

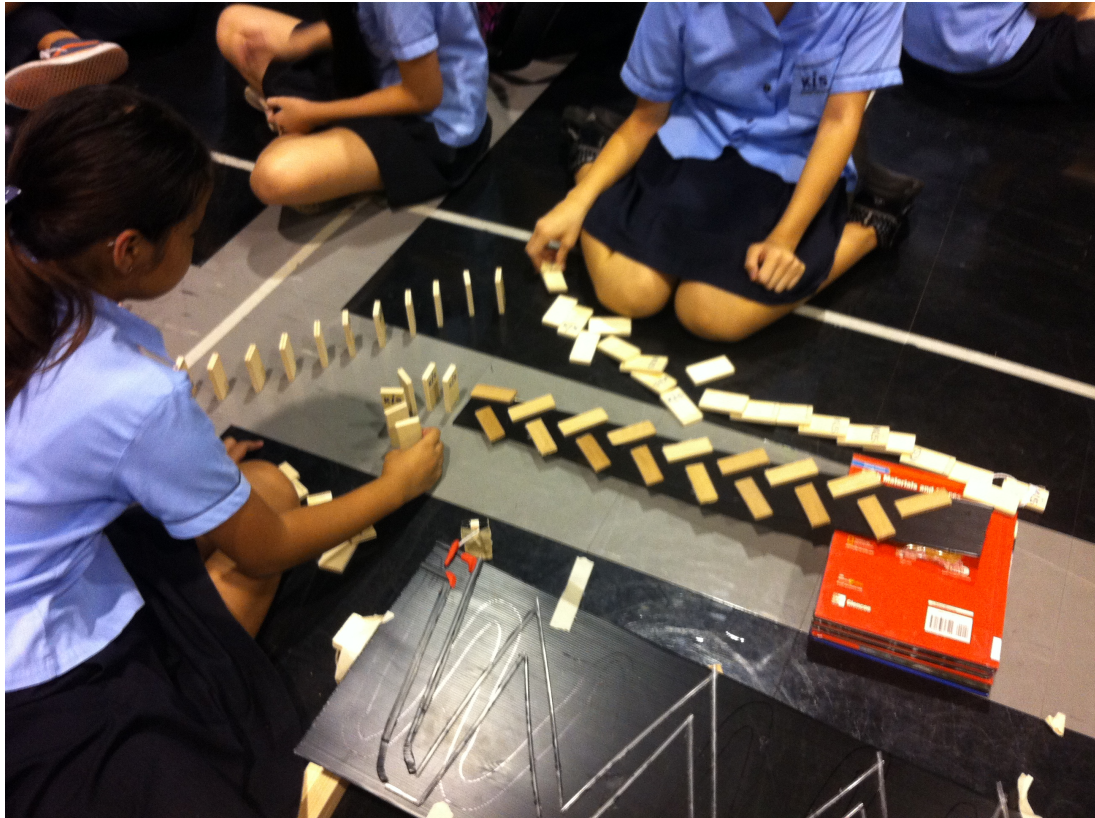
November



**RUBE GOLD
BERG MACHINE**

November 2013

DCC 2013



Day 1
12/11/13

On the first day of the design cycle challenge we started out with researching different types of Rube Goldberg machine to get some ideas of building the machine, not only we are looking for ideas but also looking for some inspiration base on the theme we had for this year design cycle challenge. The first step that we did was getting one of the ideas from the video but we had a couple of design that did not work out so the plan we would stick would be the second plan because it works the best. Our inspiration theme would be colorful balls which we did not know how to put that in the machine.

Day 2
13/11/13

The second day of design cycle challenge and we have just figure out how we are going to develop the colorful ball theme in to machine, so we decided to paint the domino different color's base on the inspirational picture which is colorful ball. Also we would be using quite a lot of marbles because we think that the way to show colorful round things can be marbles. Later on throughout the day we have found another way to make the marble decelerate and making the velocity of the marble change. One of the biggest challenge of the machine was we can't make the object move because we did not have a force that is heavier or bigger than the object so that took quite some time to solve but overall it was fine.

INSPIRATION

Our inspiration theme is colorful gum ball, we are going to represent this theme by making our obstacles colorful and we will try using marbles to represent gum ball's as well as the color . Unfortunately the idea of making object colorful did not work because we had a limited of time to work on it and instead went for the gum ball theme instead because we did not have time to paint.

ADAPTATION

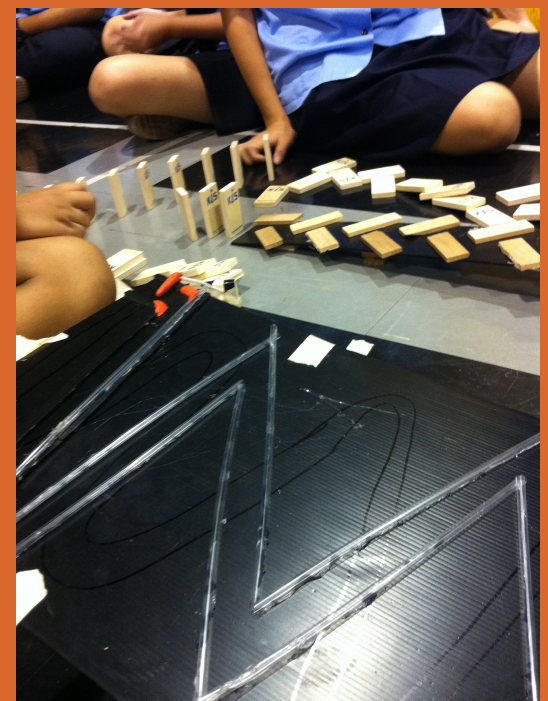
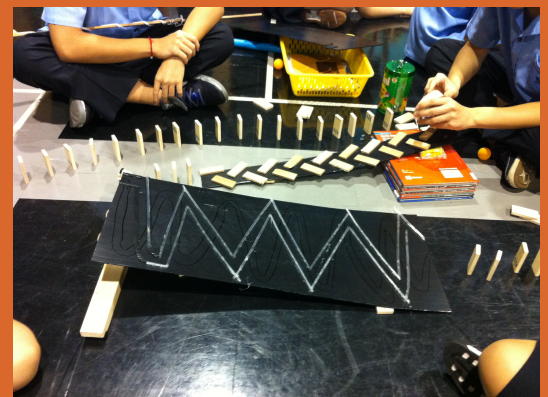
Group 19 has 3 design that was create but design that work would be the second design because it was not as complex as the other two so when we had the solution it was to go with the second one

Difficulties

The hardest challenge is the marble got stuck on the way down and also when the marble was going to go down the force pushing it was not big enough.



inspirational picture



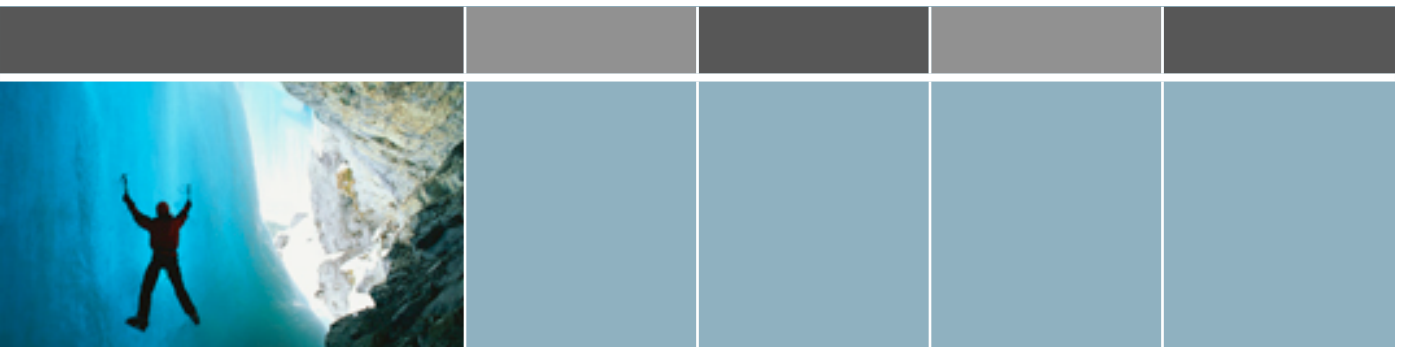
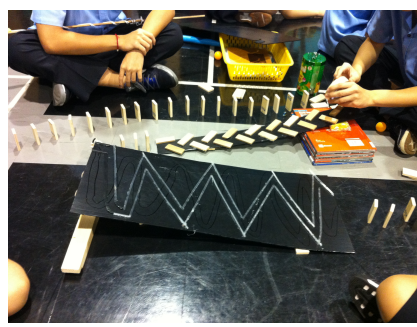
CRITERIA

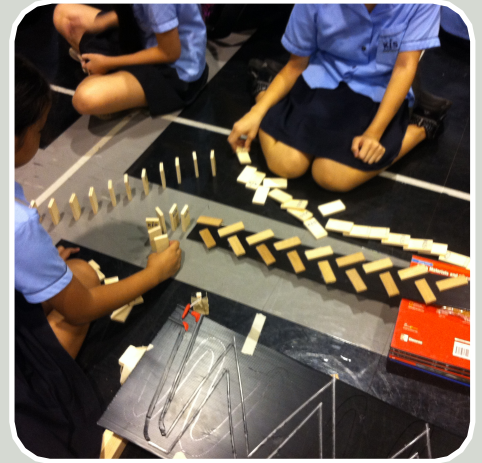
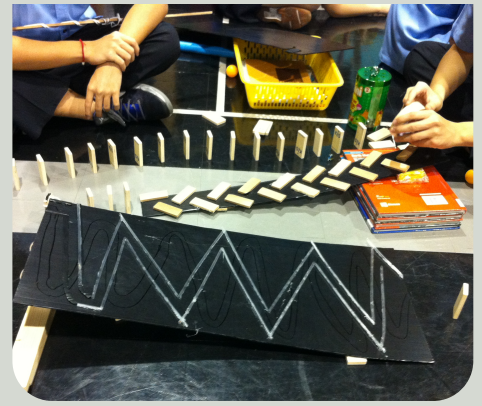
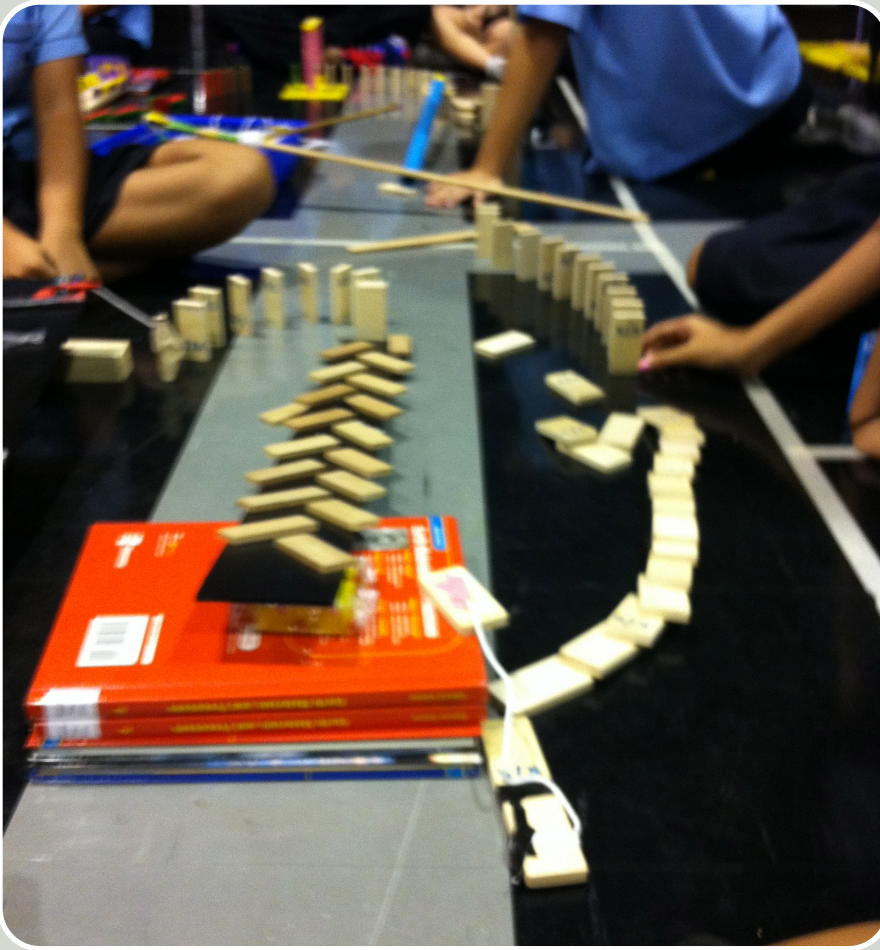


<p>... of the assigned stimulus.</p> <p>Group basically justified choice of the final machine</p>	<p>The machine functions hardly reflect the principles of the assigned visual stimulus.</p>	<p>goal.</p> <p>Basic changes that were made throughout the design cycle process.</p> <p>Basic descriptions of how the machine could have been improved.</p>	<p>communication skills partially throughout the week.</p> <p>Presents a disorganized report.</p>
<p>... includes: development of two design ideas that fully reflect the principles of the assigned visual stimulus.</p> <p>Group adequately justified their choice of the final design.</p>	<p>The machine functions adequately reflect the principles of the assigned visual stimulus.</p>	<p>The report includes: An adequate evaluation of how well they tested their designed specifications to achieve their goal.</p> <p>Adequate changes that were made throughout the design cycle process.</p> <p>Adequate description of how the machine could have been improved.</p>	<p>The group: Demonstrates adequately effective collaboration and communication skills somewhat throughout the week.</p> <p>Presents an adequately organized and presentable report.</p>
<p>... includes: development of two to three design ideas that fully reflect the principles of the assigned visual stimulus.</p> <p>Group substantially justified their choice of the final design.</p>	<p>The machine functions substantially well with other group's machines</p> <p>The machine substantially reflects the principles of the assigned visual stimulus.</p>	<p>The report includes: A substantial evaluation of how well they tested their designed specifications to achieve their goal.</p> <p>Clear changes that were made throughout the design cycle process.</p> <p>Clear descriptions of how the machine could have been improved.</p>	<p>The group: Demonstrates somewhat effective collaboration and communication skills mostly throughout the week.</p> <p>Presents an organized and presentable report.</p>
<p>... includes: development of at least three design ideas that fully reflect the principles of the assigned visual stimulus.</p> <p>Group clearly justified their choice of the final machine</p>	<p>The machine functions seamlessly with other group's machines</p> <p>The machine clearly reflects the principles of the assigned visual stimulus.</p>	<p>The report includes: A critical evaluation of how well they tested their designed specifications to achieve their goal.</p> <p>Details of changes that were made throughout the design cycle process.</p> <p>Detailed descriptions of how the machine could have been improved.</p>	<p>The group: Demonstrates very effective collaboration and communication skills each day of the week.</p> <p>Presents an organized, clearly-written and professional-looking report.</p>

Criteria c creating the solution - Base on criteria c on the creating solution we have found out the problem and the solution. The problem was when the domino were moving into the obstacle and the dominoes were use for straight narrow more than curvy narrows. Also the way where the marble is going down is to swash together and it was to steep

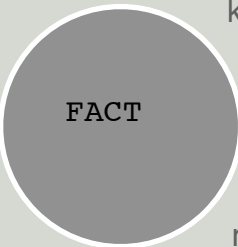
Criteria B developing ideas - Base on criteria B developing ideas we had develop a few ideas that had help us develop the machine which is making curve which sometime does not work because of the velocity and the force pushing it.





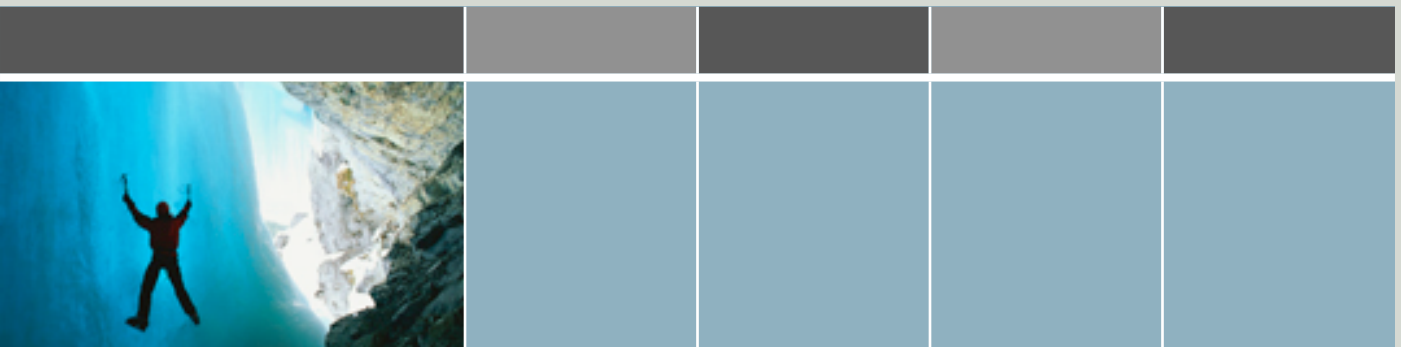
Creativity

The creativity of our machine is not creative because we did not use a variety of colours and design to support the machine.



About rube goldberg machine

Rube Goldberg's cartoons became well known for depicting complex devices that performed simple tasks in indirect, convoluted ways. The example on the right is Goldberg's "Professor Butts and the Self-Operating Napkin", which was later reprinted in a few book collections, including the postcard book *Rube Goldberg's Inventions!* and the hardcover *Rube Goldberg: Inventions*, both compiled by Maynard Frank Wolfe from the Rube Goldberg



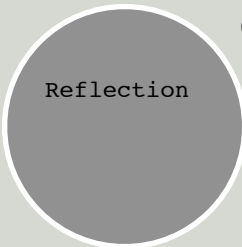


Reflection on practice



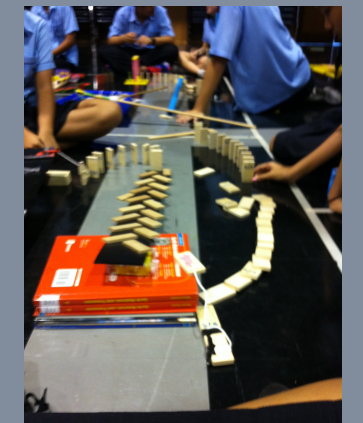
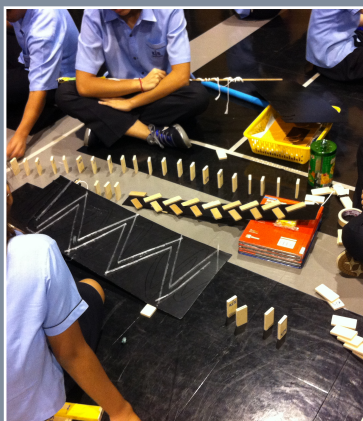
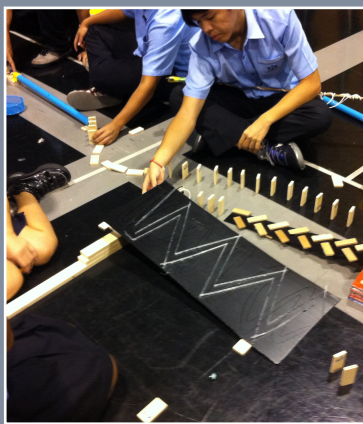
On the practice of trying the rube Goldberg machine our group has some difficulties which we thought that we had to push it but it did work out, there was the time where the marble got stuck in the straw but overall it was better.

energy usage



our use on energy is not that good, because when the marble is release the potential is not enough to release the kinetic energy causing the marble not release





bibliography

sites

<http://coolmaterial.com/roundup/rube-goldberg-machines/>

<http://mashable.com/2013/08/21/rube-goldberg-machines/>

<http://www.rubegoldberg.com>

http://en.wikipedia.org/wiki/Rube_Goldberg_machine

Books

What's physics about

develop Improvement

We have develop our ideas but some of them don't work. Our concept was to make everything colourful but luckily it is not colourful at all. so to come to conclusion it did not turn out as we plan .

