



## Bed Leveling Star Grip Nuts

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updated 23. 11. 2022 | published 23. 11. 2022

### Summary

Low profile star grip nuts that allow using the OEM finger nuts as lock nuts on Qidi printers

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Updated November '23

These star grip bed leveling nuts fit the X-CF Pro, X-Max and X-Plus and probably many more printers using M4 bed leveling bolts. They are designed to be low profile so that they can be used with the steel bed support in the stock orientation (lip up) or inverted (lip down).

If the bed is in the stock orientation, then you have the option of printing the lock nuts or using the stock leveling nuts as lock nuts.

If the steel bed is inverted, spacers are used to provide clearance and the low profile locking nuts need to be used.

**Note:** Inverting the steel bed support helps with keeping debris/small parts from getting trapped and improving visibility of the spacers, but does not improve performance. Flipping the bed requires significant disassembly and modifications to the Z-Axis limit switch supports. Modified limit switch supports can be found here: XXXXX



The leveling nuts are composed of two parts. A smaller internal piece holds an **M4 Nylon Insert Lock Nut**. The larger outer piece that provides good grip/torque. The same insert fits both the leveling nut and the lock nut

**It is really important that nothing extends below the bed leveling bolts.**

There is no extra clearance and anything that extends below the bolts will probably cause a crash.

It is best if the M4 nut is a nice tight fit. You can use either scaling or flow adjustments to get a tight fit.

While I had the bed nuts off, I replaced my springs with 16mm silicone. Available on [Amazon](https://www.amazon.com/dp/B089PS4V37/ref=cm_sw_em_r_mt_dp_3NJYDVX1WH5K5GZVGT5N?_encoding=UTF8&psc=1) [https://www.amazon.com/dp/B089PS4V37/ref=cm\\_sw\\_em\\_r\\_mt\\_dp\\_3NJYDVX1WH5K5GZVGT5N?\\_encoding=UTF8&psc=1](https://www.amazon.com/dp/B089PS4V37/ref=cm_sw_em_r_mt_dp_3NJYDVX1WH5K5GZVGT5N?_encoding=UTF8&psc=1)

## Model files



**star-grip.stl**

☐ No supports



**lock-nut-grip.stl**

☐ No supports



**nut-retainer.stl**

☐ Supports might be helpful for the nut recess



**spacer.stl**

☐ No Supports

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