

Help our AHCA Students Learn Physics!!!

A student's *preconceptions* are the *most* difficult obstacle in their comprehension of Physics. In an attempt to debunk these preconceptions the students are forced to rely on "eye-ball" measurements and hand-operated stop watches to study complex and rapid interactions. With this inaccurate data, students are unable to draw clear conclusions.

The students are left with no definitive answers to challenge their preconceptions other than non-intuitive algebraic formulas. This reduces the students to a world of *plug-and-chug* for solving *all* Physics problems. Class lectures are reduced to a means of gathering interesting trivia that students do not perceive as having any real-world value.

- ✓ **Help** students to accurately **measure** an experiment
- ✓ **Help** students to draw logical **conclusions** from the experiment
- ✓ **Help** students to **discover** the exciting, hard-to-see wonders of this world

LabPro Interface



\$235 each

The LabPro Interface is the heart of this data-collection system, which integrates various sensors with the computer and offers unparalleled power, versatility, portability, and ease of use.

Motion Detector



\$85 each

The Motion Detector uses ultrasonic pulses to rapidly measure the distance of an object. The time it takes for the reflected pulses to return is used to calculate *position*, *velocity* and *acceleration*.

Force Sensor



\$120 each

The Force Sensor can accurately measure both *push* and *pull* forces. It can be easily mounted to study *friction*, *simple harmonic motion*, *impact in collisions*, *centripetal force* and the force due to *gravity*.

At Alma Heights Christian High School, the Physics laboratory is divided into 8 student-groups. Each group requires all three apparatus sets and we currently only have one set. We need 7 more sets for a **total of \$3080**.

Consider making a tax-deductible donation to sponsor one or more pieces of lab equipment.

Thank you for your help! Donations can be made payable to:

Alma Heights Christian Academy
c/o Physics Apparatus
1295 Seville Drive, Pacifica, CA 94044

Email any questions you have to:
Physics@almaheights.org