

Principle of Physics

Lab 1: Introduction to the Lab Experiments





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Assessment

3 Assignments

2 Quizzes

Practical Exam

Midterm



Introduction to the Lab Experiments



Experiments to be studied

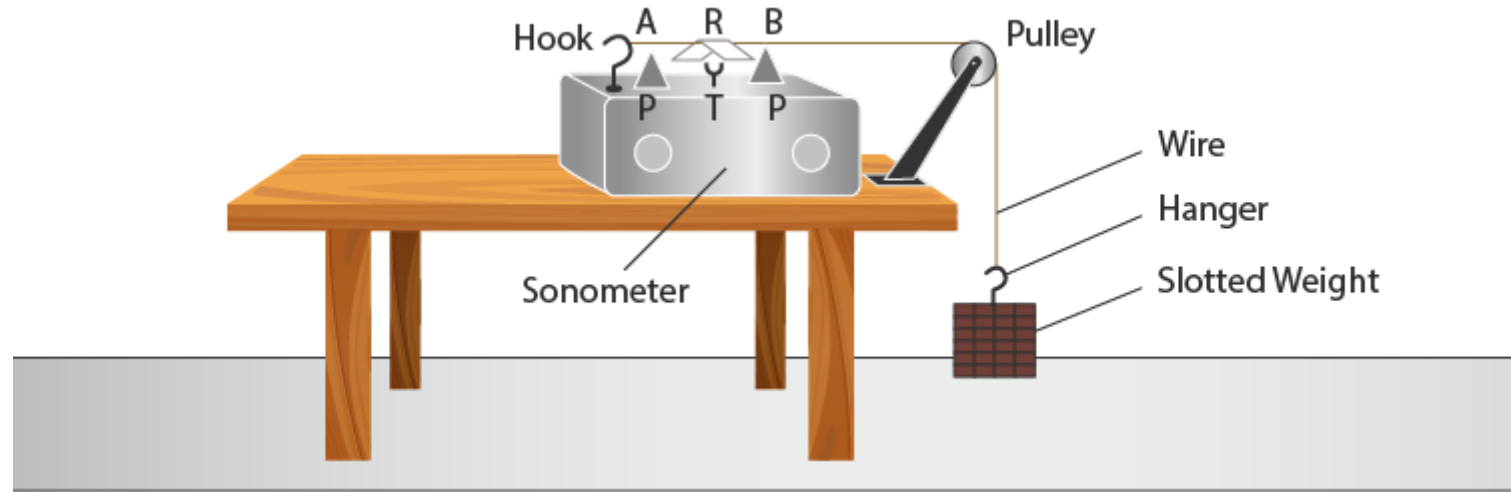
Experiment	Name
Exp.1	Sonometer (Tuning Fork)
Exp.2	Fly Wheel Rotating Motion
Exp.3	Bar Pendulum
Exp.4	Melde's Law



Lab Equipment



Sonometer Device

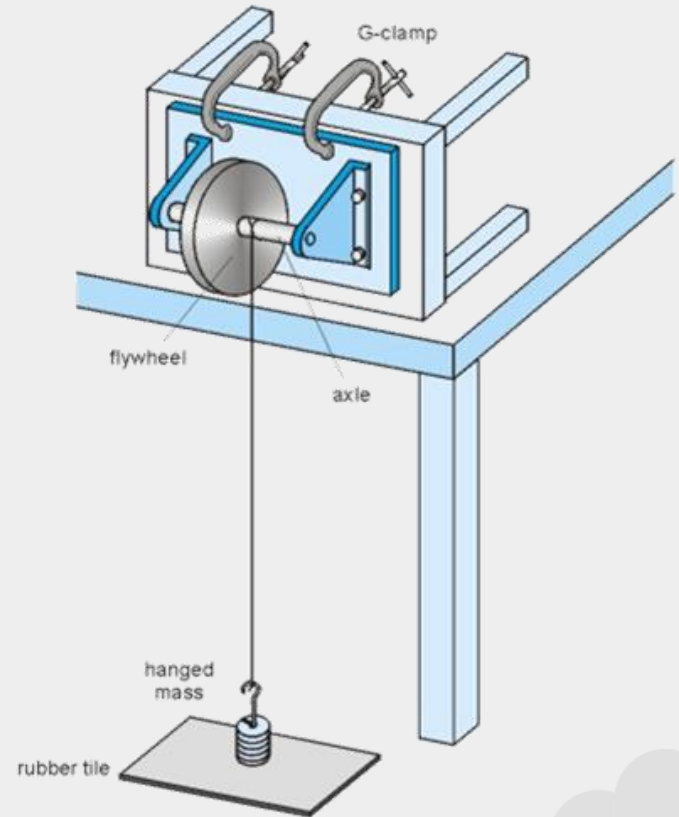


It is used for understanding the waves behavior



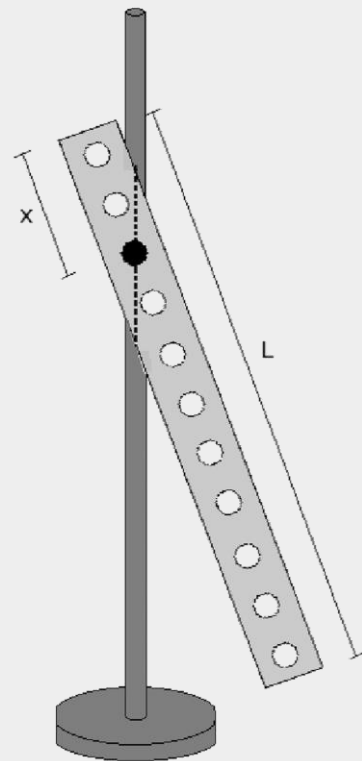
Fly Wheel

It stores the kinetic energy for a short period

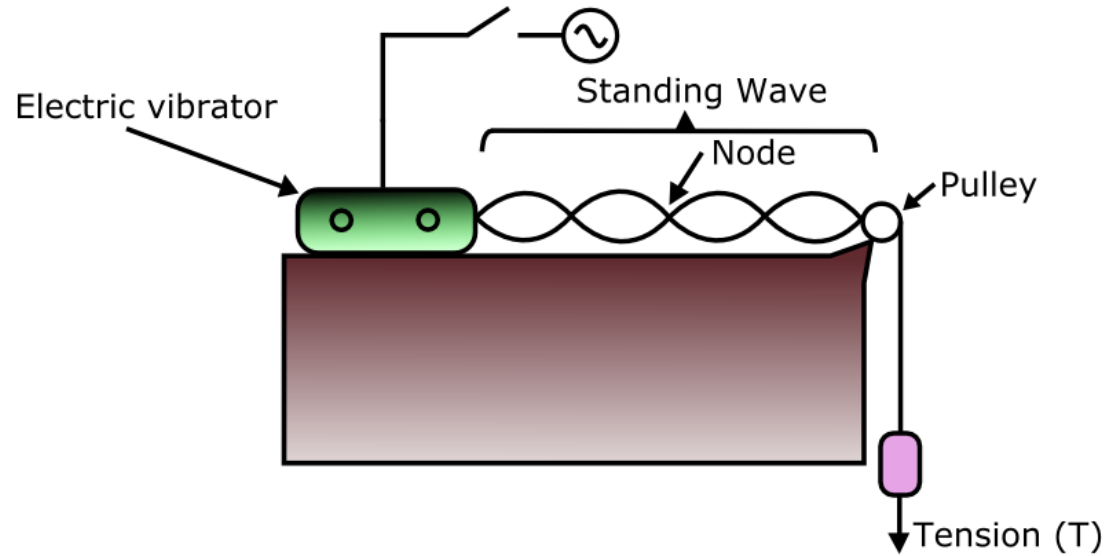


Bar Pendulum

It is used for determining the acceleration of gravity



Melde's Law



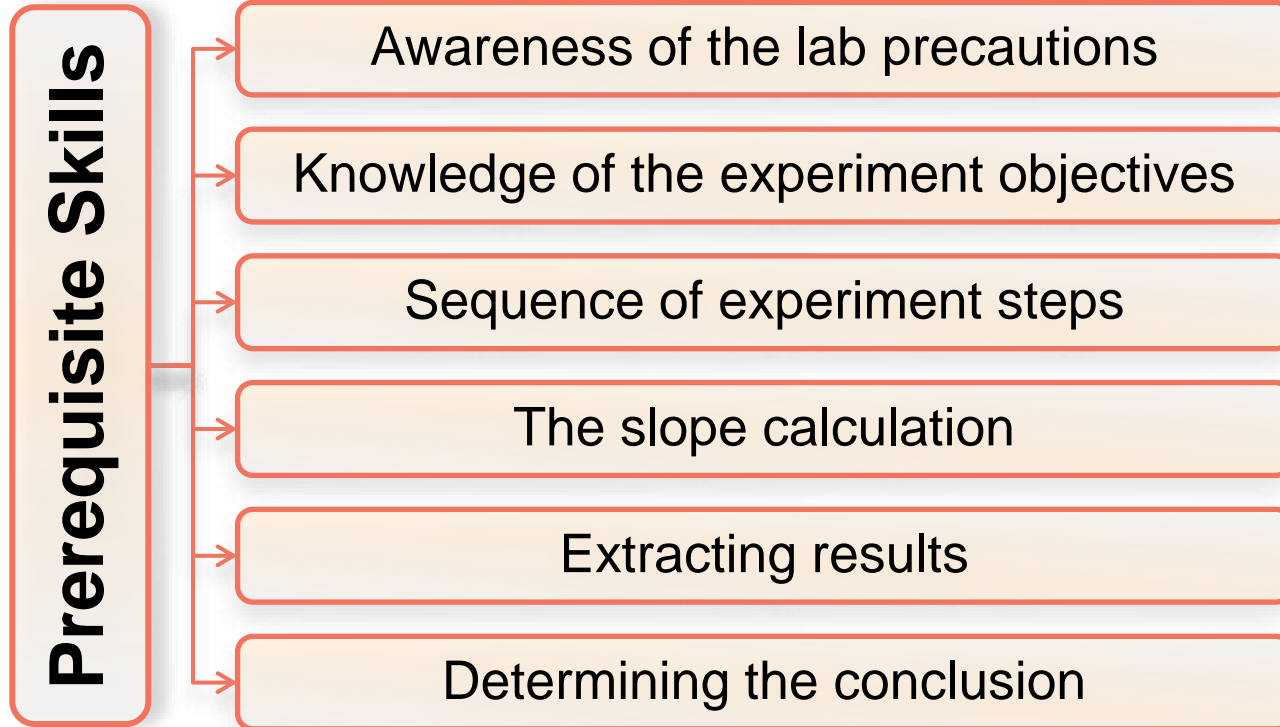
It aims to the frequency determination



Required Skills




Required Skills



Lab Precautions



Lab Precautions




Don't set equipment too close to the edge of the table



Do not activate any circuit until the instructor approves



Never touch a possibly live circuit



Do not touch electrical equipment with wet hands.



Graph Plotting

Axes Labels

Axes Units

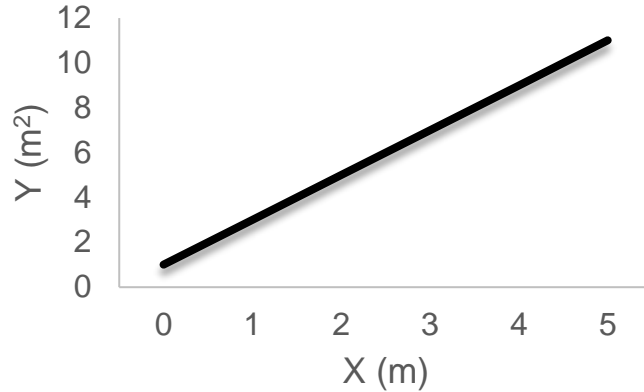
Graph Title

Curve / Graph



Calculating the Slope

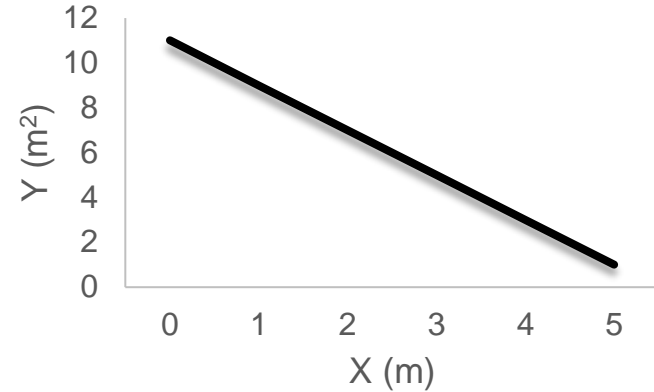
Area vs Length



$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{11 - 1}{5 - 0} = 2$$

Positive Slope

Chart Title



$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1 - 11}{5 - 0} = -2$$

Negative Slope



Thank You

