



# Allstar MVP Garage door opener Plastic Sprocket Replacement

Fixes the problem of the chain hanging down due to a broken sprocket.

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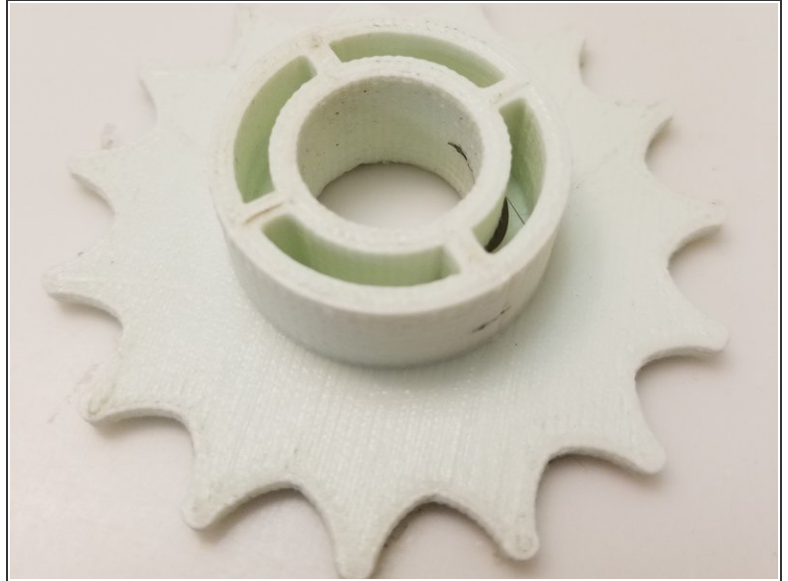




## TOOLS:

- [3/4" Wrench](#) (2)
  - [3D Printer](#) (1)
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## Step 1 — PREPERATION



- You will need 2  $\frac{3}{4}$ " wrenches, a 3D printer, and a computer for this fix.
- Make sure the piece that broke was from an Allstar MVP automatic garage door opener.

## Step 2 — PRINT REPLACEMENT



- Send an email to [[http://mailto:asherm55@gmail.com](mailto:asherm55@gmail.com)] This email address] to buy the STL file for \$10 or a replacement piece for \$20.
- Print Product. NOTE: for this product I used glass reinforced PLA with 90% fill density to enhance the strength of the part.
- Print spare sprockets for later. (optional)

## Step 3 — INSTALLATION



- To remove bolt: use the 2  $\frac{3}{4}$ " wrenches to loosen the nut on the bottom from the bolt on the top of the sprocket. Remove bolt, noting the order of everything in the assembly.
- Put the sprocket directly onto the bolt once everything is off the bolt with the flat side towards the bolt head.
- Place the washer on the bolt, followed by the nut (tighten), followed by the lock washer.
- Pull the chain tight over the sprocket and insert the bolt into the hole in the bracket attached to the wall.
- Tighten down the last nut with both of the  $\frac{3}{4}$ " wrenches.

The piece printed in 35 minutes and works perfectly and the garage door now opens with the push of a button, as intended.

I also made another improvement on the design by using glass reinforced PLA. Now the finished product is much improved from the weak, fail prone sprocket that came with the door.