

# Marble Machine

Tonia Zhang, Machine Lab Spring 2020

# Inspiration

For my midterm, I sought to make a marble machine, which would take the marbles on an endless cycle of circling up and down around the machine.

I used to watch a lot of Youtube videos featuring more advanced versions of them, and the way the marbles are given motion and character by the machines, the way they went perfectly into the intended spots amazed me.

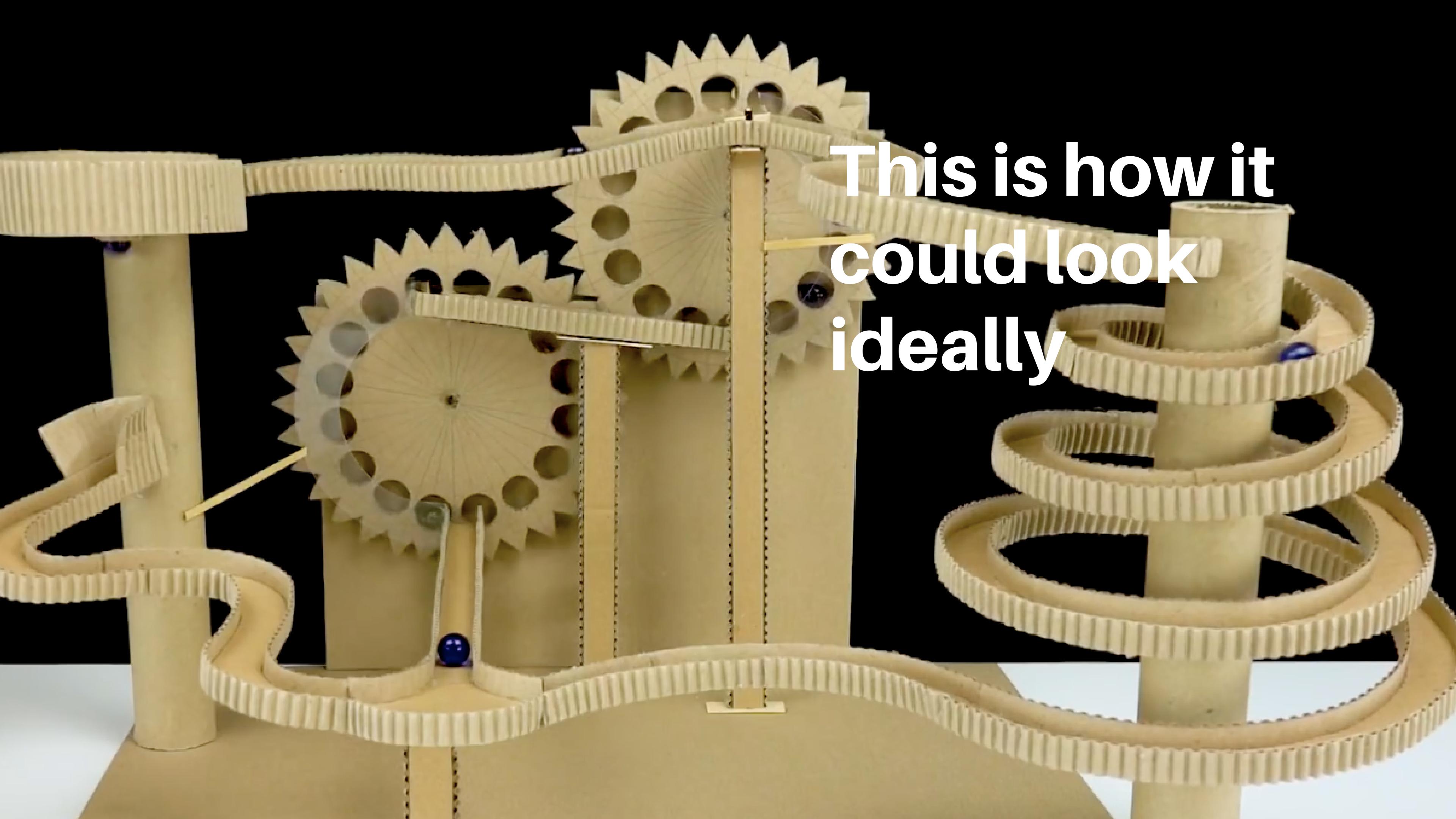
The thought of taking the marbles on an endless repetitive journey in general is exciting, as the idea takes the concept to a deeper and more fundamental level.



**Wood Marble Machine**

It is not mechanical, it is motion

 Wood Marble Machine

A photograph of a complex wooden gear assembly, likely a ball clock or a similar mechanism. The assembly consists of numerous interlocking wooden gears of various sizes, all made from light-colored wood. A small blue marble is visible on a wooden track within the mechanism. The background is black.

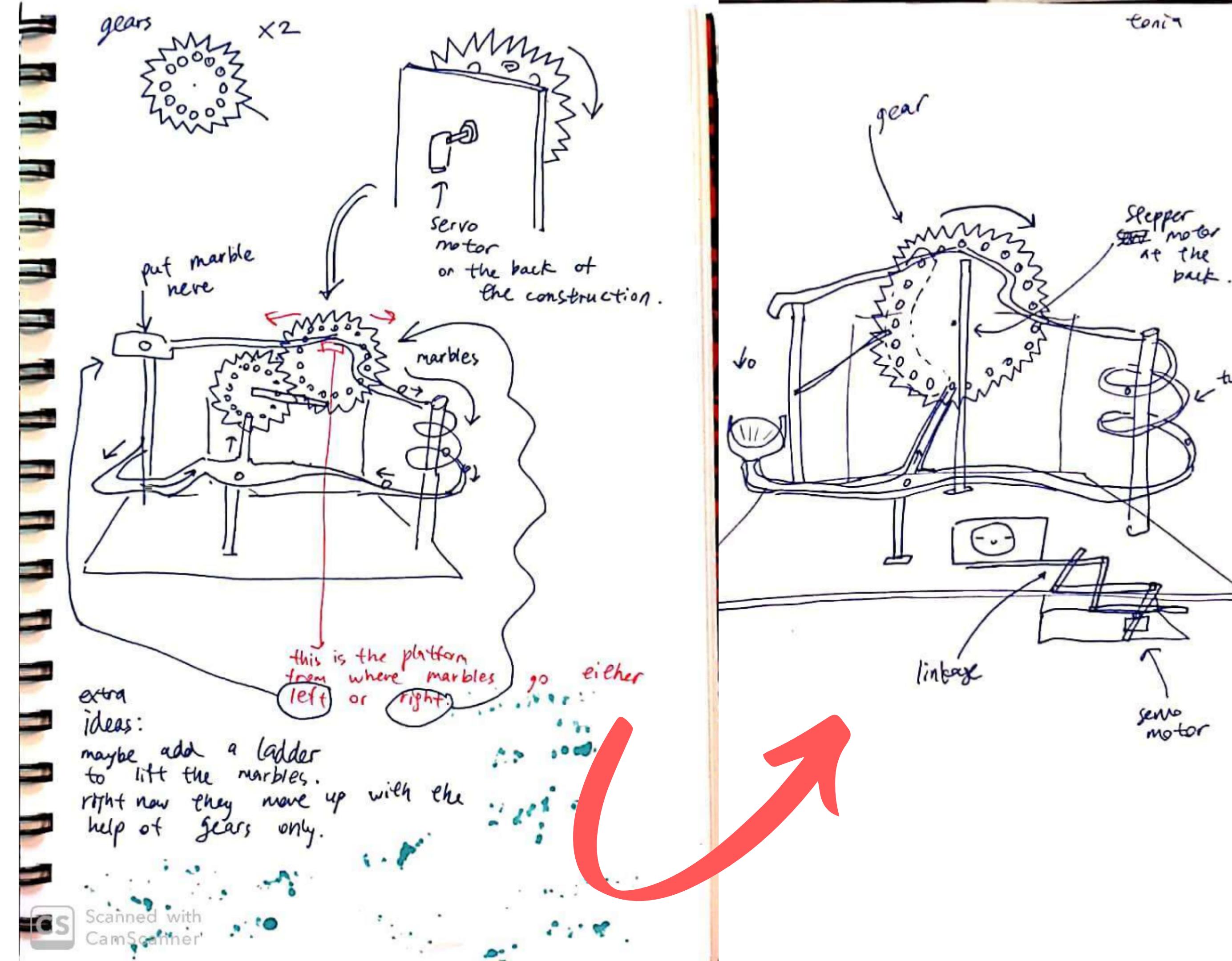
This is how it  
could look  
ideally

# Further development of the idea

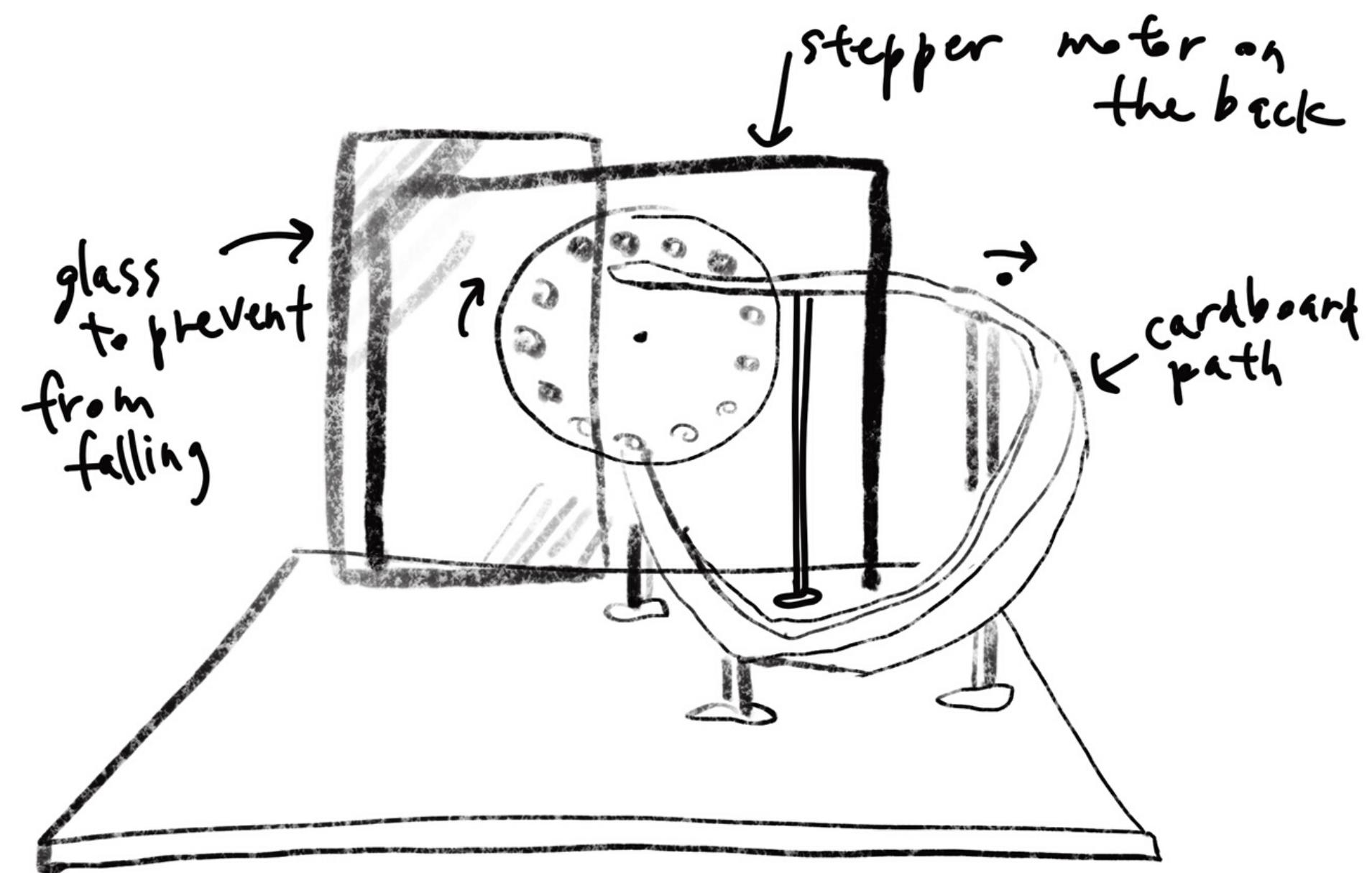
The machine on the last picture has two ways in which the marbles could go - either right or left.

Also, it uses two gears that might be hard to build.

After class discussion, I decided to simplify it.



# Final version



Simplified. Now it only has one path for the marbles to go, and one circle for moving the marbles up.

# Documentation



1. Acrylic board for holding the disc.
2. The path
3. The piece of glass to prevent marbles from falling
4. The disc itself

# More documentation

5. wood sticks for holding the new path  
(more stable than the cardboard one)
6. There is a stepper motor behind this number attached to the acrylic board

