A7:

Saturday, May 4, 2019 15:39

A7: Final Project Proposal

- Due May 29 by 5:59pm
- Points 3
- Submitting a website url

Create a proposal pitch for your final project. Your pitch should include

- a concept, including concept sketches, intended use case, context
- a breakdown of tasks (e.g. CAD modelling, 3d printing, casting, finishing)
- a timeline with contingency plans
- a Bill of Materials with sourcing schedule

Your proposal can be for any digitally fabricated object.
Your plan must including at least four of the techniques we learned in class e.g. casting, mechanism design, laser cutting, and grasshopper, or 3d printing, CNC milling, laser cutting, casting.
Document your proposal on a webpage linked to from your main webpage. You will present your proposal in class next week using your documentation.
You are encouraged to work together but all work submitted must be your own. Please list your collaborators and peer-teachers in your documentation acknowledgements. If you use external sources (e.g. for images) please attribute them.
FAQ!
q: Do I have to stick to my proposal? a: yes, changing your plan will cost you points in your final! so be realistic!

From <https://canvas.uw.edu/courses/1273625/assignments/4802074>

Mexican surprise box.

Parts:

Box: CNC Milled

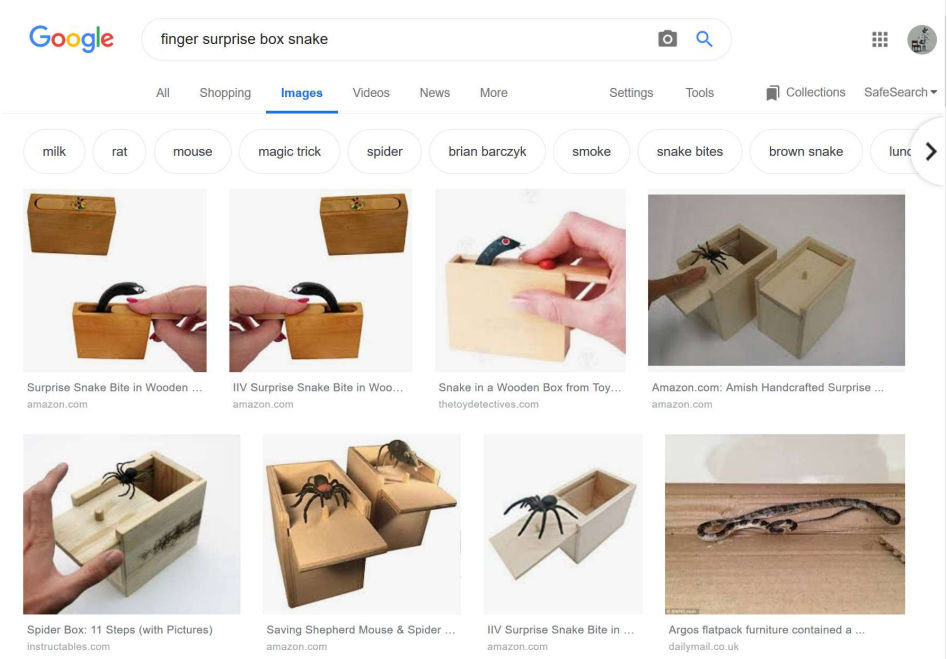
Grasshopper + Laser: Caja
CNC + Mechanism: engrane al jalar
3D print: Bicho

For the final project, I will take a stab at recreating a toy that I remember from my grandparents' place.

CONCEPT

A box with a sliding door that causes a snake (or some other critter) to rise towards the finger that opened the box.

Some searches returned some interesting examples:



USE CASE

The intended use case for this box is to scare the curious individual who dares open it.

BREAKDOWN OF TASKS

3D Modelling + laser cutting
- Box sides

3D printing, mechanism design:
- Mechanism/gear that raises the surprise

3D printing
- Critter/surprise object

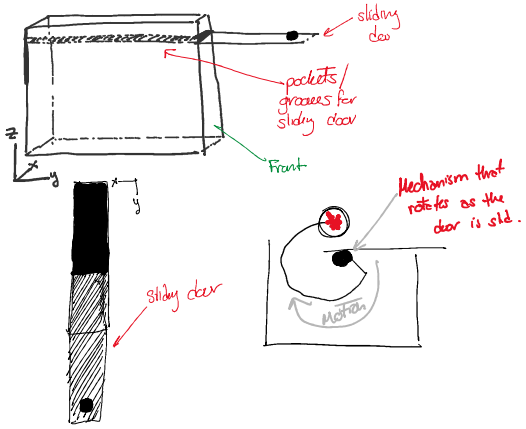
Milling
- Mechanism to slide the box cover.

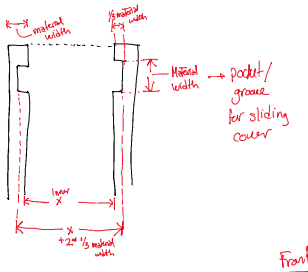
BILL OF MATERIALS & SOURCING SCHEDULE

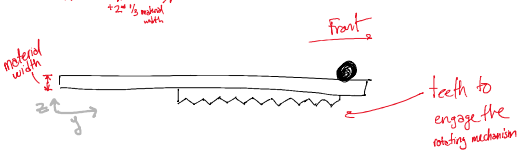
Material	Sourcing status
Frosted acrylic	Own
Filament (3D printing)	Own

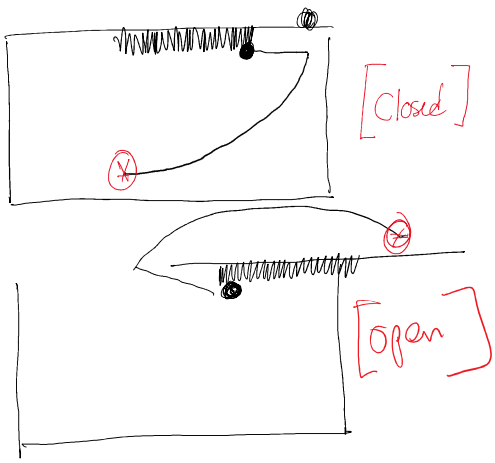
PLAN

Tasks	Time ETA	Date Start	Date Finish
Design box parts	2h	5/27	5/27
Design mechanism to raise surprise	2h	5/27	5/27
Cut box parts	2h	5/28	5/28
Mill box parts for sliding mechanism	2h	6/1	6/1
3D print surprise	2h (active)		
3D print mechanism to raise surprise	0h (combined w/ above)		
Assemble components	2h		
Testing	1h		
Re-engineer & re-fabricate parts	3h	**6/2**	**6/2**
Document project	2h	**6/2**	**6/2**





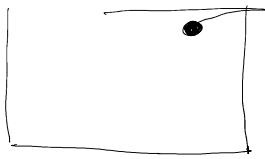


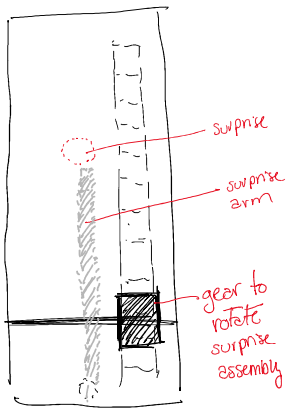


[Alternative mechanism]

PARTS

[Alternative mechanism]





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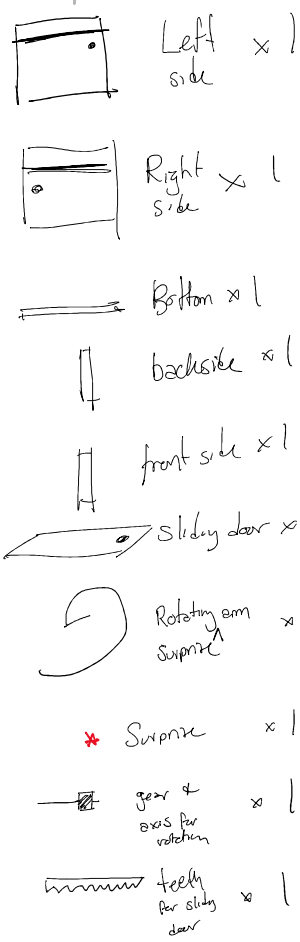

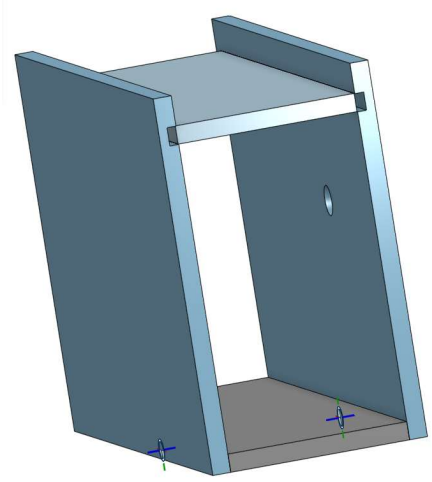

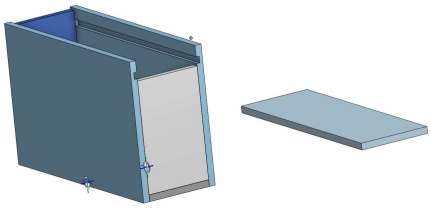

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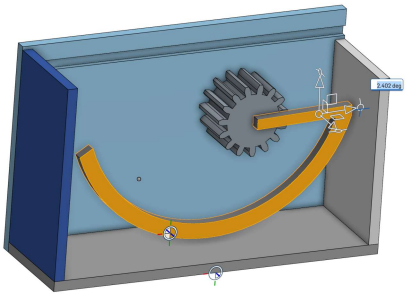
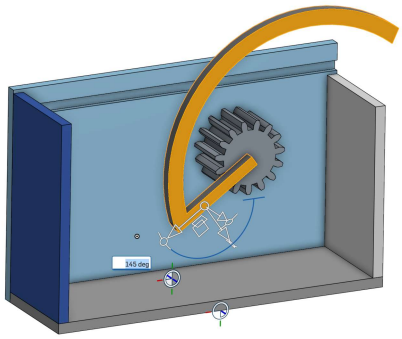
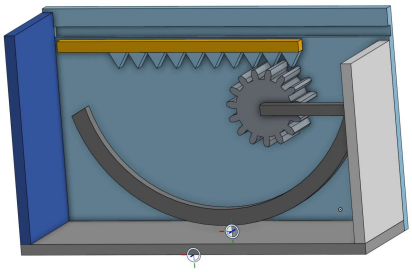
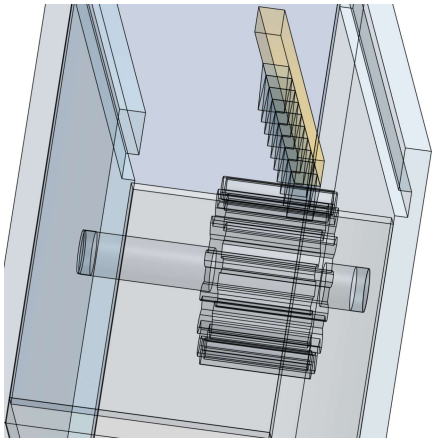




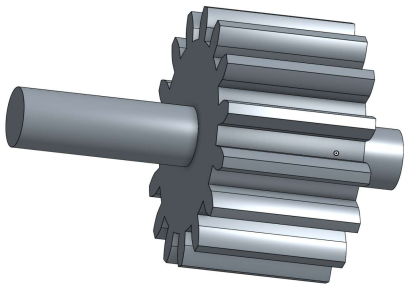




SOURCES

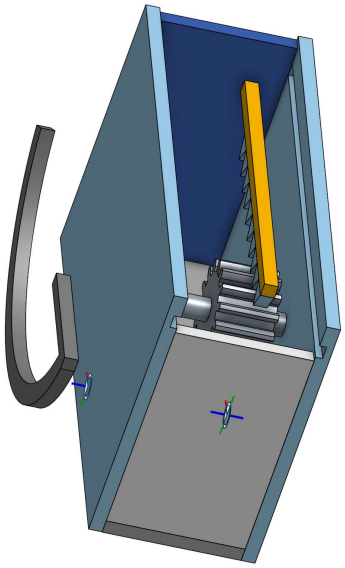
https://cad.onshape.com/documents/c9a5ab9cc17f4a71b44f9828/w/fe9439076f8347d981a9c624/e/f8117c468d9249649a3ec575

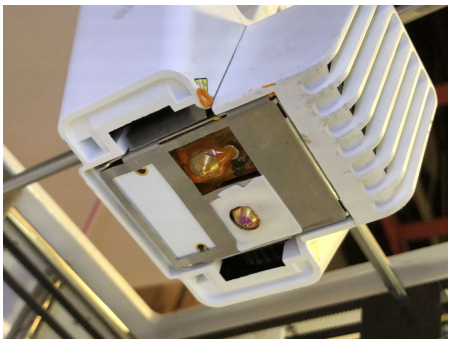
How to model rack and pinion
https://forum.onshape.com/discussion/2036/modeling-a-gear-rack



Steps:

- Laser cut the sides of the box
  - 4x sides (2 extras just in case)
  - Back
  - Front
  - Bottom





Steps:

- Laser cut the sides of the box
  - 4x sides (2 extras just in case)
  - Back
  - Front
  - Bottom

Creating my own OC thanks to my final fabrication project.
How I hear my own voice
How my voice sounds in recordings