

Experiment S-16

Acceleration in Everyday Life

Objectives

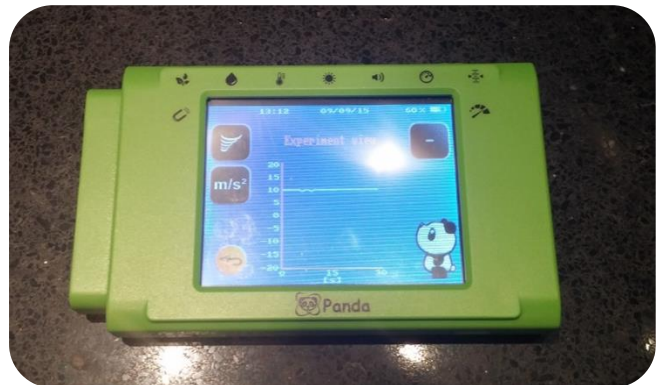
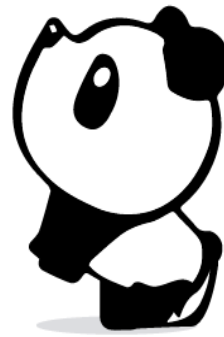
- To learn about velocity and acceleration.
- To measure acceleration changes in everyday life activities.

Description





In this experiment you will measure acceleration changes when using an elevator or riding in a car through Panda's acceleration sensor.

You will need:

- Access to an elevator or a car

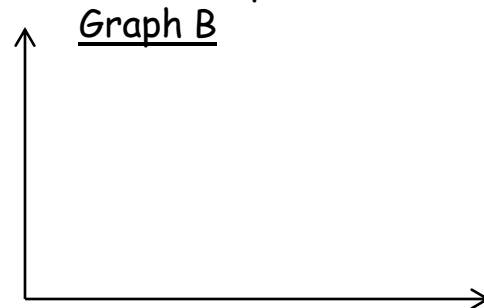
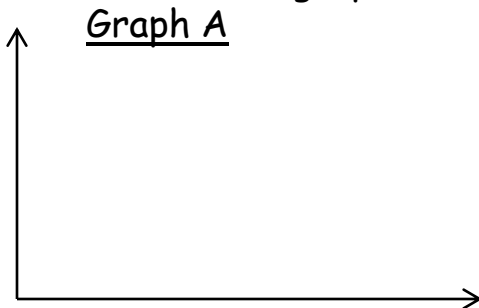


Instructions

- Press on the icon on the top left of the Panda screen and pick the "Acceleration" option (if it is not already selected).
- Press on the  icon on the right side of the screen, then press on the "Z axis" button.
- Press on the  icon to go Back to the main screen.
- Press on the Experiment Setup icon  .
- Choose a duration of 30 seconds.
- Get inside the elevator and put the sensor on the elevator floor with the screen facing up.
- Press on the Record icon  and immediately push a button on the elevator to go up one floor.



- How does the graph look? Draw it in the Graph A section:



- Repeat the experiment but now go down one floor with the elevator; draw it in the Graph B section.
- Explain the graphs:

- If possible, repeat the experiment in a moving car, the panda screen should be perpendicular to the ground.