Physics Team Design:

PH131- Project Description

Fall 2014

Modeling the Motion of a MatchBox^{TM} Car

Develop a mathematical model describing the motion of a
MatchBox^{TM} car racing down an arbitrarily shaped track in a 2-D
vertical plane. In particular, your model should describe the
velocity of the car at any point along the track. Identify the most
important effects that should be included in this model. Design an
experimental method to evaluate the predictive capability of your
model.

During the final week of the project all groups will participate in
the *Challenge Sessions*. During this competition each group will
use their model to predict the performance of their car on a variety
of track shapes.