Version 1.1

## WHAT DOES THE DRIVE GEAR/WHEEL DO?

The drive gear is the part of the extruder that grabs the filament and pushes it down through the extruder. When you make things with your Replicator, small pieces of hardened plastic can stick to the drive gear and eventually clog it so it can't grab onto the filament. If you are having problems with your extruder, cleaning the drive gear might help.

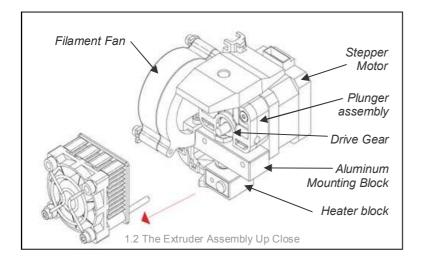
## WHAT ELSE CAN GO WRONG WITH A DRIVE GEAR?

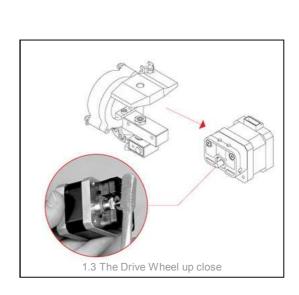
In rare cases the grub screw that keeps the drive gear tight on the stepper motor can loosen. Check that when you clean it.

Also, when you unload your filament, a small piece of filament may break off and sit in the cavity under the drive gear and stop the drive wheel from gripping filament or even end up on the top of the barrel and stop filament loading. Check for loose pieces around the area when you clean the wheel.

## HOW TO CLEAN THE DRIVE GEAR

- 1. Unload the Filament from the extruder by going to the LCD panel and selecting Utilities > Filament Options > Unload.
- 2. Turn off the machine and place a tray on the bed to catch screws or other parts you may drop—like the black spaces that are near impossible to see when they drop down into the machine.
- 3. Unscrew the two bolts at the lower corners of the fan guard and remove fan guard. Move fan aside.
- 4. Remove the two black spacers, and heat sink.
- 5. Carefully unclip the motor wires and pull out the motor assembly
- 6. Now that you can hold the assembly in your hand you will see the drive wheel clearly (*Fig 1.2*). Use a small pipe cleaner or old toothbrush to clean the drive wheel and surrounds.
- 7. Put is all back together NOTE: the fan will have a sticker on the inside and blows towards the heat sink to keep draw heat away from the extruder assembly
- 8. Reload filament and start printing:)





BilbyCNC hopes you found this helpful. Please visit support.bilbycnc.com.au if you need further assistance

