Printables by JOSEF PRUSA

Planetary Gear Light Switch Cover

squinn

VIEW IN BROWSER

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Summary

Add some intrigue to your room by changing up your wall switch with this mechanism designed around a planetary gear.

Household > Other House Equipment

Tags: wall light switch lights lightswitch planetary planetarygear lightswitchcover switchplate switchplatecover planetarygears lightswitchplate planetarygearholder

Accessorize the light switches at your home or office with this intriguing mechanism that utilizes a planetary gear!

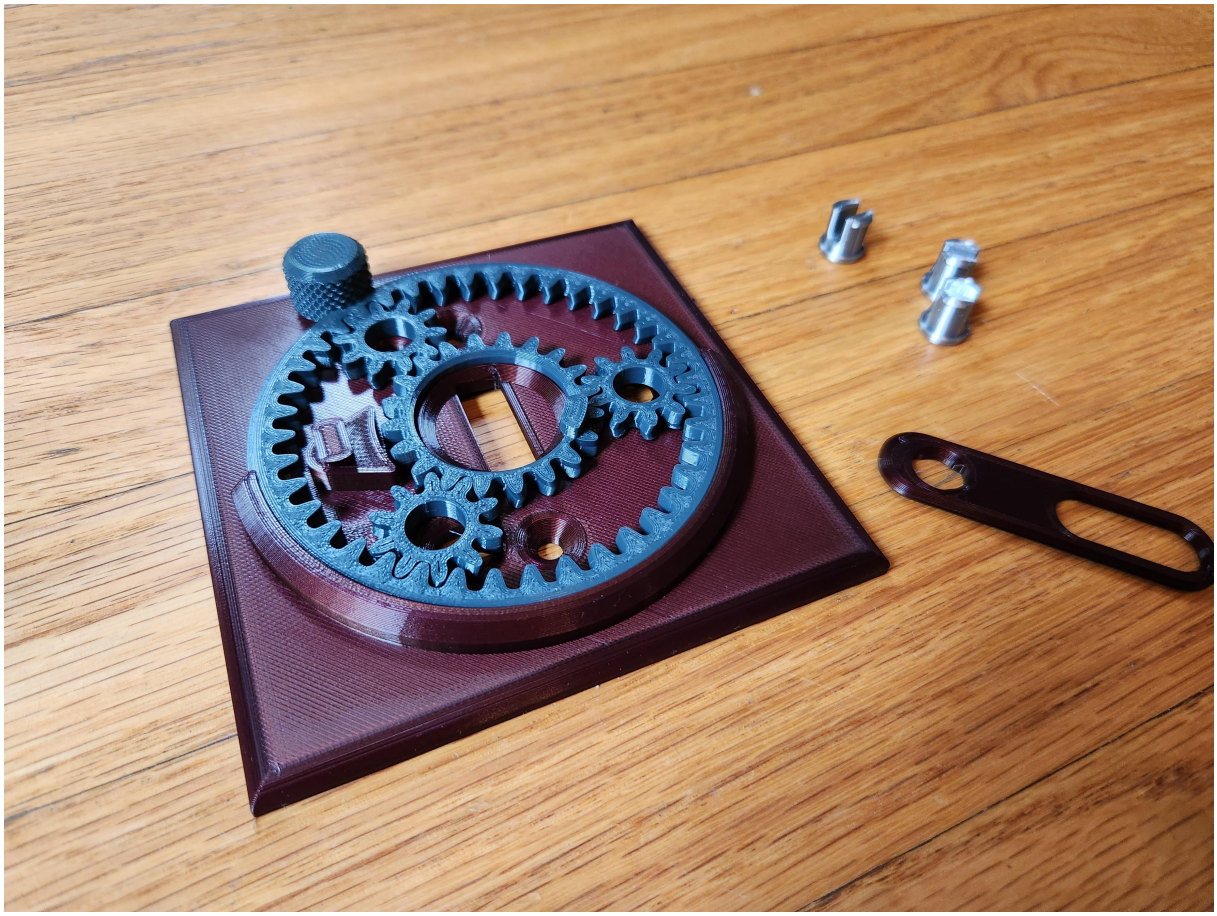
All parts can be 3D printed (no supports are required), and the design is fully snap together - so no glue is needed. I printed the five gears as a unit (using the attached “Planetary Gears.stl” file), which shows their proper orientation for assembly. But, if you'd rather print the gears independently (or are worried that a roughly .2 mm gap tolerance between the gears may cause an issue on your printer), then an individual STL is provided for each gear as well.

I designed this model from scratch for the “Office Accessories” here on Printables, but I want to call out “Engineer Dog” who showed off a similar idea several years ago. Some notes on assembly follow:

Step #1:

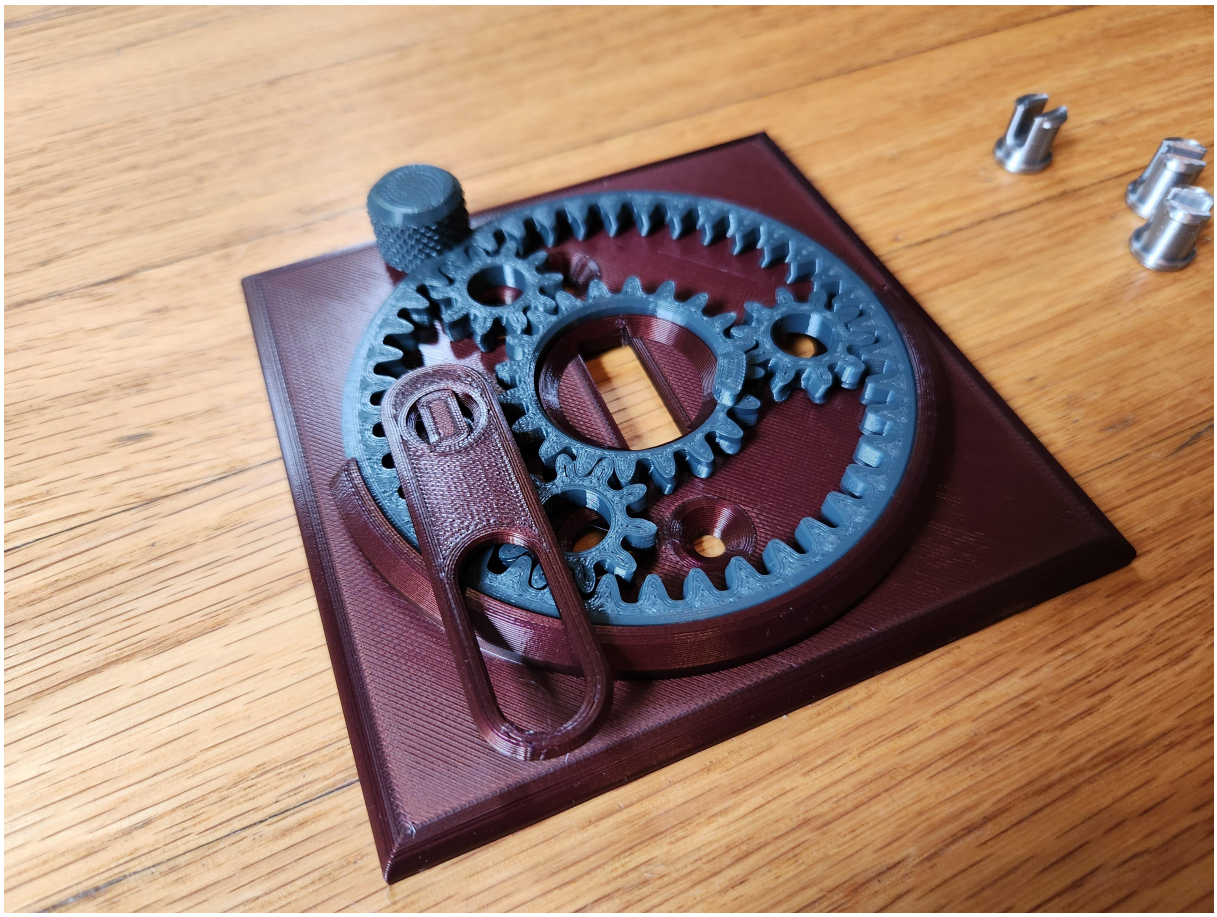
Place the gears on the base plate in the orientation shown below, and note that the “planet gears” do have a right-side-up (due to the use of a

double-helix gear style, which is part of what helps the entire piece hold together without needing additional brackets):



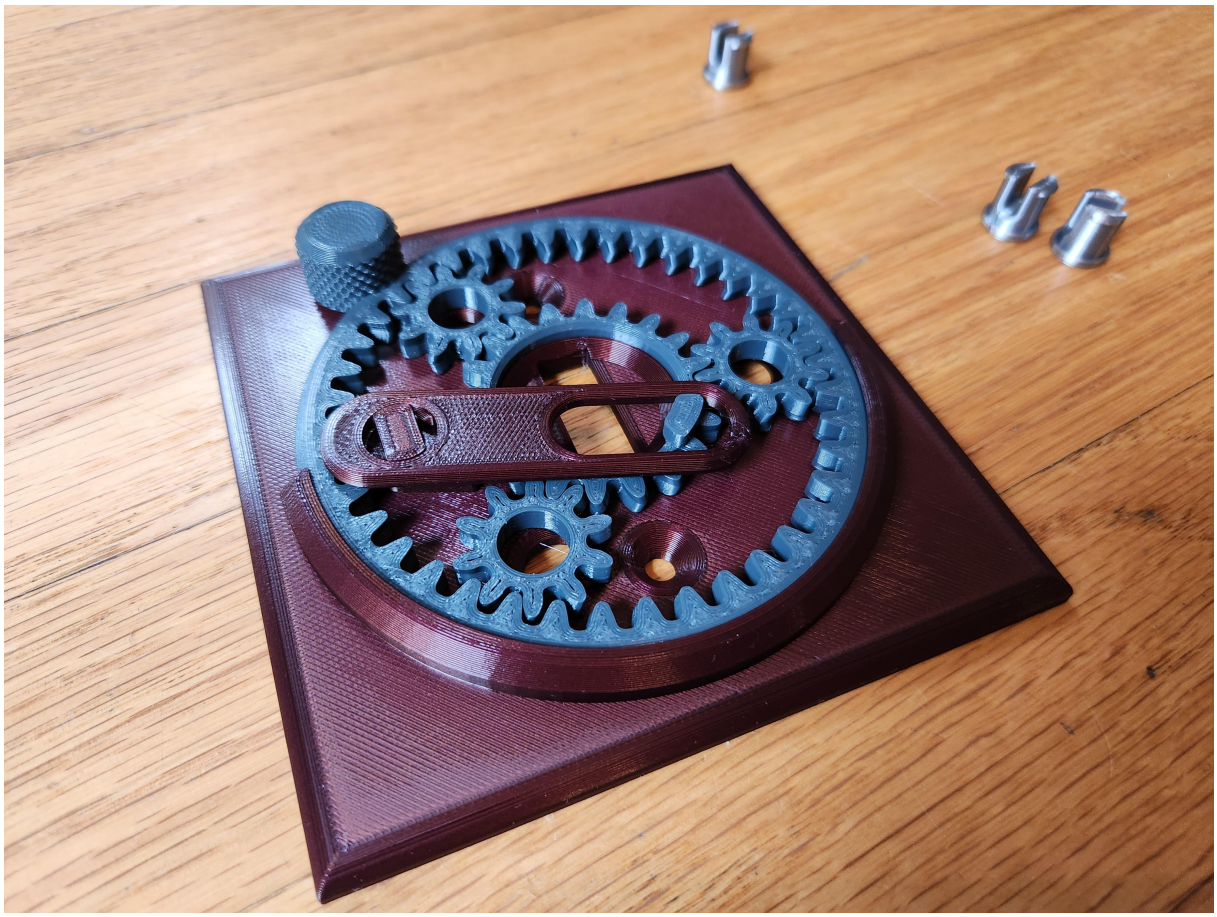
Step #2:

Place the rocker arm over its pivot point, with the long part of the arm facing towards the bottom of the plate:



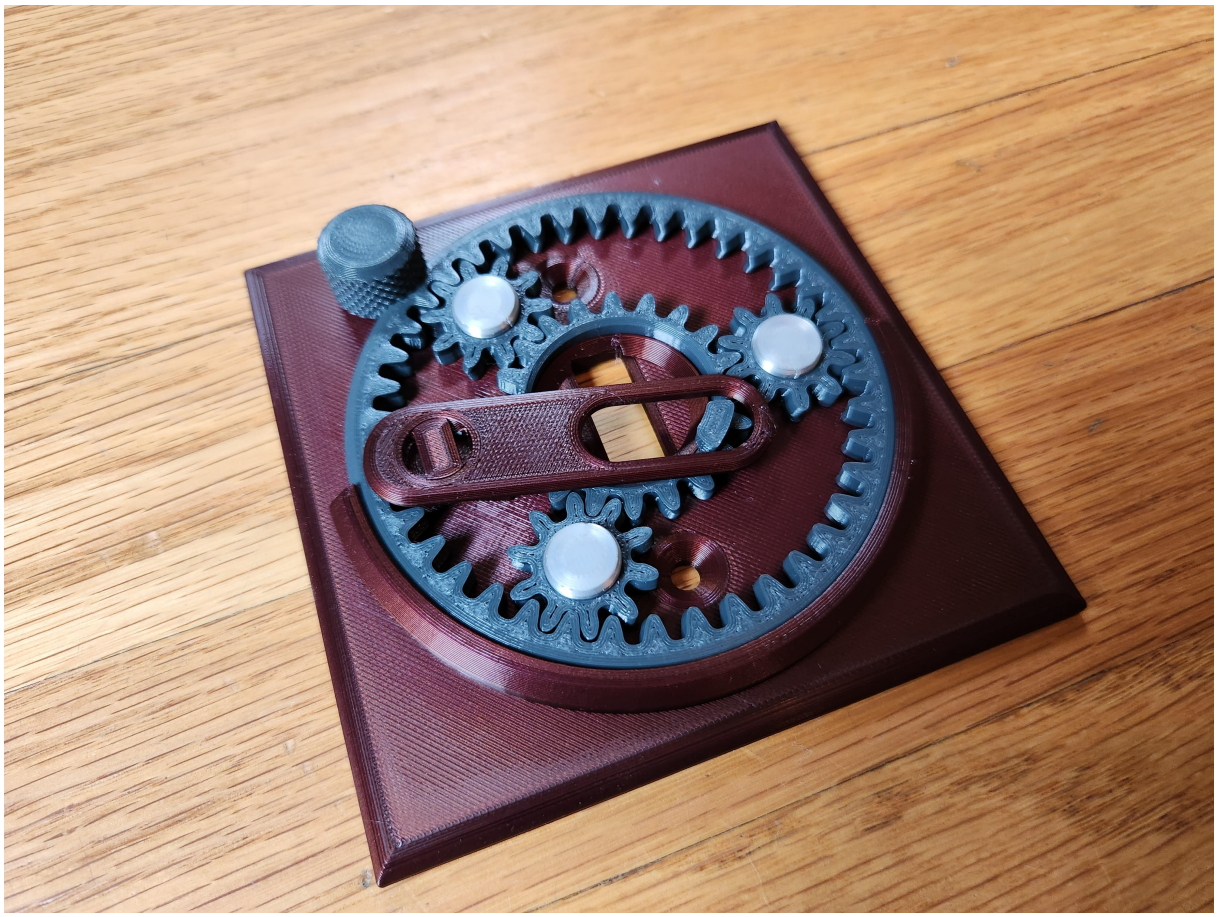
Step #3:

Swing the rocker arm around and gently lift it over the top of the actuator peg on the sun gear:



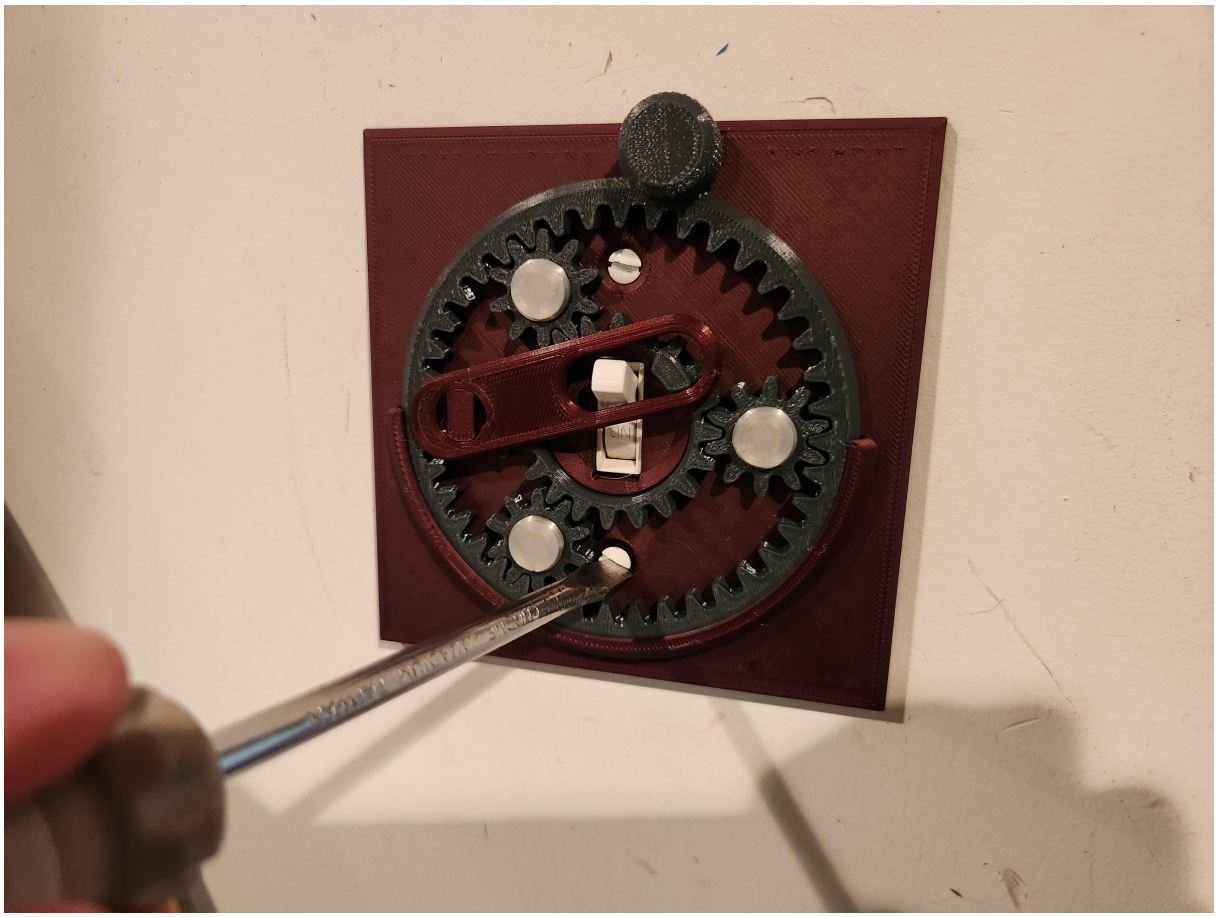
Step #4:

Press the three gear nuts through the planetary gears until they snap into the other side of the base plate:



Step #5:

Unscrew your original light switch plate cover, and then attach your new planetary gear light switch cover using the same screws from the original:



Model files

planetary-gears.stl

ring-gear.stl

sun-gear.stl

planet-gear.stl

gear-nut.stl

rocker-arm.stl

base-plate.stl

planetary-gears-wall-switch.3mf

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