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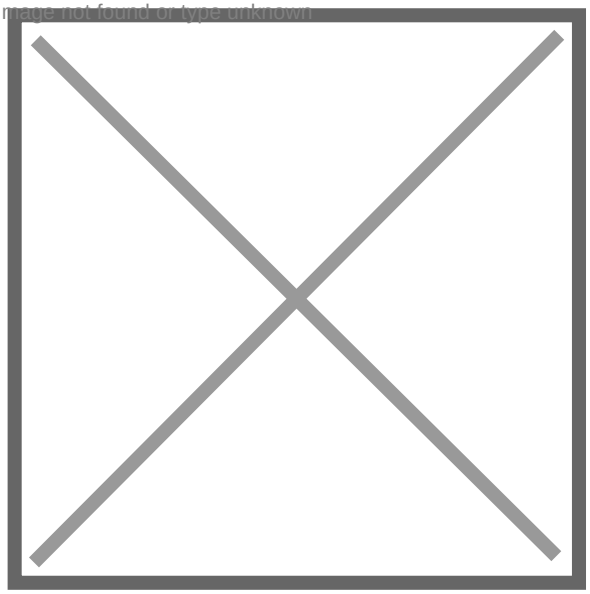
**Product Name :**

Apparatus for the study of the dependence of the acceleration of the body on force when the mass remains at C

**Product Code :**

SCL-555/09

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## Description :

**Apparatus for the study of the dependence of the acceleration of the body on force when the mass remains at C** (Product Code: SCL-555/09) is a cart-and-track dynamics set used to show that acceleration rises with the applied force while the mass stays constant, in physics labs. It provides two 290 x 140 x 90 mm carts and two 1.5 x 0.3 m tracks, one straight and one curved. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

### Specifications

| Parameter | Detail |
|---|---|
| Carts | Two laboratory carts, primary and secondary, 290 x 140 x 90 mm |
| Cart mass | 0.87 kg |
| Tracks | Two tracks of 1.5 x 0.3 m: one for rectilinear (straight-line)motion, one for curved motion |
| Gates | Primary gate and secondary gate, with mounting accessories |
| Weights | Box of hooked weights, 50 g–100 g |
| Clamps | Left and right side clamps, plastic |
| Demonstration table | Table for studying the dependence of acceleration on force at constant body mass |
| Product code | SCL-555/09 |
| Manufacturer | Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM |
| Country of origin | India (made in Ambala, Haryana) |

### What Is the Acceleration and Force Apparatus Used For?

This apparatus is built for the classic Newton's second law investigation. A cart runs along the straight track under a known pulling force, the force is changed step by step, and the resulting acceleration is worked out for each run. Because the moving mass is held constant, a graph of acceleration against force comes out as a straight line through the origin — the relationship the experiment sets out to prove. The curved track lets the same carts be used when the class moves on to motion along a curved path.

A dependable way to keep the total mass unchanged is to move hooked weights from the cart to the pulling load instead of adding new ones, so that only the net force changes between runs. Level the straight track first so the cart does not drift on its own, fix the gates in place with the supplied mounting accessories, and repeat every run two or three times before averaging. Used as a force motion experiment kit in senior classes, it gives students clean, repeatable data for their practical records.

### What to Specify When Ordering