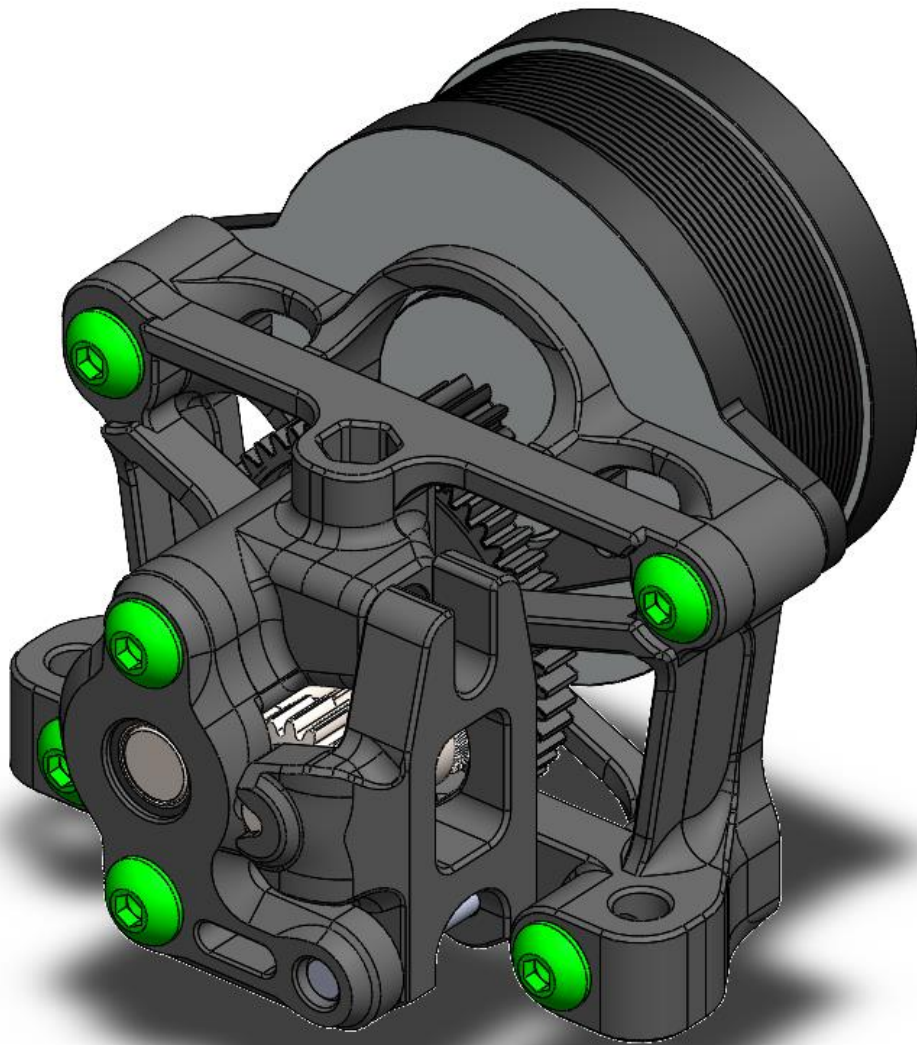


Sherpa Mini Assembly Guide



A N N E X

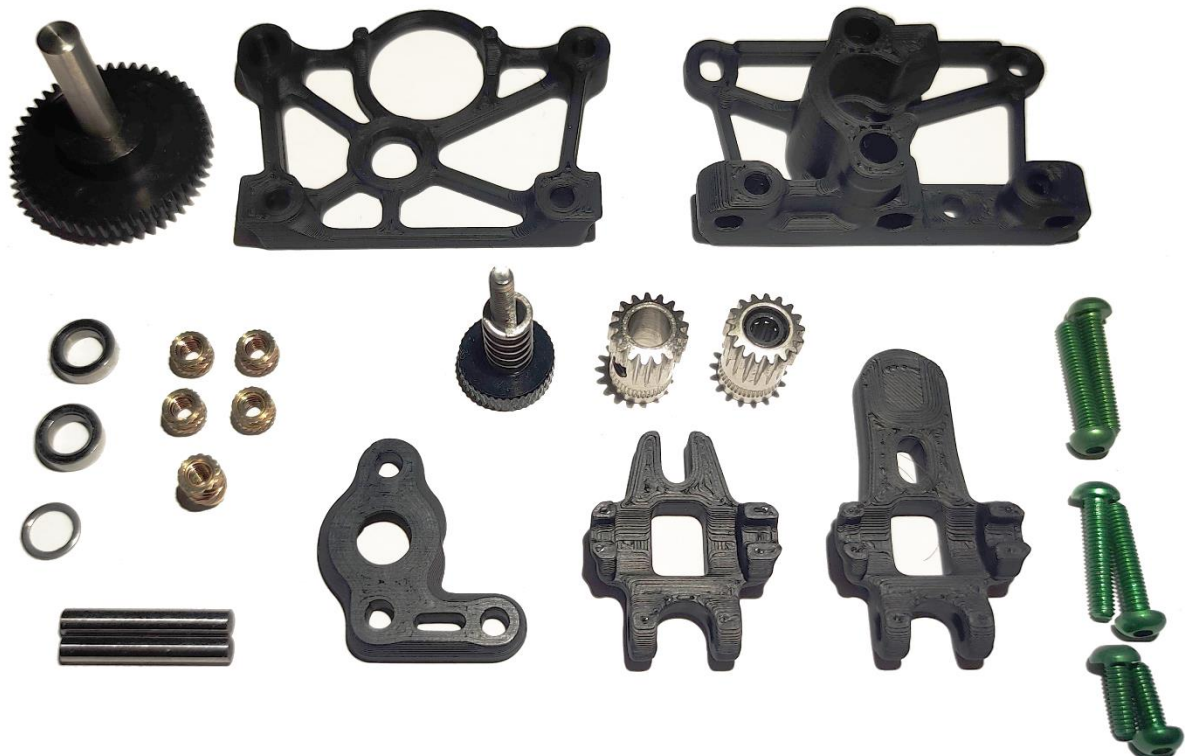
Beta 2

Ver. 2021.02.17

Parts List

Here are all the parts you will need to build your Sherpa Mini

- 1 set printed parts
- 1 set Bondtech BMG Dual Drive gearset (5mm)
- 1 set BMG idler tensioner assembly (screw + spring)
- 5x heat set insert
 - 5x M3x4x5mm (IDxLxW) OR
 - 4x M3x4x5 + 1x M3x6x5mm
- 2x MR85 bearing (2RS preferred)
- 2x 20mm shaft
 - The idler pivot shaft can be longer but will poke out the back
- 1x 5x7x0.5mm (IDxODxL) shim washer (a printed one will do in a pinch)
- 2x M3x16 BHCS
- 2x M3x8 BHCS
- 2x M3x14 BHCS
 - You can substitute M3x16 BHCS
- 1x NEMA14 round body pancake stepper (LD0 36STH17-AHG)

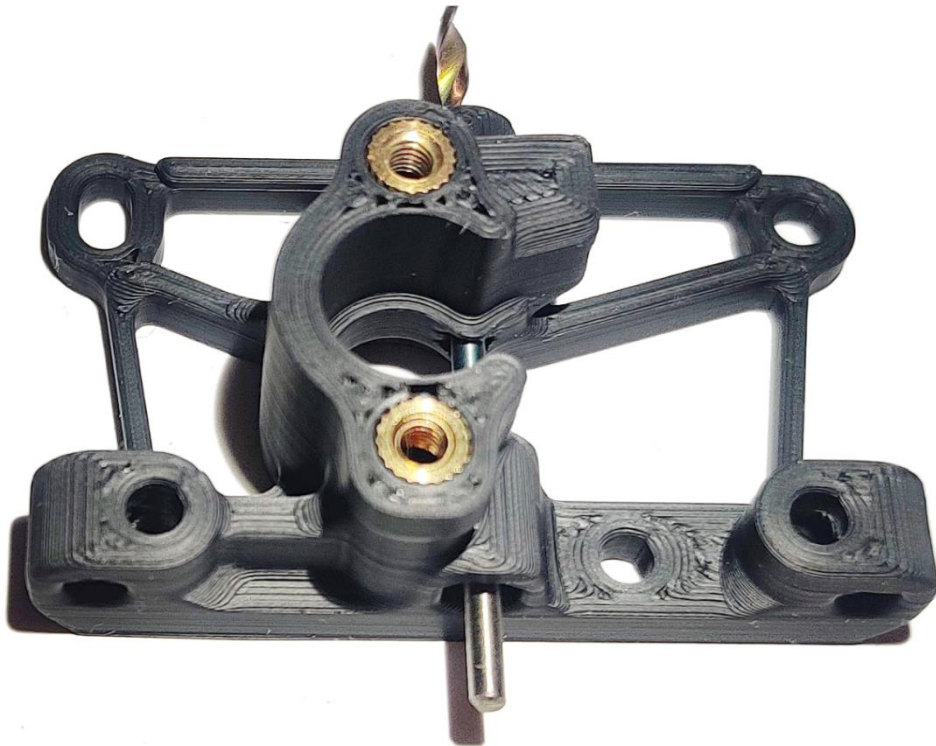


Prep Work

1. Install bearings and heat set inserts



2. Clean up the filament path with a 2mm drill bit



3. Grind ~1 mm off the short end of the BMG shaft assembly



4. Build the idler arm assembly

- Clean the pivot shaft holes with a 3mm drill bit if necessary
- The idler shaft is a snap fit
- Grease the idler needle bearings prior to assembly
- Make sure the idler gear spins freely



Assembly Steps

1. Insert the BMG shaft assembly into the rear housing
 - Make sure the shaft doesn't extend past the rear housing



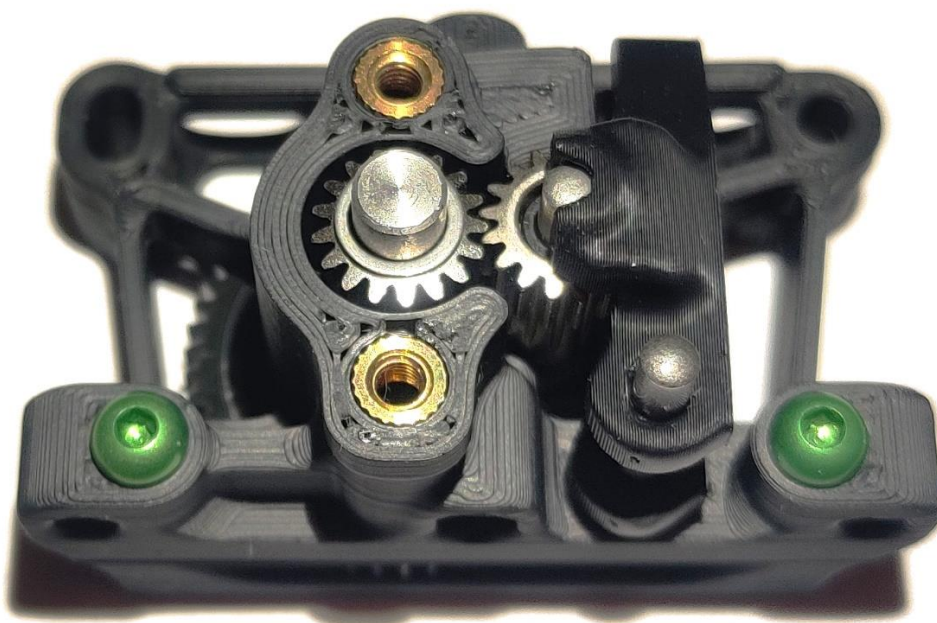
2. Install the core housing and the lower two M3x16 screws



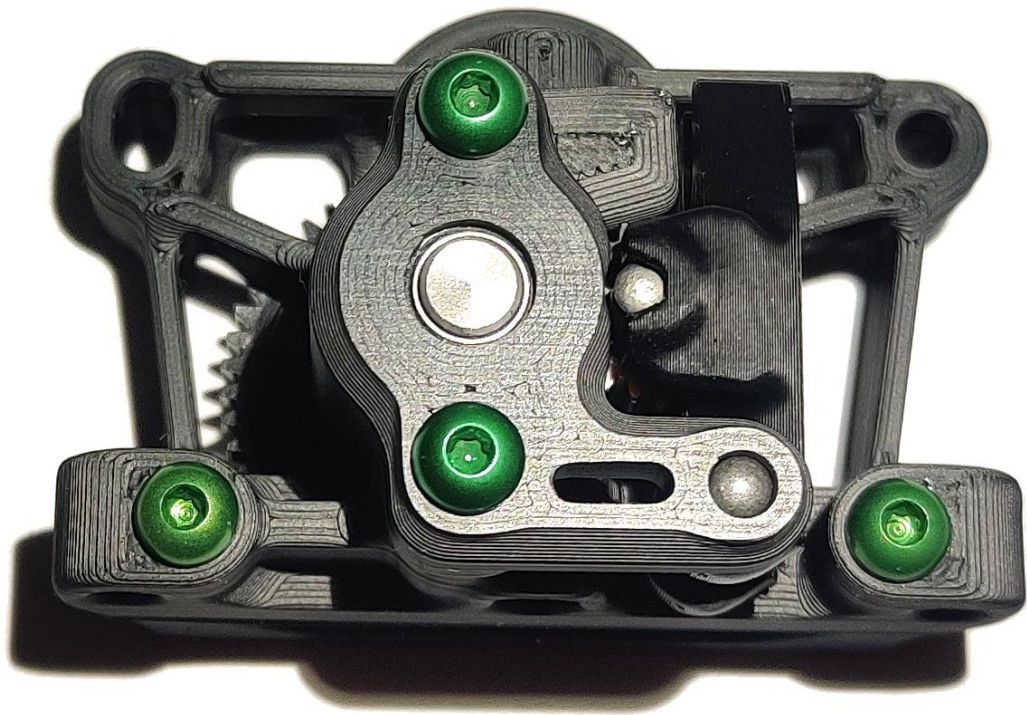
3. Install the driven BMG filament gear

- Loctite the grub screw
- A 0.5mm shim washer goes on top of the gear (you

4. Install the idler assembly



5. Install the front housing

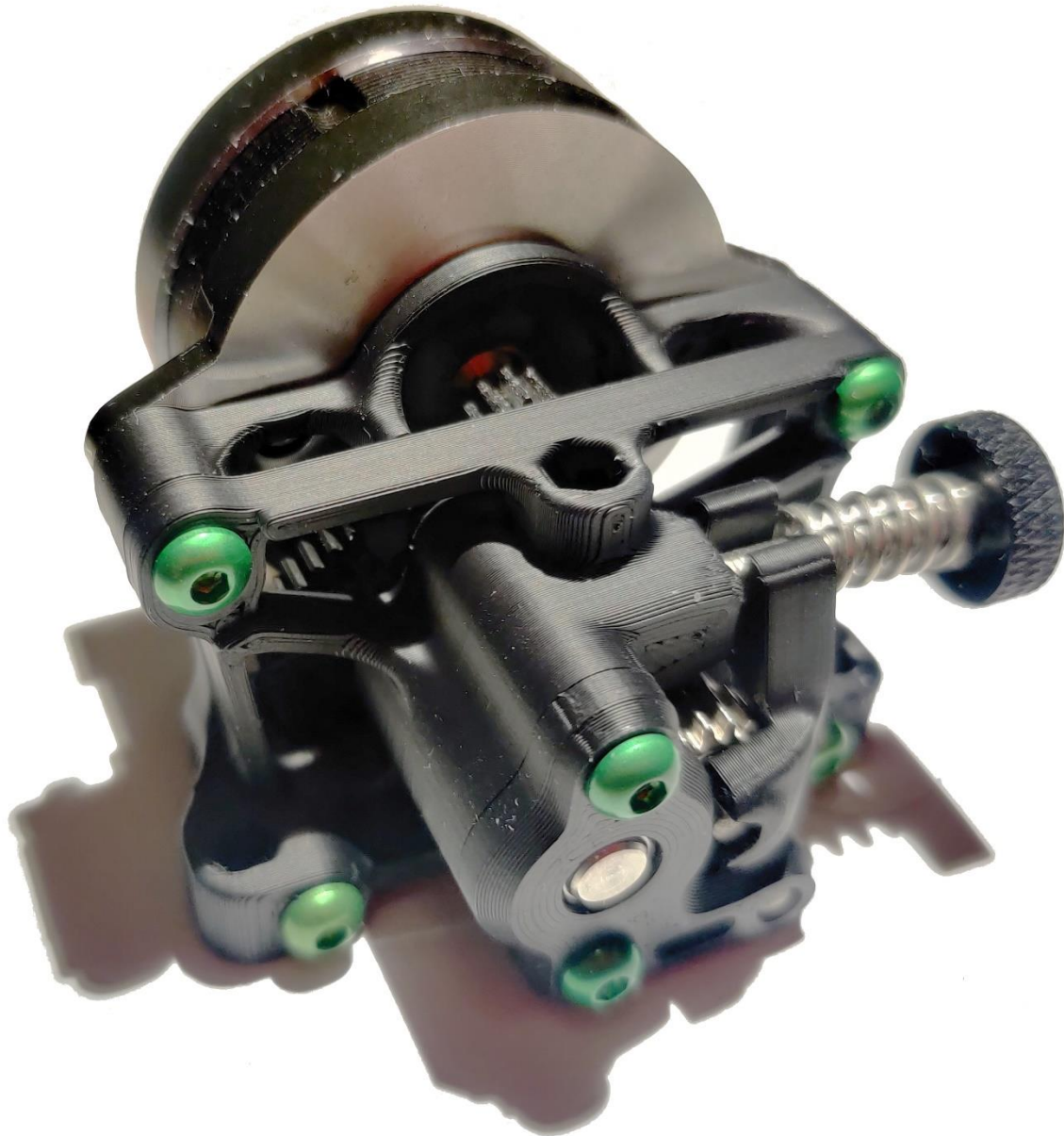


6. Make sure the main gear turns freely and no part of the idler arm bottoms out on the core

7. Mount the motor and adjust gear meshing

- There should only be a tiny bit of backlash when the gears are meshed properly

8. Install the tensioner spring and thumbscrew



9. Done! For further help with assembly and configuration please see the Annex Engineering GitHub page or join our Discord server