

Stepper Mount Carriage Spindle:

The Nema 17 stepper is mounted on a mounting plate with 4 slotted holes to adjust the stepper position. The mounting plate is mounted to the spindle left support using a hub. The hub has 2 slits and a bolt for fixation. **Don't use grub screws, they will deform the spindle support resulting in stiff rotation of the spindle.**

The gear on the stepper is mounted using a hub with 2 grub screws to fixate to the stepper axis and a nut to fixate the gear to the hub.

The original lathe gears are used. The original spindle gear made of POM is much quieter than a aluminum gear.

The stepper is connected to a TB6600 driver.

Spindle:

The original lathe spindle is used having a 1.5 mm pitch.

Gears:

T60 gear (POM) on the spindle

T20 gear (Steel) on the stepper

Powersupply:

20 V

Stepper:

Nema 17, 17HD48004-22B

4 wires, 2 phase

200 steps

550 mNm at 1.2A

TB6600 settings

Excitation	8	steps
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GRBL settings:

\$102	Z-axis resolution	3200	steps/mm
\$112	Z-axis max rate	150	mm/min
\$122	Z-axis acceleration	1.250	mm/s ²

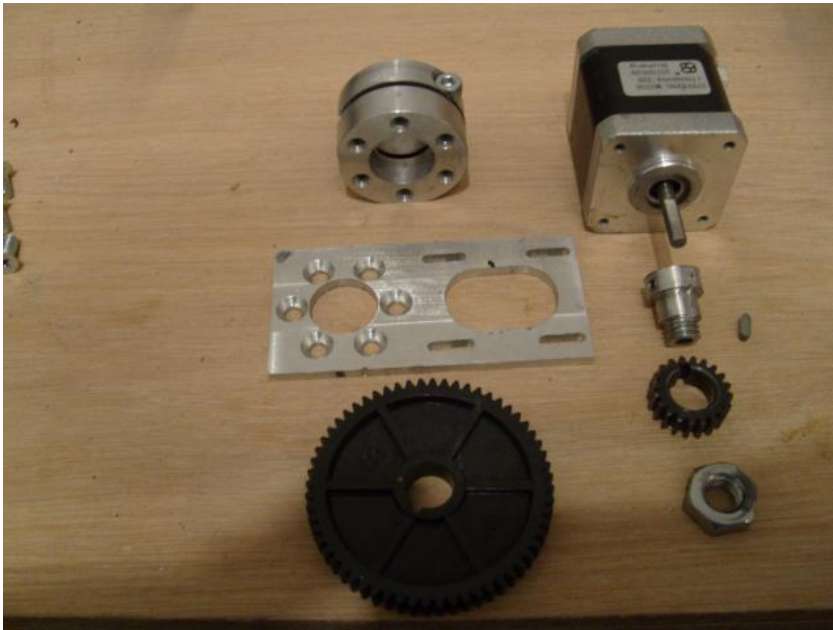
Stepper mounted:



Stepper mount assembled:



Stepper mount disassembled:



Spindle support

