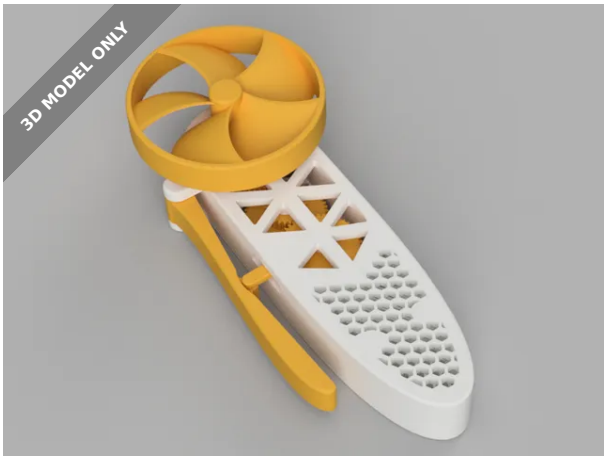

Mechanical Squeeze Fan V1

SohaMax

VIEW IN BROWSER

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Summary

Its a Mechanical Squeeze Fan which help to get some air when you have no electricity nearby.

Gadgets > Portable Devices

Tags: fan portable

Introduction:-

This is fully mechanical, 3d-printable squeeze fan. Its only need your hand no electricity and battry needed. I designed this from scratch using Fusion 360 to practice cad :-)

The Mechanics:

- Its a squeeze fan so its work with hand. First you have to squeeze the hendel which is connected with a 48 teeth gear (rack-and-pinion).
- Now the 48 teeth gear connected with another gear's 24 teeth side (this gear have two different sides one 48 and other 24 teeth)
- this gear's 48 teeth side connected with another 2 side gear's 24 teeth (this gear's one side 24 and other side 34 teeth)
- now this gear's 34 teeth side connected with the main fan rotating gear's 17 teeth
- all gears were connected with each other with the ratio of 1:2

- finally the fan started to give fresh air.

Hardware and bom:

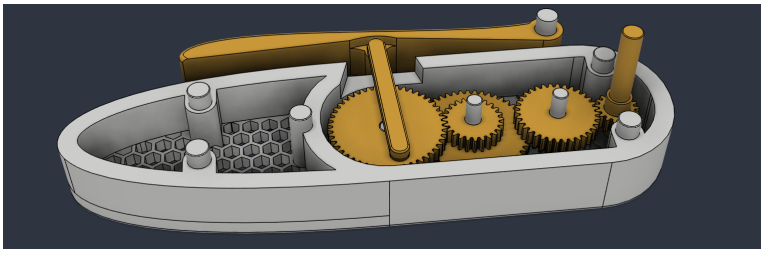
- its have total 12 parts (one part need to be printed 2 times no extra others Thing needed.

3D Printing Instructions:

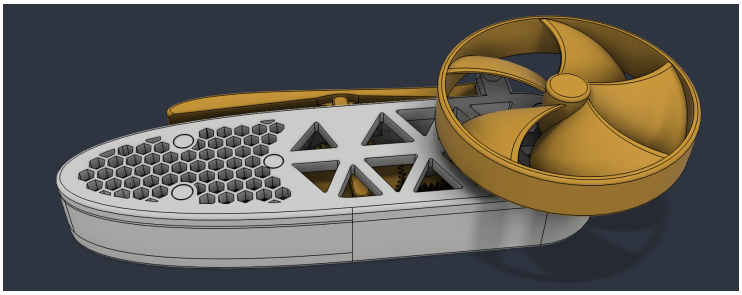
- you have to print all parts one by one with PLA OR PETG .
- The "stick_2" need to be print 2 times .
- recommend 20% to 30% infill so the gears are strong .
- This Mechanical Squeeze Fan no need any supports to print (I think).

Assembly Steps:

1. first you have to take the "down_body" part
2. then you have to assemble the "hendel" and "stick 1 and 2" to the down body
3. after it you have to connect the "gear_1" with the "stick_1"
4. now place the "gear_2" with the middle "stick_2"
5. place the "gear_3" with the last "stick_2". like this



6. place the main gear in the top hole
7. now assemble the "top_body" with the down body and at last add the fan to the main gear big stick thing like this



now your fan is ready!!!

What I learned?

- I learned a lot. This is my 3rd time making a cad thing.

- I learned about gear how gear work and some many more bla bla and also learned how to make it in fusion
- I learned about fan like how to make a fan the big round yellow part in fusion
- I also learned to make honeycomb design
- I'm really happy that i made this!!

Some Bla Bla:

I love that how many things I learned by making this fan. I will make many more things so be ready and I'm also ready to learn more about cad and how mechanics works. Plz rate it out of 10 !!!

- **{_/}**
- **(• . •)**
- **/ >♥**

Credits & Inspritation

I already knew that the squeeze fan already made. I tried to recreate it so I searched one yt to see how the mechanism work and boom! I got a shorts where I saw the core mechanism. So I really want to credit

- **This person's or yt chenel's short video link:** https://www.youtube.com/watch?v=HI3wVBHoWD0

thank you soo much for this great idea!!

Model files

ssembled Mechanical Squeeze Fan V1 stl 1 file

final-mechanical-squeeze-fan.stl

Assembled Mechanical Squeeze Fan V1 step 1 file

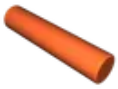
final-mechanical-squeeze-fan.step

Mechanical Squeeze Fan V1 (all parts' stl) 11 files

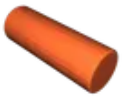
lever-puller.stl

hendel.stl

main-fans-gear.stl



stick_2.stl



stick_1.stl

gear_3.stl

up_body.stl

down_body.stl

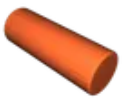
gear_1.stl

gear_2.stl

main_fan.stl

Mechanical Squeeze Fan V1 (all parts' step) 11 files

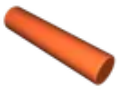
fan.step



stick-1.step

lever_puller.step

hendel.step



stick_2.step

you need to print this 2 times

down_body.step

main_fan_gear.step

up_body.step

gear_3.step

gear_2.step

gear-_1.step

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