



**Loong Millipede:
Print in place,
articulated,
support free,
multiple lengths,
optimized.**

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Summary

Articulated millipede toy, remixed original with multiple lengths + optimized legs size for better adhesion.



7.42 hrs



5 pcs



0.20 mm



0.40 mm



PLA



35 g



Prusa
MK3/S/S+

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Tags: [articulated](#) [centipede](#) [millipede](#) [printinplace](#) [toy](#)
[caterpillar](#) [flexi](#) [flexible](#)

→ Check out also [mega long millipede](#)

Info:

- for those who likes it long

- in original from [@Loubie3D](#) (thanks for the model!) is only 1 length of the centipede/millipede/catterpillar (the other is just a scaled variation, with the same 17 fragments aka vertebrae)
 - so here I am posting variations with more vertebrae/fragments - until maximum of the plate size for MINI / MK3s+
 - other sizes can be easily achieved by Blender modification
- **OPTIMIZED:**
 - i have increased the bottom size of the feet
 - → more area sticking to plate → **bigger adhesion** to surface
 - other dimensions are the same as in original for the 98mm centipede (the smaller centipede)
- so I have cut it in **Blender** into 3 parts (head, vertebra sample and rear)
 - for vertebra is defined array modifier
 - with that it is just about to **insert number of vertebrae** and head is moved automatically based on formula → **easy to create any length of centipede**
 - locate object "thin-vertebra-array-SET-COUNT" find "array modifier", edit "count" value for anything you like
 - export STL model

Max lengths info:

- 48 vertebrae
 - this is max length then can fit Prusa MINI diagonal
 - it is also max length for Prusa MK3S for X axis
- 63 vertebrae
 - this is max length then can fit Prusa MK3S diagonal

Print instructions:

- **no supports** needed
- **I suggest use brim**, if you have problems with adhesion
 - **0.4mm distance from object** (so it is easily removed!) is enough
 - reason: it is quite risk without brim for such long millepede, too many feet :)
 - all attached 3mf and gcode files contain brim
 - with brim, you can quite safely increase speed of the print
- for print **without brim**:
 - i have optimized the model, so it has now feet adjacent to plate surface bigger, so it has more adhesion now
 - but still ensure your plate is **super clean!**
 - **possibly use 3d printing glue**
 - I was using glue while printing mine long centipede, because you can have only 1 spot not super clean (it

happened to me..), and it will cause one 1 leg slip off, and the whole print is useless...

- check the print frequently for first layers until both feet from one pair are joined via bridge, after that point the print is safer
- other tip is to reduce some speeds of a printer (not to shake the model too much)

This remix is based on



Milli: Print in place, support free, articulated millipede

by Loubie3D

Model files



millipede-thin-63vertebras.3mf

☐ maximum size for diagonal MK3S+



millipede-thin-48vertebras.3mf

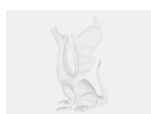
☐ maximum size for diagonal Prusa Mini



millipede-thin-34vertebras.3mf



millipede-thin-26vertebras.3mf



millipede.blend

☐ Blender dynamic model

Print files



millipede-thin-63vertebras_02mm_pla_mk3s_5h9m.gcode

⚙️ PLA ⚙️ 0.40 mm ⚙️ 0.20 mm ⌚ 5.14 hrs ⚖️ 24 g 🖨️ Prusa MK3/S/S+

📄 MK3S+ - maximum length of centipede - whole diagonal filled



millipede-thin-48vertebras_02mm_pla_mini_3h40m.gcode

⚙️ PLA ⚙️ 0.40 mm ⚙️ 0.20 mm ⌚ 3.67 hrs ⚖️ 18 g 🖨️ Prusa MINI / MINI+

📄 Prusa MINI - maximum length of centipede - whole diagonal filled



millipede-thin-48vertebras_02mm_pla_mk3s_4h1m.gcode

⚙️ PLA ⚙️ 0.40 mm ⚙️ 0.20 mm ⌚ 4.01 hrs ⚖️ 18 g 🖨️ Prusa MK3/S/S+

📄 MK3S+ - whole X axis filled with centipede



millipede-thin-34vertebras_02mm_pla_mk3s_2h53m.gcode

⚙️ PLA ⚙️ 0.40 mm ⚙️ 0.20 mm ⌚ 2.89 hrs ⚖️ 13 g 🖨️ Prusa MK3/S/S+



millipede-thin-26vertebras_02mm_pla_mk3s_2h17m.gcode

⚙️ PLA ⚙️ 0.40 mm ⚙️ 0.20 mm ⌚ 2.28 hrs ⚖️ 11 g 🖨️ Prusa MK3/S/S+

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