405 Friction Lab

Design a method of determining the μ_s and μ_k

between a wood block and three different surfaces

Hints:

- You may want to use the same block on all surfaces.
- Adjust the mass of the block (by adding weights), to produce a 3 data point line
- Produce a line graph, and use the slope to solve your answer.

You will design and test a protocol to determine the answer. You have for your use:

1. Wood blocks
2. Force springs
3. Vernier force probe
4. Disc weights

LAB REPORT:

- Introduction (4 paragraphs)
    - General friction
    - Static friction
    - Kinetic friction
    - In this study we…..
- Materials Methods (2 paragraphs 1 - the experiment 2- calculations)
- Results
    - Table 1: data for surface 1
    - Table 2: data for surface 2
    - Table 3: data for surface 3
    - Figure 1: Graph using data from table 1
    - Figure 2: Graph using data from table 2
    - Figure 3: Graph using data from table 3
    - *Remember that tables are footnoted (they can all look the same), and Figures have figure legends, be sure to describe the slope and what it means in the legend.*
- Conclusion (1 to 2 paragraphs)
    - Do you reject your hypothesis?
    - What was your coefficient of friction (static kinetic for the different surfaces)?