

INSTRUCTIONAL GUIDE

Contents

- Air Puck
- Instructional Guide

Required but not included:

- [4 AA batteries \(P8-5600\)](#)

Recommended for Activities:

- [PocketLab Voyager 2 \(P4-1001\)](#)



Operation

The Air Puck glides best on hard floors or low carpet. The rubber bumper on the Air Puck helps it bounce elastically off hard barriers, such as walls or boards. To change the batteries, remove the white circular cover located underneath the Air Puck. It is held in place by the three inner most screws located near the outer edge of the solid white cover. The air puck runs on 4 “AA” batteries.

Activities

Note: Some experiments recommend the use of a motion sensor. The puck will need an attached “flag” or other object for the motion sensor to sense. Take care not to block the air intake area with this object. The [PocketLab Voyager 2](#) has motion-sensing capabilities and is even light enough to sit on top of the Air Puck, making it the ideal tool for kinematics activities.

1. **Newton’s First Law (Law of Inertia):** Demonstrate how the puck glides smoothly in a straight line until acted on by an outside force. The usual outside force of friction is greatly reduced.
2. **Motion on an inclined plane:** Use a motion sensor to measure the acceleration of the puck as it glides down a wide inclined plane. Compare this acceleration to calculated acceleration, and to the acceleration of other objects, such as a sliding block, rolling car, or rolling ball. Attach some mass to the puck (make sure it still glides smoothly) and repeat the measurement.
3. **Collisions and conservation of momentum and energy:** Use two or three Air Pucks to investigate the behavior of objects in collisions. Use a motion sensor for quantitative measurements. For inelastic collisions, attach some hook-and-loop (Velcro) fastener to the bumpers.

Related Products

[Air Puck Physics Kit \(P4-2155\)](#) Our exclusive Air Puck Physics Kit includes two pucks, inelastic collision kit, and puck launcher.

[Mini Air Puck \(P4-2140\)](#) The always popular Air Puck now comes in compact Mini form.

[Economy Air Track \(P4-2710\)](#) The Economy Air Track is an economy air track that compares favorably to 2.0m air tracks.