Not all my calculated values for 'g' were 32.1 feet per (sec * sec) like the Engineering Reference Manual said. Some reasons maybe because, the ball could have hit the sides, air may have slowed it down, the signal form the wires were to slow, we used the minimum number of sensors, or my program would have ran faster if I did it in assembly language.

The next time if I do this experiment I will write my program in assembly language (it will run a bit faster), use more sensors (more data for my calculations), smaller ball (not likely to hit the sides), more usable digits in the numbers (better results), and no holes in the object (so air can not push on the object). And it should all work better.

While I was building the experiment I learned how to use the drill, saw, how to put the drill bit in the drill, and how to screw. I enjoyed drilling holes, driving screws into the wood, cutting with the saw, cutting paper for the poster board, and mounting the wires and sensors to the tube.