

Electro-magnetism

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



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We will demonstrate:



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We will demonstrate:

- **Electro-magnetic induction**



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- **Mutual induction of coils**



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- **Electro-magnetic induction**
- **Mutual induction of coils**
- **Voltage induced by a rotating magnet**



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- **Mutual induction of coils**
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- **Resonance of driven pendulum**



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- **Electro-magnetic induction**
- **Mutual induction of coils**
- **Voltage induced by a rotating magnet**
- **Resonance of driven pendulum**
- **Show circuit diagrams**



System Requirement



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- **ExpEYES v 3.1.0**



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- **ExpEYES v 3.1.0**
- **Ubuntu Linux OS v 14.10**



Pre-requisites

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- **ExpEYES Junior interface**



Pre-requisites

- **ExpEYES Junior** interface
- For relevant tutorials, visit our website
www.spoken-tutorial.org



Electromagnetic Induction



Electromagnetic Induction

- **Demonstration of Electromagnetic Induction**



Mutual Induction



Mutual Induction

- **Demonstrate mutual induction of two coils**



Induced Voltage

Induced Voltage

- **Demonstrate voltage induced by a rotating magnet using a DC motor and coils**



Driven Pendulum

Driven Pendulum

- If a pendulum oscillates with an **induced magnetic field** it is called a driven pendulum



Summary

We have learnt to demonstrate:

- **Electromagnetic induction**
- **Mutual induction of coils**
- **Voltage induced by a rotating magnet**
- **Resonance of driven pendulum**
- **Show circuit diagrams**



Assignment

Demonstrate

- 1 How to make an electromagnet.
- 2 Mutual induction of a single coil with a magnet
- 3 Show circuit diagrams



About the Spoken Tutorial Project

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Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to contact@spoken-tutorial.org



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- More information on this Mission is available at <http://spoken-tutorial.org/NMEICT-Intro>

