

## Practical case: Simple security code validation

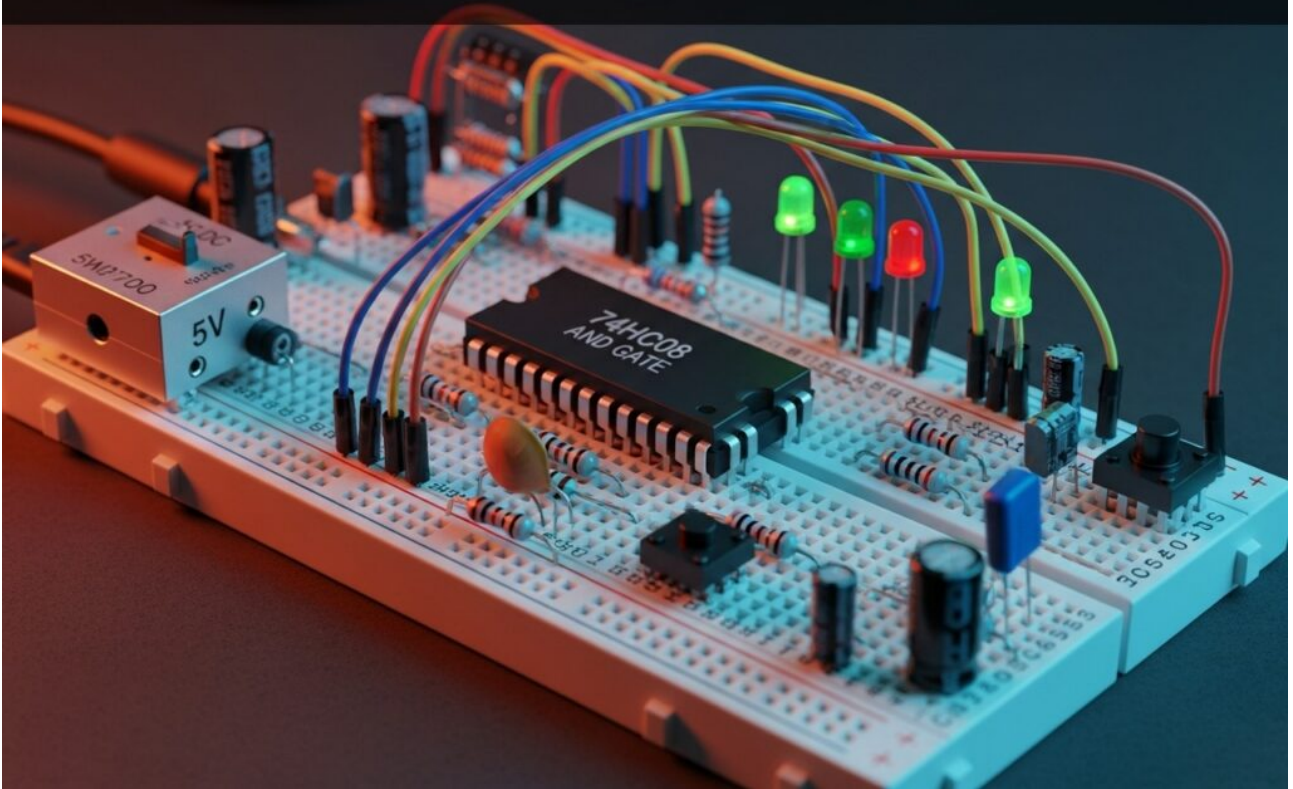


Master Digital Electronics by building a dual-switch security lock. Use a 74HC08 AND gate to trigger a solenoid only when two signals activate simultaneously.

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## Practical case: Conveyor belt start system

# Conveyor belt start system

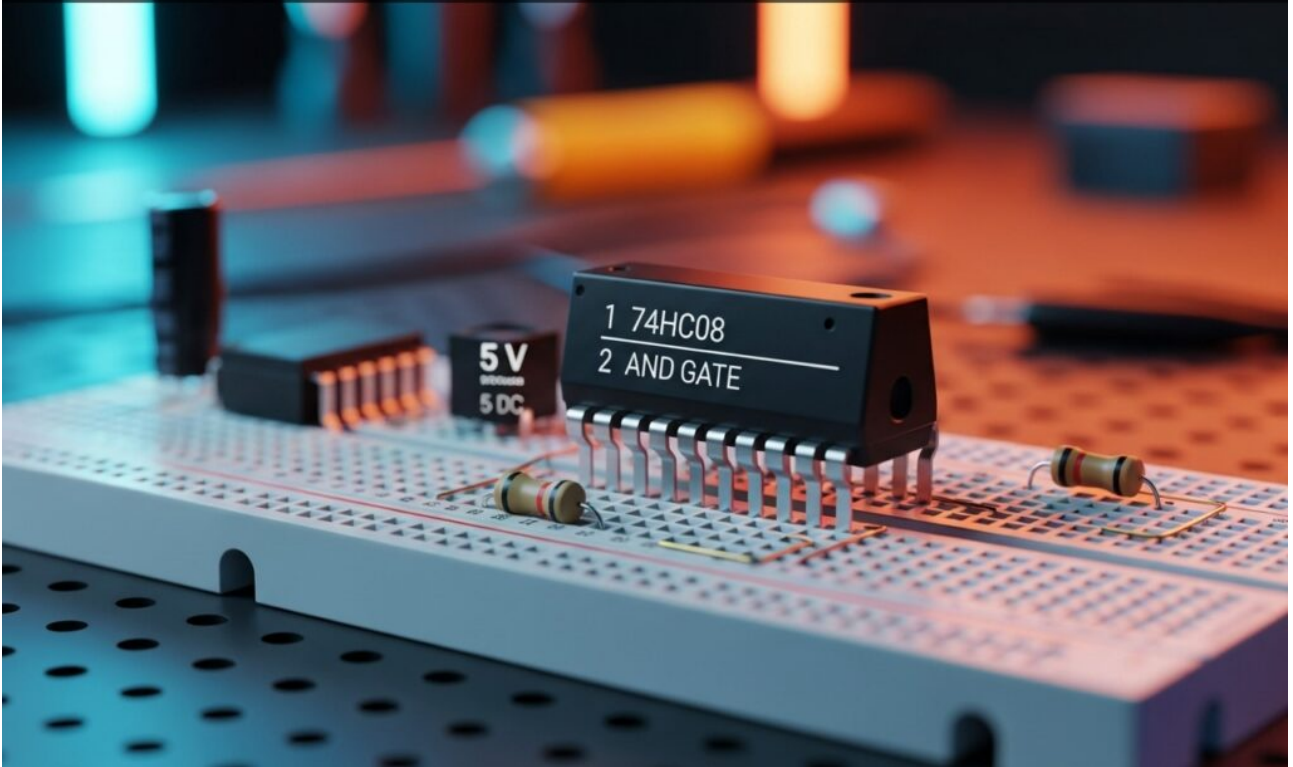


Master Digital Electronics by building a safety interlock circuit. Use a 74HC08 AND gate to activate a conveyor motor only when specific sensor signals align.

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## Practical case: Temperature and Pressure Monitoring

# Temperature and Pressure Monitoring

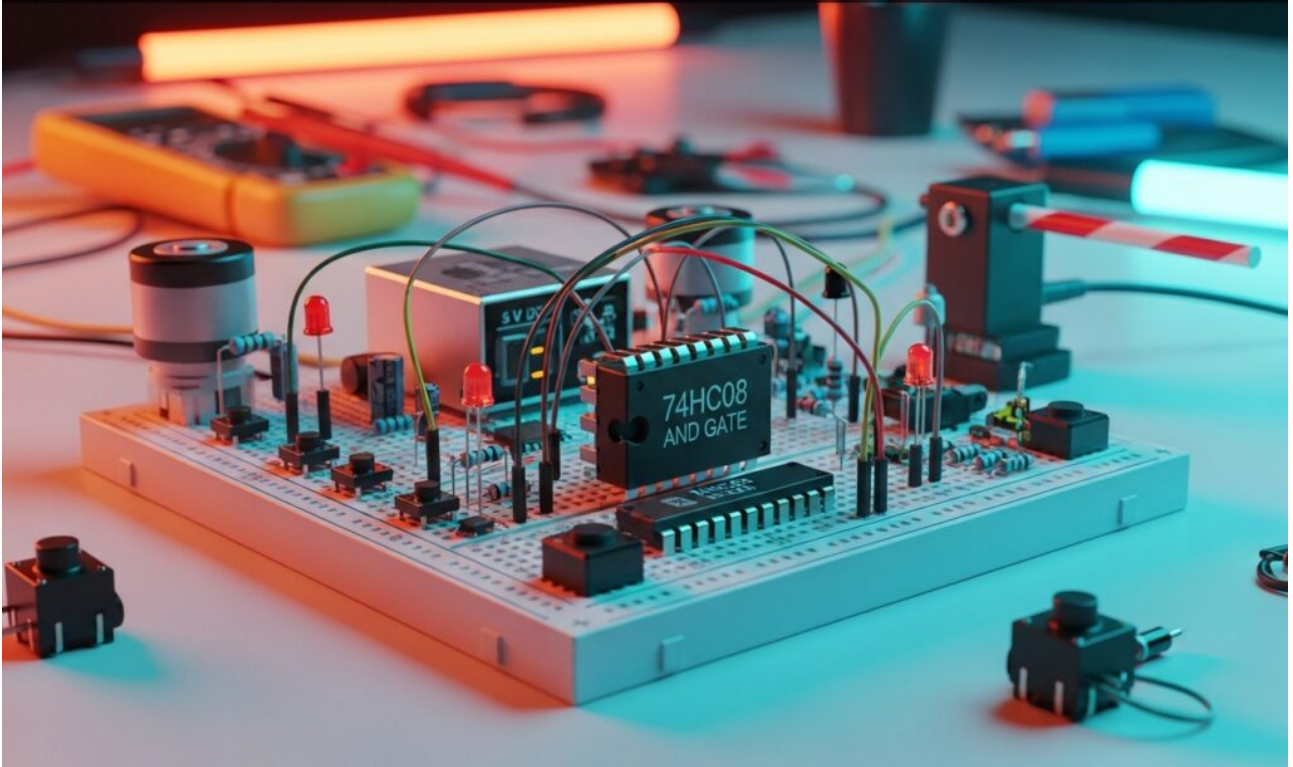


Master Digital Electronics by building an industrial safety circuit. Use an AND gate to trigger an alarm only when both temperature and pressure sensors spike.

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**Practical case: Vehicle access control with barrier**

# Vehicle access control with barrier

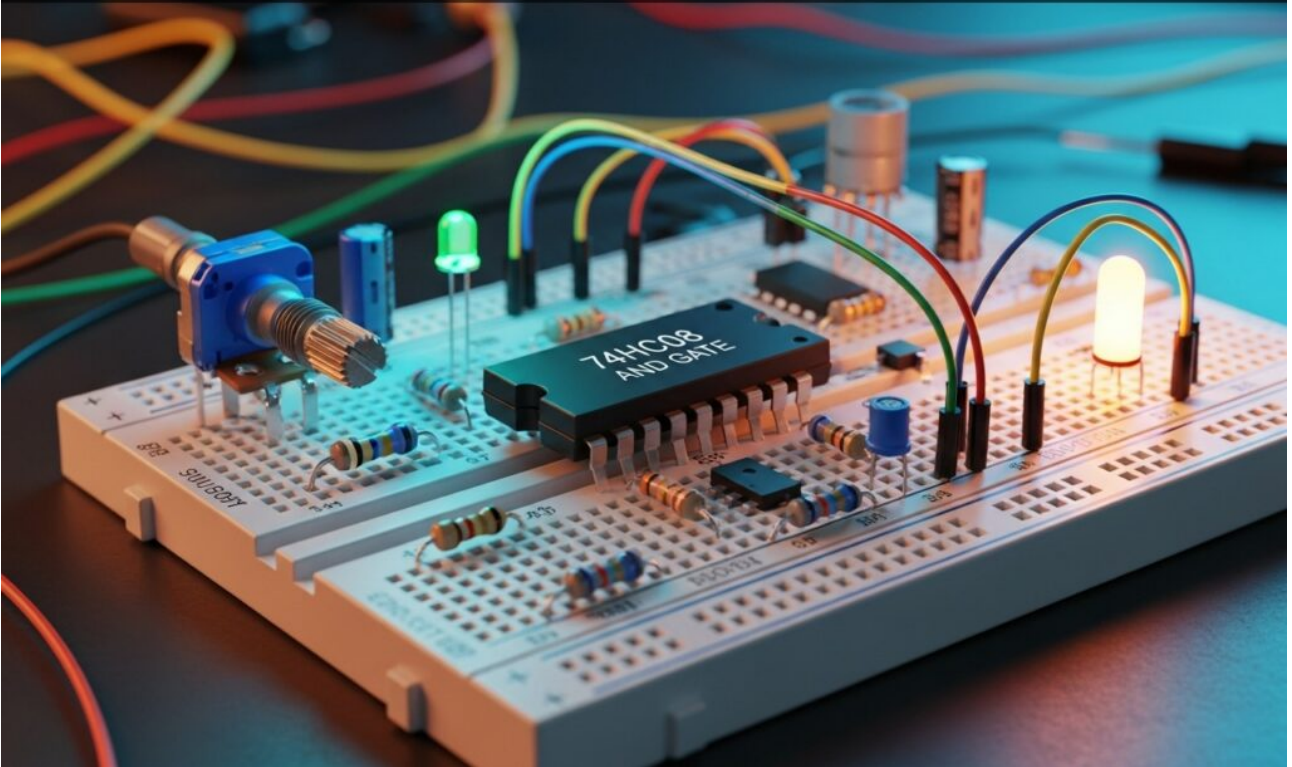


Master Digital Electronics by building a safety barrier circuit. Use a 74HC08 AND gate to trigger a 5V LED signal only when dual inputs activate simultaneously.

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**Practical case: Conditional automatic irrigation system**

# Conditional automatic irrigation system

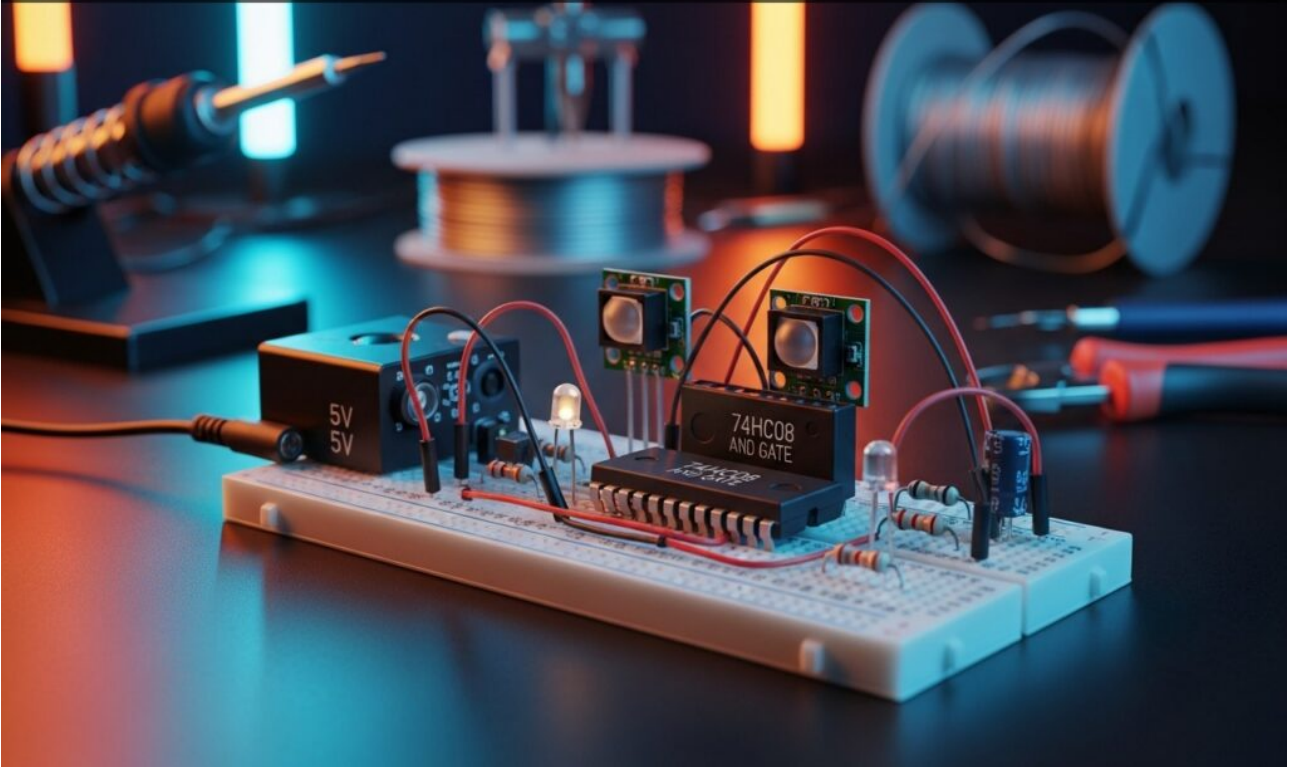


Master Digital Electronics by building a smart irrigation controller with a 74HC08 AND gate. Create a safety circuit that activates a pump only when safe.

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## Practical case: Dual sensor alarm activation

# Dual sensor alarm activation



Master Digital Electronics by building a dual-sensor security alarm. Learn how an AND gate validates simultaneous inputs to trigger a verified output signal.