

Mechanical Heart



VIEW IN BROWSER

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Summary

a Mechanical Heart sculpture



32.79 hrs



3 pcs



0.20 mm



0.40 mm



PET



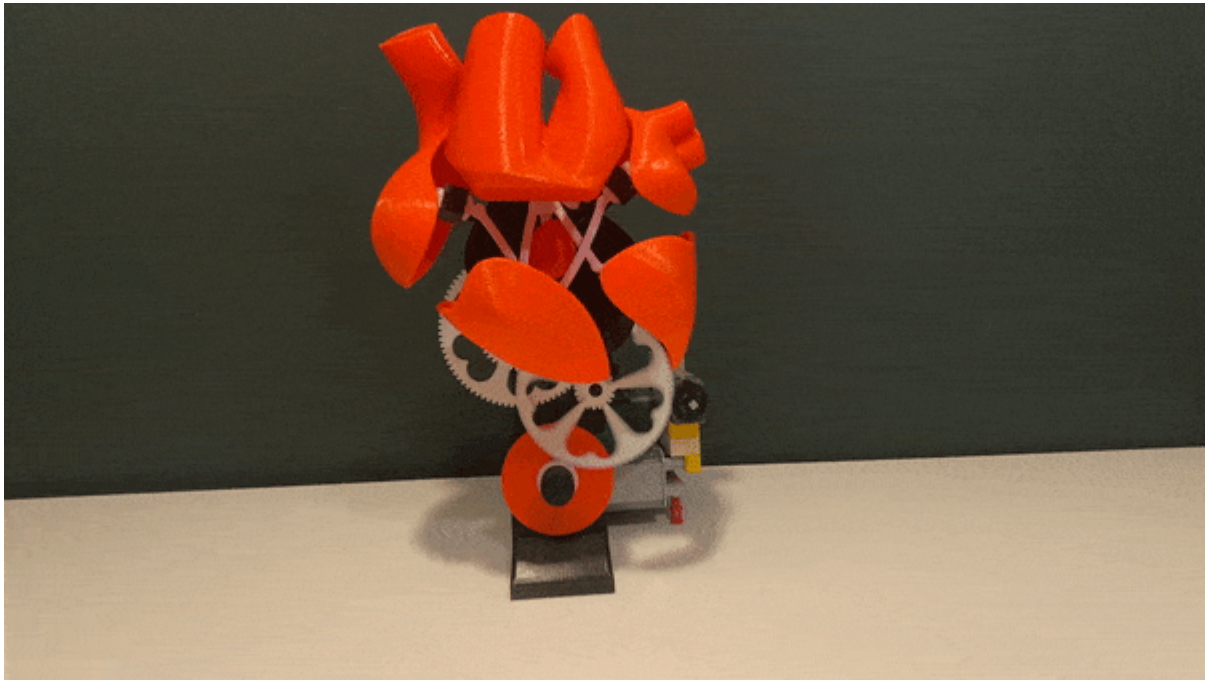
364 g



Prusa
MK3/S/S+

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I added lego motor on the side for the animaton, it was designed to be hand driven

Printing

all parts are already orientated correctly.

Material: PETG

the last letter on the model names indicate what color i used.

Orange parts: 10% cubic

The big heart shape parts are printed with 30° support with painted on supports on the edges and no supports in the hexagonal holes for the pins.

I printed it with “Snug” Supports.

The top part of the heart shape does not need support.

the heavy wheel is 100% infill

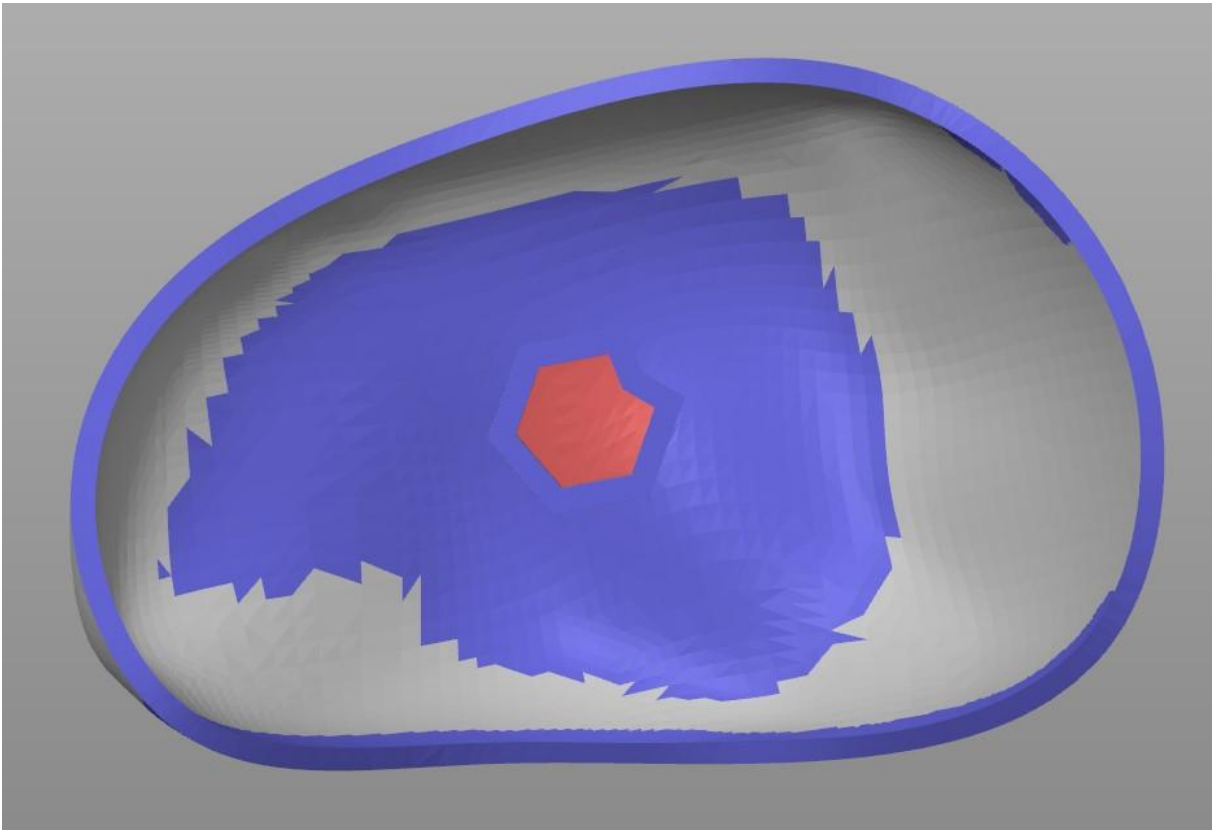
White parts: 15% cubic

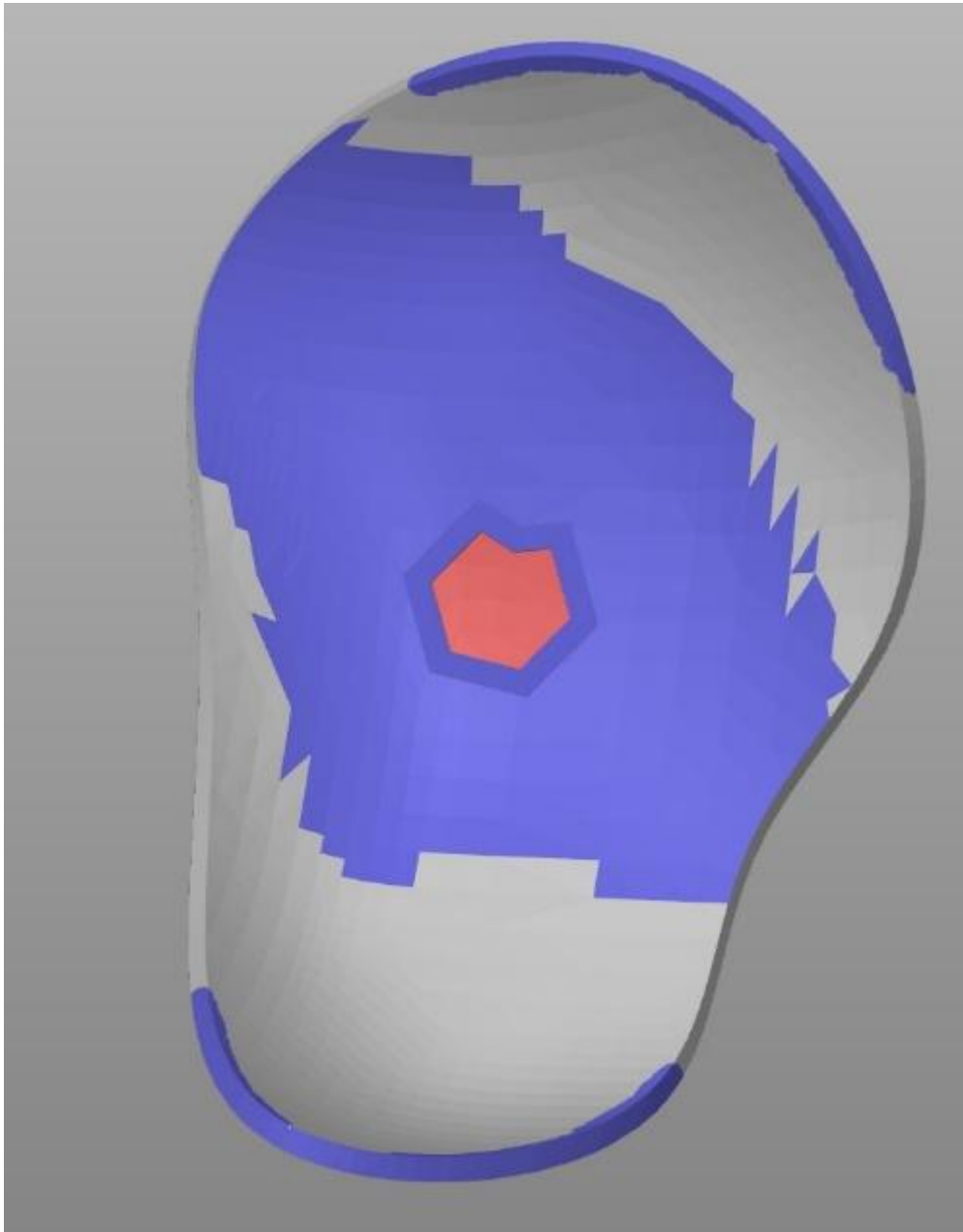
The pins need 50° support for the balls on the end.

Black parts: 15% cubic

the stand 15% cubic and above 5mm, 100% infill (to make the foot heavier).

Where I put supports:

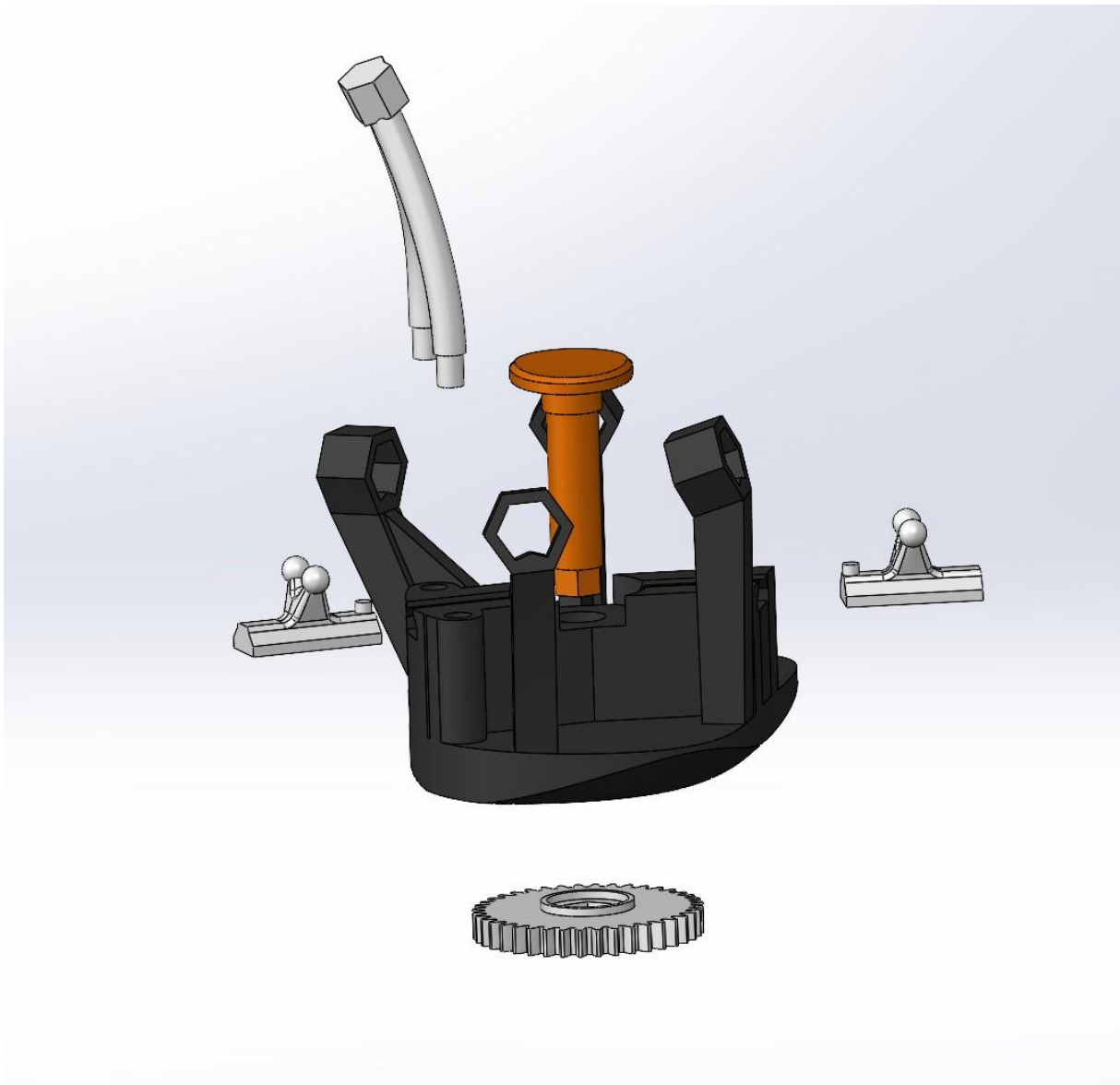




The amount of support might be overkill.

Assembly

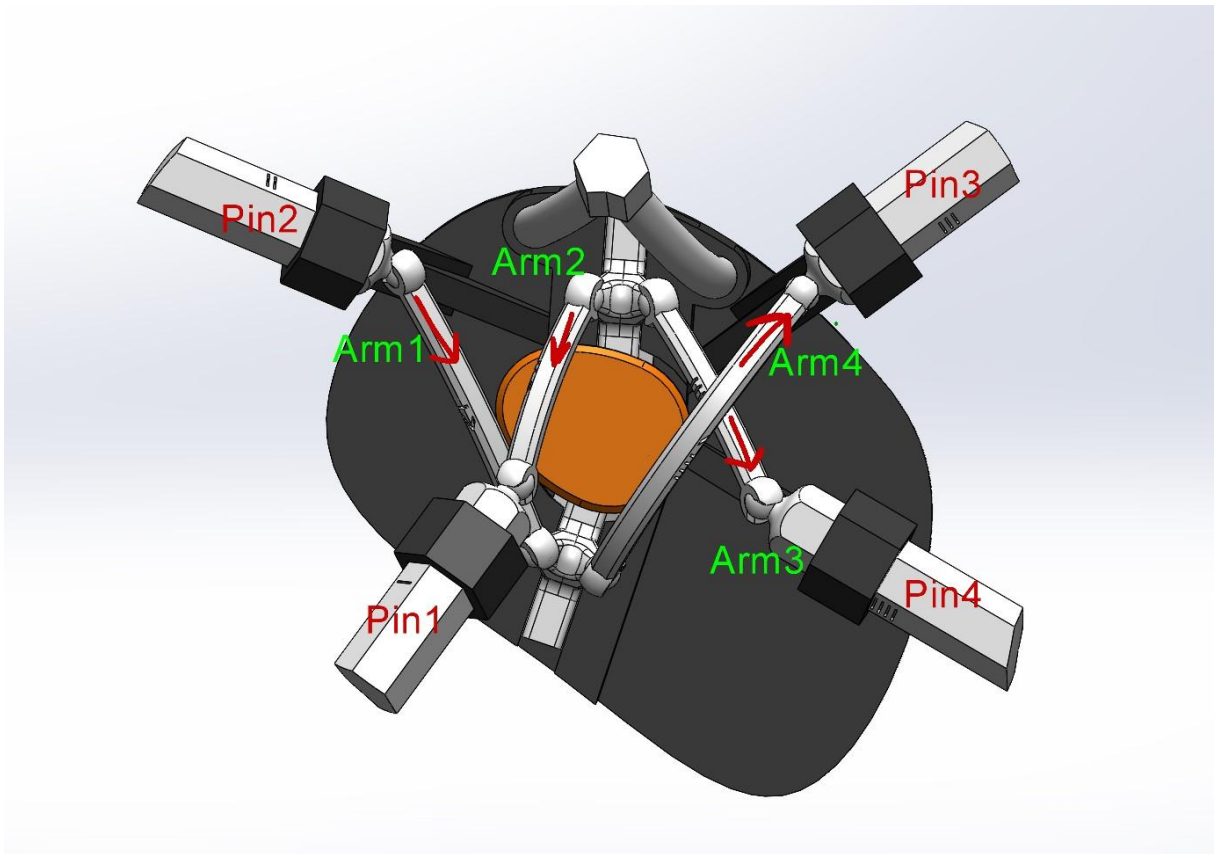
Heart



Everything should moves somewhat freely by moving the pins without the arms and before adding the segments.

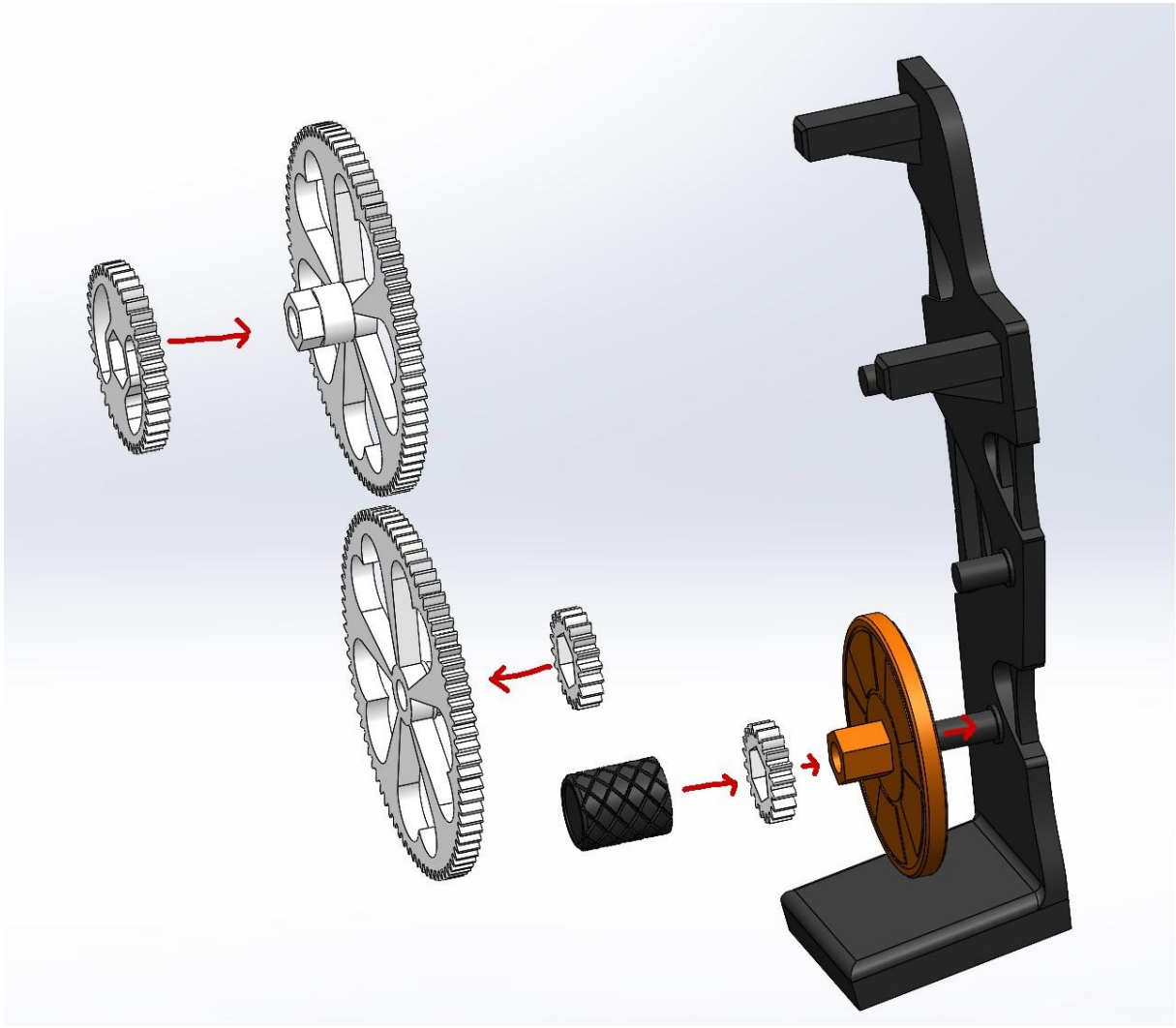
Some sanding might be needed if your filament was exposed to moister or the bridging sagged a bit much.

(I had to do some sanding because my filament was exposed to moister)

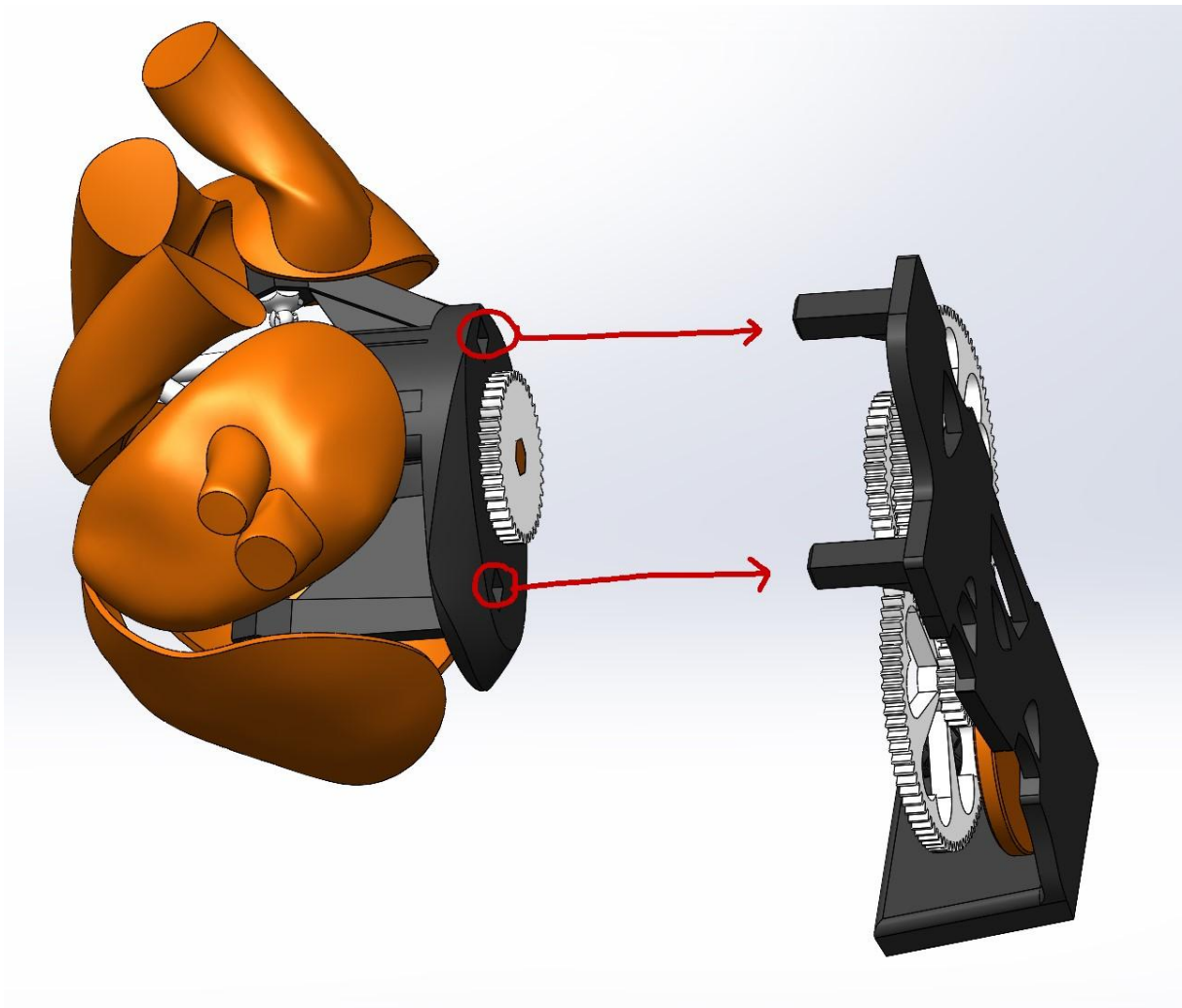


The arms and pins have small notches that indicate the direction and what number they are. If you can't see the notches clearly, compare them with the 3D models.

Stand



Complete



Enjoy the heart, and don't forget to shock people by telling them you have a mechanical heart and then explain that you printed it. ;)

Model files



The Stand

8 files



the-stand-thestand-b.stl



the-stand-biggearlongshaft-w.stl



the-stand-medium-gear-w.stl



the-stand-biggearshortshaft-w.stl



the-stand-smallgear-1-w.stl



the-stand-smallgear-2-w.stl



the-stand-heavywheel-o.stl



the-stand-handcrankknob-b.stl



Mechanical Heart

19 files



mechanical-heart-shaftandcam-o.stl



mechanical-heart-static-base-b.stl

mechanical-heart-aortasupport-w.stl



mechanical-heart-heartbackgear-w.stl



mechanical-heart-gliderforarms-1-w.stl



mechanical-heart-gliderforarms-2-w.stl



mechanical-heart-pin-1-w.stl



mechanical-heart-pin-2-w.stl



mechanical-heart-pin-3-w.stl



mechanical-heart-pin-4-w.stl



mechanical-heart-arm-1-w.stl



mechanical-heart-arm-2-w.stl



mechanical-heart-arm-3-w.stl



mechanical-heart-arm-4-w.stl



mechanical-heart-top-aortas-o.stl



mechanical-heart-rightdownpart-o.stl



mechanical-heart-rightuppart-o.stl



mechanical-heart-leftuppart-o.stl



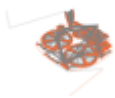
mechanical-heart-leftdownpart-o.stl

Print files



black_parts_02mm_petg_mk3s_8h48m.gcode

⊗ PET ⊕ 0.40 mm ≡ 0.20 mm ⌚ 8.81 hrs ⚖ 114 g 🖨 Prusa MK3/S/S+



white_parts_02mm_petg_mk3s_5h1m.gcode

⊗ PET ⊕ 0.40 mm ≡ 0.20 mm ⌚ 5.02 hrs ⚖ 47 g 🖨 Prusa MK3/S/S+



orange_parts_02mm_petg_mk3s_18h58m.gcode

PET 0.40 mm 0.20 mm 18.96 hrs 203 g Prusa MK3/S/S+

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