



## Simultaneous launcher with spheres

SCN-F002G

### Function

Intended for experimental study, physics laboratory, natural science laboratory, carrying out physics experiments on: Kinematics. Horizontal launches and decomposition of parabolic motion into two simultaneous rectilinear motions. Horizontal launches from the same height. The measure of the range, on the ground plane, of a launch with initial velocity  $v_1$  and height  $h$ . The measure of the range, on the ground plane, of a launch with initial velocity  $v_2$  and height  $h$ . The measure of the range, on the ground plane, of a launch with initial velocity  $v_3$  and height  $h$ . Comparing the ranges obtained in launches with different initial speeds. Time of flight does not depend on the horizontal component of velocity in a horizontal launch. Comparing the flight time of the projectile launched from a height  $h$  and velocity  $v_1$ , with the time in free fall from a height  $h$ . Comparing the flight time of the projectile launched from a height  $h$  and velocity  $v_2$ , with the time in free fall from a height  $h$ . Comparing the flight time of the projectile launched from a height  $h$  and velocity  $v_3$ , with the time in free fall from a height  $h$ . Parabolic motion decomposed into two simultaneous rectilinear motions, a horizontal MRU and a vertical MRUV, etc.

### Knowledge areas

Physics

### Level

High school

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