



Planetary Gear Fidget Toy (100% Print-In-Place)



PeterBYX13

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Summary

Planetary Gear Assembly I made to flex on my additive manufacturing class. Now with easier holding!!!

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I needed to model something in Creo as part of an additive manufacturing class. So I decided to blow everyone else's models out of the water with my fully print-in-place planetary gear toy.

I spent a grand total of 4 days researching gear design from scratch, modeling the gears, and getting angry at Creo for being annoying.

(Update: I ended up getting a 200% grade on the assignment!!!)

Re-submit Assignment

You went so far beyond the requirement that I feel extra credit is warranted.

^ My professor's comment on my submission of the gear assembly.

(**Side Note:** modeling parametric gears 100% in Creo is a pain and you shouldn't do it.)

Engineering:

Gear Stuff:

Module: 2

Pressure Angle: 20deg

Bevel Angle: 45deg

Gear Reduction: 2:1

Thickness: 15mm

Teeth:

Sun: 20

Planet: 10

Ring: 40

Patch Notes:

2/2 Update:

- The original model was released.

2/28 Update:

- Added a version with a center feature to facilitate easier holding of the toy! + New Pictures!!

- Next update to feature more fun center features. Plus, I am starting to think of a fun display stand design!! Stay Tuned!!

Model files



planet_toy_hold.stl



planet_toy_nohold.stl



planet_toy_hold.3mf



planet_toy_nohold.3mf

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