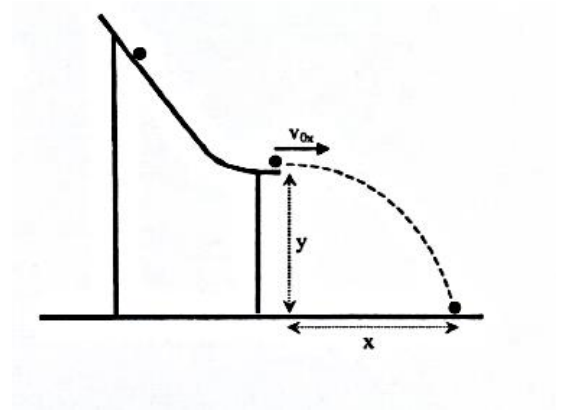


Physics Lab- Ball and Ramp Projectile Motion

In this lab, you will roll a ball off a ramp and let it fall onto the table. When it leaves the ramp, it will follow a projectile trajectory. You will figure out how fast the ball leaves the ramp. Then, you will change the height of the vertical drop and determine where it will land on the floor.



Set up your ramp on the edge of your table and roll the ball down the ramp, off the table, and onto the floor. Pay close attention to about where the ball lands. Tape a piece of white computer paper over the center of where the ball hit the ground. Now place a carbon paper sticky side down on top of the white paper. This will mark the exact point where your ball strikes the ground.

Be sure to measure the height of the ramp (y), the distance away from the table (x) where the ball strikes the ground.

Now use textbooks or something sturdy to change the height from which the ball is launched (y) and re-measure where it strikes the ground (x).

Use this data to determine the initial horizontal velocity (v_{0x})

BALL IN A CUP!

Be able to predict where the ball will land for any given height between 0-2 meters and when you are confident bring your ramp up the front of the room and you will be given one shot to roll your ball down your ramp from a given height and have the ball land in a cup on the floor.

REPORT

Write up your results, analysis, and conclusions in a report in your journal.