

Principle of the Magnetic Singapore Module



Overview

The module uses alternating electromagnetic fields to lift objects and keep them stable, fighting gravity without physical contact. Basic concepts in mechanics, such as projectile motion, Newton's laws of motion, friction, circular motion, and collisions. Prerequisite: Physics and Maths at A or H2 level, or equivalents. Not available to students who have taken or are taking PH1011, PH1012, PH1801, or CY1308. Imagine holding a magnet above another magnet and watching it float—that simple idea powers maglev trains, magnetic bearings in motors, and eye-catching product. Part of the book series: Advances in High-speed Rail Technology (ADVHIGHSPEED)) Maglev trains use maglev technology to achieve support and guidance between vehicle and track, and realize propulsion and electric braking through linear motors. Its application scenarios include the urban maglev. The aim of this module is to introduce the basic principles of Electrostatics, Magnetostatics and Electromagnetic fields.



Article Content

Jan 24, 2026

Electricity and Magnetism | Singapore Institute of Technology

The aim of this module is to introduce the basic principles of Electrostatics, Magnetostatics and Electromagnetic fields. The relation of charges to potentials, currents to the magnetic field and the

Nov 14, 2025

Magnetic Levitation Train

Maglev trains operate on the principle of magnetic levitation, which involves using magnets to lift and propel the train, eliminating the need for conventional wheels

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Magnetic Track Light System 48V Recessed Surface

Magnetic Track Light System 48V Achieve ultimate flexibility in your interior lighting design using the innovative magnetic track system. This system revolutionizes

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How Electromagnetic Levitation Modules Work and Steps to Build

You combine the magnetic levitation principle, precise sensors, and a responsive control circuit to create a working electromagnetic levitation module. Each part plays a key role in keeping

Feb 04, 2026

How Electromagnetic Levitation Modules Work and

The module uses alternating electromagnetic fields to lift objects and keep them stable, fighting gravity without physical contact. Imagine holding a

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Singapore Base Station Optical Module Market: Key Trends

Singapore's base station optical module market is experiencing steady growth, driven by the country's proactive approach to digital infrastructure and 5G deployment.

Oct 22, 2025

IJSO Physics Module: Circular & Rotational Motion

The document discusses concepts related to magnetism and electromagnetic induction. It covers topics such as the properties of permanent magnets and

Dec 26, 2025

Magnetic Sensors for Sensor Modules

The main thrust of this article is electronic magnetic position sensor modules that pertain specifically to motion, but the document begins with separate discussions of sensors and modules.

Oct 13, 2025

Singapore Maritime Regulations Overview

Singapore Modul One - Free download as Word Doc (.doc / .docx), PDF File (.pdf), Text File (.txt) or read online for free. The document provides information on

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Importance of Magnetic Modules

Magnetic modules use magnetic units for stronger magnetic forces. These components rely on the transformation between the internal magnetic field

Jul 06, 2025

SUNSHINE LED Module 12W 18W 24W 36W Magnetic

Item Type : LED Magnetic Module Model :LMPE Color Temperature : Daylight 6500K/Warm White 3000K Voltage : 180-265V Wattage : 12W / 18W / 24W

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Basic principle of magnetic cell separation

Discover the principle of magnetic cell separation with MACS® Technology to achieve efficient and reliable results | Singapore

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Level 1 & 2 (40 Hours)

About the course: Magnetic Particle Testing (MT) (also known as magnetic particle inspection – MPI) is a non-des-tructive test (NDT) method, used to detect surface or subsurface (near to surface) disconti

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Introduction | Springer Nature Link

The basic principle of HTS flux-pinning maglev system is to use the unique strong magnetic flux pinned ability of high-temperature superconductors in the external magnetic field,

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Multinational Enterprise Top-Up Tax and Domestic Top-Up Tax

Multinational Enterprise Top-Up Tax and Domestic Top-Up Tax Part A of Module One: Scope and Charging Provisions April 2025

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Smart Magnetic Track System

Explore the Smart Magnetic Track System in the RENE Magnetic Series. Supports flexible combinations, quality and modern track lighting solution.

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ISDA Resolution Stay Jurisdictional Modular Protocol Singapore ...

The Singapore Jurisdictional Module was created to allow market participants to comply with regulation 33 of the Financial Services and Markets (Resolution of Financial Institutions) Regulations 2024

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Singapore Modules

The project develops Singapore modules to enhance PV performance and durability in tropical climates. Ten PV module technologies were evaluated for strengths and weaknesses under accelerated aging

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Nov 20, 2025

Importance of Magnetic Modules

Neodymium magnet is a kind of powerful magnet commonly used for wind turbines. Magnetic modules are used in wind generators and other parts of

Aug 27, 2025

ME367: Testing Module 3

MODULE 3 MAGNETIC PARTICLE TESTING Magnetic particle testing is one of the most widely utilized NDT methods since it is fast and relatively easy to apply and part surface preparation is not as critical

Mar 04, 2026

Introduction | Springer Nature Link

According to the different principles of maglev forces, maglev systems can be mainly classified into EMS-type maglev system, EDS-type maglev system, and HTS flux-pinning maglev

Jun 24, 2026

What is the Singapore model of economic development?

essential to the successful expansion of both. Singapore's experience illustrates an approach to economic planning which admits possibilities other than just "the market" or "the plan", and shows that

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REC Group kicks off mass production of its ground

REC Group's Alpha Series with HJT technology and a patented panel design rolls off the lines on October 10 at the manufacturing site in Singapore. Being the highest

Jun 06, 2026

Magnetic Levitation Module

When two magnetic objects or magnetic fields are close together, they will interact with each other, with the same name repel and different names attract. The phenomenon of magnetic levitation refers to

Contact Us

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