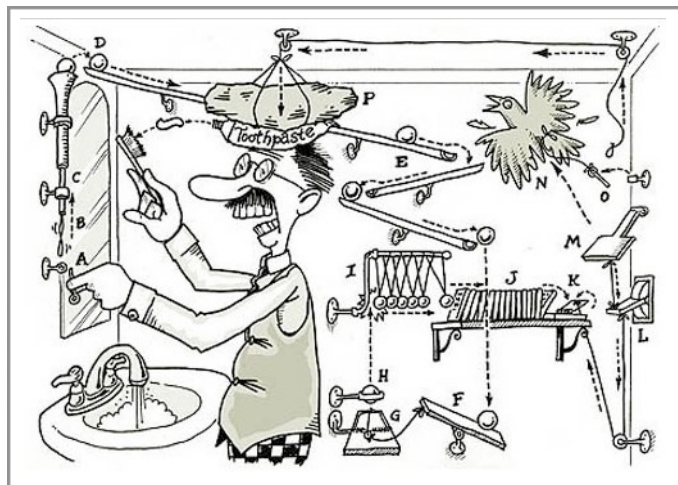




TEAM 29: RIGHT ON!

We are Team 29, RIGHT ON, and our group consists of Vikram (G6), Ohm (G6), Claire (G7), Peem (G8) and Vallie (G10). For DCC week this year, our goal is to build a Rube Goldberg machine. A Rube Goldberg machine or contraption is an overly engineered and overly built machine that is made to perform a very simple task in a very “complex fashion”. Rube Goldberg machines usually include a chain reaction that leads to the machine’s objective.



Object of Inspiration

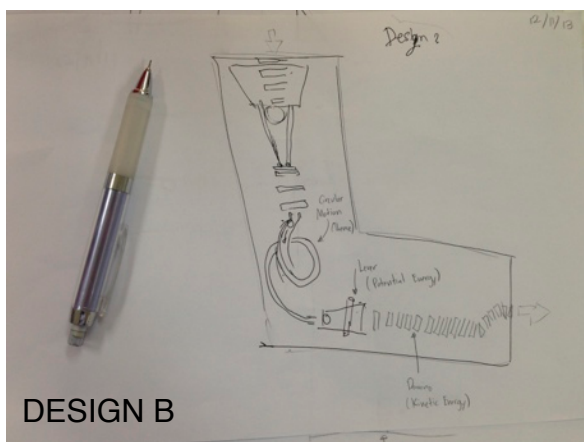
Our object of inspiration is a circle, wheel kind of object that goes around and around, with lot's of strings on it. To show our object of inspiration in the machine, we decided to create a track that goes around and around. We also decided to place our dominoes in a circular shape to show our theme in the machine. The tracks are also one of the highlights of our machine, but sometimes it created a lot of problems, but we finally found a solution to our problems as a team.



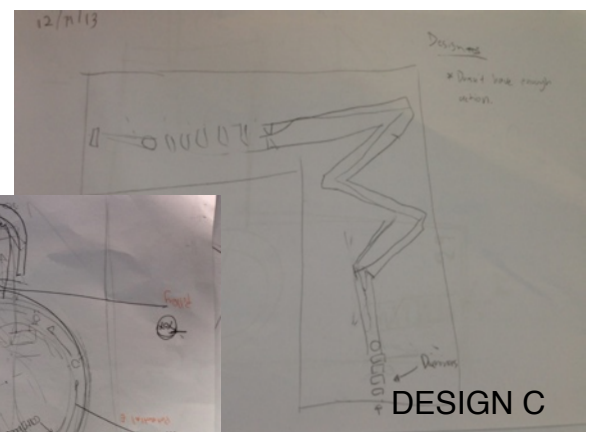
Design Brief

1. The machine will use a balloon as the source of potential energy.
2. The machine will have a toy car, which is the kinetic energy.
3. The machine will include an action with the pulley to trigger a chain reaction with dominoes.

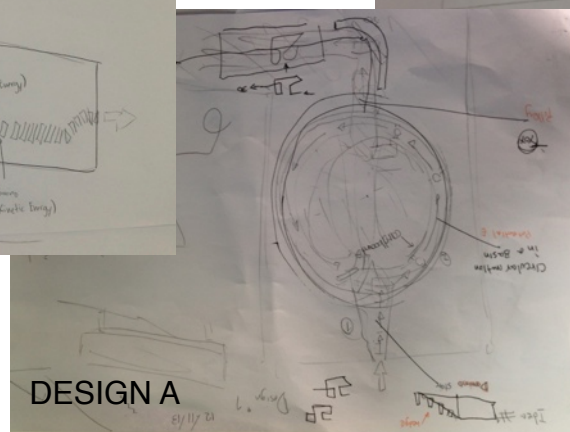
Designs



DESIGN B



DESIGN C



DESIGN A

Overall we created over three designs, but in the end we chose Design A as our last final design. Even though during the first few days of building, we changed a little bit of the design, but we kept the main parts of the design. We chose Design A as a team because it integrated a lot of the elements of the theme/object of inspiration we were given.

Research

How to create a good Rube Goldberg machine?

What are some good actions that could be integrated into our machine?

Our checklist from our research:

- 1) Look at other rube goldberg machines for inspiration, this could be on youtube or other sources of internet.
- 2) Choose an objective for your rube goldberg machine.
- 3) Include a lot of creative elements into your rube goldberg machine.
- 4) Assemble the machine, testing each part repeatedly and trying to create a solution all the time.
- 5) Decorate the machine if there is anytime left.

Evaluation

The machine could have been improved by being more long but simple. Our team worked together very well and whenever we had problems, we asked each other and helped each other out. We also gave each other a lot of very good ideas. One of the changes was - to trigger the the pulley. We used only one set of dominoes that are coming from the back. However, most of the times, the pulley did not get triggered because the dominoes did not did not push the domino that was on the string attached to the pulley, so, we made the domino line come from the side so it had a better chance to trigger the pulley. The same thing kept happening not triggering the pulley. So we used two domino lines both coming from the sides, so in case one domino line didn't trigger it, the other line would. However, we lacked dominoes further in the project, so we only decided to use only one line coming from the back and used the remaining dominoes further in the project.

Sources of Information

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Book

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