



Magic Bullet Teardown

This is a teardown of the Magic Bullet Express Blender and Mixer System. The biggest pain on this teardown was the removal of the base gear. It is fastened with a counter clockwise thread to the motor shaft.

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INTRODUCTION

After having read [this article](#) and coming across the authors mention of having checked ifixit.com "was the first place I checked for the Magic Bullet instructions. Unfortunately, they don't have that one yet. Maybe I'll create it!" I thought may be we could beat David Lang to the punch:-) I finally got my hands on a non-functioning "Magic Bullet" and thought I start off with a teardown, so here it is.



TOOLS:

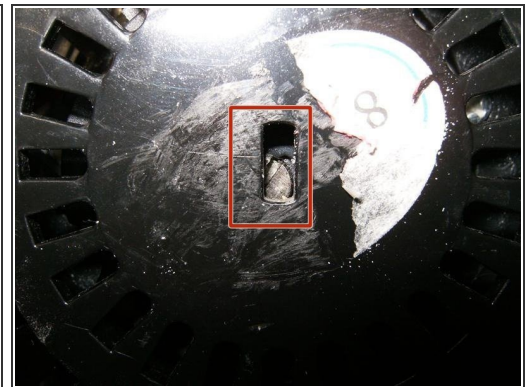
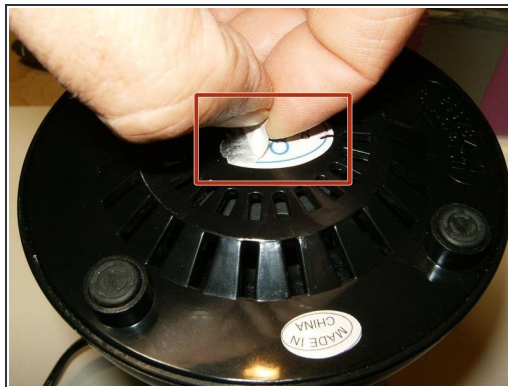
- [Phillips #1 Screwdriver](#) (1)
 - [Flathead Screwdriver](#) (1)
 - [Channellock Groove Joint Pliers](#) (1)
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Step 1 — Magic Bullet Teardown



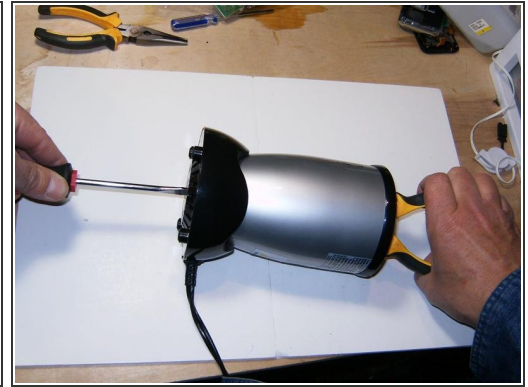
- Okay so here is the complete Magic Bullet advertised as "high-speed mixing system chops, whips, blends, and more" This particular one had issues with the motor.
- First remove the short bullet cup, with a quick twist and lift, from the power base.
- Here is the blade gear that drives the blades inside the bullet cup when the cup is mated with the base. We shall deal with the "do no remove" issue later.

Step 2




- To remove the blade gear, turn the power base so that the bottom part faces up.
- Remove the quality control sticker
- The sticker covers a rectangular opening. Within this opening is a slot for a flat tip screwdriver. It is possible that it is somewhat off center like in this picture.
- This is caused by the motor not being properly centered within the base. This appears to be common (the motor does not have any bottom support within the base)

Step 3



- This can be resolved by inserting a screw driver and gently forcing the slot into sight.
- Next a pair of either combination or slip joint pliers are needed to hold the gear,
- To remove the blade gear, turn the Magic Bullet on its side and use a flat tip screw driver on the bottom end, and the pliers on the base gear. Turn the blade gear in **clock wise** direction to remove it off the shaft.
 - The blade gear has a left-hand thread, which is opposite to the normal screw thread. So it will loosen when you turn clock-wise.
- You may find it easier to remove the blade gear after the motor assembly has been removed from the body in Step 8.
- If the blade gear refuses to budge, give it several sharp taps with a small ball end hammer directed at the center of the boss.

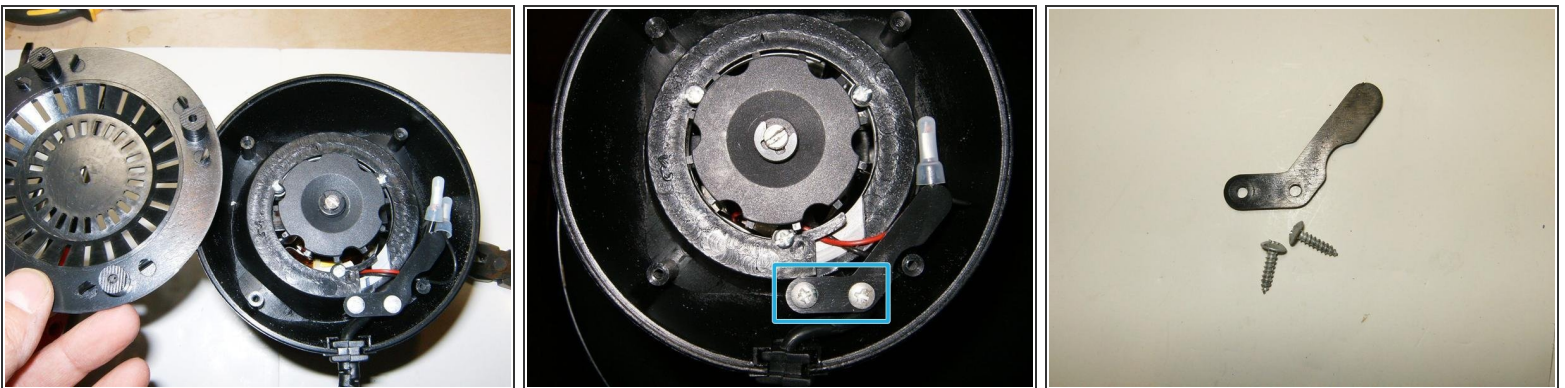
 Note that the blade gear needs to be removed only if it is to be changed.

Step 4



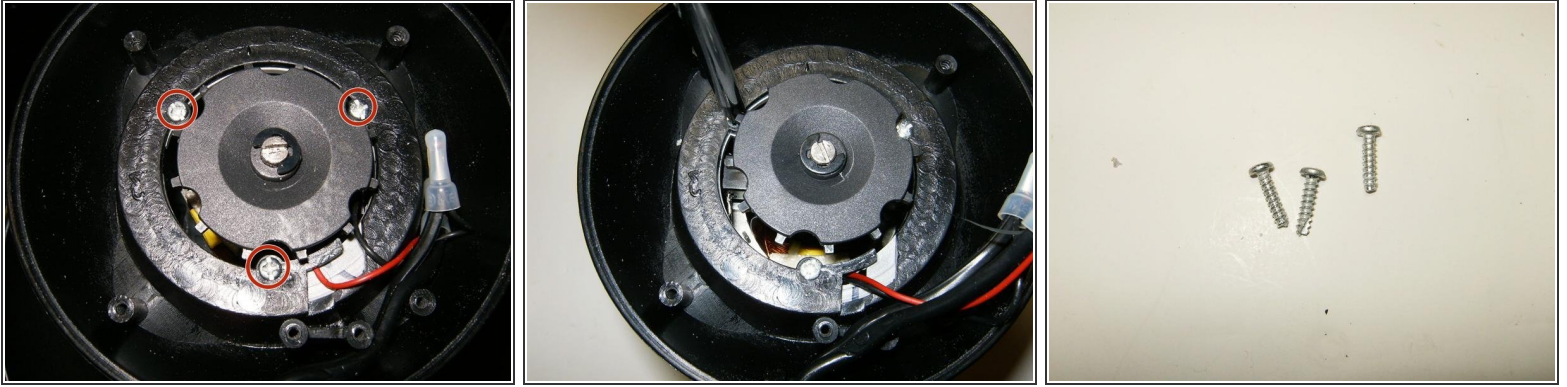
- With the blade gear removed, it is time to focus on the power base. Use a small screwdriver or similar to remove the four rubber feet from the base. No glue is used, they are simply pressed in the openings
- Underneath each one of the rubber feet is a screw that can be removed with either a Phillips or flat head screw driver.
- Here are the four screws and the rubber feet once they are removed. The screws are 1/8X1/2 self tapping.

Step 5



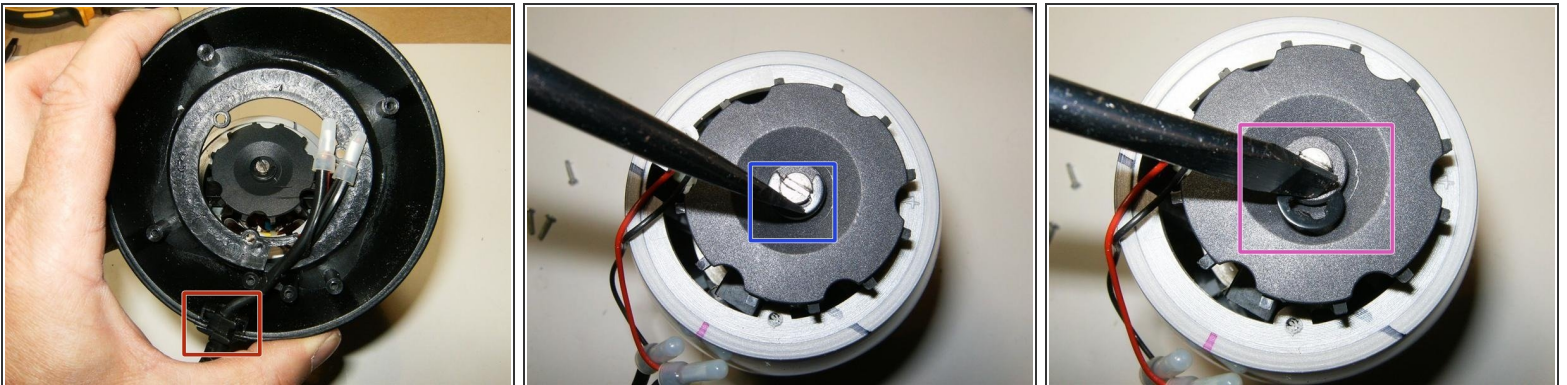
- Once the rubber feet and screws are removed, the bottom plate comes off.
- Remove the cable guide by removing the two Phillips head screws
- Here is the cable guide and the two 1/8 x3/8 screws

Step 6



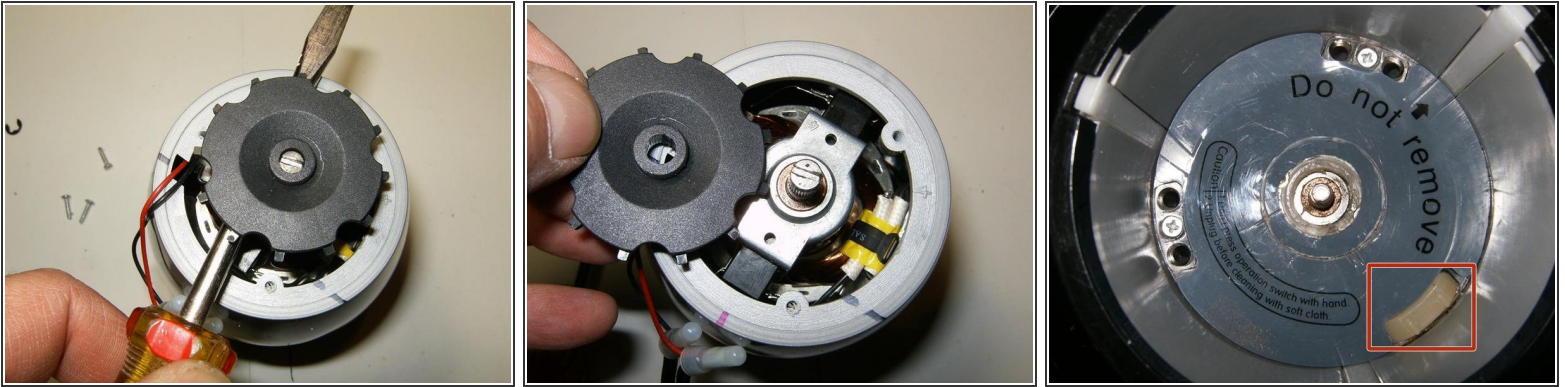
- Remove the three Phillips head screws that fasten the body to the base.
- The screws can be removed with either a Phillips head or a flat tip screw driver
- Here are the three 1/8 x3/8 self tapping screws

Step 7



- With the screws removed, lift the base of the body. Remove the wire mount out of the base and guide the electrical wire through the base.
- For this teardown, the fan blade on the motor shaft was removed. Remove the snap ring by inserting the corner of a flat tip screw driver.
- Simply twist the screw driver so that the snap ring will come away from the shaft.

Step 8



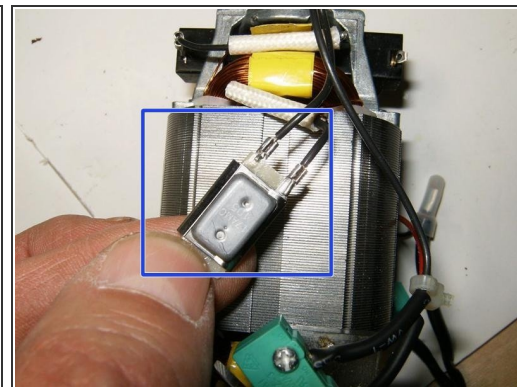
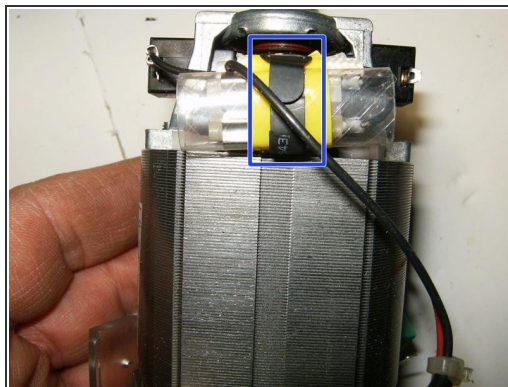
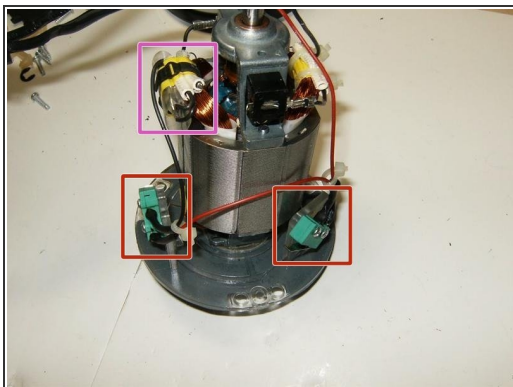
- To remove the fan blade, use a screwdriver and place it between the body of the Magic Bullet and the fan blade. Then pull up on the screw driver.
- It may be necessary to do this on opposite sides a few times since the fan blade is a pressfit on the shaft.
- Turn the body of the mixer over and remove the three rubber spacers

Step 9



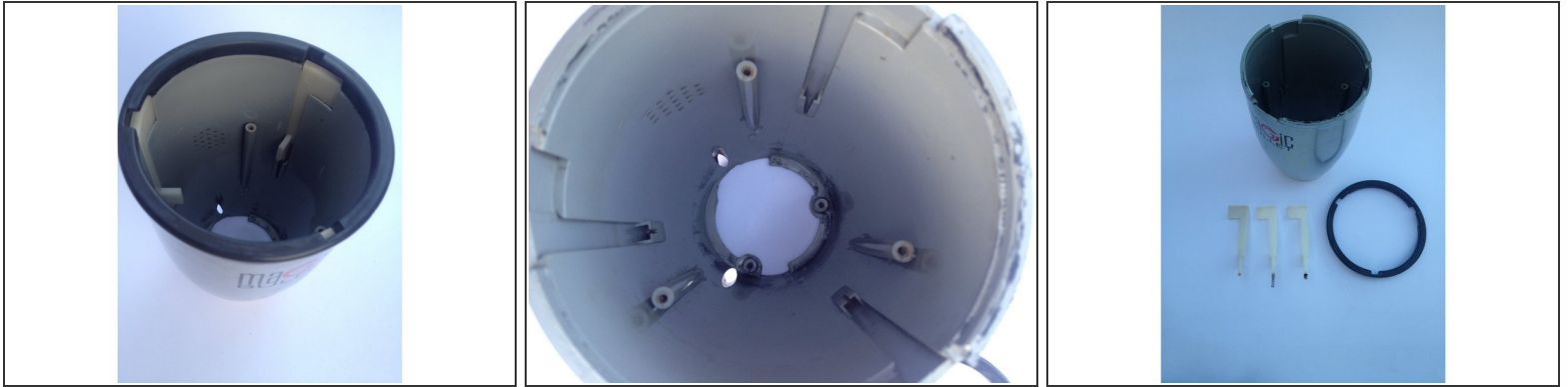
- Remove the three screws below the spacer
- Here are the three 1/8 x3/8 Phillips head screws
- With the screws removed, turn the mixer bottom side up. this will free the electric motor out of the body.

Step 10



- Here is the motor removed from the base. The motor plate list it as D.S.D. Motor Co. LTD Model 5443/125 M12
- There are two single-pole, Subminiature Micro Switches Marking on those is: Donghai KW4-3Z-3 5A 250VAC
- There is a thermal fuse wrapped to one of the switches leads.
- Remove the metal tie strap as well as the rubber sleeve to get to the fuse.
- Here is the thermal fuse. It is a AVertronics 17AMC 105deg Thermal protector.

Step 11



- This is the empty body of the Magic Bullet with the motor removed.
 - There are three white plastic posts inside, which slide down when the jar is attached. There is a spring at the bottom of each post to push it back up when the jar is removed.
 - The posts have tabs on the bottom, one of which engages with the micro-switch on the motor.
 - The posts can get jammed if some liquid spills inside the body, since it is impossible to clean the sliding area of the posts.
- To remove the posts, the black plastic strip on the top edge of the body has to be removed.
 - Since the black strip is glued on to the body, the easiest way to get it free is to dip it in boiling water.
 - Wait for a few minutes and then pry it off. Keep pulling up hard all round the edge and it will come off with a bit of force.
- Here is the body with the black strip and the three white posts. The springs at the end of the posts in my Bullet were all rusted off.

Step 12



- Here is the dissected Magic Bullet. Not a whole lot of parts and fairly simple to get to. The gear is not shown since it did not survive its removal. A royal PITA to remove.

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