Lab 7 – Work-Energy and Momentum

Objectives:

• Measure x-velocities of two carts before and after two kinds of collisions.

• Calculate the total kinetic energies and momenta and their fractional changes.

• Demonstrate if kinetic energy and momentum are conserved.
Experimental set-up

Set up the equipment as shown here, with two motion sensors and two carts and a level track. Cart B has extra mass attached. Give Cart A a gentle push up the track and collect data. Follow the online instructions.
Central concept

It is possible to measure whether kinetic energy and momentum are conserved.