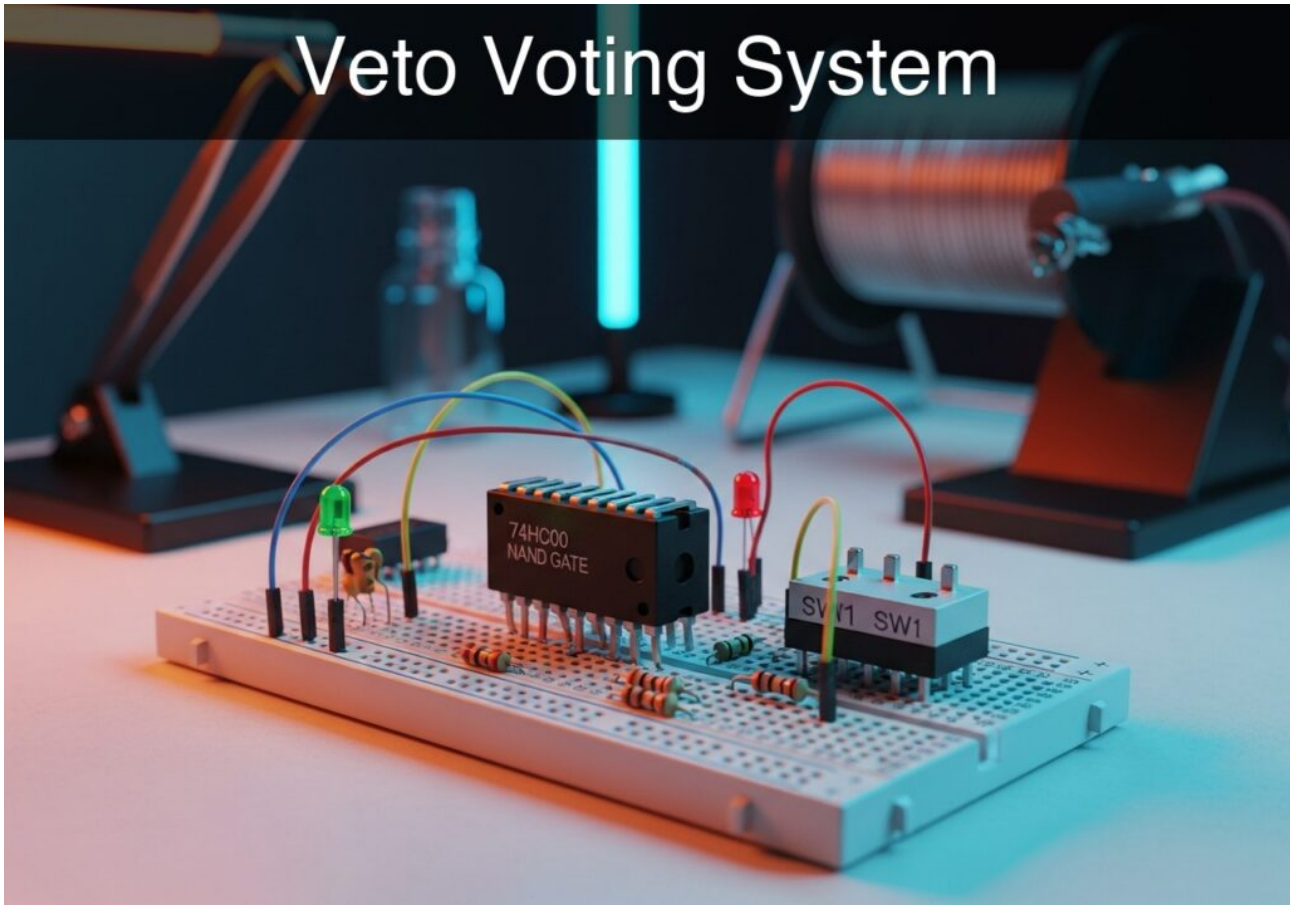
Practical case: Veto Voting System

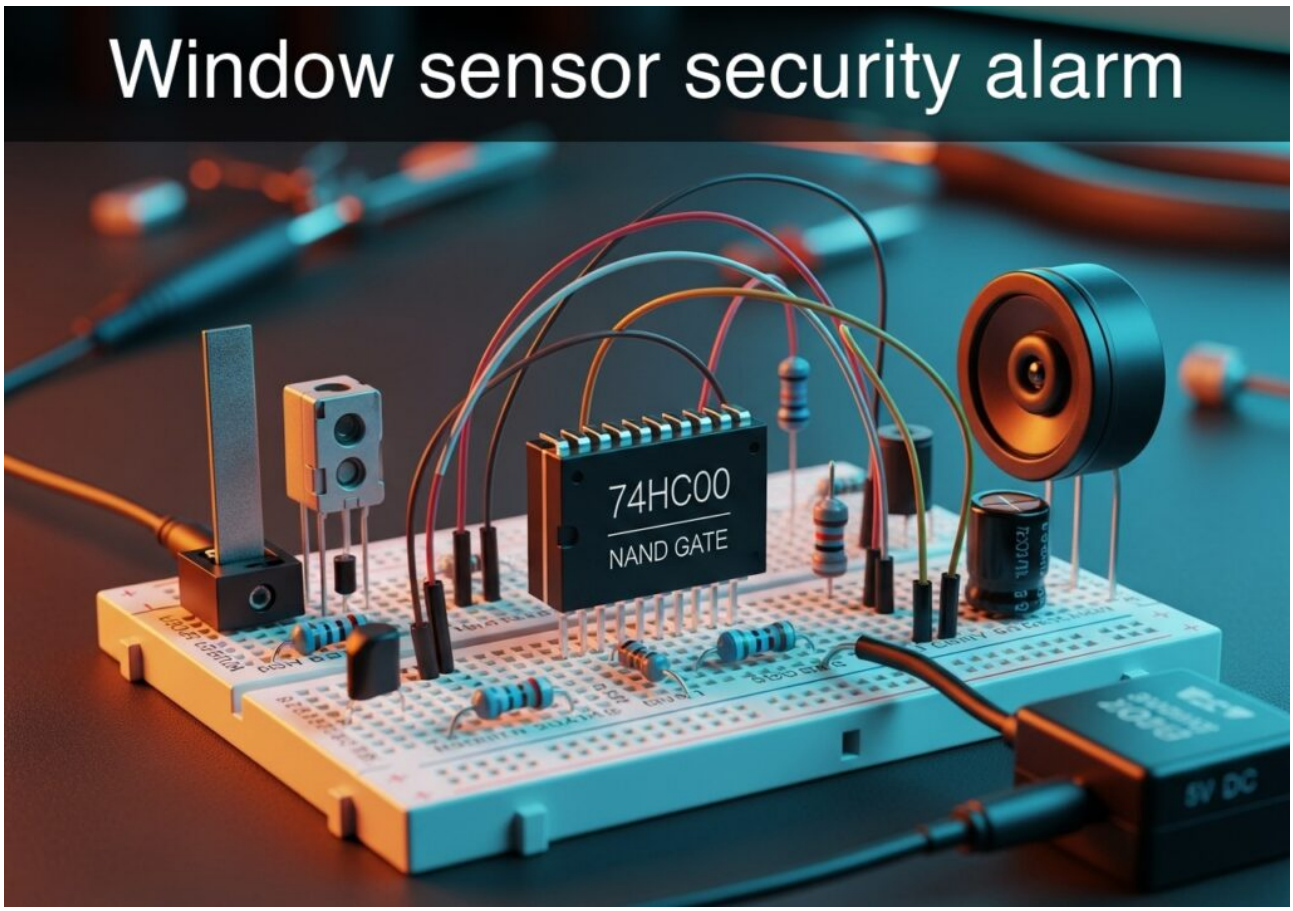


Master Digital Electronics by building a voting system using a single 74HC00 NAND gate IC. Create a safety interlock circuit where LED output signals approval.

Practical case: Water tank level control

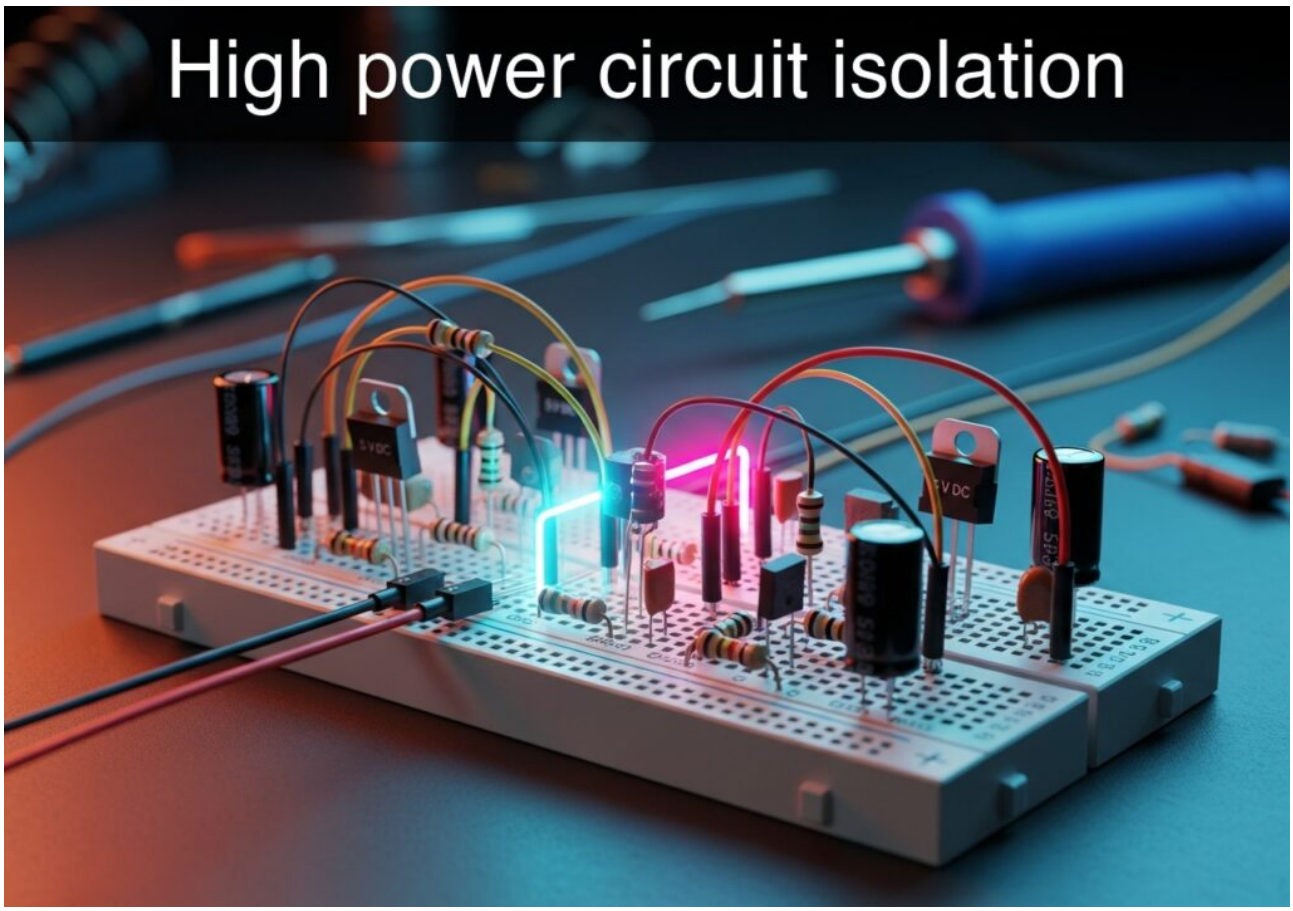
Learn Digital Electronics by building a pump safety stop using a NAND gate. Design a circuit that cuts power to 0V only when two sensors detect a full tank.

Practical case: Window sensor security alarm



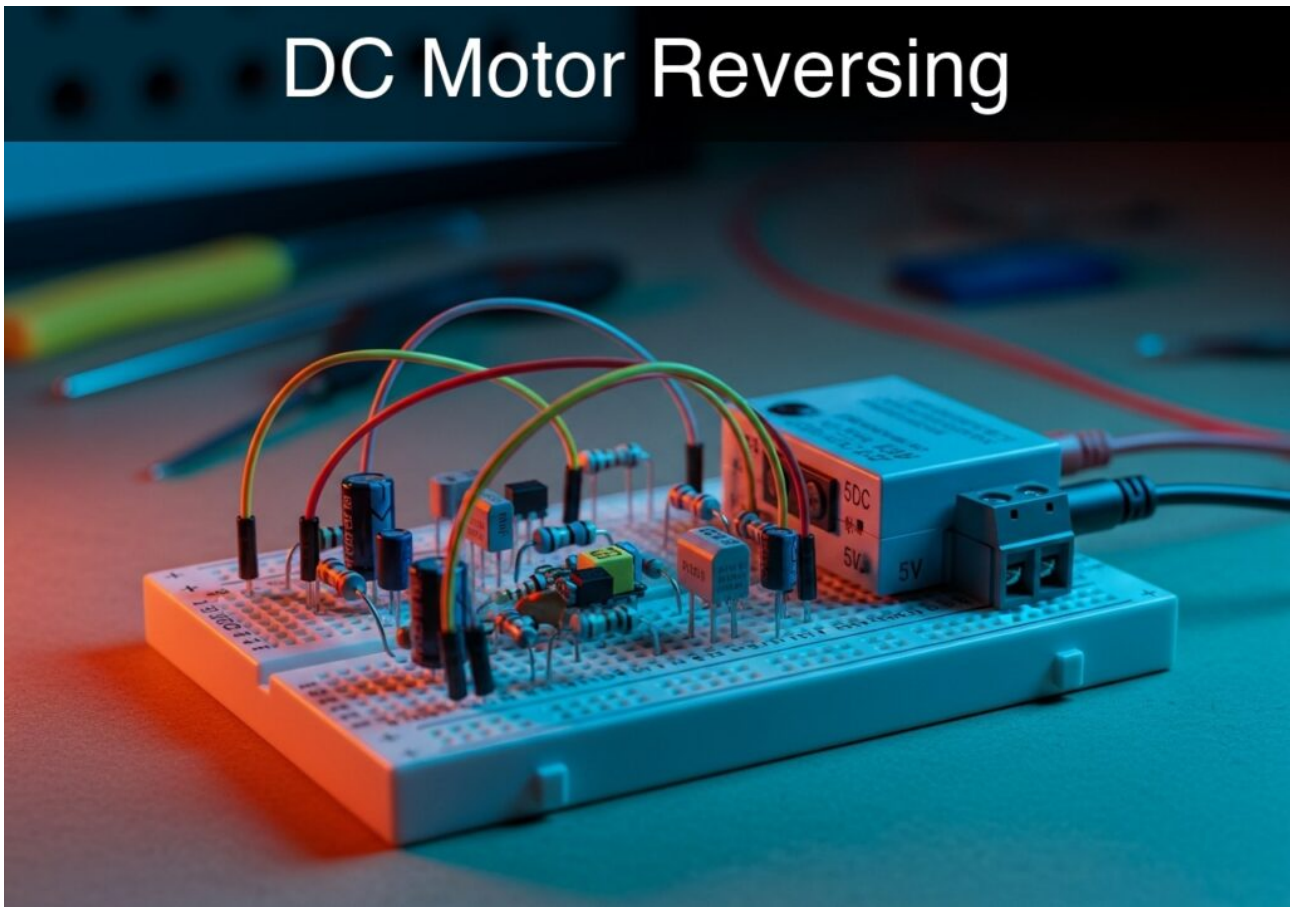
Master Digital Electronics by building a fail-safe alarm with a NAND gate. Detect open windows and trigger a 5V LED signal instantly when security is breached.

Practical case: High power circuit isolation



Master Analog Electronics by building a Relay driver circuit. Learn to safely switch high-power loads with low-voltage signals and verify galvanic isolation.

Practical case: DC Motor Reversing



Master Analog Electronics by building a Relay H-bridge to control DC motor direction. Learn to switch polarity for clockwise spin, reverse motion, and braking.

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.