Email : sales@scilabexport.com
Phone: +91-7082934803

Product Name :

Apparatus Collision 2 Dimension

Product Code :

SLE/PHY/06



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Description :

Apparatus Collision 2 Dimension (Product Code: SLE/PHY/06) is a curved-track ball collision apparatus used to study how momentum and energy change in elastic and inelastic collisions in school and college physics labs. A support on its fixed base holds a target ball at the right height for a centre-to-centre impact, and a pin with three holes gives a repeatable release height. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Key Details

Parameter	Detail
Purpose	Study of energy and momentum changes in elastic and inelastic collisions
Track	Curved track with a base permanently mounted at one end
Collision plane	Track is level so the collision occurs only in the horizontal plane, simplifying calculations
Target support	Support on the base holds a ball at the proper height for a centre-to-centre collision with a second ball rolling down the track
Release control	A pin and three holes in the track keep the drop height of the ball consistent
Product code	SLE/PHY/06
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the 2D Collision Apparatus Used For?

The apparatus is set at the edge of a bench so that balls leaving the base fall to the floor as projectiles. Students first release the incident ball alone from one of the pin positions and mark where it lands, then place the target ball on the support and repeat. Because every ball leaves from the same height, the horizontal distance to each landing mark is proportional to its velocity just after impact, so momentum before and after can be compared directly.

Repeating runs from the other holes shows how a greater drop height raises the incident speed, and comparing kinetic energy before and after tells students whether a collision was elastic or inelastic. Where the balls leave in different directions, their momenta are resolved into components in the horizontal plane. A plumb line marks the floor point below the launch position, making the apparatus a natural companion to the projectile motion kit school labs already use.

What to Specify When Ordering

- The number of sets needed for your laboratory
- Confirmation of the incident and target balls supplied, and any spare balls
- Measuring accessories to order with it, such as a plumb line and a metre scale

OEM

Jain