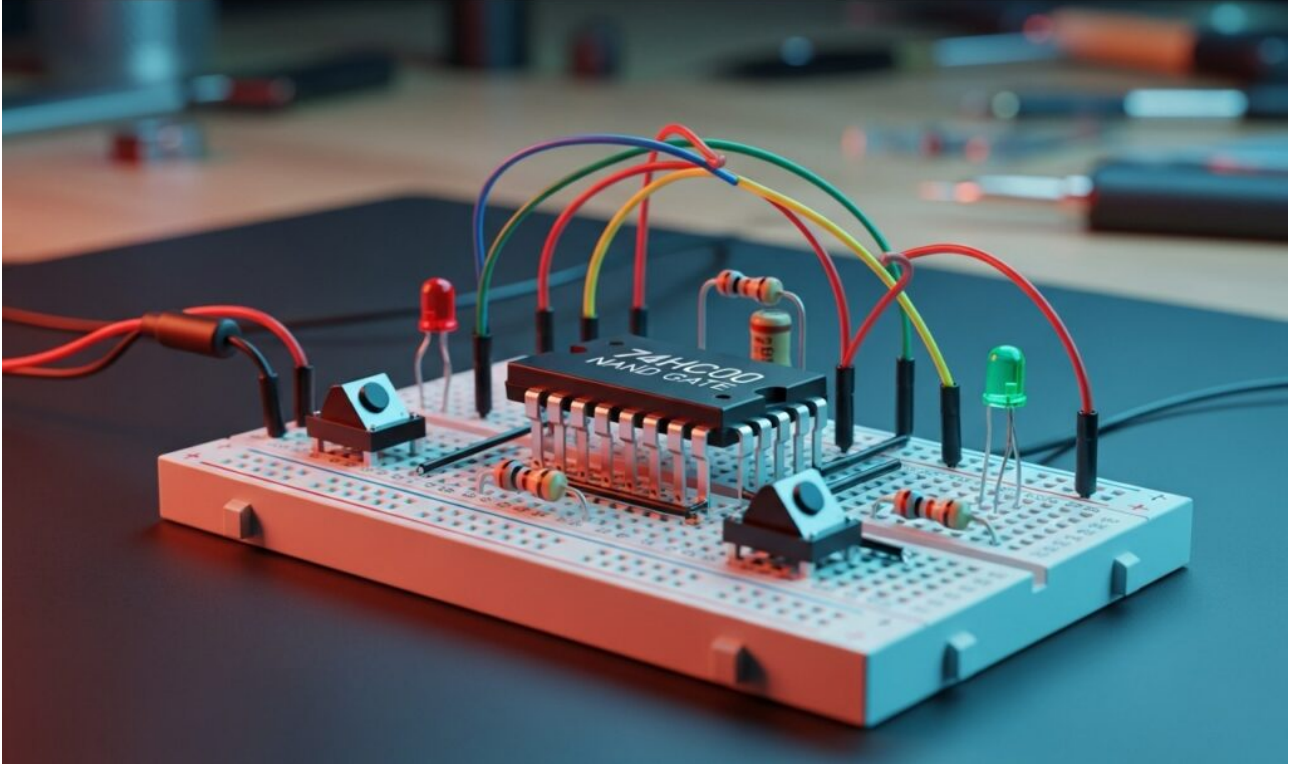


Practical case: Light switching from two points

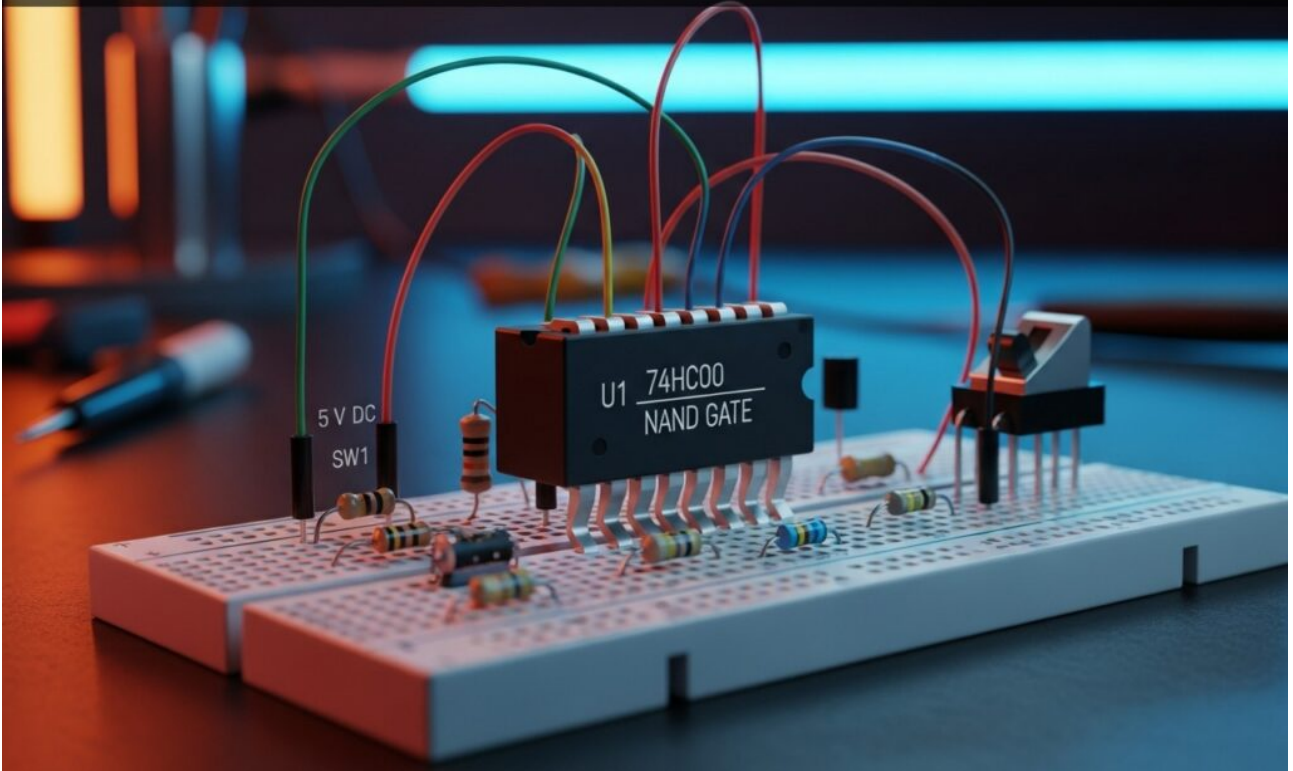
Light switching from two points



Master Digital Electronics by building a 2-way switch using the universal NAND gate. Synthesize XOR logic to toggle LED states based on dual input signals.

Practical case: Debouncing SR Latch with NAND

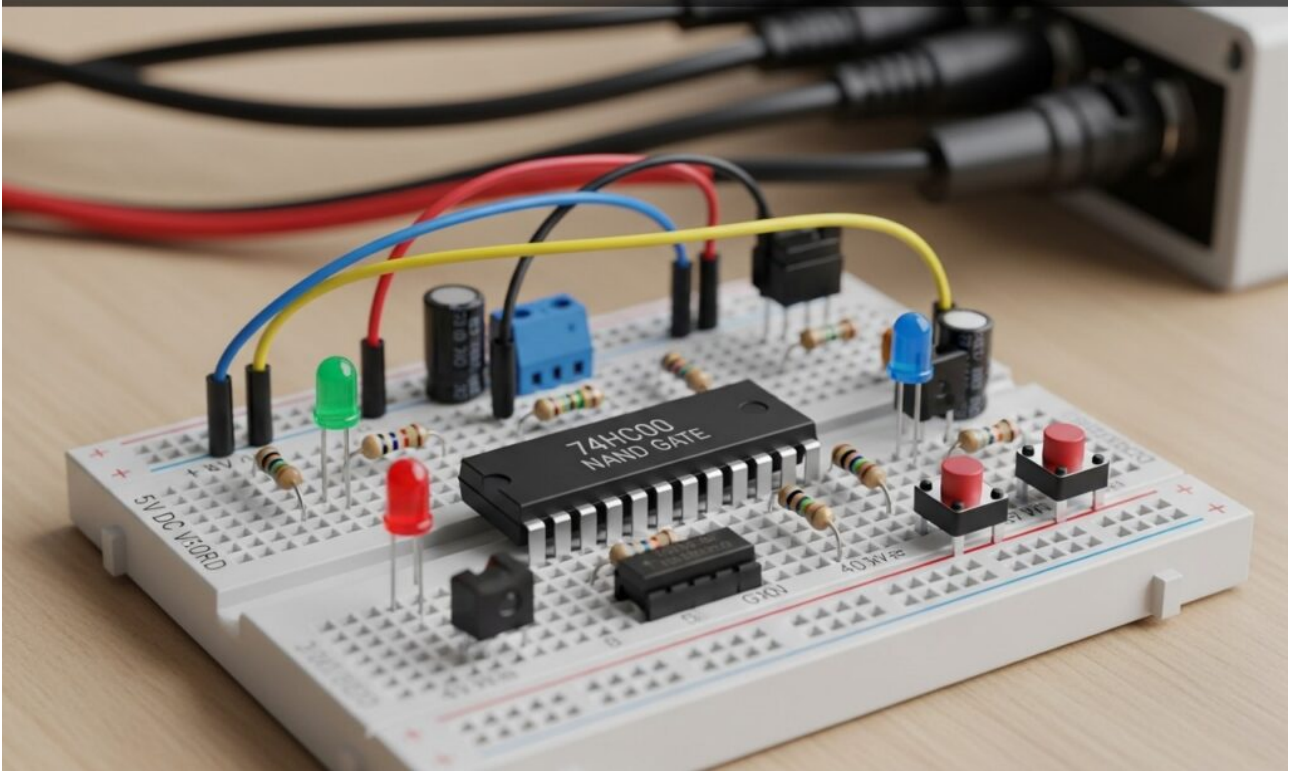
Debouncing SR Latch with NAND



Master Digital Electronics by building a NAND gate SR latch to eliminate switch noise. Ensure clean signals and verify stable memory states with LEDs.

Practical case: Dual Safety Motor Activation

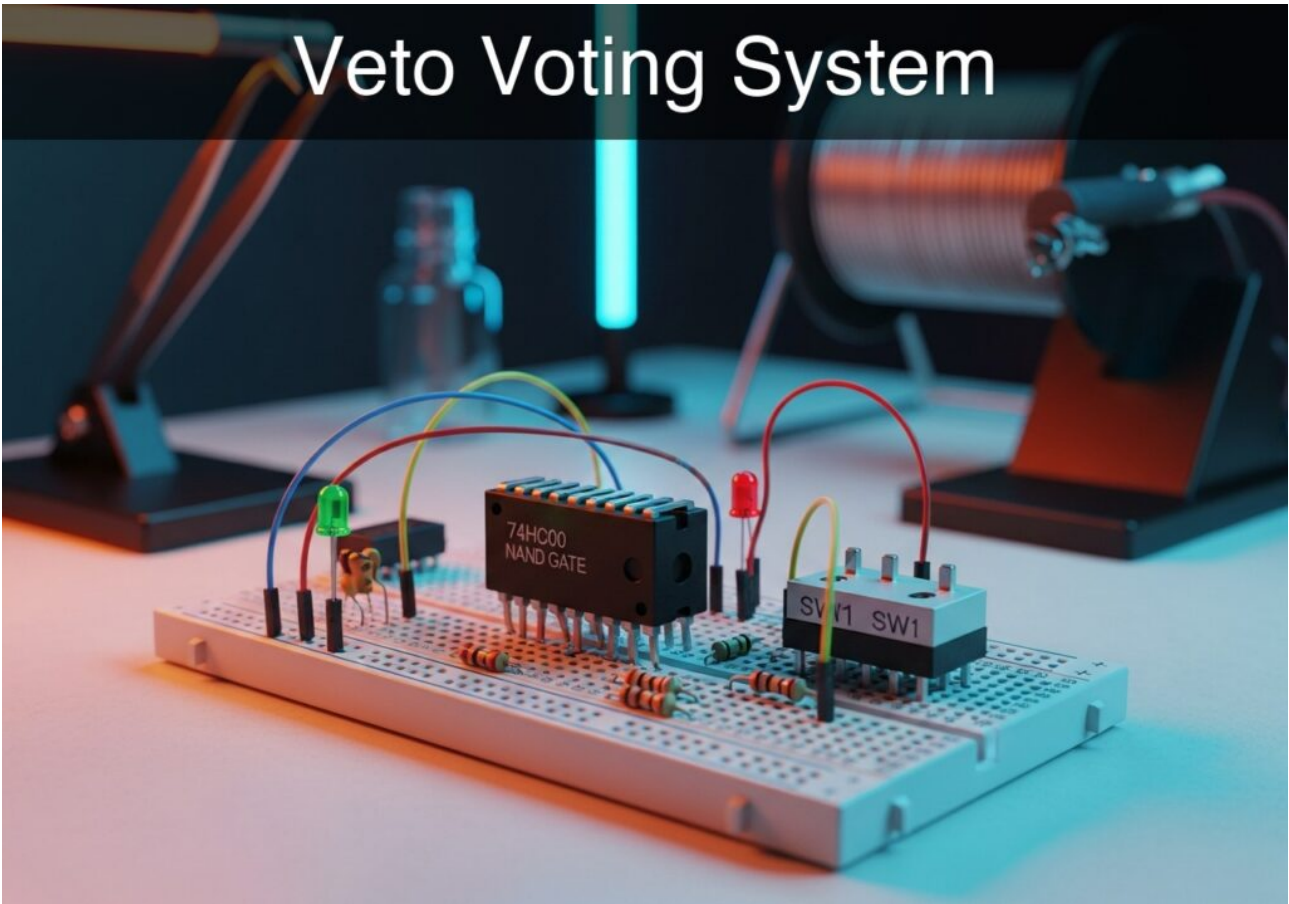
Dual Safety Motor Activation



Learn Digital Electronics by building a safety circuit with a NAND gate. Create a two-hand motor control system that activates 5V output only on dual press.

Practical case: Veto Voting System

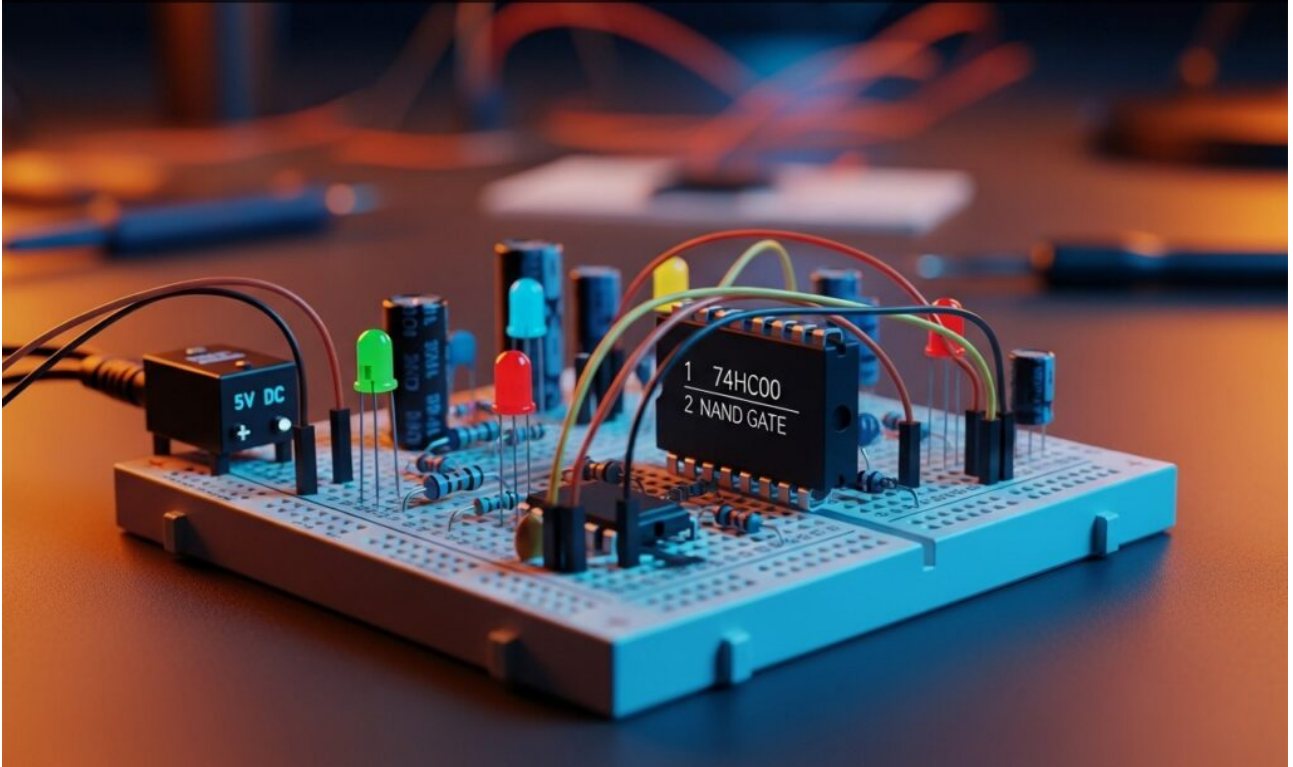
Veto Voting System



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

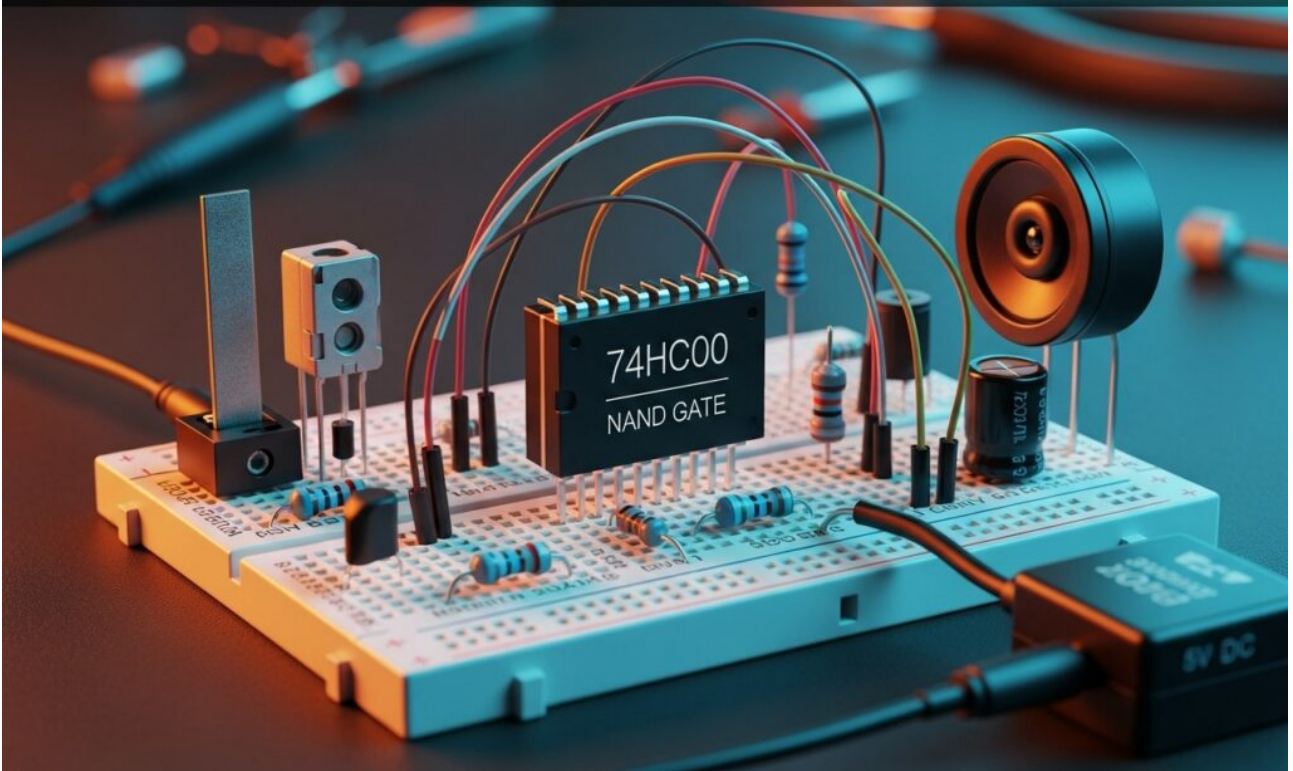
Water tank level control



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

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.