

1.3.03–11 Newton's 2nd Law / Air track with Cobra3

What you can learn about ...

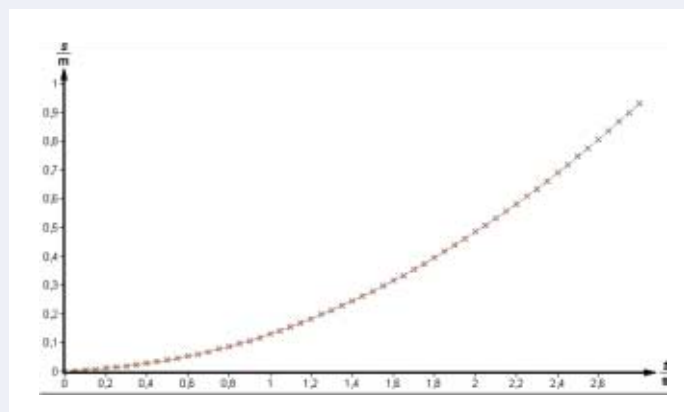
- Linear motion
- Velocity
- Acceleration
- Conservation of energy

Principle:

According to Newton's 2nd law of motion for a mass point, the relationship between mass, acceleration and force are investigated.

What you need:

Cobra3 Basic Unit	12150.00	1
Power supply, 12 V-	12151.99	1
RS232 cable	14602.00	1
Cobra3 Translation/Rotation Software	14512.61	1
Light barrier, compact	11207.20	1
Air track	11202.17	1
Blower	13770.97	1
Pressure tube, $l = 1.5$ m	11205.01	1
Glider for air track	11202.02	1
Slotted weight, 1 g, polished	03916.00	9
Slotted weight, 10 g, black	02205.01	4
Slotted weight, 50 g, silver bronze	02206.02	4
Stop, adjustable	11202.19	1
Starter system, mechanical, with trigger	11202.13	1
Magnet with plug for starter system	11202.14	1
Tube with plug	11202.05	1
Plasticine	03935.03	1
Hook with plug	11202.07	1
Silk thread, $l = 200$ m	02412.00	1
Weight holder, 1 g	02407.00	1
Bench clamp -PASS-	02010.00	1
Right-angle clamp	02043.00	2
Support rod, $l = 250$ mm	02031.00	1
Support rod, $l = 10$ cm	02030.00	1
Measuring tape, $l = 2$ m	09936.00	1
Portable balance, Mod. LS2000	46002.93	1
Block battery, 9 V	07496.10	1
Connecting cord, $l = 100$ cm, red	07363.01	1
Connecting cord, $l = 100$ cm, blue	07363.04	1
Connecting cord, $l = 100$ cm, yellow	07363.02	1
PC, Windows® 95 or higher		



Path-time law.

Tasks:

The distance-time law, the velocity-time law and the relationship between mass, acceleration and force are determined. The conservation of energy can be investigated.

Complete Equipment Set, Manual on CD-ROM included
Newton's 2nd Law / Air track with Cobra3 P2130311