ABSTRACT

Team Name:

College Name:

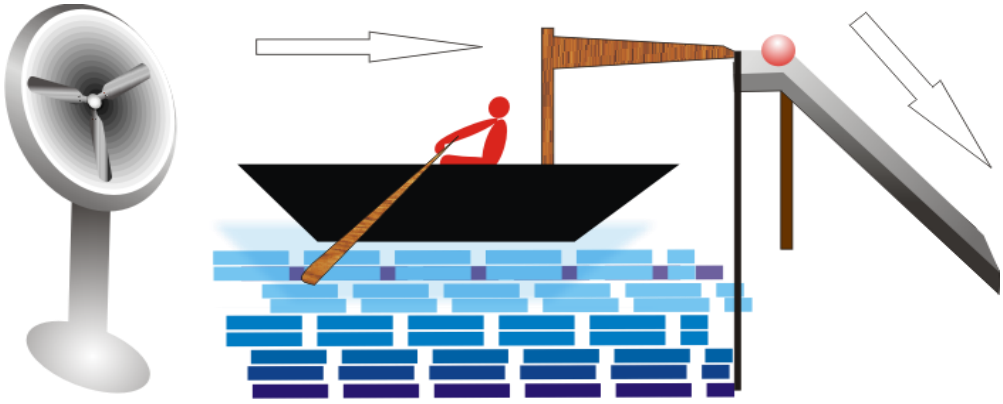
Team Details:

NAME	EMAIL	CONTACT NO.

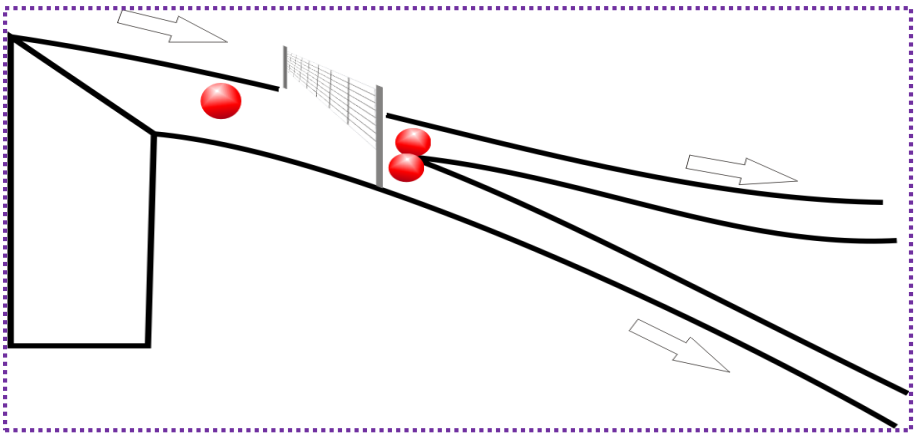
Aim: To fill an empty glass with water .

Materials Required: string, pulley, rod, wire, ball, balloon, cart, bucket, flat strip of wood, Alluminium foil, tape, fevicol, pipe, funnel, load, bricks, carton, magnet, glass, chart paper, permanent magnet, thread, extension wire, syringe, tub, spring, water, dc motor, piece of marble etc...

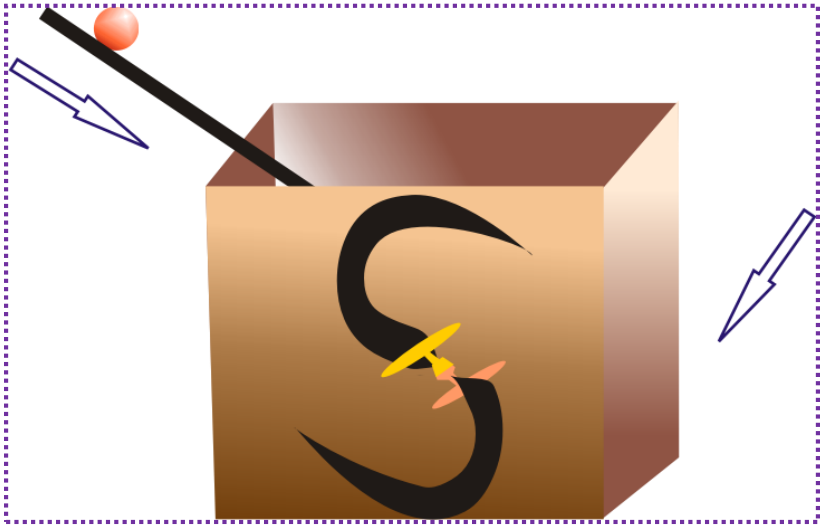
STEP 1 : A simple boat is run by utilizing wind energy provided by small fan which further travels across channel to hit a ball placed on top of slope with the help of a strip of wood.



STEP 2: A ball strikes two ball placed side by side on the road, there is a slope which enables the gravitational force to act on two balls. As eccentric force enables one of ball to go into track 1 and another one is triggered through another track. The original or source ball is caught cleverly into net after providing necessary force to both the balls.

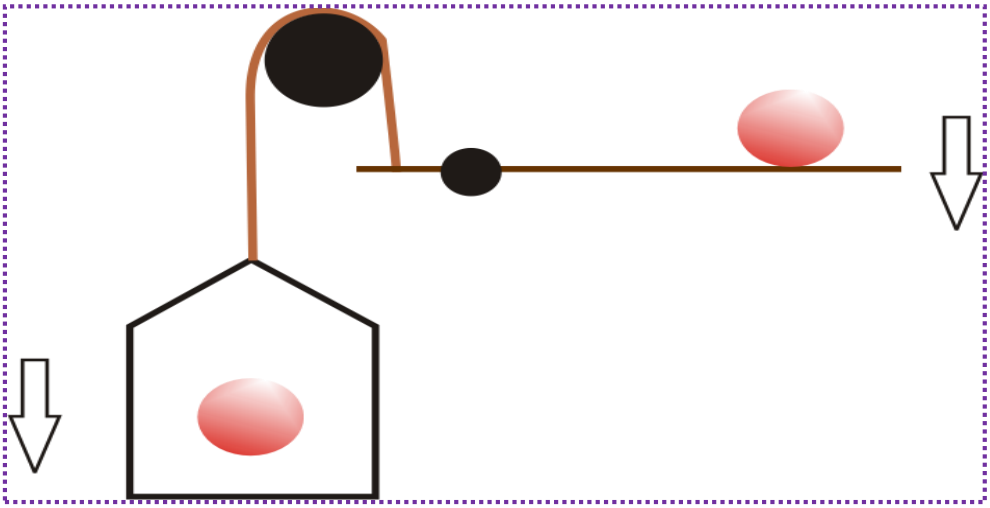


STEP 2(a): A ball coming from above step enter specially designed carton to turn around the flip made in carton to show bit info about steps. It just adds flavor to the procedure!!

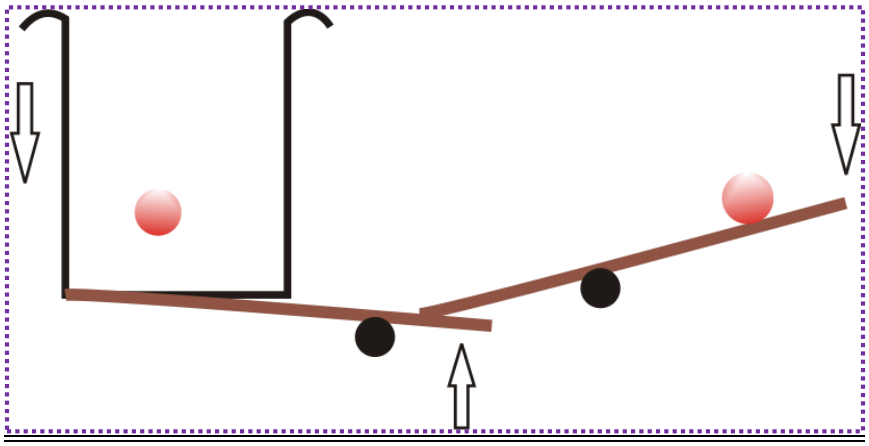


Here it can be easily observed that there is a S shaped flip in the carton which is provided for above mentioned task.

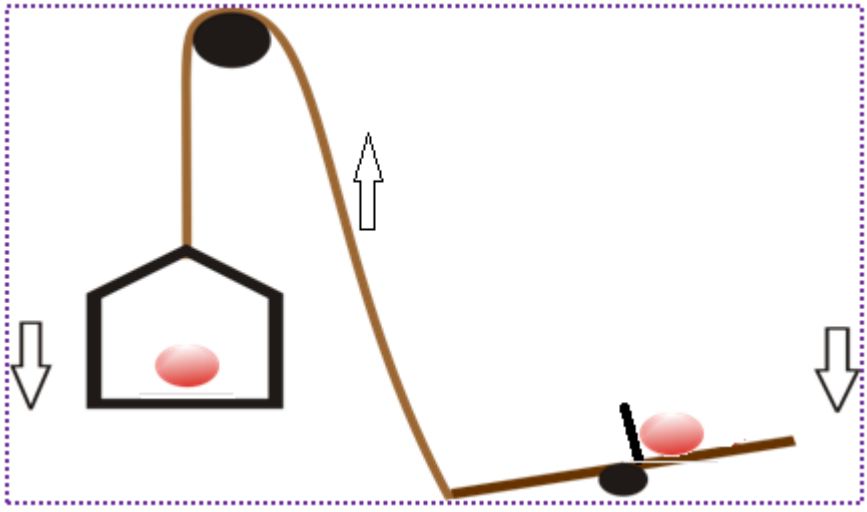
STEP 3: The second ball coming from different track will fall into container to pull a rope/wire/thread attached to the pulley which in turn pulls the flat strip of wood hinged at an intermediate point. Due to hinge and tension force of rope, a torque is provided to strip of wood leading to fall of ball.



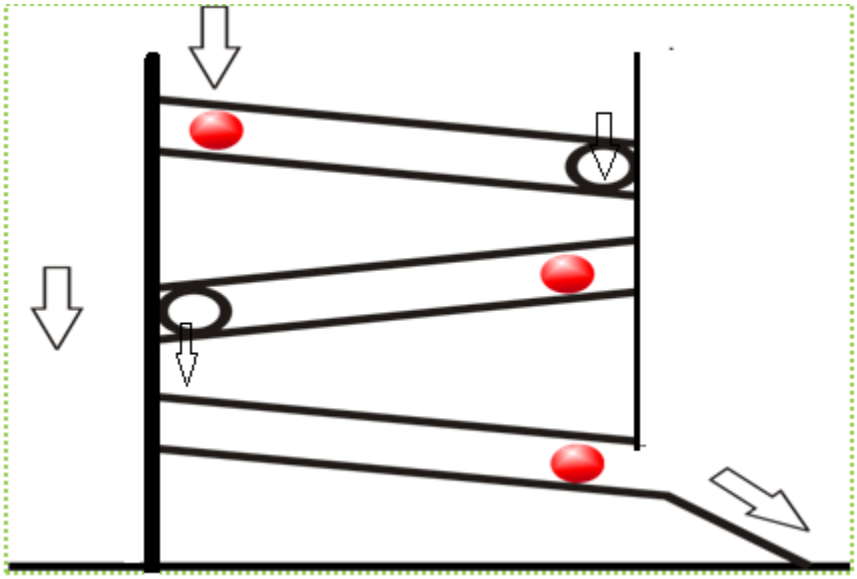
STEP 4: In this step the ball falls into the container which provides force to the ball place at the edge of rod to move further.



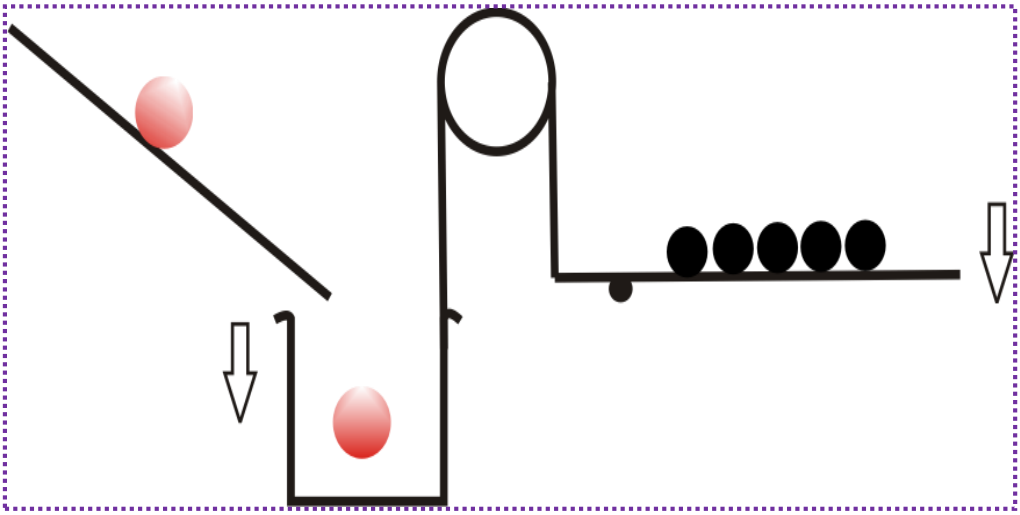
STEP 5: Now to change the plane of motion of ball, it is allowed to fall into this arrangement to get required kinetic energy.



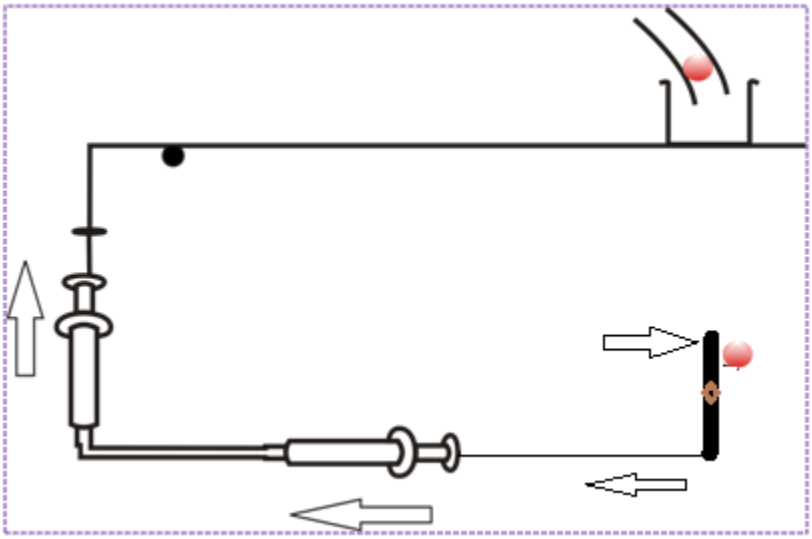
STEP 6: Ball goes through this arrangement to get optimum kinetic energy..



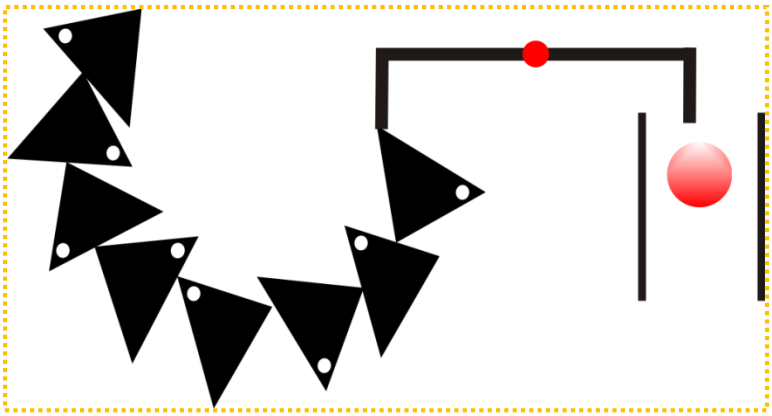
STEP 7: Ball coming from above step falls into container which pulls the cord and hence pulley to set the bearings into motion gradually.



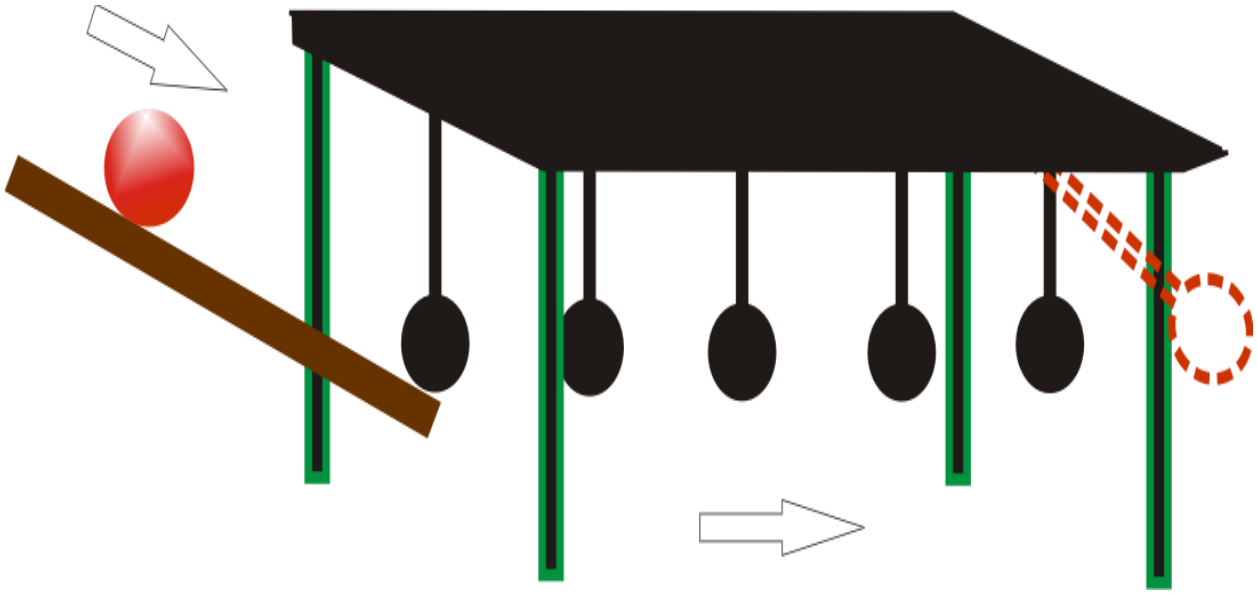
STEP 8: Now the bearing coming gradually from previous step pulls syringe by force…



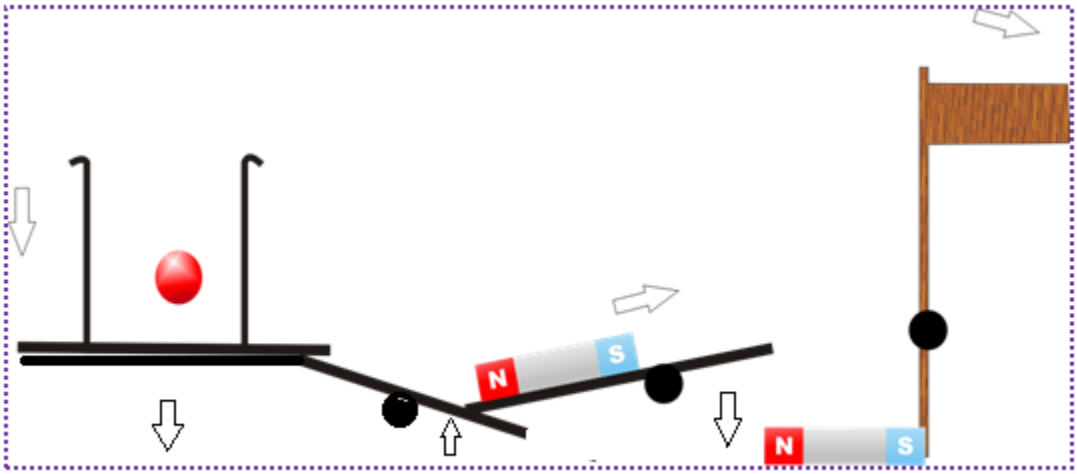
STEP 9: All the flips in this step are pivoted with the help of hinge which rotate around their pivot when hit by ball hence giving torque to next flip. In this way the last flip hits inverted U shaped rod hinged at intermediate point to provide force to ball.



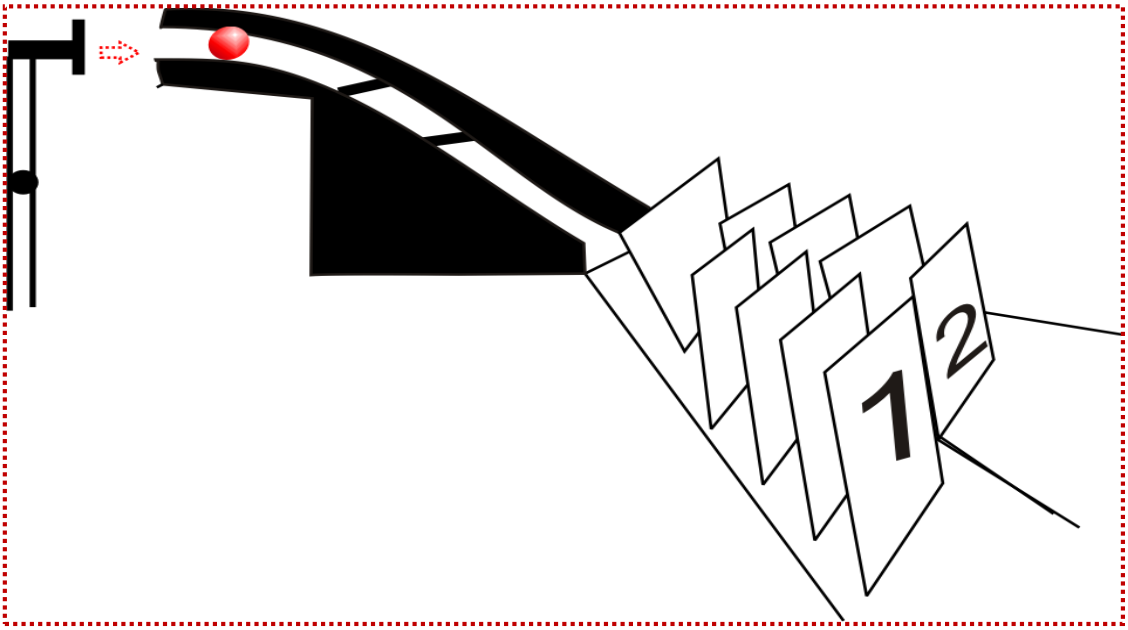
STEP 10: A series of pendulum utilizes impact force of previous step. Last pendulum ball is attached by nut which is thrown away at end of step into new arrangement.



STEP 11: A permanent bar magnet is attracted towards another to struck the ball kept on slope.

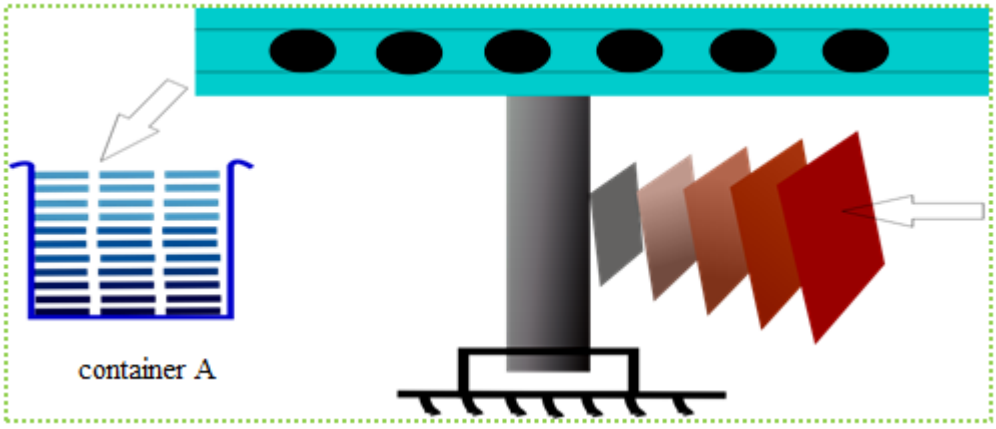


STEP 12: Ball hits the header which initiates a parallel step of two ways of headers leading to another different steps.

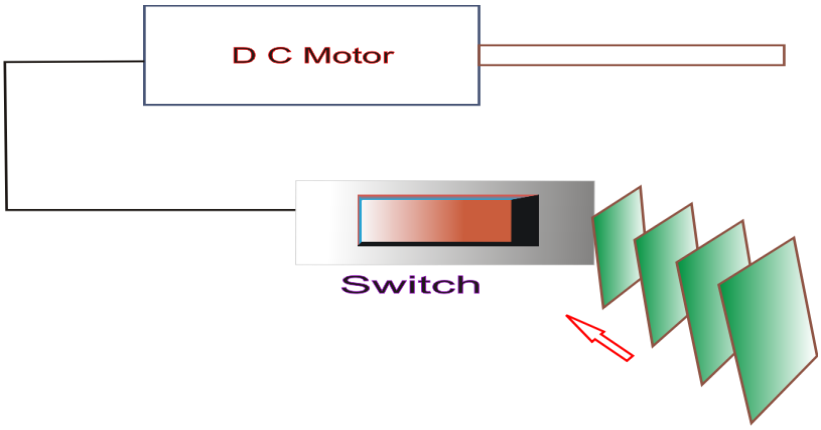


STEP 12(a): All the header of way one fall consecutively on a wooden block having rail containing bearing balls over it. These ball falls into bucket full of

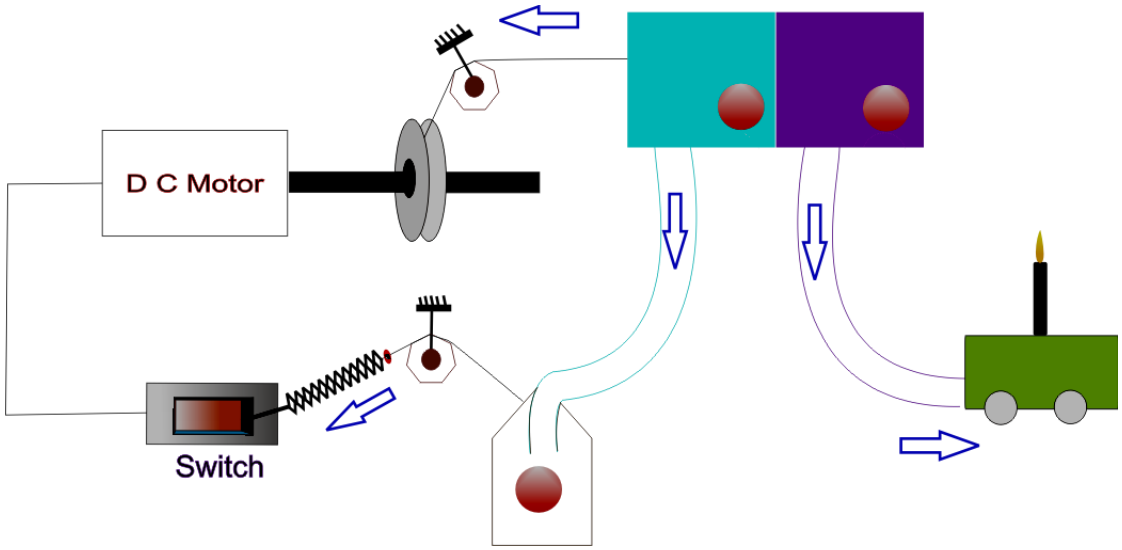
water to spill out required amount of water which is to be used further. Wooden block is hinged at a point.



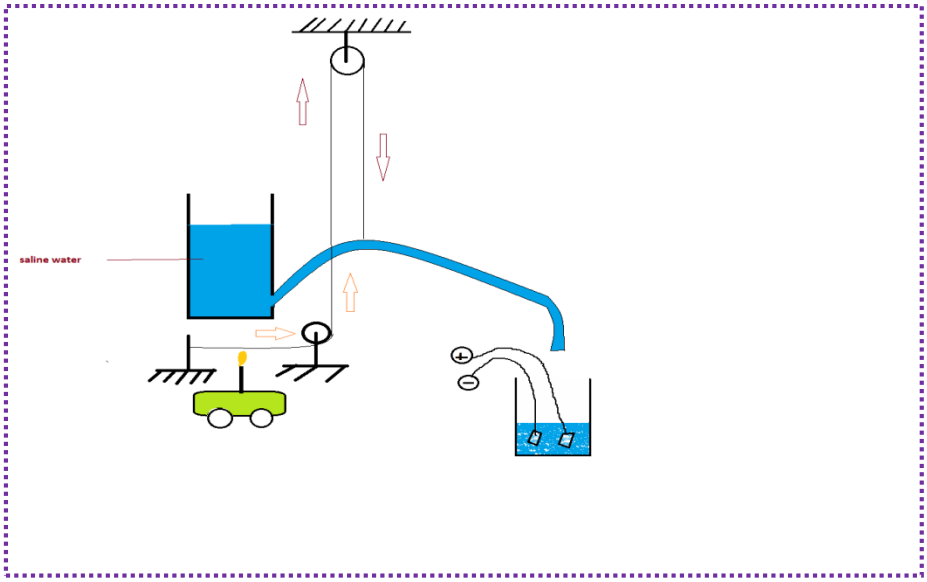
STEP 13: Another series of header of way 2 fall to switch on the dc motor.



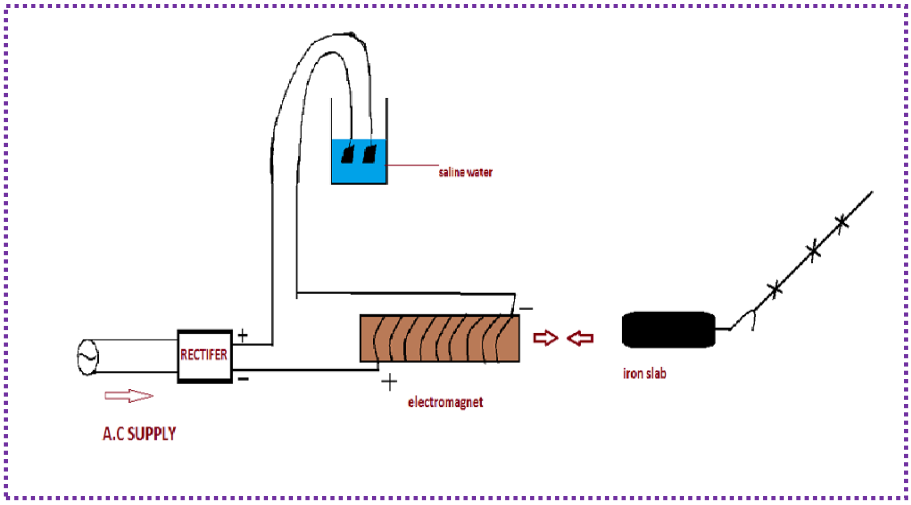
STEP 14: A wheel attached to shaft of the motor on which a thread is wound which pulls a box type arrangement to alarm the stoppage of dc motor after a cart is pushed ball 1.



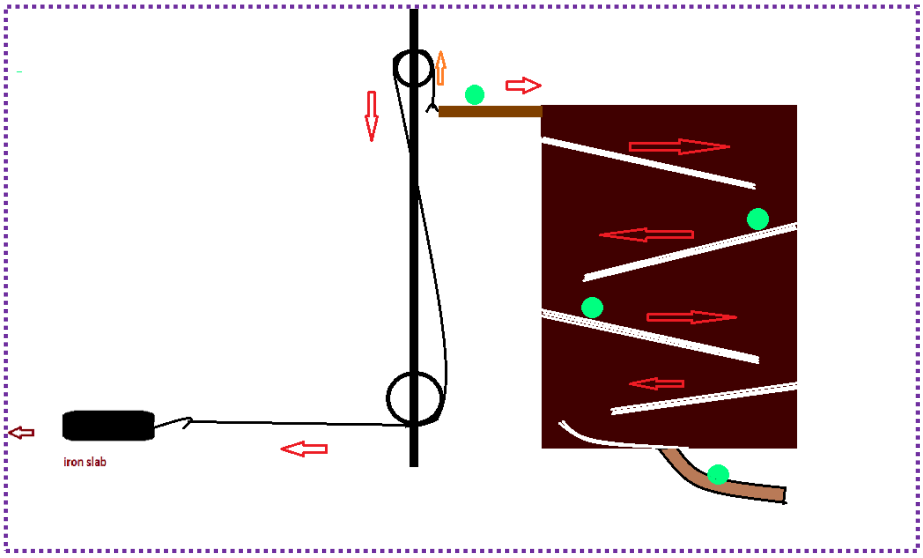
STEP 15: A candle placed on cart burns the thread of the pulley so as to lower the level of tube coming from bucket of saline water to complete the circuit.



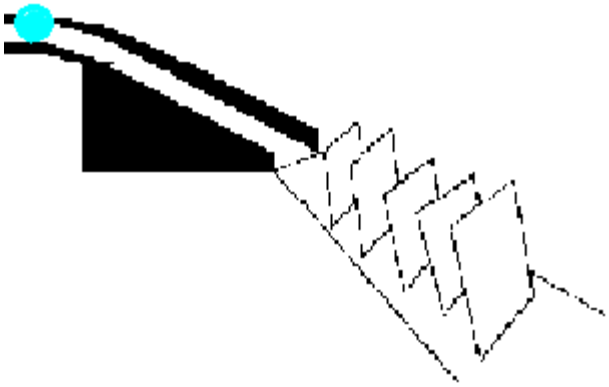
STEP 16: This circuit is used to set up an electromagnet with the help of rectifier. This electromagnet is used to attract an iron slab to pull a thread further.



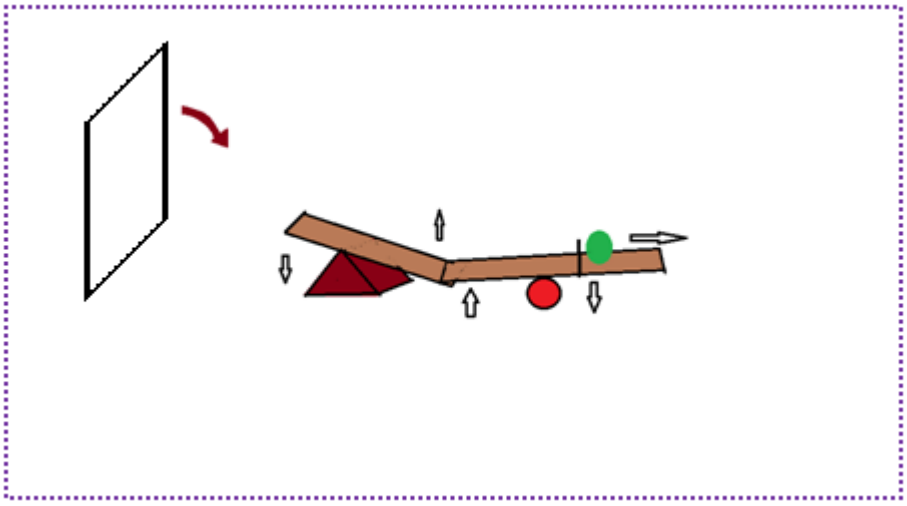
STEP 17: The stretched thread from previous step tilts a wooden block which triggers a ball into new arrangement.



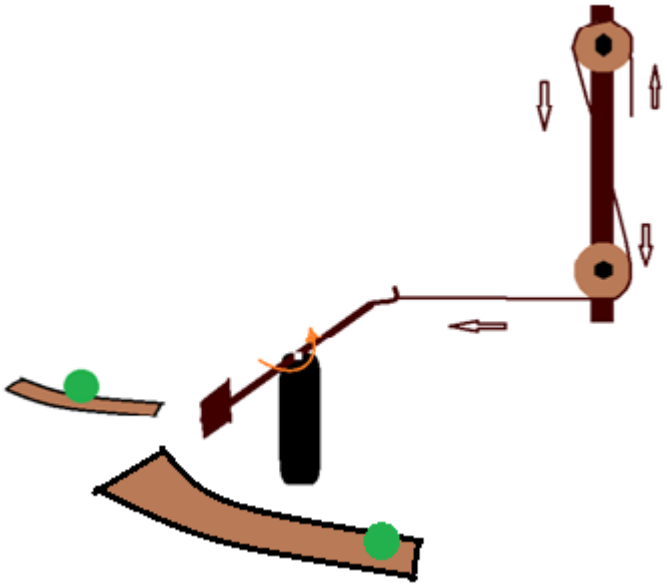
STEP 18: . Ball from above step hit the header



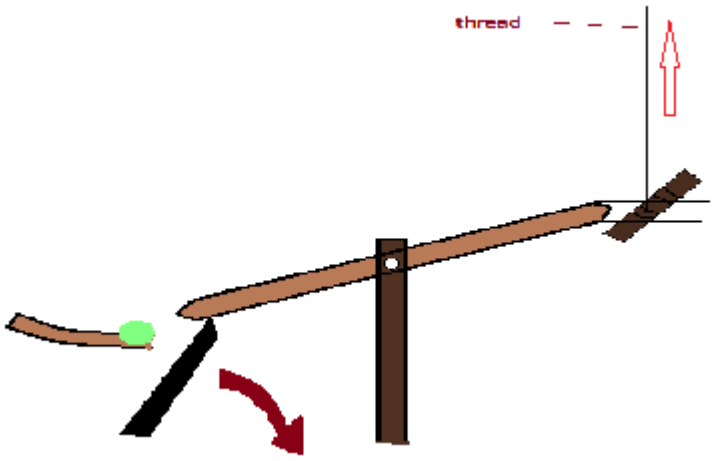
STEP 19: That last header from above step falls on new arrangement to trigger a new ball.



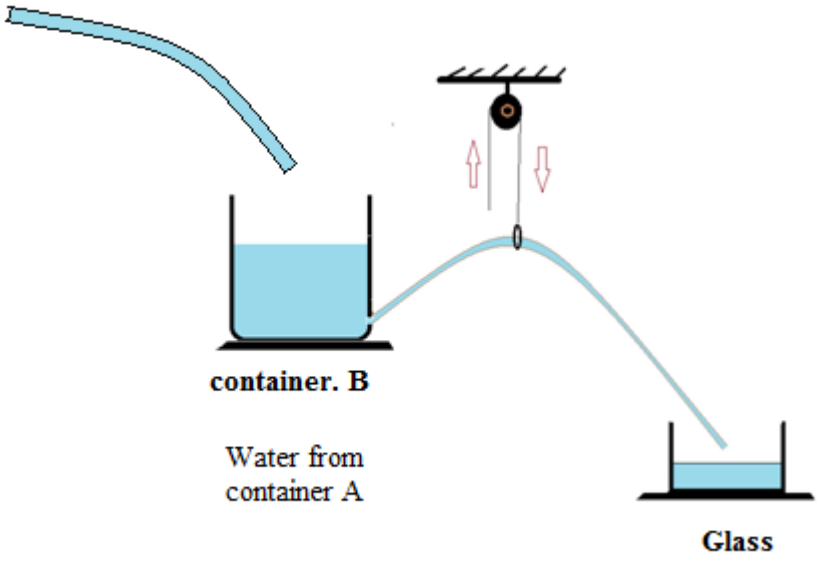
STEP 20: This ball enters into new arrangement having two pulley and a rod which is attached to a thread by hook which pulls the thread to help us in conceiving next step.



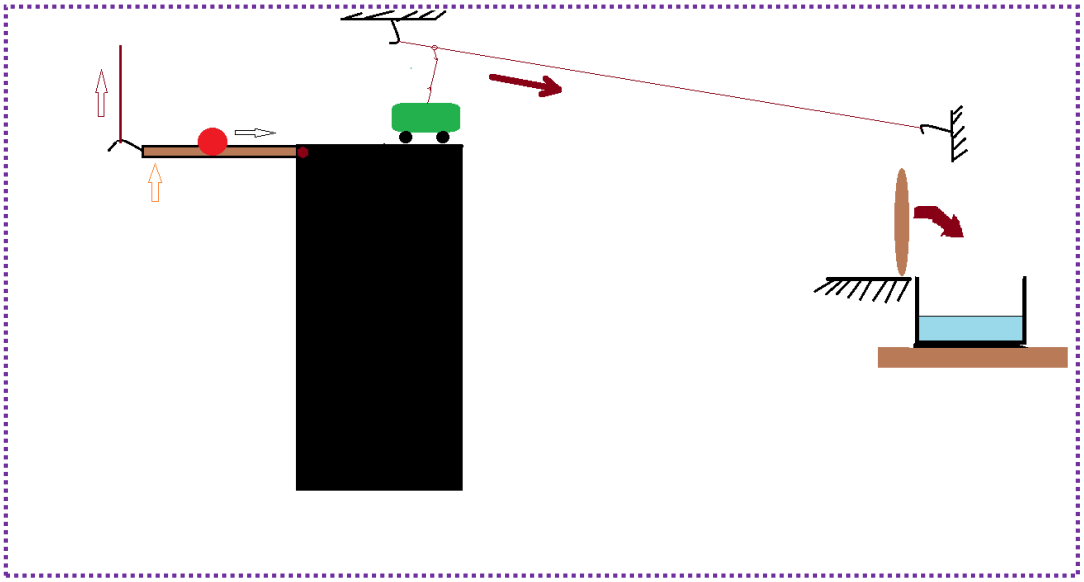
STEP 21: Ball from above step disturbs the arrangement which is shown .Due to the tension in the thread other end moves upward



STEP 22: There is already available sufficient water in container B from step 12(a).Thread from above step releases pipe and required amount of water flows from container to glass.

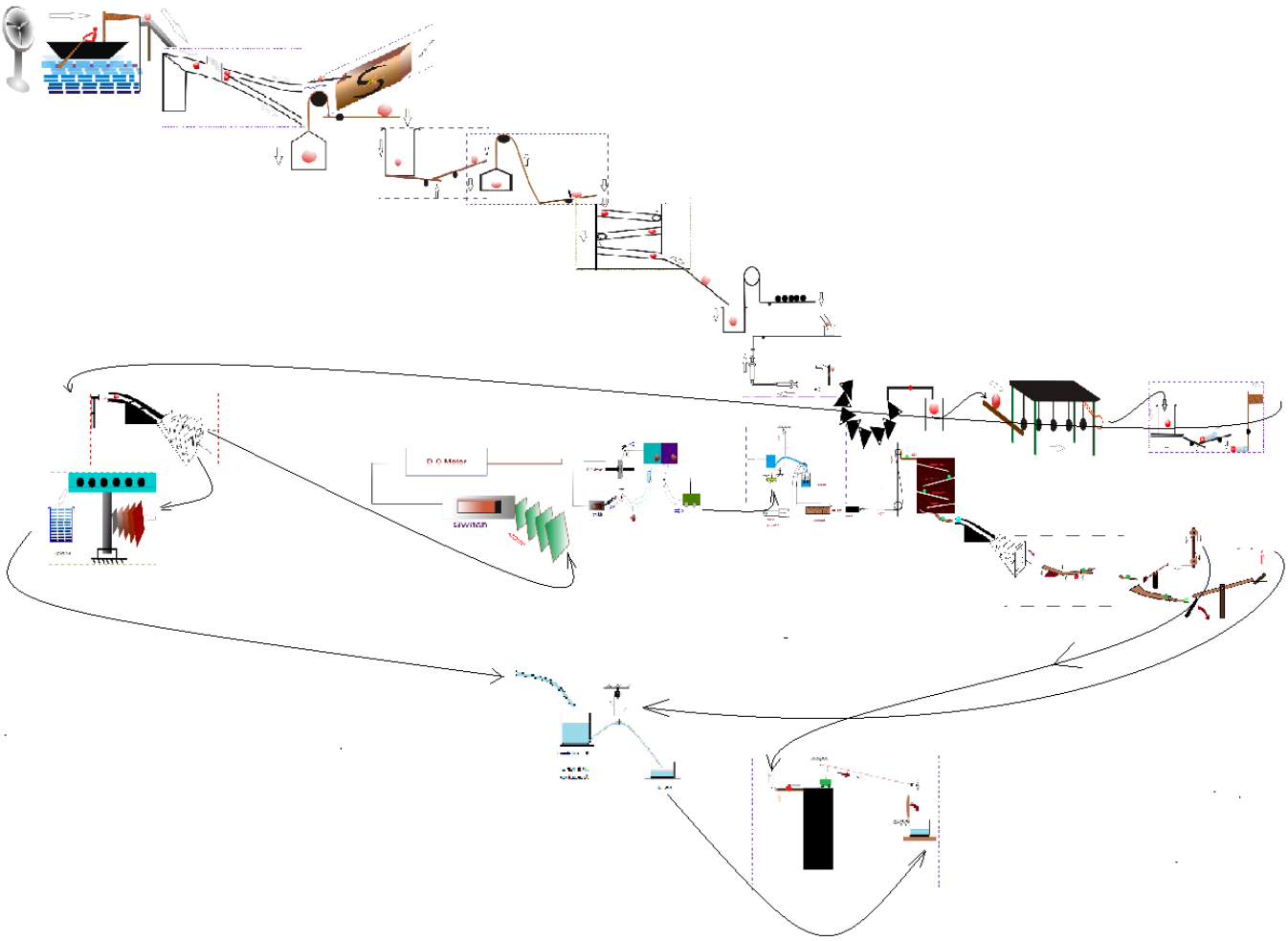


STEP 23: From **step 20** taut thread lifts a flat strip having a ball which hits a small toy aero plane/cart which slides alongside inclined thread to hit the lid to cover the glass having water and hence the task is completed.



SUMMARY

Summary of all steps can be seen in the next diagram


D.C Motor
Switch