3C Pre-Lab Assignment

Submit the answers to questions Slide 8 on Gradescope before Mon/Tue lab.

Energy in SHM

➢ **Review energy in simple harmonic motion :**
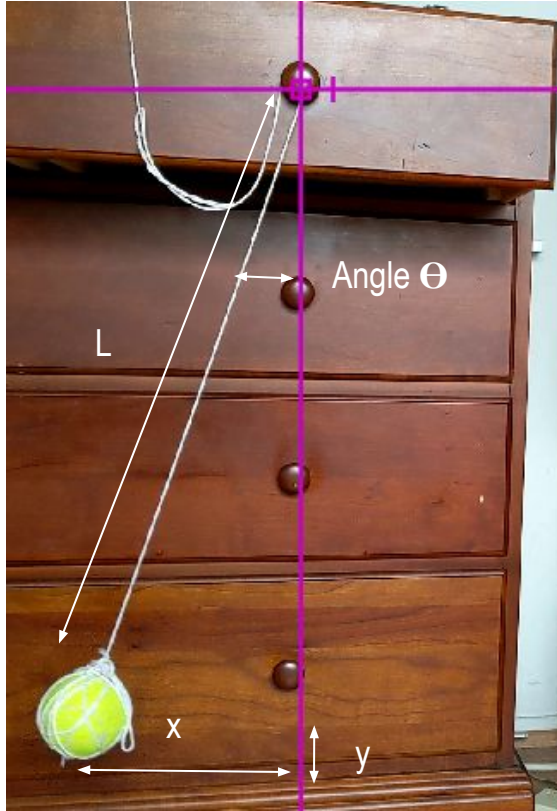https://openstax.org/books/university-physics-volume-1/pages/15-2-energy-in-simple-harmonic-motion

Pendulum tracker data

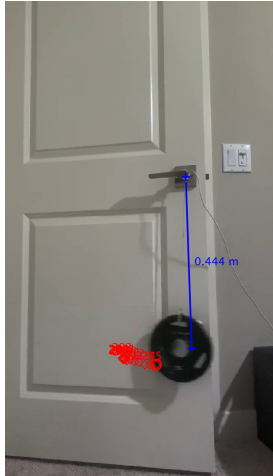➢ **Redo the pendulum tracker analysis by setting the origin of your coordinate system to the pivot point of your pendulum.**

Pendulum tracker data

➢ **Track the bob of the pendulum and store the values of, x displacement, y displacement and the angle theta. Find out how to identify the gravitational potential energy and kinetic energy in the system.**

➢ **Find the values of KE and PE (per unit mass) at three different frames. Submit the values of KE, PE and KE+PE (per unit mass) for the three frames with an associated picture of the frame.**
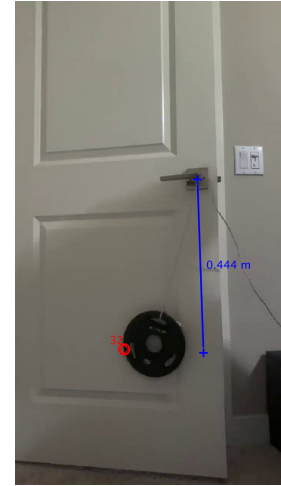
3 Frames

K: .886J
U:
K + U: 0.886J

K: 0J
U: 1.11J
K + U: 1.11J

K: 0J
U: 0.846J
K + U: 0.846J