The Spoken Tutorial Project

- Self-explanatory: uses simple language
- Audio-video: uses multisensory approach
- Small duration: has better retention
- Learner-centered: learn at your own pace
- Learning by doing: learn and practise simultaneously
- Empowerment: learn a new **FLOSS** (**F**ree/**L**ibre and **O**pen **S**ource **S**oftware)

Target Audience

Secondary and higher secondary students, and teachers

Workshops

The Spoken Tutorial Project Team conducts workshops on Apps on Physics and other FLOSS using spoken tutorials and gives certificates to those who pass an online test.
For more details, please visit
https://spoken-tutorial.org

Forum

We have developed a beginner friendly Forum to answer specific questions pertaining to any part of a particular tutorial.
For more details, please visit
https://forums.spoken-tutorial.org.

The Spoken Tutorial Project
is funded by the
National Mission on Education through
Information and Communication Technology,
Ministry of Human Resource Development,
Government of India.

Contact us

Email: contact@spoken-tutorial.org
Website: https://spoken-tutorial.org

Forum help available to all learners

Content available in 22 Indian languages

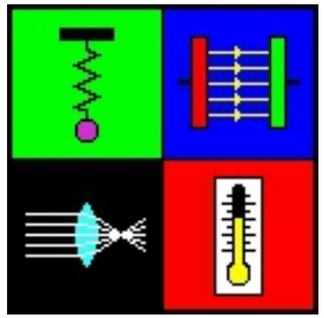
IIT Bombay

Spoken Tutorial

https://spoken-tutorial.org

Scan the QR code to visit Spoken Tutorial website

Apps in Physics



National Mission on Education through
Information and Communication Technology
(NMEICT)
www.sakshat.ac.in

Funded by MHRD, Government of India.

Introduction

Apps on physics are simulations that help us to understand the basic concepts of Physics.

These Apps are freely downloadable and easy to use.

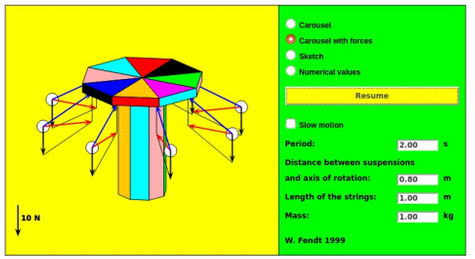
These Apps are created in html file format.

These Apps are browser-based, so they can run on Windows, Mac OSX and Linux operating systems.

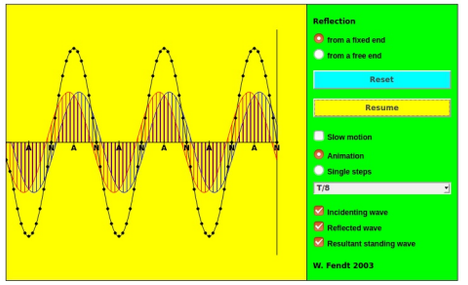
For downloading the Apps visit
https://www.walter-fendt.de/html5/phen

These Apps were created by Walter Fendt and his team.

The Apps have been recently updated on 21st March 2020.



Carousel



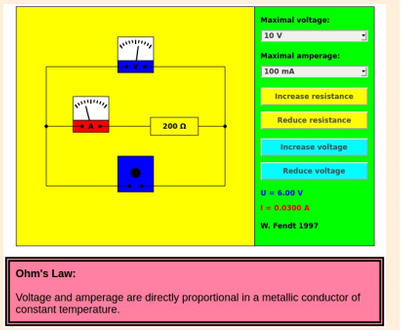
Standing Waves

Features of Apps of Physics

- The App is interactive and illustrates the concepts in Physics.
- Information on how to use the app and information related to the simulation is shown in the application.
- It allows users to solve numericals based on the concept shown in the App.
- The App has two panels- Activity panel and control panel.
- Activity panel - displays a simulation.
- Control panel- shows some parameters that we can change.
- Based on the changes in the control panel, the simulation in the activity panel changes.
- Animations in the apps help to explain the concept.
- The grouping of the Apps topic-wise helps to learn the related concepts together.

The Apps on Physics includes the following topics

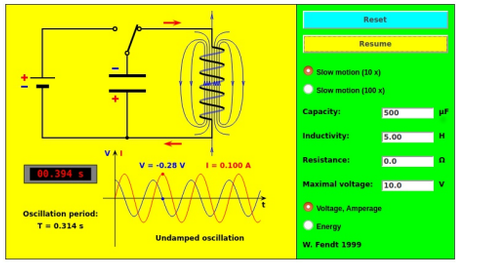
- Mechanics
- Oscillations of Waves
- Electrodynamics
- Optics
- Thermodynamics
- Theory of relativity
- Physics of Atoms



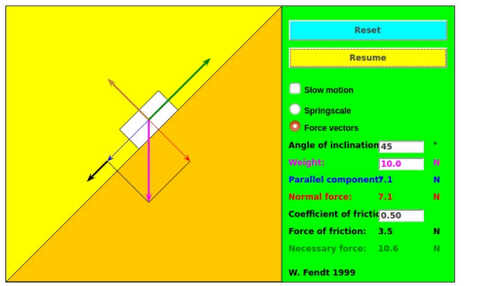
Ohm's Law

Uses of Apps on Physics

- These Apps can be used for practical purposes after the concept is learnt.
- They enhance the understanding of a concept.
- Apps enable the user to solve problems and apply the understanding to answer the questions in the learnt concept.
- Apps help to build confidence in solving the numericals using the formulae.
- The experimental tables can be made with changing values to practise the experiment or solve the numericals.
- We can make changes in the values of the App related experiments and compare the answers with the measured and calculated values.



Electromagnetic Oscillating Circuit



Inclined Plane