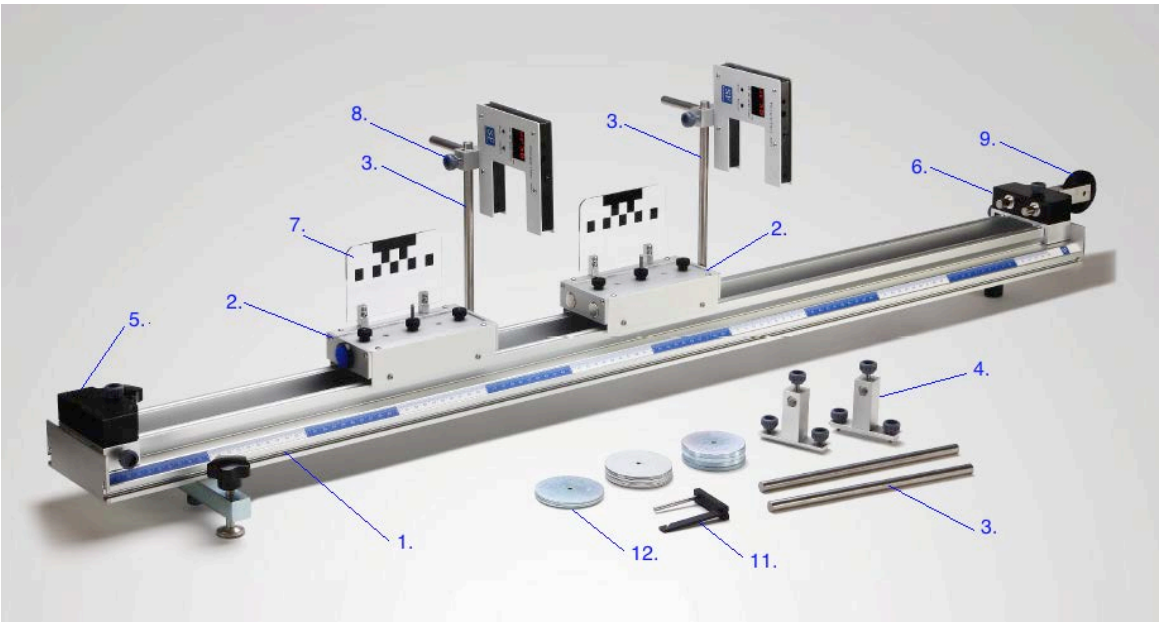
F02 Newton’s Law Experiment



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Experiments:

1. Slider's acceleration along the component of inclined plane, 'gsin ' is found to be dependent on the inclined angle, but irrelevant to slider's mass.
2. With the aid of optical timers, slider's acceleration to verify Newton's Second Law of Motion could be determined.
3. Conservation of momentum in elastic and inelastic collisions.

Specifications:

1. Aluminum experimental platform x1

   Aluminum alloy, an top 3 D biconvex guide track ,on the surface, is fastened by U-shaped clips below and one of both sides is adhered to an meter of inclination of 45-degree. And the type of three-point level supporter of 120 x12x4.5cm is subjected at at both ends.

2. Dynamic cart x2

   Aluminum body with spring-loaded that can make the high-impact plastic wheels with low friction ball bearing into the body when drop happened. Magnet installed at one end of the cart for elastic collision, Velcro tab fixed at another end of car for inelastic collisions. Car top can fix the weights and diaphragm, size 155x75x45mm

3. Stainless support rods Ø9.95×220mm x4
4. Aluminum slide clamp for support rods x4
5. Plastic stopper with Velcro tab in a elastic head x1
6. Plastic launch pad with two iron bars and elastic device to hold the carts with lower impact.
7. diaphragm, with three step, single interrupt, double interrupt and picket fence x2
8. Aluminum right angle clamp x2
9. Precision pulley x1
10. Fishing thread x1
11. U type aluminum hanger x1
12. Mass sets 100g x 4 / 50g x 3 / 10g x 10
13. Gradienter x1

Option:

Photogate Timer (2Display+1External)