



Kinetic Sculpture for Prusa MK3S



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Summary

Inspired by David Roy's kinetic sculptures I made this rotation indicator for my Prusa MK3S. The spirals turn in...

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Inspired by David Roy's kinetic sculptures I made this rotation indicator for my Prusa MK3S. The spirals turn in different directions thanks to a planetary gear.

I designed everything so it would all be held together by nine 8x3mm neodymium round magnets. (Almost) No glue needed!

Assembly:

- fit the five planet gears into the holes on the flat side of the base plate (the four rings fit into the screw holes of your extruder)
- take three magnets and fit one side into the sun gears inlet
- fixate with five more magnets from the flat side of the gear (this is now your axis where everything will rest on)
- put the side with the three magnets through the flat side of the base plate. the gears should turn freely now.

- glue the coupling to the outer gear ring's flat side. use the magnets to center the holes.
- press fit the inner spiral with the spirals facing left all the way into the coupling
- fit the last magnet into the hole of the outer spiral (mind magnet orientation)
- combine the outer spiral (facing right) with the rest of the magnets. everything should hold together except the base plate with the five planet gears. put your old indicator on top of everything if you like.
- grab the whole construction and carry it to your extruder. the magnets will snap to the motor shaft. now it's safe let go. press the base plate into the screw holes of the motor. done! Check it out in motion: <https://youtu.be/TISsHycrOuQ> Note: don't worry if the rotation gets stuck. it won't affect your printer. it will wiggle free on the next retraction move.

Category: 3D Printer Accessories

Model files

inner_spiral.obj



outer_spiral.obj



sun_gear_4.obj



outer_gear_4.obj



planet_gear_4.obj





coupling_4.obj



base_plate_4.obj

[Find source .stl files on Thingiverse.com](#)

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