

# FINAL PROJECT JOURNAL

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MACHINE LAB

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ENTRY #1 [04.01.2020]

## → THEME IDEATION

looking back to the previous mechanisms, for Machine Lab and intro to IM, I realized my interest towards replicating things that already exist in our daily routine / natural environment. That was also the case for this project. Some of the themes that came to mind for the clock were :

## II ECOSYSTEM

CLOCK which animates a particular ecosystem according to time.

EXAMPLE : Sun rises at 6AM → animal wakes up at 7AM → Birds fly at 10 AM -



sunset at  
7PM

moon at  
8PM



## 2 DAILY ROUTINE

CLOCK which animates a person's daily routine

EXAMPLE : Wake Up → eat breakfast

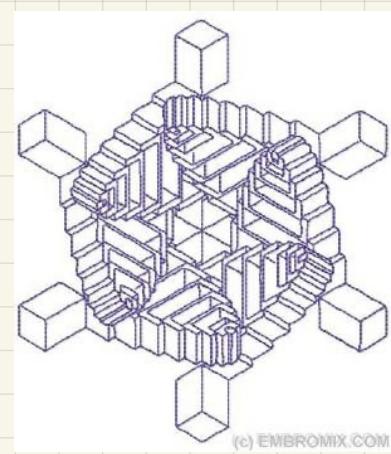
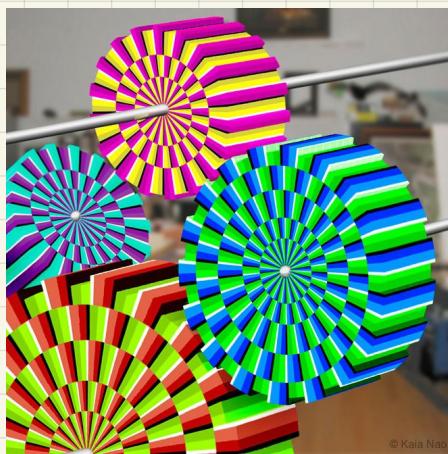
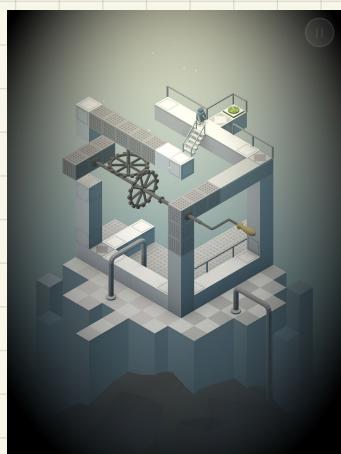


STUDY



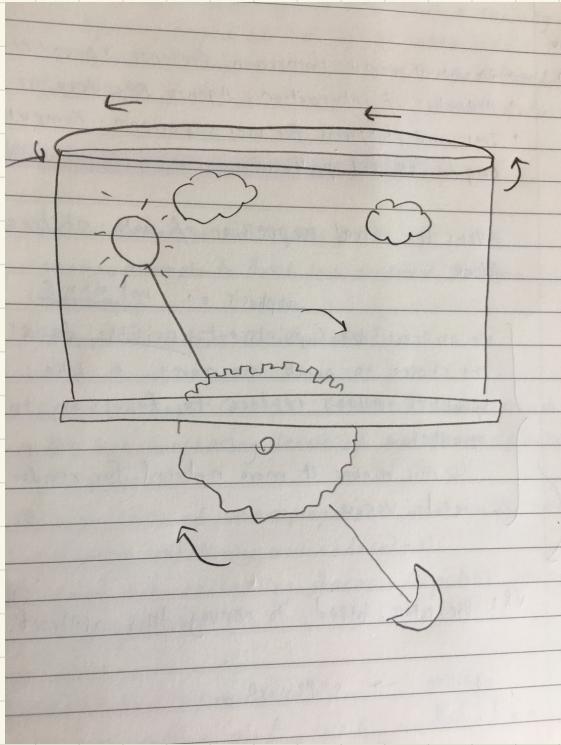
## 3 OPTICAL ILLUSION MECHANIZED

Make a mechanized / animated optical illusion which functions in time intervals.



## ENTRY #2

→ SKETCH BASED ON CHOSEN THEME



From the 3 brainstormed themes, I was drawn towards the eco-system theme as making mechanisms of animals and insects seemed like a fun thought.

→ Michael told us to draw a rough sketch of the basic mechanism.

## ENTRY #3

→ CLASS THEME

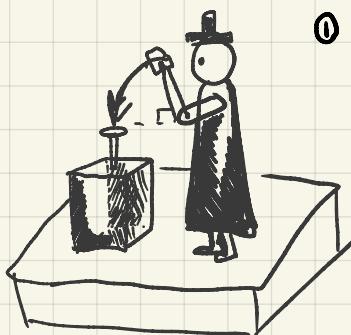
In class, each student shared their brainstormed themes / mechanisms. As the clock was a group project, the topic needed to satisfy certain criteria.

- ① Majority vote
- ② A theme that allows individual expression for each student
  - ↳ to give each individual some creative control
  - ↳ also, because of corona / remote learning.
- ③ Theme general enough for many ideas to rise

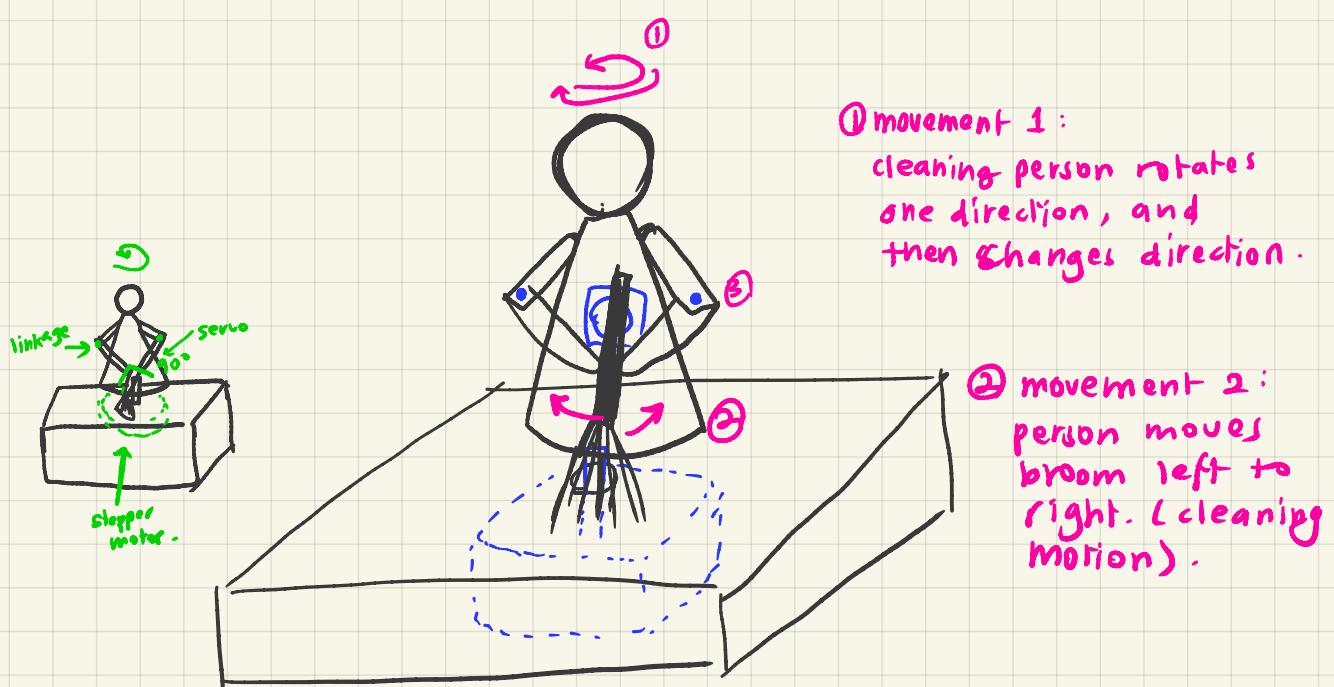
Taking all these factors into consideration, it seemed Ivory's theme of mechanizing activities relating to our hobbies was most apt for the project.

## ENTRY #4

→ BRAINSTORMING HOBBY

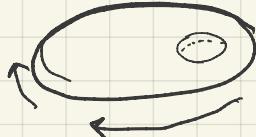
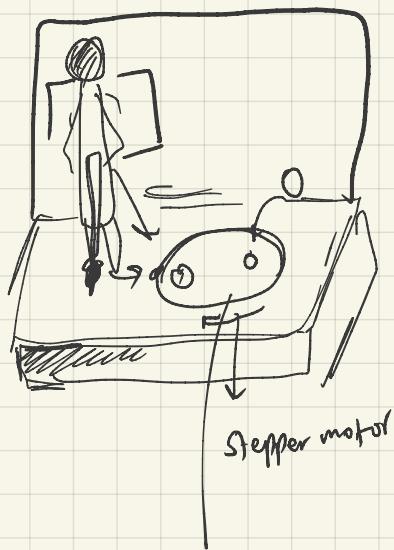
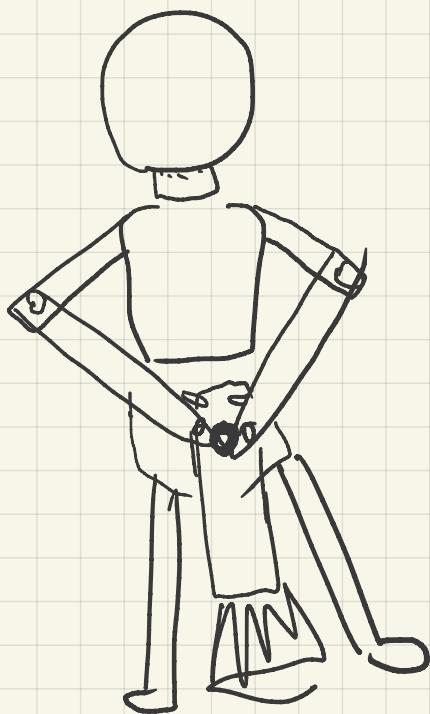


① HAMMERING PERSON



① movement 1:  
cleaning person rotates  
one direction, and  
then changes direction.

② movement 2:  
person moves  
broom left to  
right. (cleaning  
motion).



## ENTRY #5

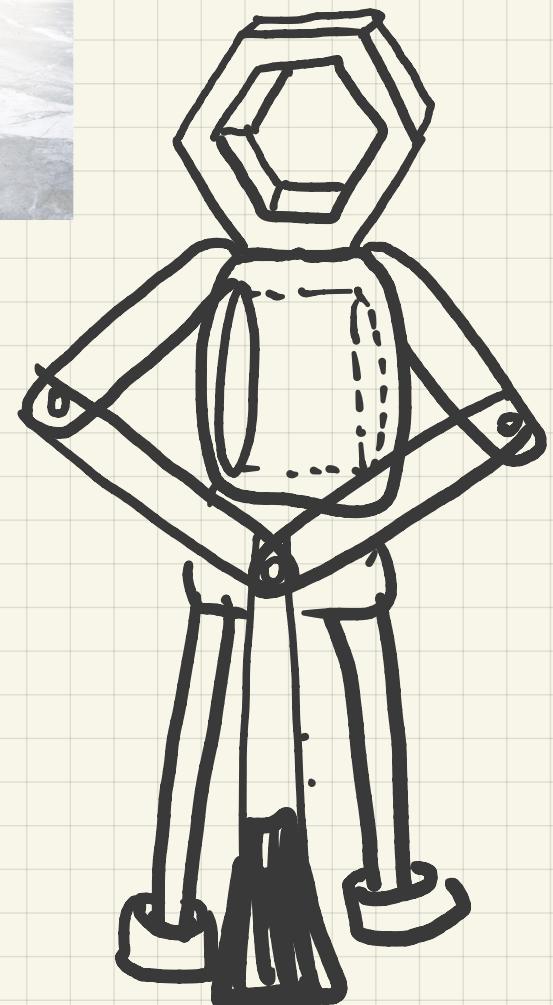
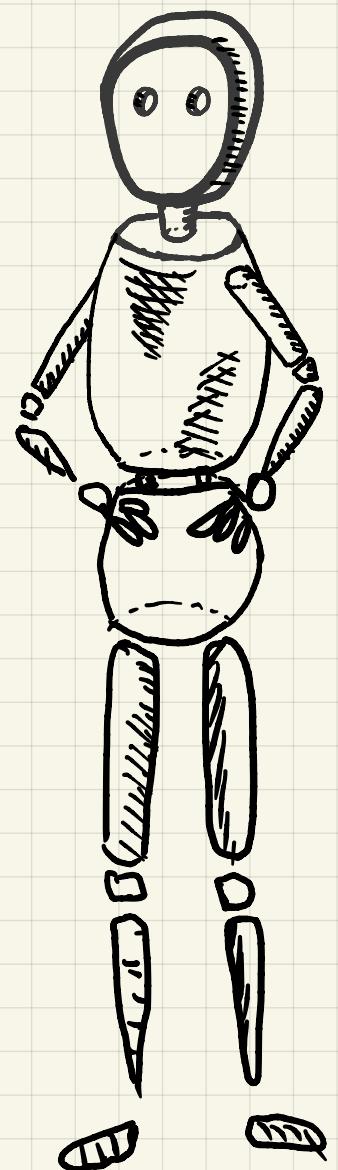
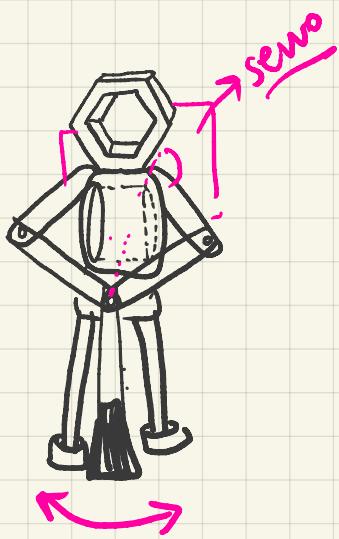
### → STYLE / MATERIAL

In terms of the style and material of the mechanism, I was very much inspired by some metal figures I came across in Italy. I don't have a record of it but was able to find some similar ones online.



→ Inspired by this aesthetic, for this project, I want to use as much gears and scrap metal as parts of the metal human.

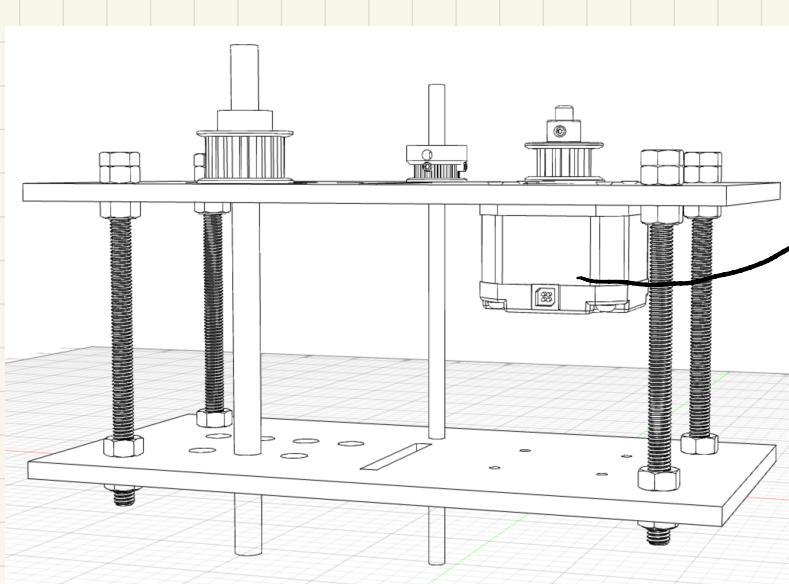
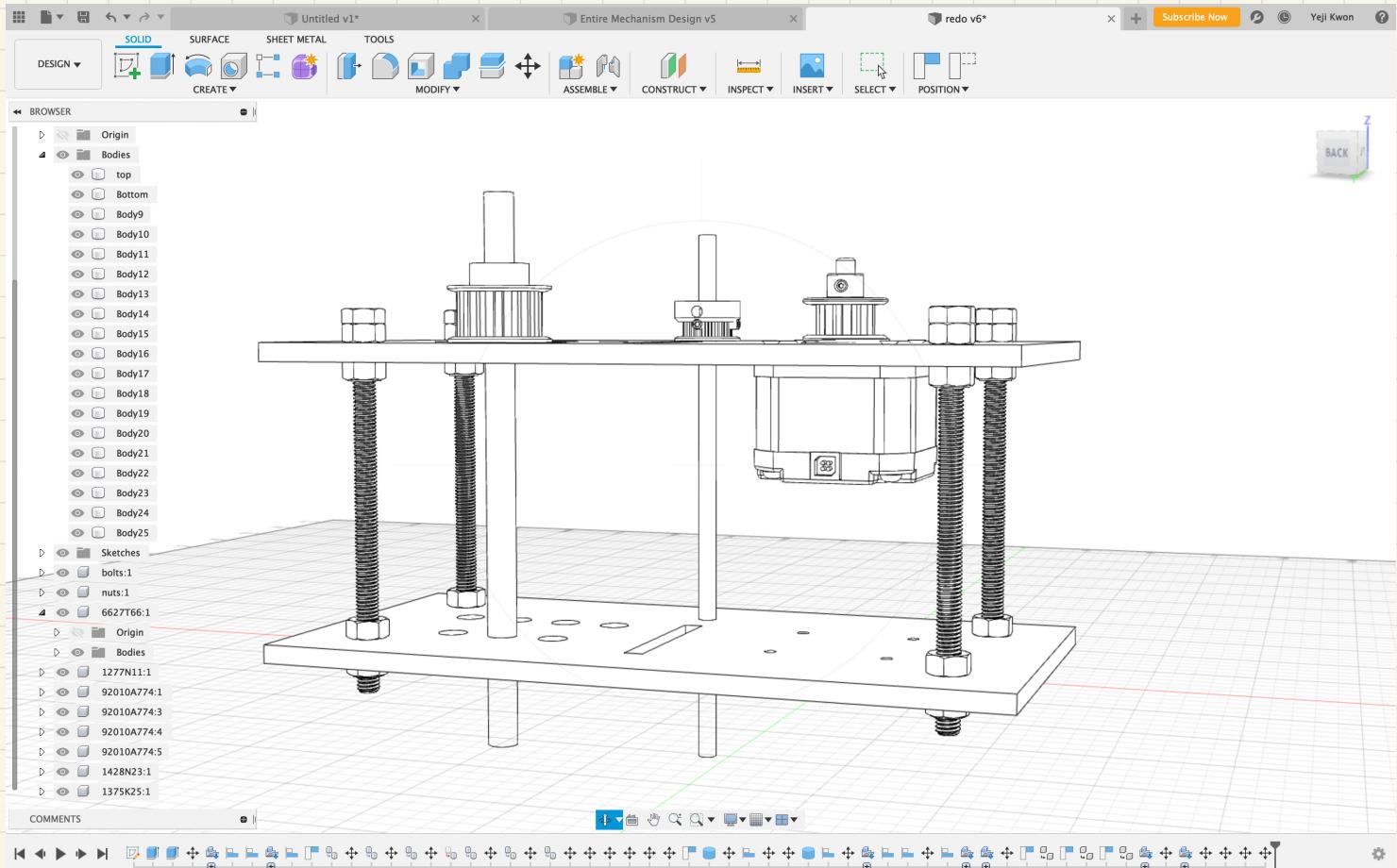
Inspired by these images



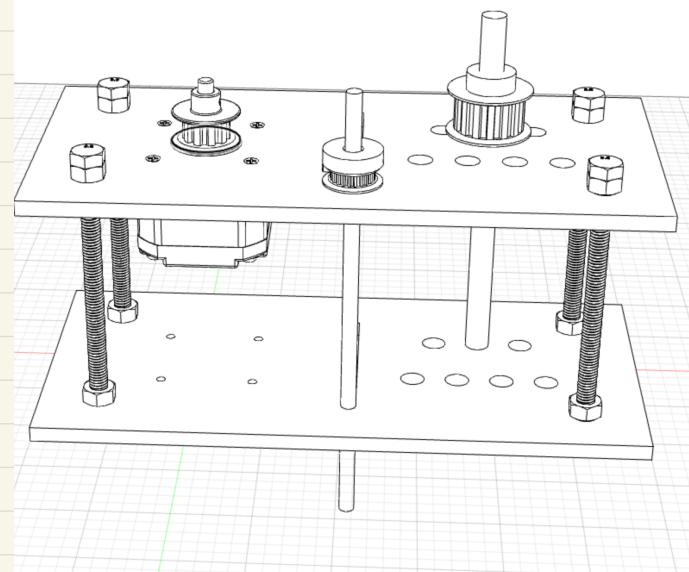
## ENTRY #6

### PRACTICING FUSION 360

To familiarize ourselves w/ the fusion 360 interface, Michael suggested us to recreate the mechanism we created in class.



SERVO MOTOR  
we learnt how to  
import mcmaster  
components.

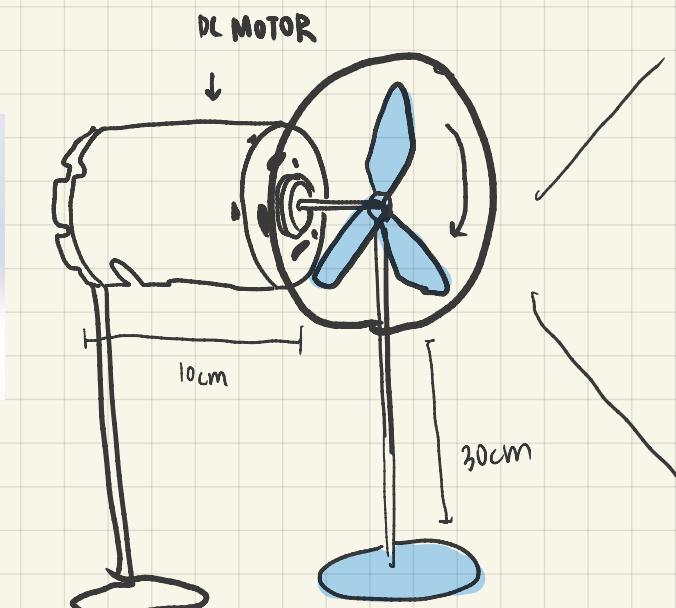
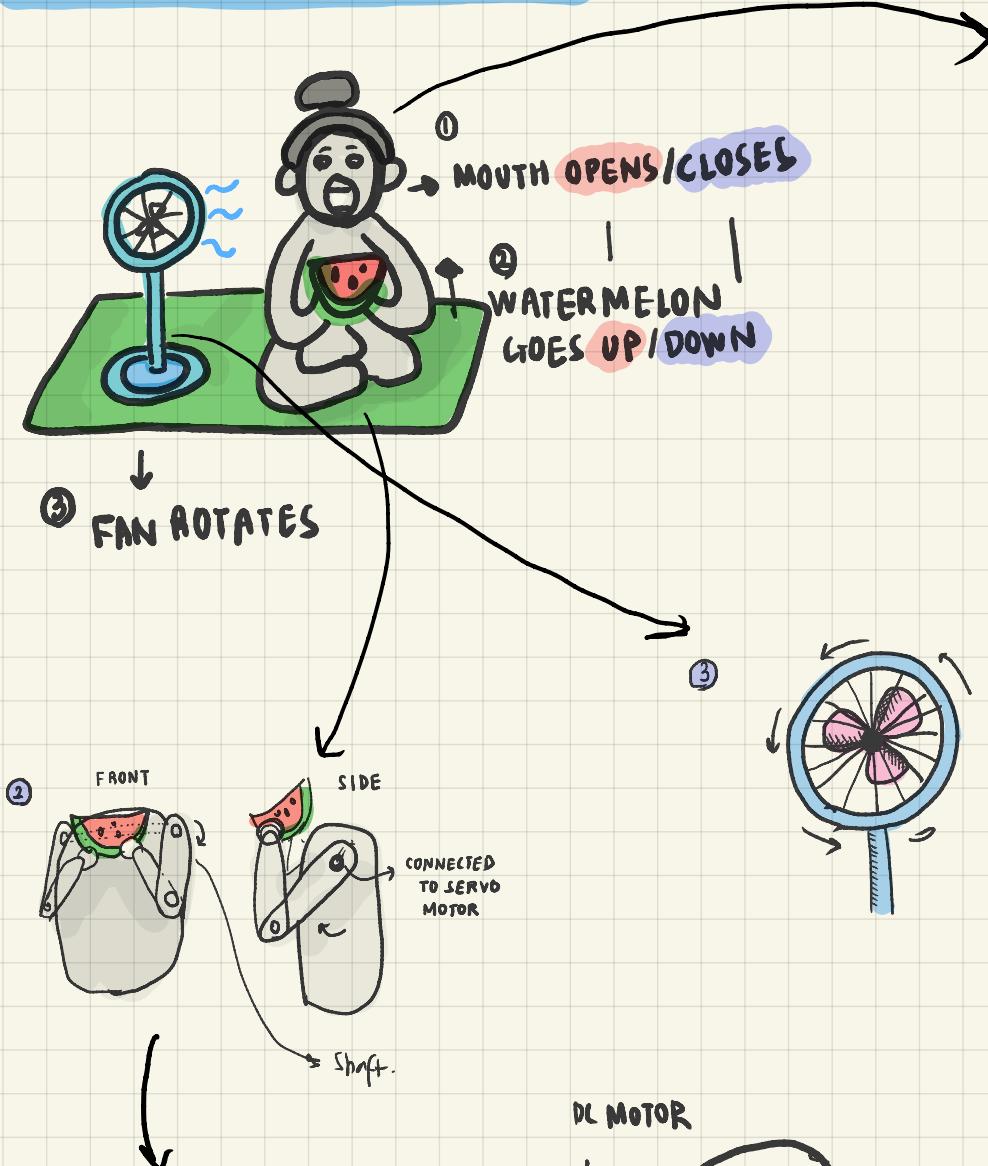


## ENTRY #7

### ↳ CHANGE IN THEME

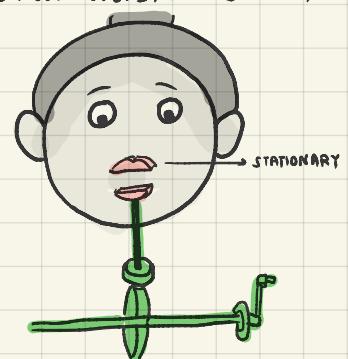
Decided to change the theme to something more personal. I thought about one of the many simple activities I like taking part in. After going through some pictures from last year Summer in Korea, I came across videos of my family eating watermelon to cool off the heat. I wanted to base my mechanism based on this activity/memory.

### INSPIRATION → EATING WATERMELON

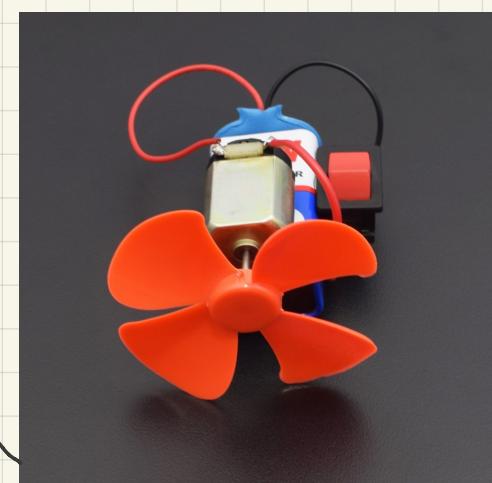


### MECHANISMS

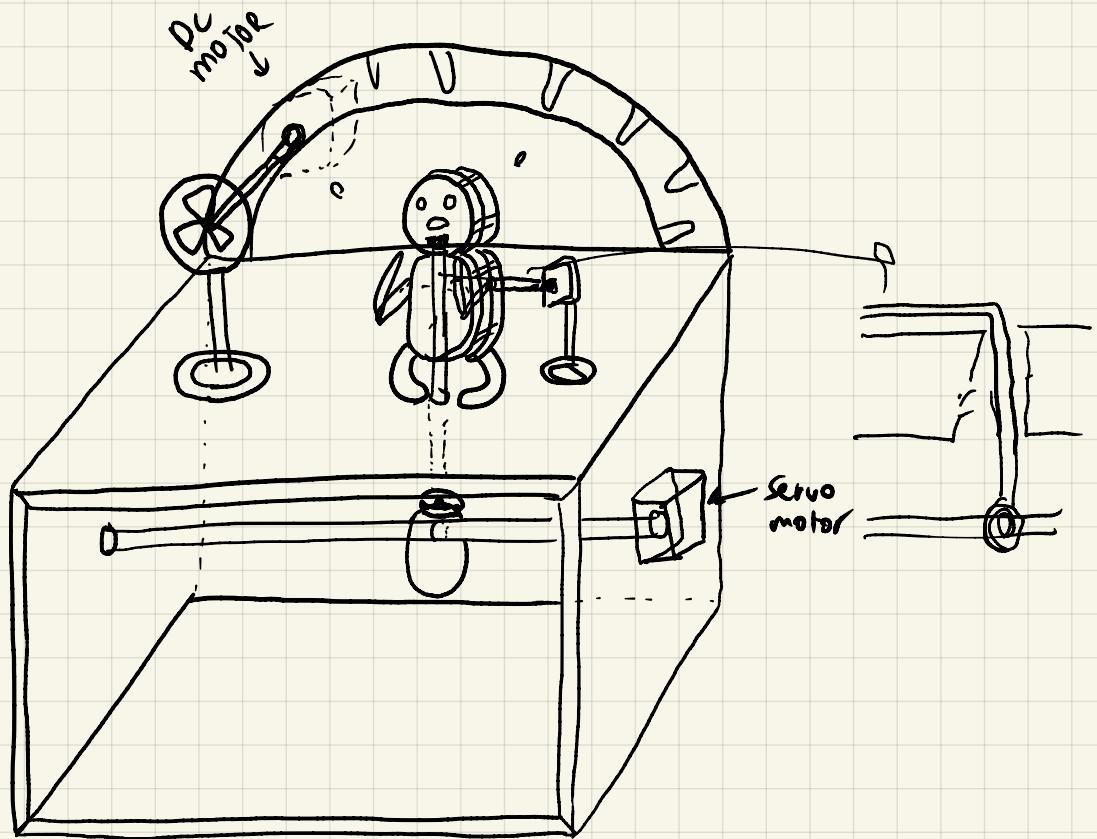
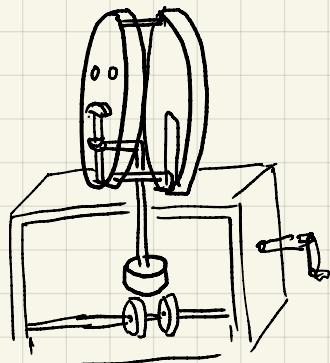
#### ① MOUTH OPENS/CLOSES (CAM)



DURING EACH TIME INTERVAL  
→ Speed of rotation increases

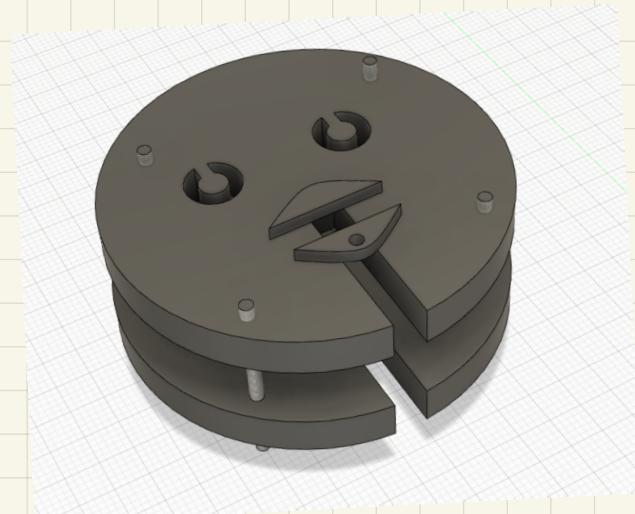
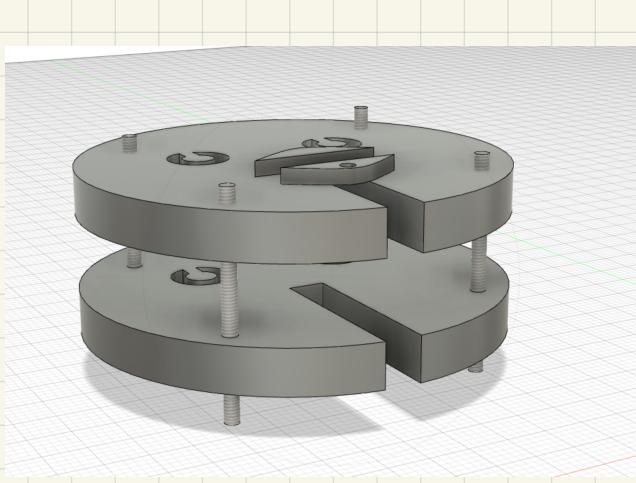
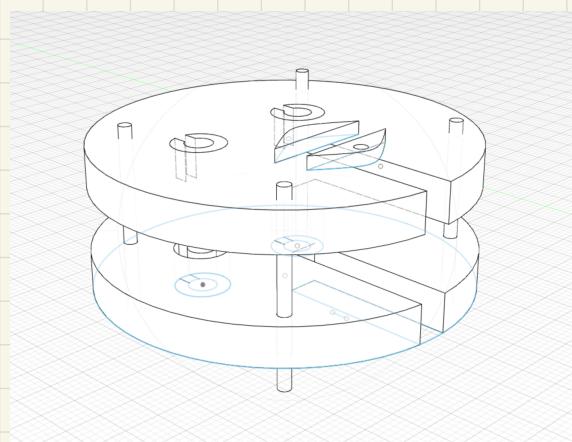
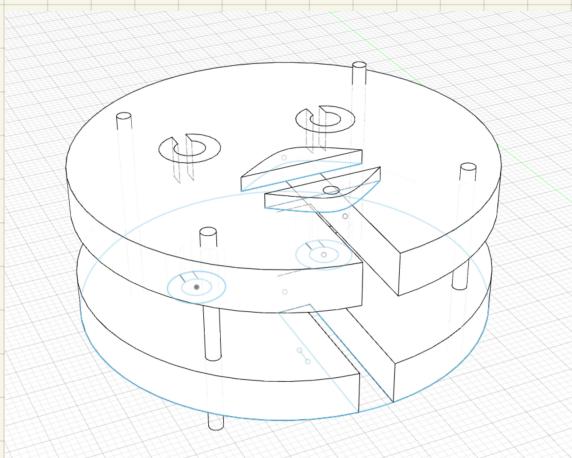


## ENTIRE MECHANISM



## ENTRY # 8

↳ Mechanism #1 on fusion



# ENTRY #9

## CONSTRUCTING OVERALL MECHANISM ON FUSION

