Video Analysis Guide

This guide is meant to help with the technology aspect of the video analysis portion of the unit. It is important to note that the instructor should scaffold the process with students, and students can practice within the inclined plane and/or the free fall activity prior to the mouse trap car analysis. **A way to determine position is required to appear on the video while doing the video analysis. Please take this into account during scaffolding with students.**

Why Video analysis?

The essence of the video analysis is to provide students with the opportunity to use technology they carry daily in a way that is meaningful to classroom endeavors. Students will use cell phone cameras to assist in collecting data necessary for their labs. Students will use their phones to record specific motions in each lab by using a visible scale on the video. Students can match specific positions to their designated time through the use of video analysis. This data will be used to proceed with the desired lab outcomes.

How to accomplish video analysis:

1. Set up a measurement scale for position. **Make sure this scale is easily identified via camera.** It helps to try video of the scale to determine clarity of the scale.
2. Students perform lab procedure as desired by the designated activity. They film the lab with their cell phones.
3. Upload the video to a computer and use windows media player to replay the video.
4. Once in windows media player the time scale is only measured in seconds. In order to be more precise, the video must be slowed to a frame by frame. **This process is described below.**
5. Students can pause the video at several positions and record the necessary position and time data.
6. This data is then used to continue the lab process as developed.

Viewing and moving Frame by Frame

1. Open Windows Media Player
2. Click “view” in the tool bar **or** right click the video
3. Go to Enhancements
4. Go to Play Speed Settings
5. Use the next/back buttons to advance/regress video frame by frame

***Most videos are 30 fps, that is 1 frame is 1/30 s**