



“Make a mess, with springs!”



M Ponders

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Summary

Make a mess on paper with springs, two sharpies, and a drill. Is it art? Thats up to you! Is it fun? Sure is!

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Introducing the “Make a mess, with springs!” Simply grab your two favorite sharpies, clamp them into place, and tighten the assembly into a drill! Spinning up the drill on a piece of paper will make a pretty mess!

Please be careful and use at your own risk!

Story of this design:

While working on a proof of concept for a project’s clamp mechanism, I needed a way to tell if the mechanism would open when spun at high speeds. I attempted to use the slo mo feature on my phone, but the drill still spun too fast.

Then, while looking at this week’s competition, inspiration struck. What if I used sharpies to map out distance between the slide of the clamp? If they got wider, so would the marks on paper. I got everything designed, printed, and assembled.

And... it completely failed. BUT! It could still be seen as some interesting, and maybe pretty, marks on a paper!

Hardware needed:

4x M3 x 12mm bolts

4x M3 x 20mm bolts

8x M3 hex nut

1x M6 x 30mm bolt

1x M6 hex nut

2x 7/32" x 1" tension springs

Files to print:

1x Top Linkage

1x Bottom Linkage

2x Marker Holder

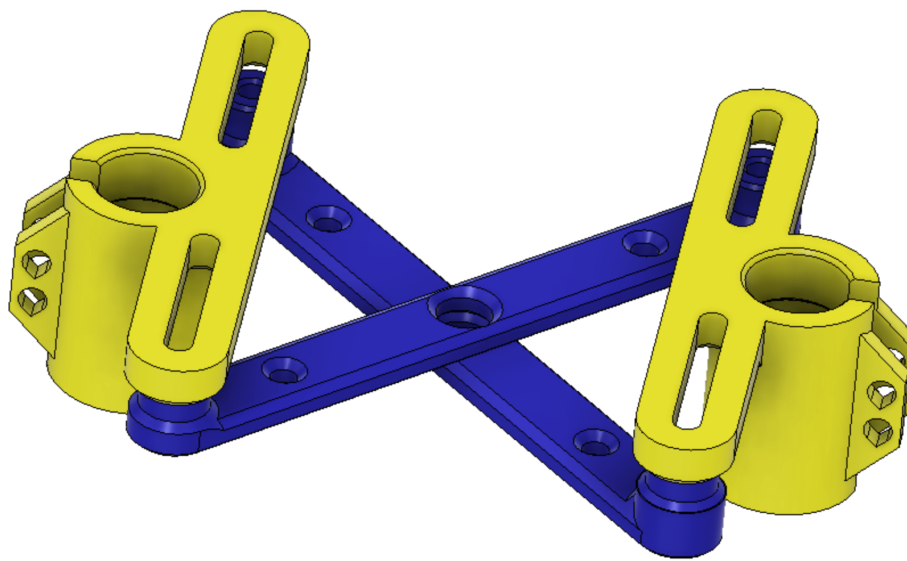
Printing:

Print all files as imported into the slicer.

No supports are necessary.

Assembly:

1. Place the top linkage on top of the bottom linkage, with the cylinders pointing up.
2. Slide an M6 bolt from above through the center hole in the linkages and use the corresponding M6 nut to lock it into place.
3. Slide 4x M3 nuts into the hex shaped holes in the bottom of the linkages.
4. Then, using 4x M3 x 20mm bolts, bolt each marker holder on either side as shown in the image below.



5. Using 4x M3 x 12mm bolts and 4x M3 nuts, connect the tension springs perpendicular to the marker holders using the remaining holes in the linkages.



6. Connect the end of the M6 bolt into a drill.

Have fun! But be safe!

Model files



marker-holder.stl



top-linkage.stl



bottom-linkage.stl

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