

Electromagnetic Swing DIY Kit – Instruction Manual

This manual will guide you step-by-step through the assembly of your **Electromagnetic Swing DIY Kit**. The kit is designed for students, teachers, and hobbyists to explore **electromagnetism**, practice **soldering**, and create a functional magnetic suspension swing ornament.

■ Product Information

Kit Name: HU-076 Electromagnetic Swing Kit

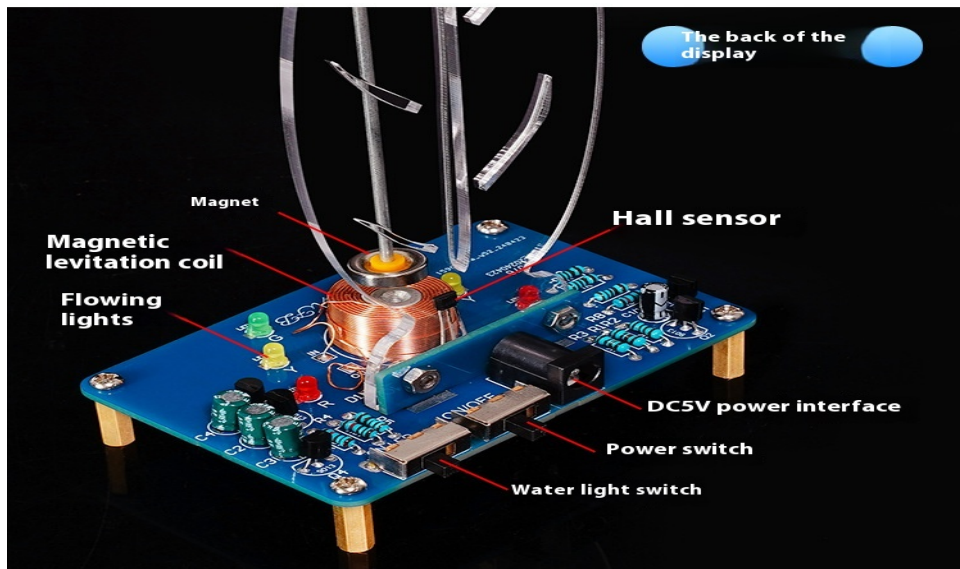
Working Power Supply: USB to DC-5V

Working Voltage: DC5V

Standby Current: 13~15mA (light off) / 22~26mA (light on)

Working Current: 16~80mA (light off) / 25~100mA (light on)

PCB Size: 56.8 × 83.9 mm + 40 × 14 mm



Main Board Layout & Components



LED Water Light Feature

Product Information

Kit name: HU-076 electromagnetic swing kit

Working power supply: USB to DC-5V

Working voltage: DC5V

Standby current: 13~15mA when running light is off/22~26mA when running light is on

Working current: 16~80mA when the running light is turned off (the larger the swing amplitude, the greater the working current)

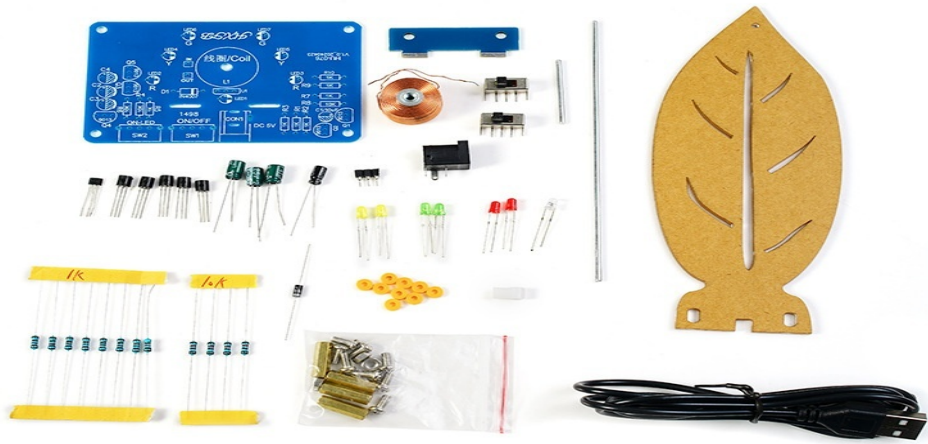
The running light is turned on at 25~100mA (the larger the swing amplitude, the greater the working current)

PCB length: 56.8x83.9mm+40x14mm

Product Specifications

DIY parts require self-welding and assembly

You need to bring your own welding tools and come with detailed installation video tutorials



Complete Parts List – DIY Kit

■ Assembly Instructions

1. **Prepare your tools:** You will need a soldering iron, solder wire, and basic tools.
2. **Identify components:** Use the included PCB and match each part to its correct position.
3. **Solder step-by-step:** Begin with resistors and capacitors, then move to ICs, LEDs, and switches.
4. **Install the magnetic coil:** Place and solder it in the designated position.
5. **Connect the Hall sensor:** Ensure proper orientation for accurate swing detection.
6. **Attach LEDs:** Install LEDs as per PCB markings for the water light effect.
7. **Connect USB power:** Use the provided USB cable and test the circuit.
8. **Final Assembly:** Mount the decorative leaf panel and swinging magnet to complete the kit.

■ Safety Notes

- Handle the soldering iron with care to avoid burns.
- Ensure proper ventilation when soldering.
- Keep small components away from children.
- Always check polarity of components before soldering.