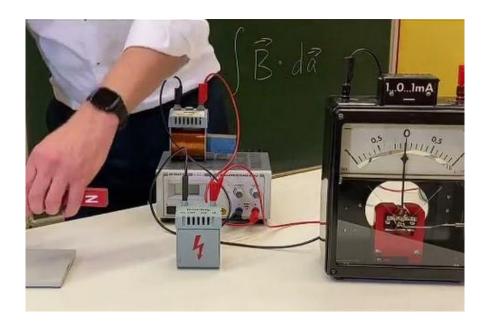
# 5K10.30 - INDUCED CURRENTS USING TWO COILS AND FARADAY EXPERIMENT

Key words: magnet, magnetic field, coils, current, magnetic field lines



#### **Equipment List:**

- 1. Two coils
- 2. Magnet
- 3. Power source
- 4. Ammeter
- 5. Stand and a clamp for the magnet

### How to assemble and operate:

- There are two demos that can be done with this setup. First, we can connect the coil to an ammeter and move a bar magnet in and out of the coil, generating current.
- For the second demonstration, we can take an electromagnet (coil connected to a power source) with metallic rod inside and put the protruding metallic rod to the other coil that is connected to the ammeter. Now, we turn the power supply on and off and observe the results on the ammeter.

## **Description/Theory**:

With this demonstration, one can clearly show how coils and magnets interact together and produce an electrical current.

### **Comments/Notes**: