

## Practical case: Latching Alarm System

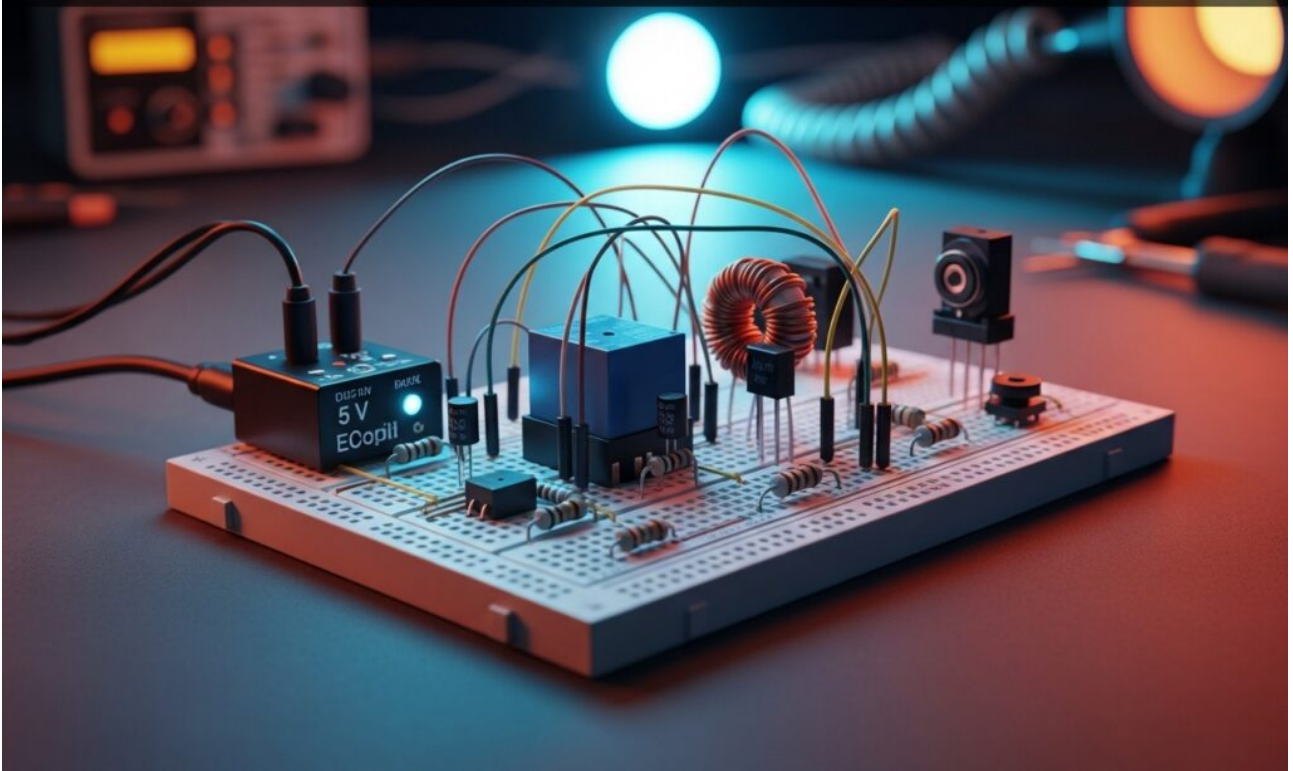


Master Analog Electronics by building a self-latching Relay circuit. Create a reliable alarm memory system that holds active states until manually reset.

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## Practical case: DC motor control with relay and pushbutton

## DC motor control with relay and pushbutton

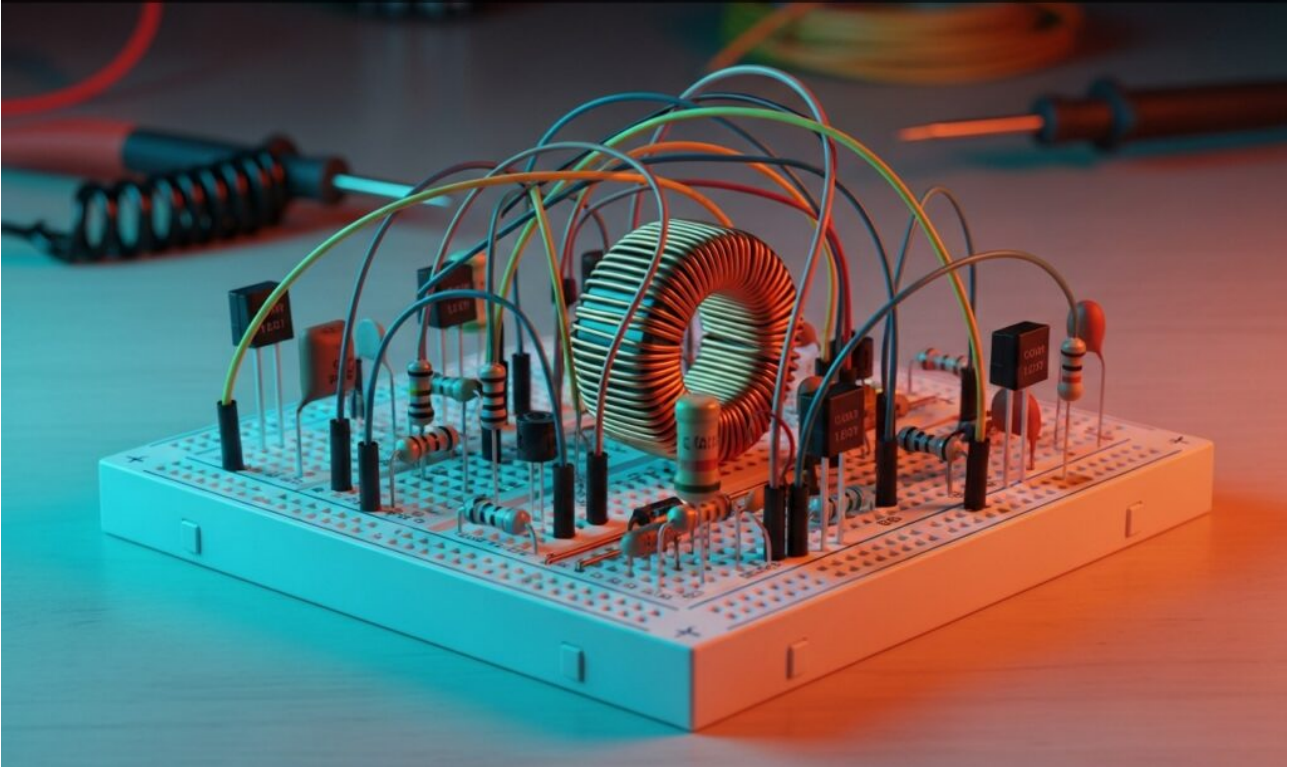


Master Analog Electronics by building a Relay circuit to safely control high-power motors. Learn to isolate signals and achieve reliable switching protection.

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**Practical case: Voltage induction by magnetic movement**

# Voltage induction by magnetic movement

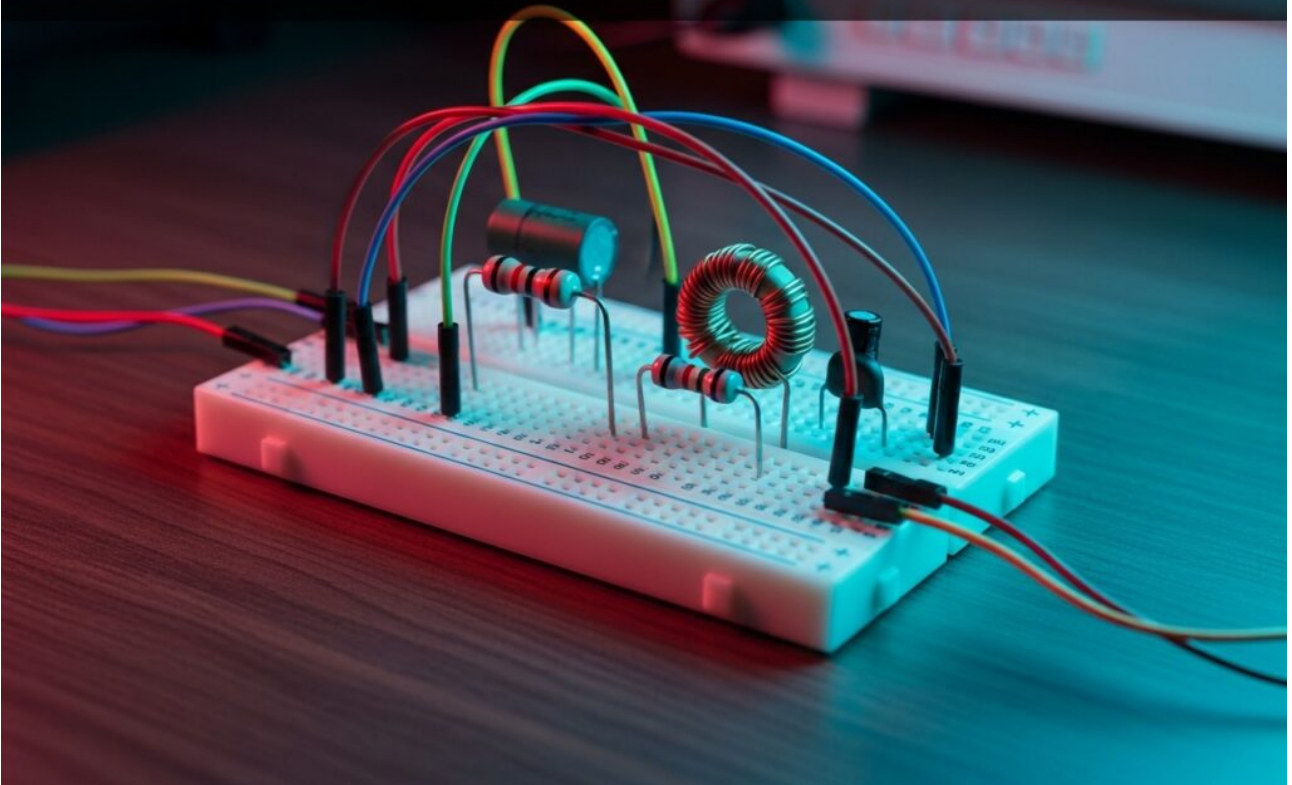


Learn Analog Electronics by building a generator with an Inductor and a magnet. Observe real voltage spikes and light an LED using Faraday's Law of Induction.

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## Practical case: Simple RL Low-Pass Filter

# Simple RL Low-Pass Filter

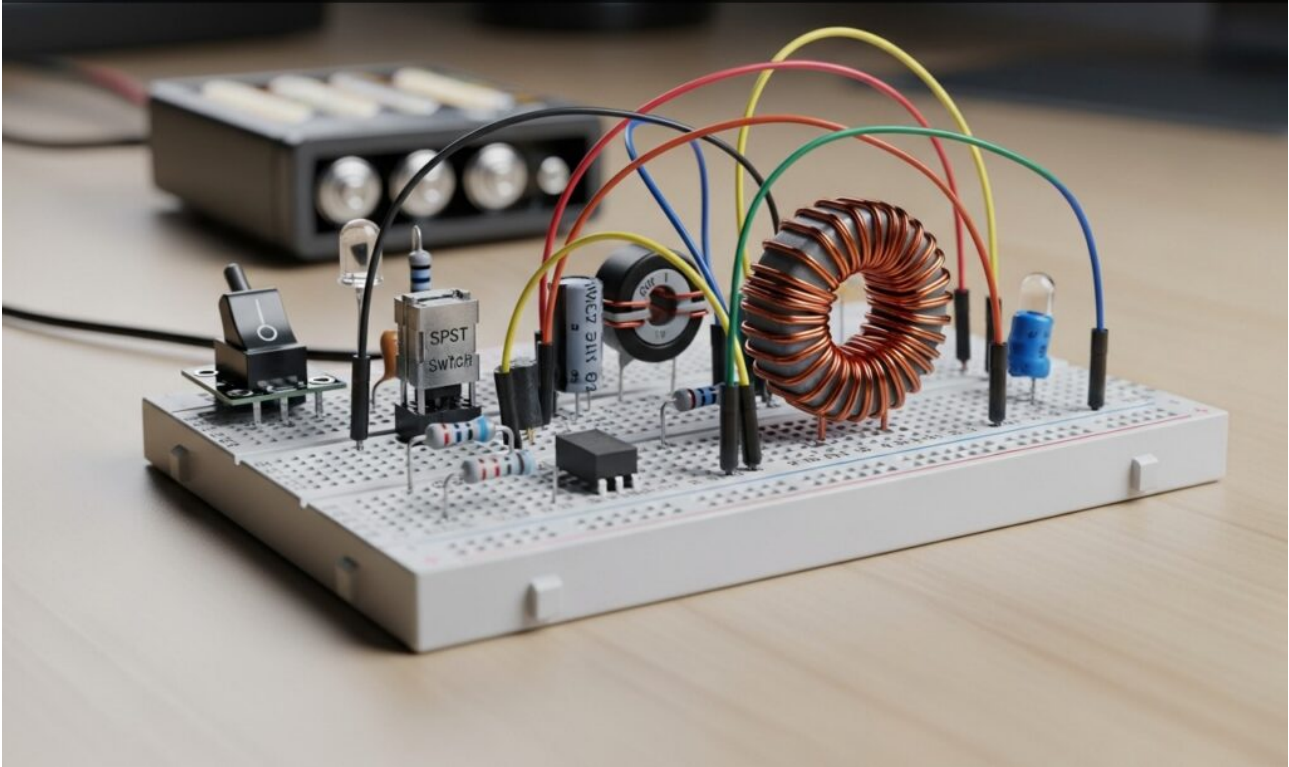


Master Analog Electronics by building an RL low-pass filter with an Inductor. Observe signal attenuation and block high frequencies to reduce noise effectively.

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**Practical case: Opposition to DC current change**

# Opposition to DC current change

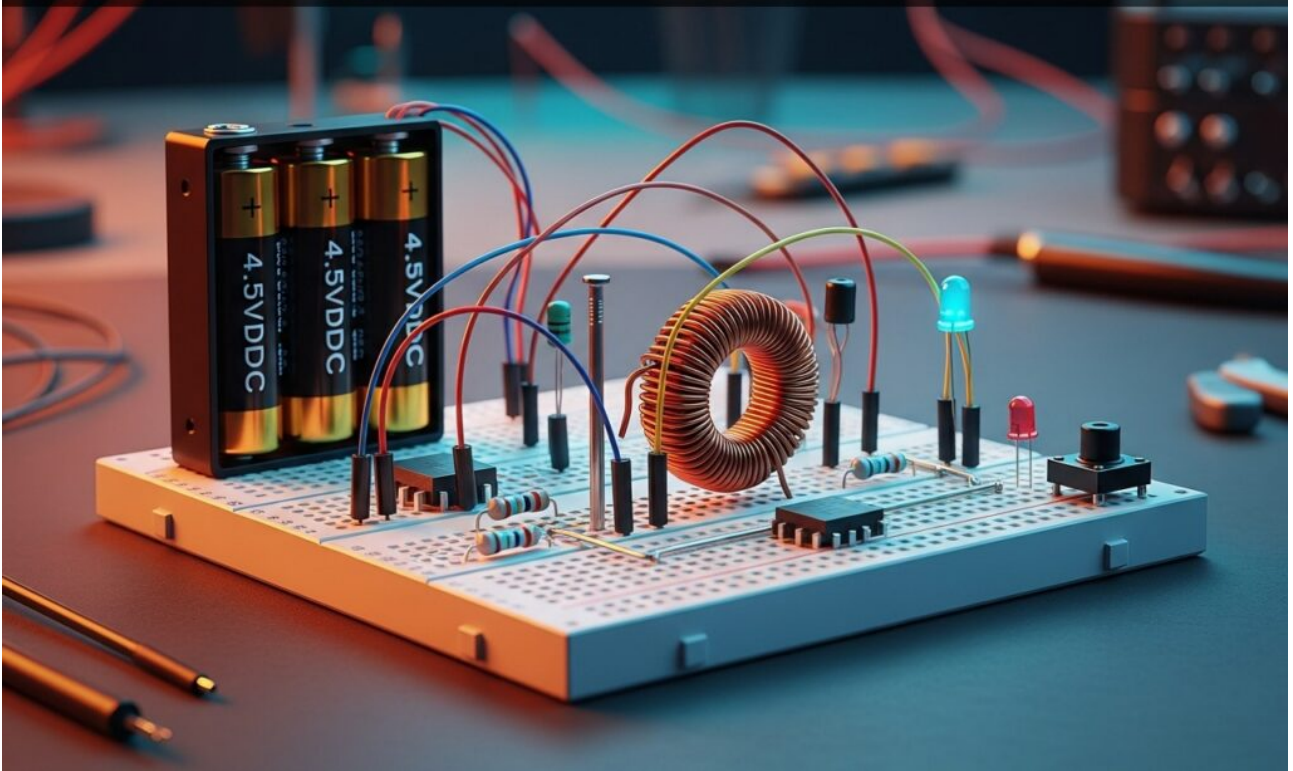


Master Analog Electronics by building a soft-start circuit with an Inductor. Visualize current delay as a lamp gradually brightens to limit inrush current.

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**Practical case: The coil as a simple electromagnet**

# The coil as a simple electromagnet



Master Analog Electronics by building a powerful electromagnet using a simple Inductor. Learn to control magnetic fields and lift metal objects with DC current.