Magnets sourcing

Creation of a smart component library

Mentor: Charles Gigandet and Zack Kuo
Location: Hsinchu, TW
Duration: 6 months

Overview

Understand the needs, specify and test a library of Neodymium magnet components and other ferromagnetic materials for product development purpose.

Objectives

- Identify required materials, sizes and shapes for each component.
- Simulate performance using electromagnetic simulation software.
- Verify simulation via experiment.
- Record data and create database.
- Understand and create a costing model for each type of components.
- Document your work in a comprehensive manner (user guide).
- Highlight and understand limitations.
- Make suggestions for future activities or improvements.

Knowledge/Skills

- Open-minded, outspoken and curious personality with out-of-the box thinking abilities.
- Knowledge or experience in DC or AC magnetics:
    - Theoretical/physical understanding of magnetic problems.
    - Experience with electric motors or power generators/converters is a plus.
- Experience with FEM simulation tools.
- Experience in microwave design and theory is a plus.
- Good English spoken and written skills.