

Ideas:

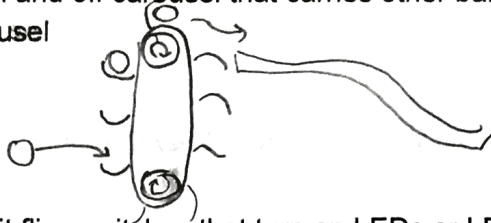
- Ball hits switch which turns on electromagnet which attracts something to it



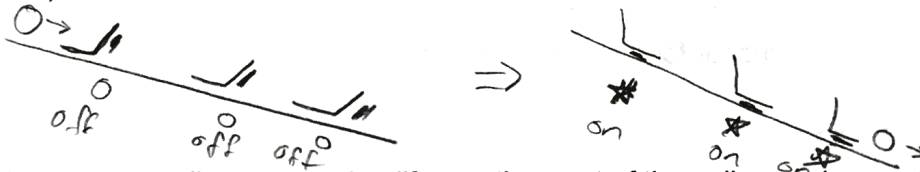
- Another ball timed later turns off electromagnet to drop object



- Switch flipped that turns on and off carousel that carries other balls higher in the mechanism, some of which fall and turn off carousel



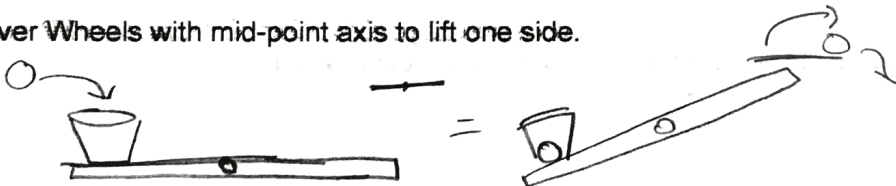
- As ball rolls down a ramp, it flips switches that turn on LEDs or LED Arrays to read something (arduino programmed?)



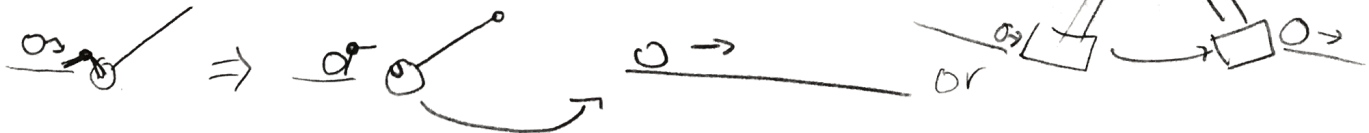
- Ball falls into cup on a pulley system that lifts another part of the pulley push something higher in the system



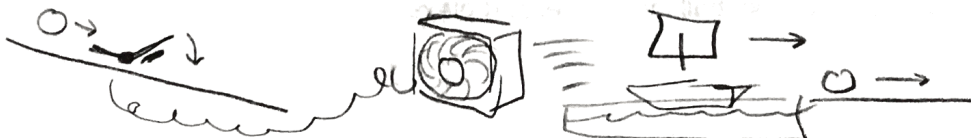
- Lever Wheels with mid-point axis to lift one side.



- Release of a pendulum that knocks something else down



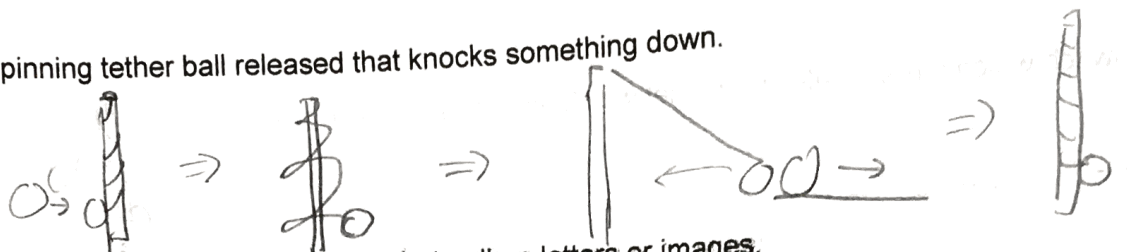
- Switch turns on a computer fan that blows a sail into something else.



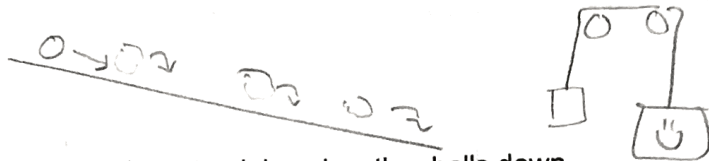
- Ball falls down a system that creates plinky sounds as it falls through it.



- Spinning tether ball released that knocks something down.



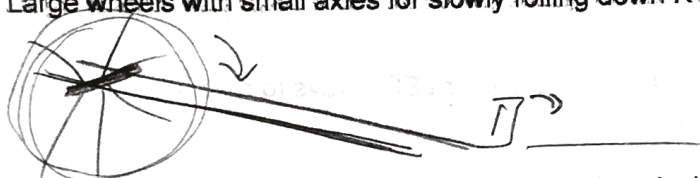
- Knock balls into pulley systems that pull up letters or images.



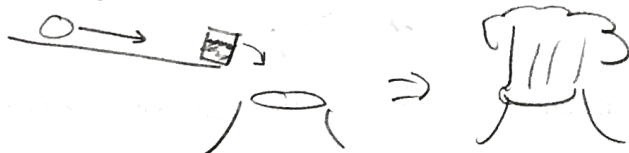
- Ball rolling down track knocks other balls down



- Large wheels with small axles for slowly rolling down K'nex Tracks



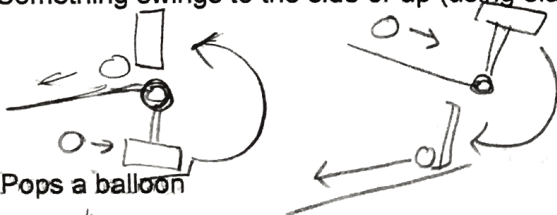
- Knocks baking soda into vinegar for a chemical explosion



- Rubber band wound up and when released swings something into something else



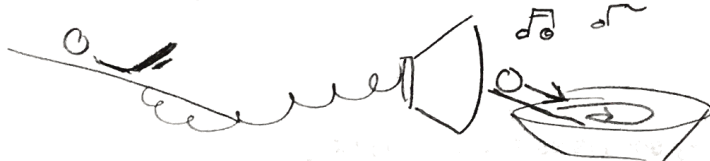
- Something swings to the side or up (using elastic tension) or down (gravity)



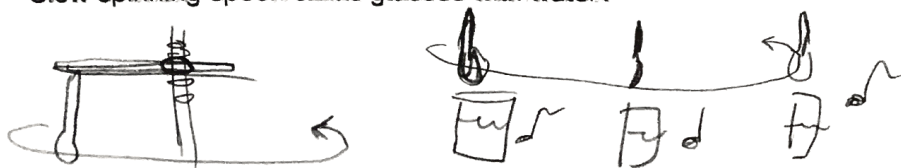
- Pops a balloon



- Turns on a bassy speaker that knocks ball into funnel and plays music



- Slow spinning spoon clicks glasses with water?



## General Rube-Goldberg Plans

1. Ball 1 into cup pulley
2. Pulley pulls up into balanced mid-point lever, releases balls 2 and 3 down plinky
3. Ball 2 falls into trap and connects the carousel circuit which begins running.
4. Ball 3 rides carousel to top where it electromagnet switch to off (using a path switch) and rolls down ramp and turns on LEDs on and off as it passes. Ball 3 triggers Ball 4 before falling to plinky.
  - a. When the electromagnet is switched off, the double throw switch switches a spinning coil motor on for kicks. The coil motor can have the optical illusion of a cage one side and a bird on the other for fun (or something else cool)
  - b. When path switch is flipped it alternates between different paths that both trigger LEDs as the balls pass, but both lead to the plinky.
5. Ball 4 falls into a mid-point lever that knocks baking soda into vinegar waiting in a paper mache volcano (contained). Liquid from volcano collects in a funnel leading to a cup until it reaches certain weight to knock a ball into plinky path.
6. Electromagnet switch from ball 3 releases pendulum which hits ball 5 toward it down a second ramp.
  - a. When future balls pass through path switch, the electromagnet turns on again and hopefully recaptures the metal pendulum to release it again later.
7. Ball 5 falls down ramp (spinning wheels and turning on LEDs) while at same time releasing ball 6 before falling into plinky carousel system.
8. Ball 6 falls into pulley system that triggers upward swinging hammer? that knocks ball 7 (above initial ramp) into a switch that turns on a fan which blows a sailboat (or sail car) with a needle at the end into a balloon which pops before ball 7 falls into carousel-plinky path, triggering the second path which releases ball 8 as it passes it. (alternate, balloon popping allows a waiting ball to fall towards plinky path)
9. Ball 8 falls into a pulley system that releases a wound tether ball mechanism that knocks something that releases ball 9, which rolls and releases the spinning hypno wheel on track that eventually rolls down and releases a weight on a pulley system that raises and releases output ball (ball 10) out of system at 1.5 ft of height.
  - a. Ball 9 falls into carousel plinky path.

**Note:** All stray balls should be collected by funnels and added to carousel plinky path for continuous movement and sound. This path also alternates between spinning the coil motor and attracting the pendulum while also constantly turning on LEDs