Engineering Physics Altitude Challenge

You are invited to compete in the **third annual** **Engineering Physics Altitude Challenge**! This challenges you to design, build, and demonstrate your ingenuity by devising a means of raising a motor and 9-volt battery combination through a height of **40** cm. Use any materials you desire, and *any* means necessary: you may fly, drive, shoot, lift, ratchet, or whatever else you can imagine accomplishing this.

The performance of your electromechanical design will be judged by the minimum amount of time required to raise the motor-and-battery combination by 40 cm. The *creativity* of the design will be used as the tiebreaker, if necessary.

The *only* limits on the design are that

(1) the battery is the sole source of energy in your system;
(2) the battery can only be used to power the motor;
(3) there is a $10 spending limit; (But salvage is OK!)
(4) no *prefabricated* gear boxes are allowed.

There is no limit on size, materials, or design – only your imagination!

Prizes: The fastest design wins your choice of laboratory equipment (up to **$125**!) for your school, and an Engineering Physics/Expo t-shirts. Second through 4th places win EP/Expo t-shirts. The most creative design (even if not necessarily the fastest) wins **$75** of laboratory equipment for their school, and EP/Expo t-shirts.

Each school (junior and/or senior high school) may submit either one entry, consisting of one or more team members, *or* multiple entries of 3-members each. ***New in 2009:*** *if you are unable to be on campus during Expo, you may instead* ***mail*** *your entry – with detailed operating instructions – and we will operate it on the day of the contest.* If you would like to be a part of this contest, please fill out the entry form and enclose $2.00 for each team (school purchase order or check payable to "EP Altitude Challenge"). We will send, by mail, one complete kit per team, consisting of one nine-volt battery, one small DC motor, a switch, a 9V battery clip, and day-of-Expo details.

For more information, please see our FAQ (on the Expo site), or write or call:

Duane Foust — Voice: 608-342-1696
EP Altitude Challenge — Fax: 608-342-1559
Chemistry & Engineering Physics — Email: foustd@uwplatt.edu
1 University Plaza, Platteville, WI 53818

EP ALTITUDE CHALLENGE ENTRY FORM

Please send _____altitude challenge kits at $2.00 each. Amount enclosed:_____

Name:_____

School:_____

Mailing address:_____

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Email address: _____