

DYNAMIC TRACK SYSTEM

11540

Aluminum profile designed with a 50mm wide-top surface on which the trolleys run. A 85mm wide-lower surface which allow to fit on to it the optional photocell units. One side is printed with a metric scale in millimeters allowing accurate distance measurements (both photogate and trolley). It is equipped with height adjustable feet. 4mm sockets are provided at the ends and at the top for attaching accessories.

Low friction ball bearing dynamic trolleys. The wheels are specially designed for keeping the trolley centered, reducing friction on the wheel sides. 4 holes allow to increase the weight of the trolley by adding masses, thus the mass center is kept the same (it is ideal for collisions experiments). 4 mm sockets are provided at the ends for attaching accessories.

The electromagnet is used for starting the trolley movement without any initial velocity and as a launcher for collision experiments. The required voltage is supplied by the optional digital counter or by an external power supply.

The photogates are directly fitted on to the dynamic track. A mark shows the position on the metric scale.



COMPONENTS:

- ◆ 1x Dynamic Track aluminium with metric scale and leveling feet, 1200 mm long
- ◆ 1x Pulley with micro ball bearing
- ◆ 2x Trolley with low friction ball bearing. Mass 180g
- ◆ 1x Set of 4 blocks different height for inclination purposes
- ◆ 1x Hook with 4mm plug. Mass: 10g
- ◆ 1x Plate with 4mm plug. Mass: 10g
- ◆ 1x Cylinder with wax with 4mm plug. Mass: 10g
- ◆ 1x Needle with 4mm plug. Mass: 10g
- ◆ 2x Fork with rubber band and 4mm plug. Mass: 10g
- ◆ 2x Screen 50mm with 4mm plug. Mass: 10g
- ◆ 1x Screen 50mm with 10mm notch with 4mm plug. Mass: 10g
- ◆ 2x End-stop U shaped with 4mm plug
- ◆ 8x Additional weights for trolleys. Mass: 50g each
- ◆ 1x Slot weights with holder for acceleration purposes: 2-21g
- ◆ 1x String
- ◆ 1x Electromagnet with accessory for electric launcher. Voltage 3-12 VDC
- ◆ 1x Power supply regulated and variable
- ◆ 1x Switch box
- ◆ 2x Photocell unit. Specially designed for fitting on to the dynamic track
- ◆ 1x Digital counter 0,1ms with memories and power supply for photocells
- ◆ 1x Set of leads (4x30cm, 6x60cm, 2x120cm)
- ◆ 1x User instructions and experiments manual with experimental results

EXPERIMENTS:

- ✓ Newton laws.
- ✓ Uniform motion.
- ✓ Uniformly accelerated motion.
- ✓ Inclined plane.
- ✓ Elastic collisions.
- ✓ Inelastic collisions.

