

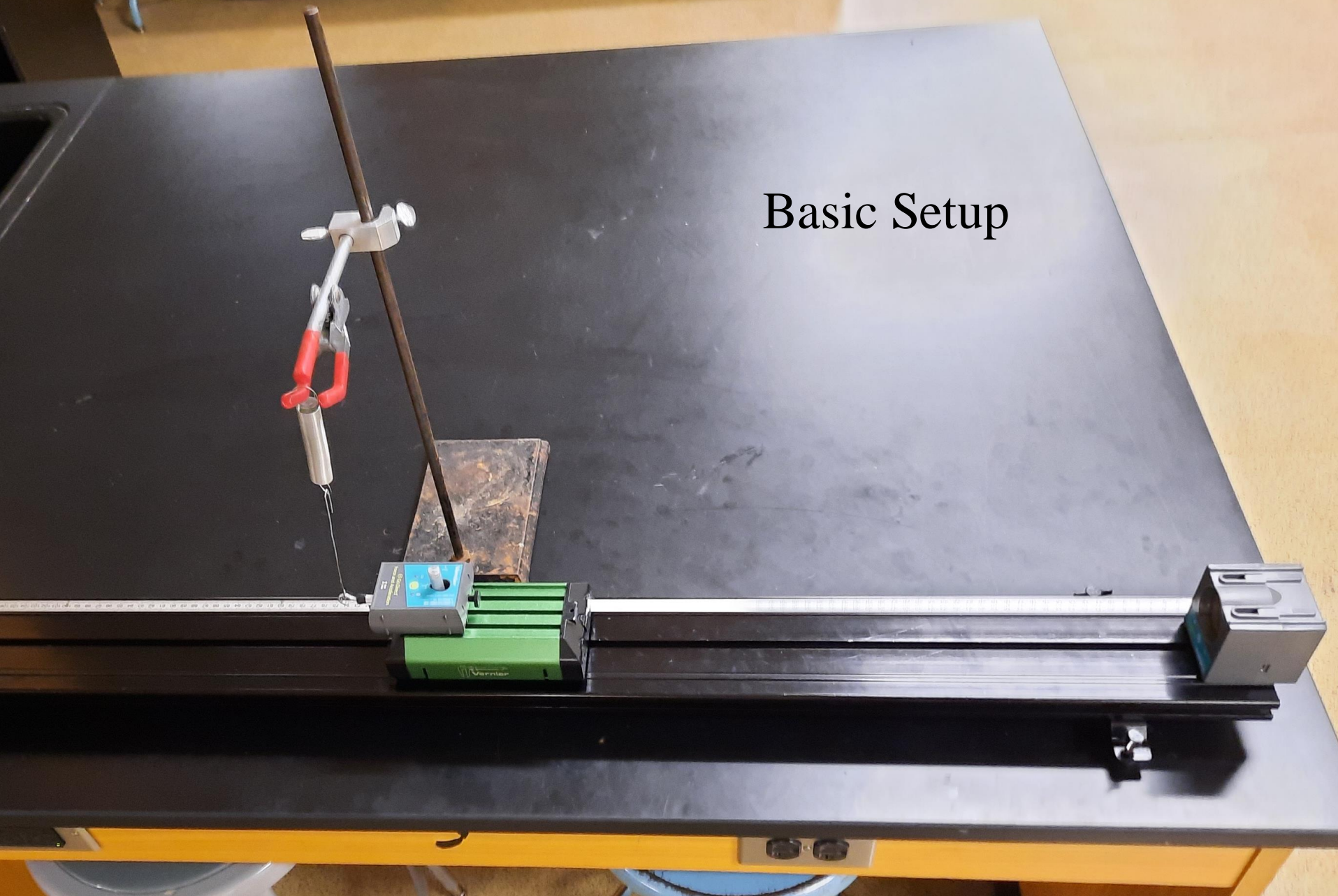
# AP Potential Energy

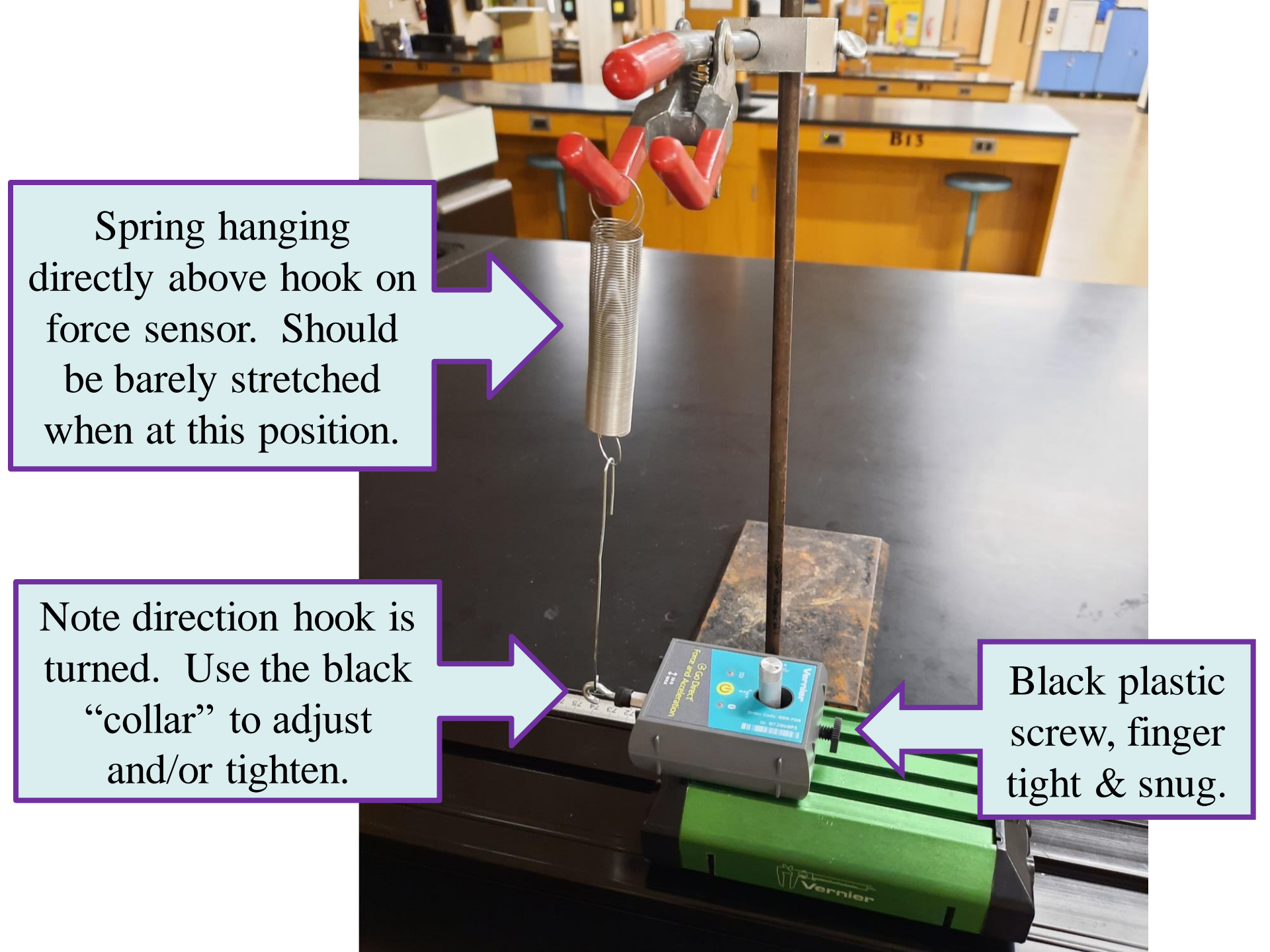
## Lab Preparation

# Tips for Success

- Read the directions!
- The sequence of steps is important – read and follow the procedure in order.
- Doing the experiment and collecting data is a group activity.
- Doing the report, preparing the graphs, and answering the questions is not a group activity.
- Requirements for the report are spelled out in the lab directions. You will have at least a week to complete the report.

# Basic Setup

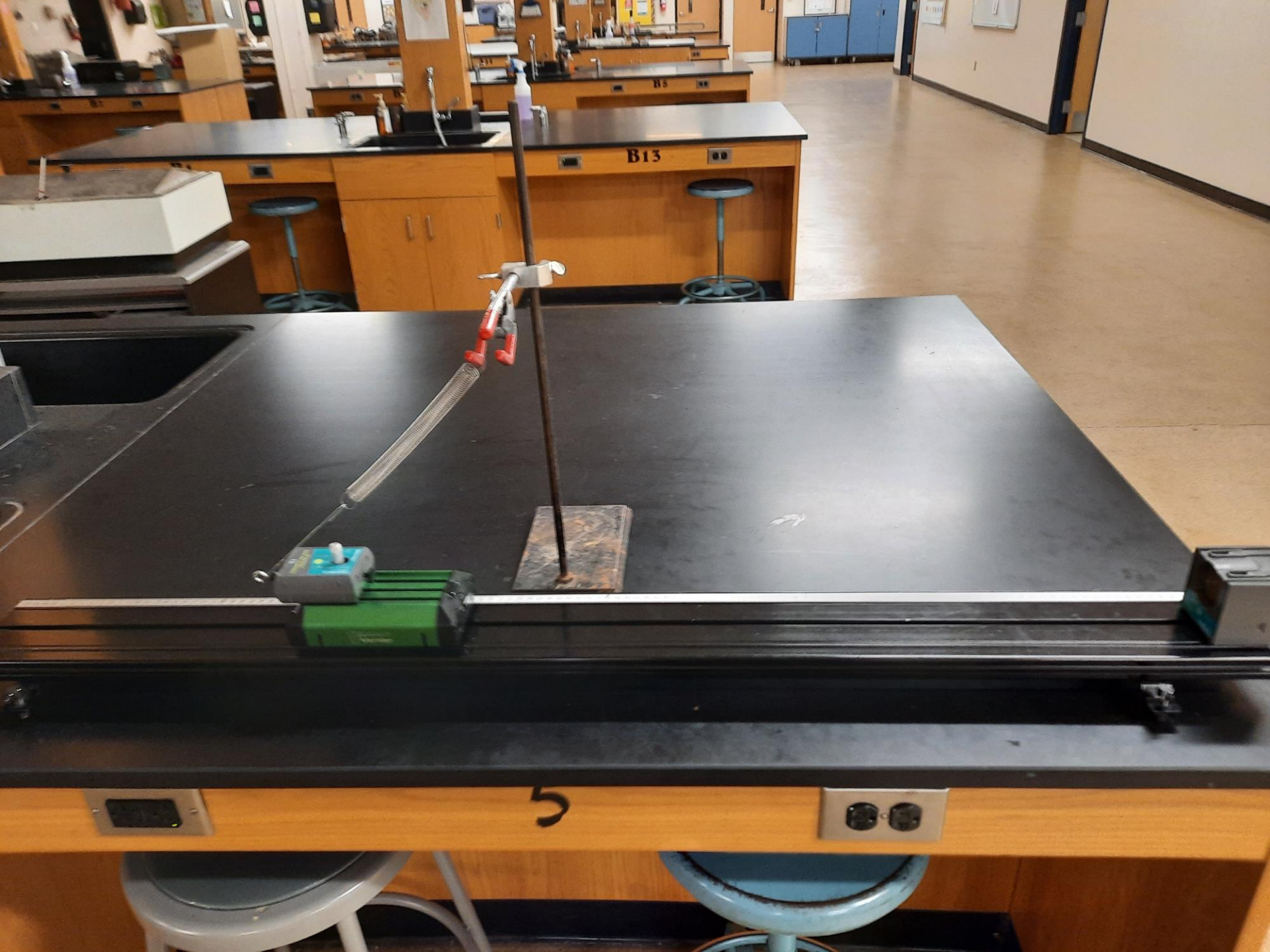




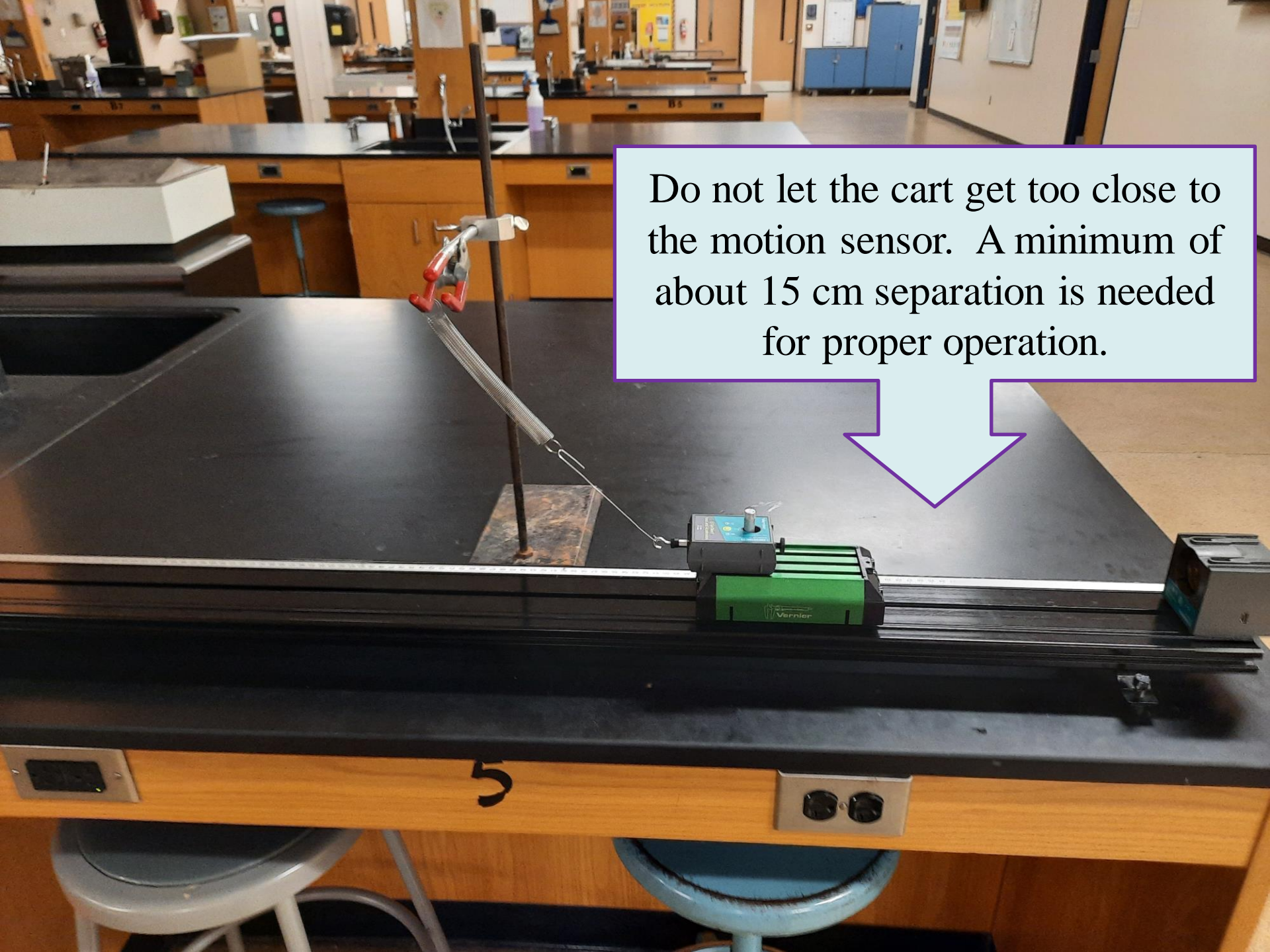
Spring hanging directly above hook on force sensor. Should be barely stretched when at this position.

Note direction hook is turned. Use the black “collar” to adjust and/or tighten.

Black plastic screw, finger tight & snug.



Do not let the cart get too close to the motion sensor. A minimum of about 15 cm separation is needed for proper operation.

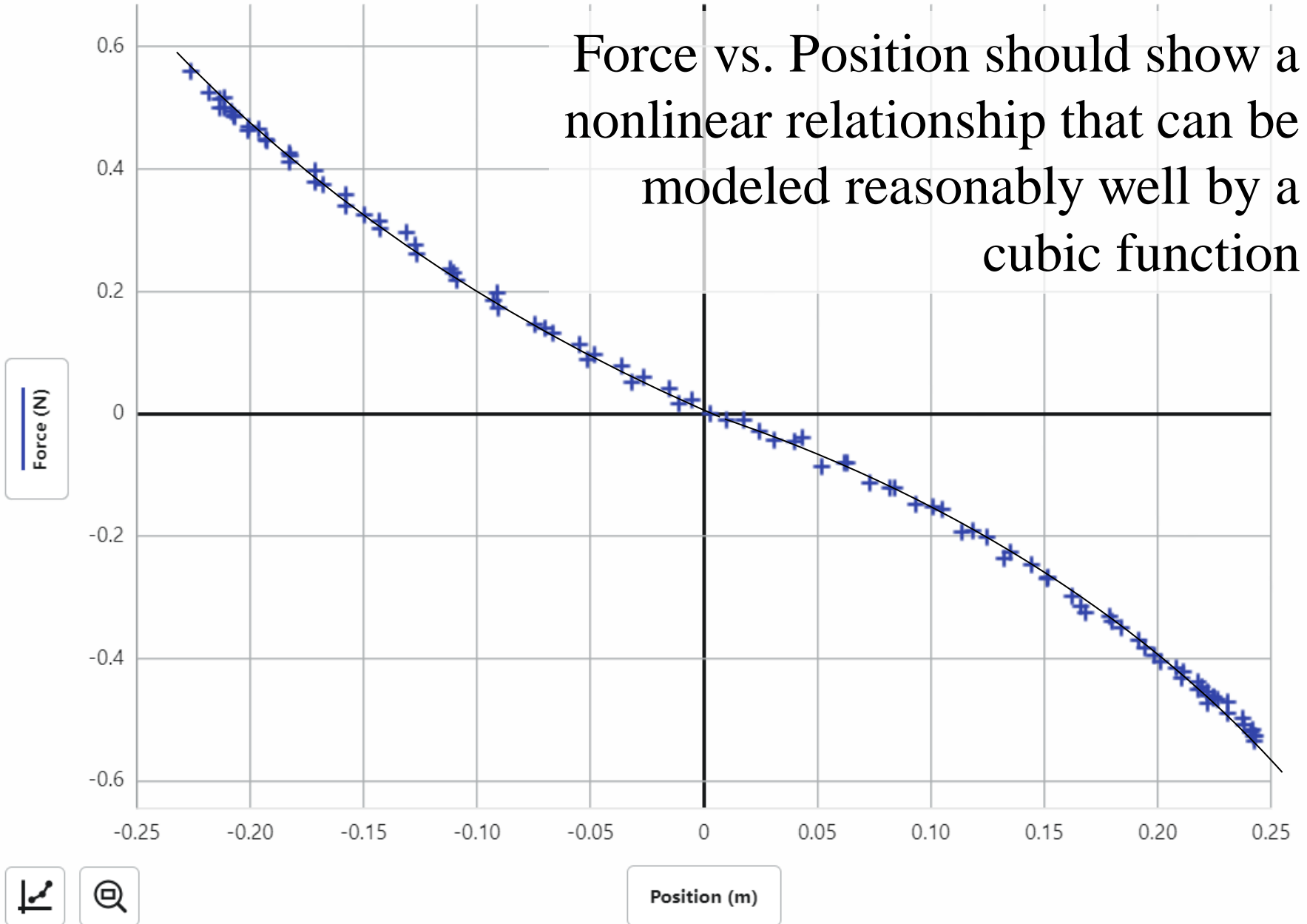


Typical result – smooth curves showing force and position with respect to time.



Force vs. Position

Force vs. Position should show a nonlinear relationship that can be modeled reasonably well by a cubic function



Position (m)