



The IEC DYNAMICS CART - with safety catch

Cat: MF0945-001 Dynamics Carts (pair)

The IEC 'Dynamics Carts' have the following special features:

- Very **low friction** wheels, wide apart for **better stability**
- **Inboard wheels** that cannot catch around cords and tangle
- **High Quality** precise manufacture. Unit runs in a straight line
- Important **Safety Catch** on the firing shaft
- Accurate total mass of **600g per cart**
- Low mass ball bearing wheels for **low rotating mass**
- **Unbreakable** and easily supports a person's weight
- Very strong ABS, anti twist and **rigid body**
- Pimple pattern **gripping vinyl surface platform**
- Both Carts are identical and **both carts can fire shafts**
- **Tow point provided** for towing Carts with elastic bands
- **Fully stackable** to double or triple mass or for storage
- Fitted with 'Velcro' bumpers for **non-elastic collisions**
- Very durable firing mechanism that is **easy to set.**
- **Two settings on firing shaft** for two firing forces
- **Very attractive** sleek and fun styling
- **All spare parts stocked** by IEC at all times

MF0945-001 Dynamics Carts pair



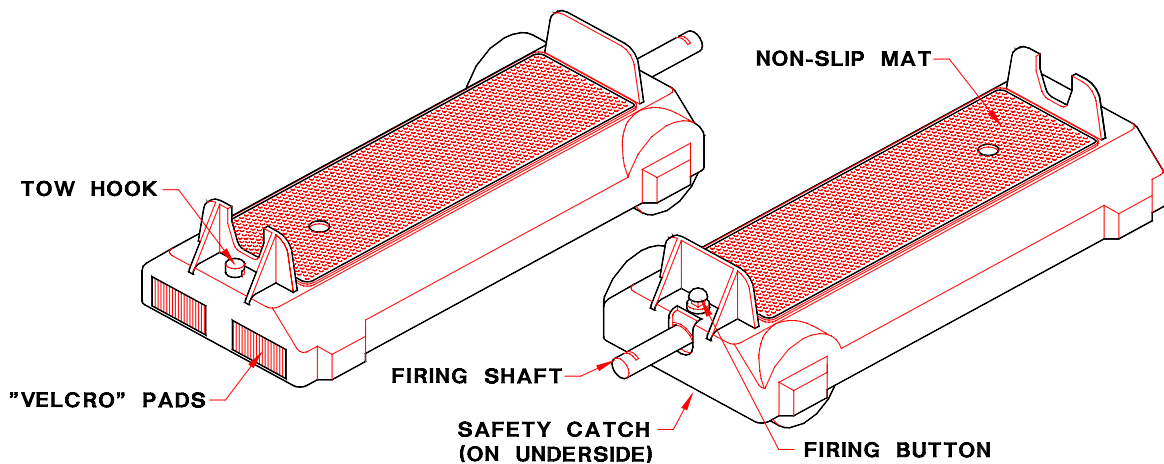
Physical size: 310x130x90mm LxWxH (each)

Weight: 0.60 kg each cart

KIT CONSISTS OF:

- 2 pcs DYNAMICS CARTS fully assembled and ready for use
- 1 pce Pack of rubber bands for towing the DYNAMICS CARTS.
- 1 pce Instruction sheet

The image below shows some of the features of the IEC 'Dynamics Carts'.

**INSTRUCTIONS:**

The DYNAMICS CART can be loaded with bricks or other weights to change its mass or two or three carts can be stacked. It can be towed along with cords or with rubber bands to simulate constant forces being applied to the cart. Experiments in impulse, momentum, velocity, acceleration, friction, energy and work can be performed. 'Velcro' pads permit two carts to lock together after collision. Can be used with the IEC Recording Timer for recording motion.

NOTE: For safety in the classroom and during storage, the firing shaft can be locked to make firing impossible.

The IEC DYNAMICS CART is fully assembled ready for use. Note that 'Velcro' is fitted to both ends of the carts so that any cart will adhere to any other cart for non-elastic collisions.

TO SET THE DYNAMICS CART TO FIRE:

After unpacking, slide the safety catch so that the firing shaft can be released for firing the shaft from the body. Press the domed FIRING BUTTON near the end of the cart and the shaft will fire but will remain captive with the cart.

With the thumb or hand, press the firing shaft in against the spring and notice the slot in the shaft engages when it is just over half way inserted. Keep away from face and press the domed FIRING BUTTON near the end of the cart. The shaft will fire at about half maximum force. Press the firing shaft all the way in until it engages.

Press the FIRING BUTTON to fire at maximum force.

**SOFT COLLISIONS:**

For soft collision experiments, the firing shaft remains loosely protruding from the cart. For storage and for experiments not requiring firing, the shaft is normally fully pushed in and the ***SAFETY CATCH SHOULD BE APPLIED.***

SAFETY: THE FIRING SHAFT FIRES WITH HIGH FORCE. TAKE CAUTION AND KEEP CARTS AWAY FROM FACE AND EYES AT ALL TIMES

ALWAYS ENGAGE THE SAFETY CATCH WHEN IN STORAGE OR AT ANY OTHER TIME WHEN NOT ACTUALLY FIRING THE CART.

DIMENSIONS	OVERALL	PLATFORM
Length	307 mm	255 mm
Width	132 mm	80 mm
Height	90 mm	58 mm
Weight: 600 gms		

Experiments involving the use of Dynamics Carts can be found in various student notes and Science text books.

NOTE: These carts have been copied in China so closely that they are almost indistinguishable from the original – even down to the label colours and text fonts. If you ever need to check that you have bought the originals, look for IEC hexagon on the underside, faultless assembly, almost zero twist in the housing and very free-running wheels. The copy will have none of these features.

Designed and manufactured in Australia