CS 251 PROJECT REPORT

Group: 22 (wizards)

October 21, 2014

Design

1. Oscillating weight: Fixed at the top, swings and hits the dominos.
2. Dominos: Fall like the dominos and hit the neighbouring rod 1.
3. Rods: Rods hinged at respective centres which rotate in succession and take forward the motion.
4. A ball: The last of the rods hits this ball and sets it in motion; it goes on to hit the first of a series of suspended balls.
5. Suspended balls: A series of suspended balls which act like dominos and carry forward the motion to the static ball set on the ground right after the last suspended ball.
6. Balance: The ball hit set in motion by the suspended balls falls onto the balance set right below and causes one of the platforms to fall and the other to rise.
7. Normal rod: This rod hinged at the centre is hit at one of its ends by the rising platform of the balance and causes the ball sitting on its other end to fall.
8. Superelastic rod: The moving ball falls on this rod and bounces onto the seesaw.
9. Seesaw
10. Final rods: To bring everything (maybe?) down and end.

Things done till now :

Made working components like pendulum, dominos, rotating bars, spheres, pulley system and wedge system.

The block of the pendulum hits dominos, which after a chain reaction hits all the dominos in line and then finally hits the first rotating bar.

The rotating bars hit turn by turn other similar bars and finally hits a sphere.

The sphere hits other spheres hanging from a rope and they oscillate to hit other similar spheres.

The last sphere falls in an open box on one side of a pulley system.

The block on the other side of the pulley goes above and hits a bar which has a ball at the other end.

Deadlines (tentative)

Lab06: Aim to finish coding the dominos and rods by this lab (first one-third).

Lab09: Aim to finish coding the suspended balls and the balance parts by this lab (second one-third).

Lab12: Aim to finish the rods, seesaw and the final rods by now (final one-third).

Thereafter: Add more elements, fine-tune the execution and add more elements (make it more interesting?).

Distribution

Though there is no hard and fast distribution, a rough distribution is:

First one-third: Dibyendu Mondal

Second one-third: Utkarsh Kumar

Final one-third: Sai Sandeep Reddy