



**Product Name:** 

Free Vibrations Of A Cantilever

Product Code: ALABS-A110-017



## **Description:**

Free Vibrations Of A Cantilever

## **Technical Specification:**

- This product is part of a range that explores free vibrations in simple 'one degree of freedom' systems.
- A beam with the mass at the end works in a similar way to a mass spring system the stiffness of the beam simply replaces the stiffness of the spring.
- The vibrating cantilever examines what happens if the spring element is not light.
- A back panel fixes to the Test Frame.
- Panel holds a sturdy clamp and two runners. Clamp holds the beam.
- Students use the clamp to adjust the oscillating length of the cantilever.
- The runners hold a non-contacting sensor that measures the oscillations at the end of the cantilever.
- The sensor has no physical contact with the beam, for negligible damping.
- The vibrating cantilever forms a simple and highly visual example of oscillations that may occur in real structures such as aircraft wings.
- Simple harmonic motion (SHM) and frequency of oscillation.

- Beam stiffness, Rayleigh's method, Dunkerley's method, Second moment of area.
- Phase difference between displacement and its derivatives.



## **Equipments Exporters**

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