



EDUCATIONAL GEARLESS MECHANISM - 2:1 RATIO.



PA1_MAKER

[VIEW IN BROWSER](#)

updated 25. 4. 2023 | published 25. 4. 2023

Summary

EDUCATIONAL GEARLESS MECHANISM - 2:1 RATIO. EASY TO PRINT

[Learning](#) > [Engineering](#)

Tags: [gear](#) [gears](#) [engineering](#) [movement](#) [transmission](#)
[reduction](#) [ratio](#) [gearless](#) [educational](#)

A nice educational model of a gearless mechanism with a 2:1 ratio.
Or simply a super addictive model to play with!!! :p lol

A great way to understand motion principles. This may help you in your
different designs and make you "think out of the box".

Spins really really smooth!!! Almost no friction and very silent.

Super easy to print!

Almost no supports, only on two parts and they are super easy to deal
with. The two parts needing supports (touching build plate only) are:

- front washer (for the top lip)
- Main base (for the counterbored holes)

You will also need:

- Two 19x8X6mm bearings (O.D.: 19mm / I.D.: 8mm / Th. 6mm)
- 7x m3x10mm screws (imperial 6-32 screws works too, holes are self-threading)

Detailed instructions included, with exploded views and part names.

Fits all printers from Prusa Mini to bigger ones.

If you have any questions, just ask. I will try to do my best to help you as usual!!!

Have fun!!! Keep printing! :)

3D PRINTING SETTINGS:

For a quick print, use 0.3 layer height on the biggest parts. That's what i did.

For the small parts, go with 0.2mm.

10% infill.

Use at least 3 walls. I recommend 4, but 3 will do the job if you wanna use less.

Have fun!

FOR FULL ACCESS TO ALL MY MODELS, + EXCLUSIVE STLs AND A COMMERCIAL LICENSE FOR SELLING YOUR PRINTS, YOU CAN JOIN MY PATREON HERE:

https://www.patreon.com/PA1_MAKER

Model files

large-wheel-axle.stl



support-001.stl





crank-washer.stl



main-base.stl



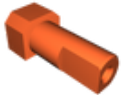
front-washer.stl



large-wheel.stl



small-wheel.stl



crank-axle.stl



handle.stl



crank.stl



support-002.stl

License ©

This work is licensed under a
Creative Commons (4.0 International License)



Attribution—Noncommercial—No Derivatives

- ✗ | Sharing without ATTRIBUTION
- ✗ | Remix Culture allowed
- ✗ | Commercial Use
- ✗ | Free Cultural Works
- ✗ | Meets Open Definition