

Physics 12
M. Lam

Inelastic Collision Lab

Name:

Partner:

Block:

Introduction

In a completely inelastic collision, the colliding objects stick together. The purpose of this lab is to determine whether momentum and kinetic energy are conserved in a completely inelastic collision.

Equipment

Below is a list of available equipment. Circle all equipment used.

Hot Wheels track

tape

electronic balance

Hot Wheels cars (2)

meter stick

video camera

BeeSpi photogate timers (2)

stopwatch

Apparatus

Draw and label a diagram of your apparatus.

Experimental Method

Describe how your data is collected. Include any steps necessary to reduce experimental uncertainty.

Data

Record all measurements. If appropriate, organize your data in a table.

Analysis and Discussion

Describe how the data is used to determine whether momentum and kinetic energy are conserved in a completely inelastic collision. Show an example for each type of calculation.

Identify and discuss a minimum of two sources of error. Put a star next to what you believe to be the most significant source of error.

Conclusion

Momentum is _____ in a completely inelastic collision.
conserved/not conserved

Kinetic energy is _____ in a completely inelastic collision.
conserved/not conserved