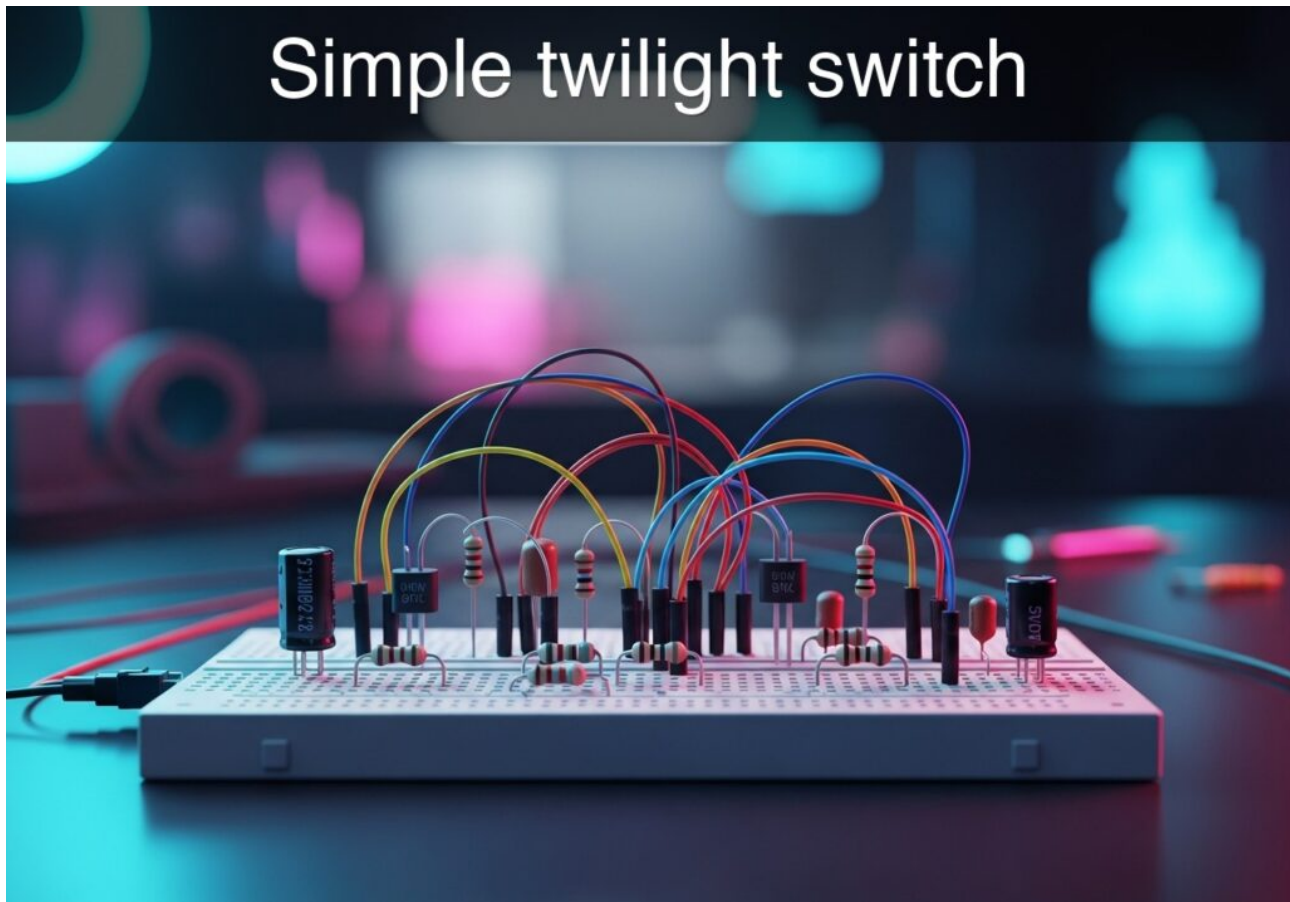


## Practical case: Simple twilight switch

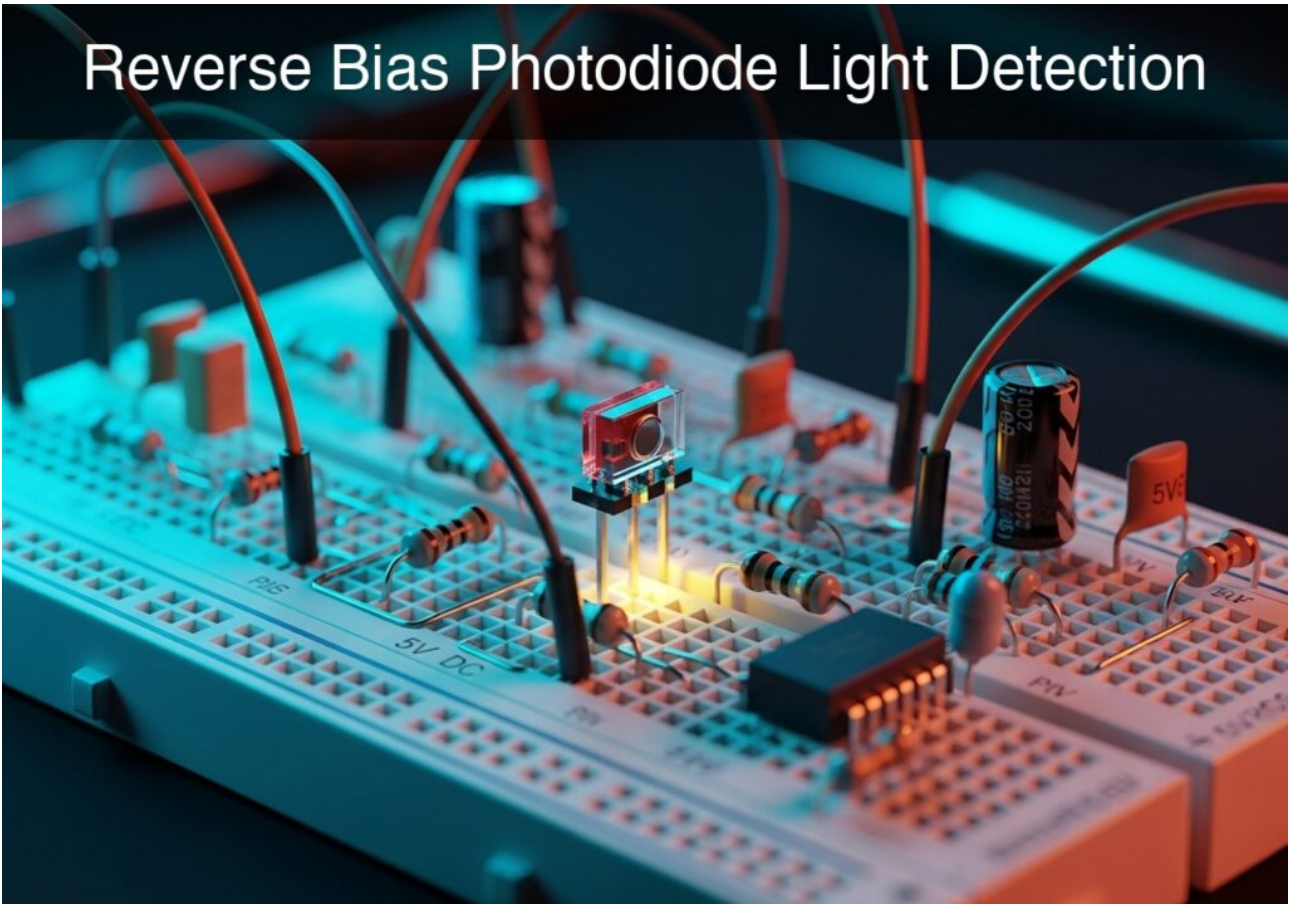


Learn Analog Electronics by building a dark sensor circuit. Use a Photodiode to switch an LED on when light drops, mastering transistor switching logic.

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## Practical case: Reverse Bias Photodiode Light Detection

# Reverse Bias Photodiode Light Detection

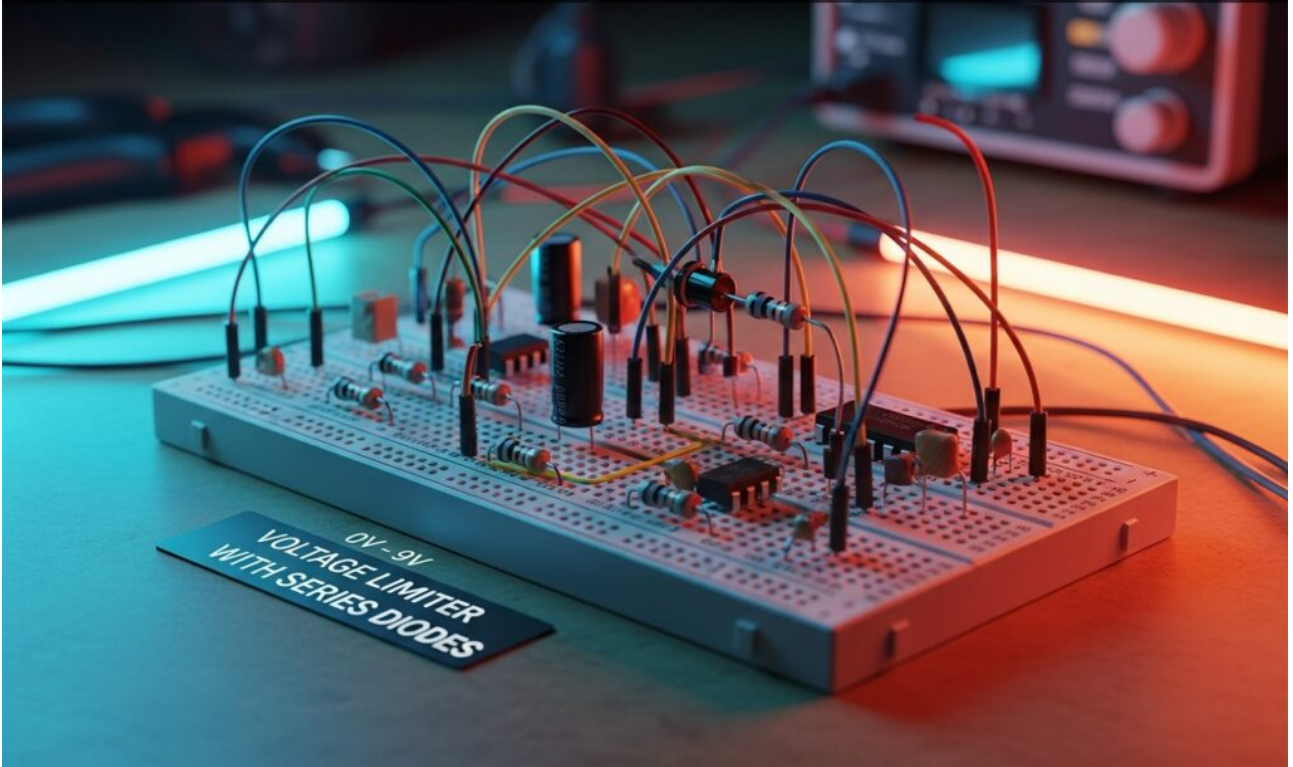


Master Analog Electronics by building a light sensor circuit using a reverse-biased Photodiode. Measure linear voltage changes based on light intensity.

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**Practical case: Voltage limiter with series diodes**

# Voltage limiter with series diodes

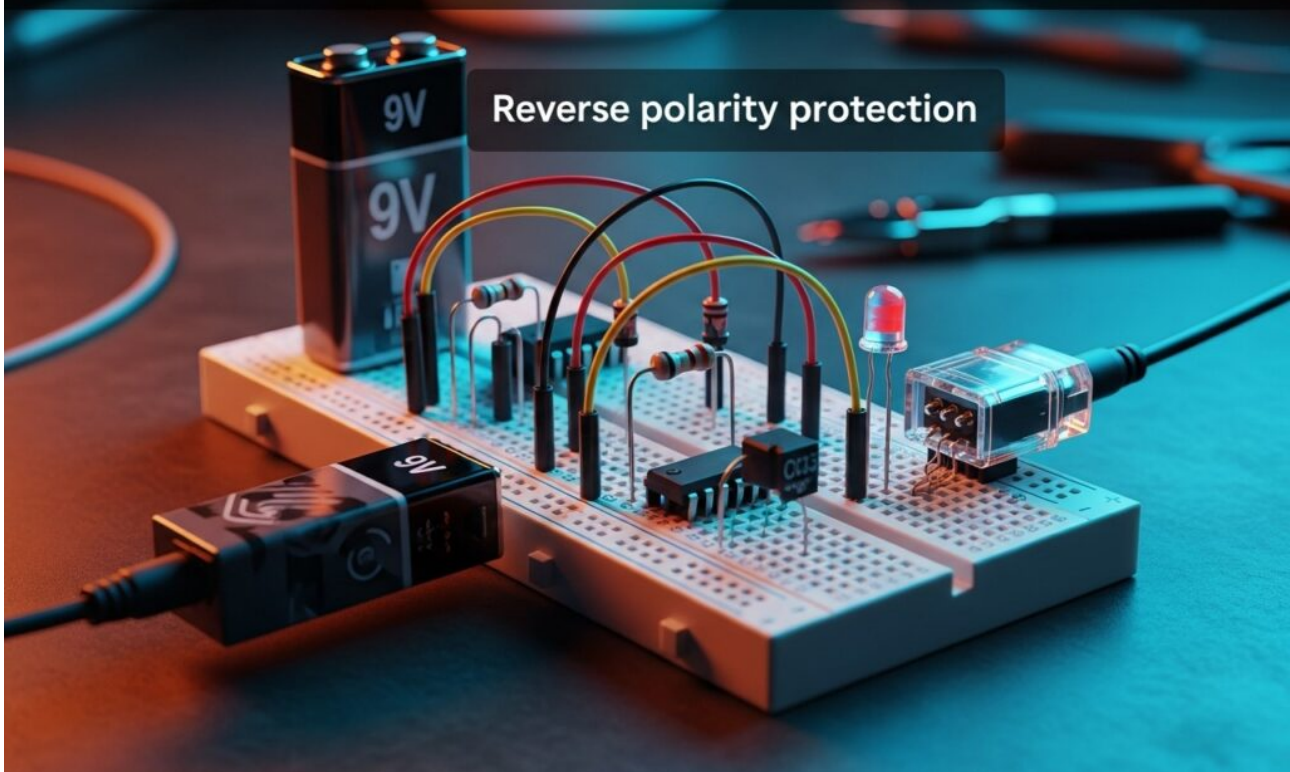


Master Analog Electronics by building a voltage limiter with a simple Diode circuit. Protect inputs and clamp signals to 2.1V for safe, stable output results.

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## Practical case: Reverse polarity protection

# Reverse polarity protection

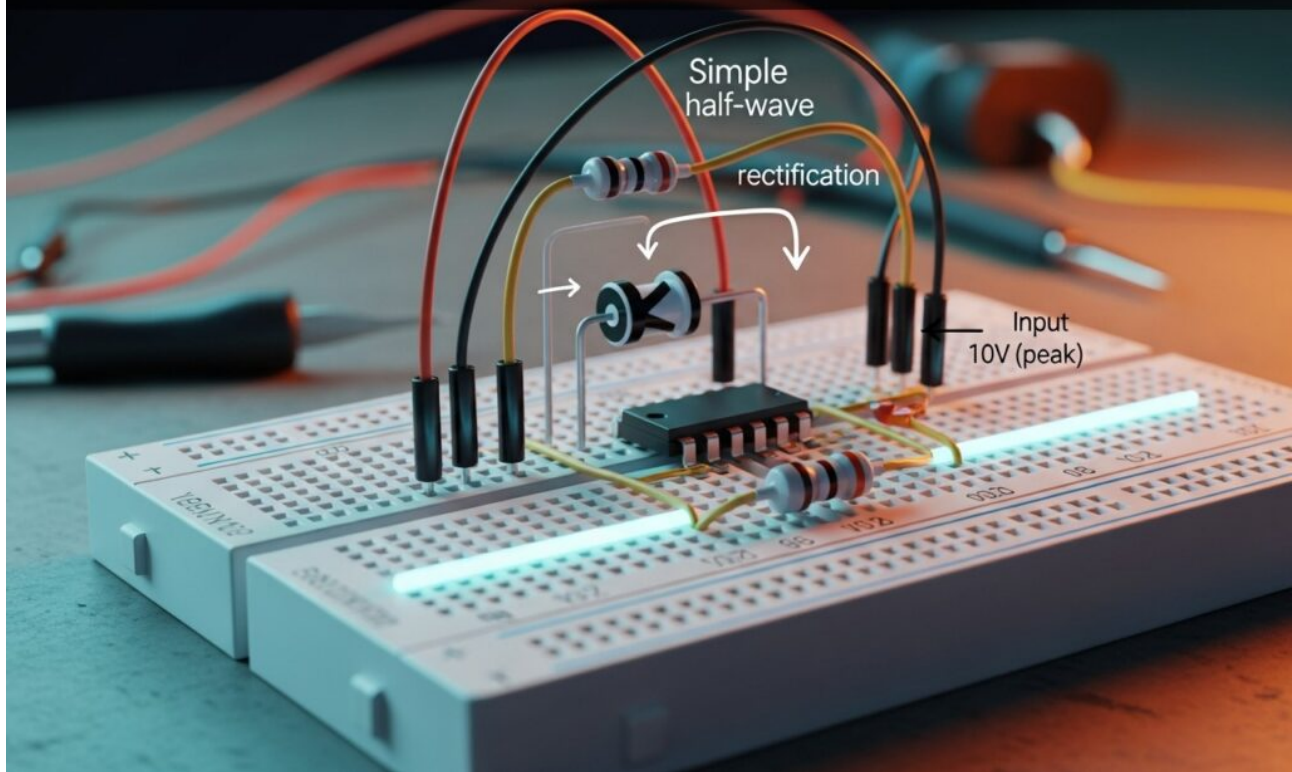


Learn Analog Electronics by building a Diode protection circuit for a DC motor. Prevent damage from reverse polarity and measure the 0.7V voltage drop.

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## Practical case: Simple half-wave rectification

# Simple half-wave rectification

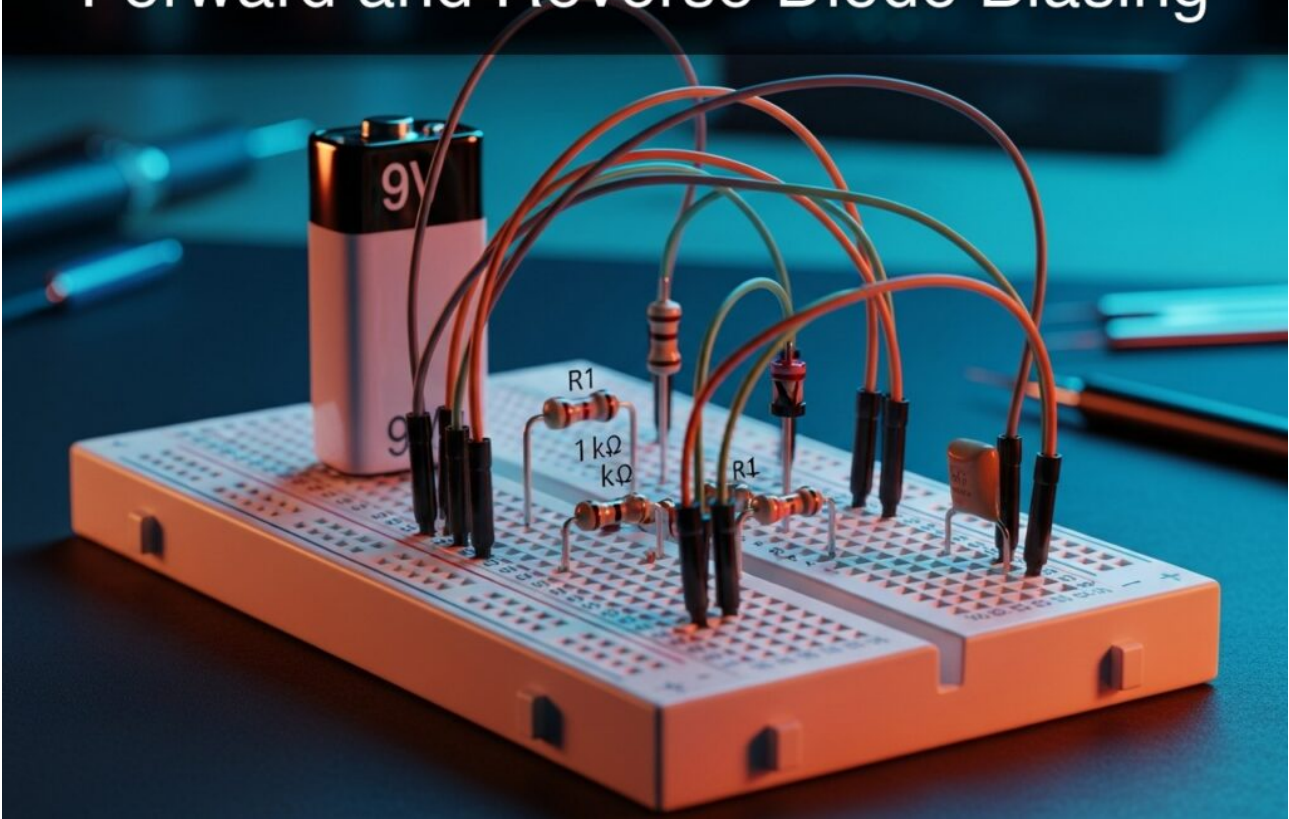


Master Analog Electronics by building a half-wave rectifier using a Diode. Convert AC to pulsating DC and visualize signal clipping on your oscilloscope.

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## Practical case: Forward and Reverse Diode Biasing

# Forward and Reverse Diode Biasing



Master Analog Electronics by building a Diode circuit to verify unidirectional current flow. Measure 0.7V drops and block reverse polarity in this lab.