center of the impeller.

 The impeller should immediately magnetize.



## Step 13



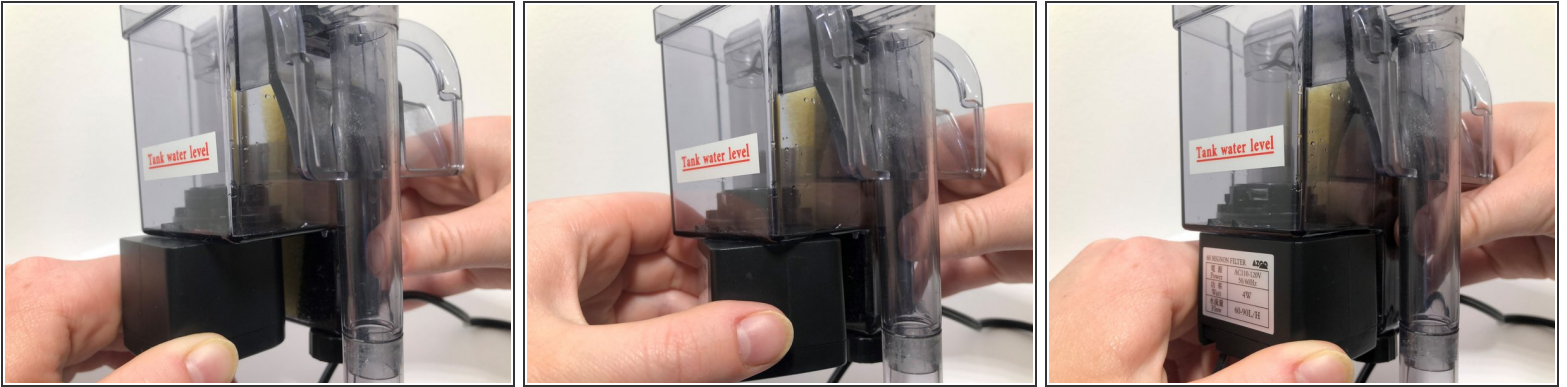
- Swirl the impeller with tweezers to make sure the impeller can move freely.
- ⓘ The magnetism of the pieces should resist movement to a degree, but if you are unable to move the impeller at all, return to Step 5.

## Step 14



- Press the motor into the filter hole with the cord side facing outwards forming a 90 degree angle.
- ⓘ Steady force is needed to connect the pieces.
- ⚠ Potential for device damage: Push straight up to avoid damaging the water seal.

## Step 15



- Twist the motor inwards by 90 degrees to align with the filter.

## Step 16



- Refill the filter compartment to the water line.
  - The water line is indicated on side of the filter labelled as "Tank water level."

## Step 17



- Press the lid into the grooves on top of the filter.

Filter is now ready to be returned to your aquarium and plugged in for use. Clean the impeller with vinegar and water semi annually to increase its longevity.