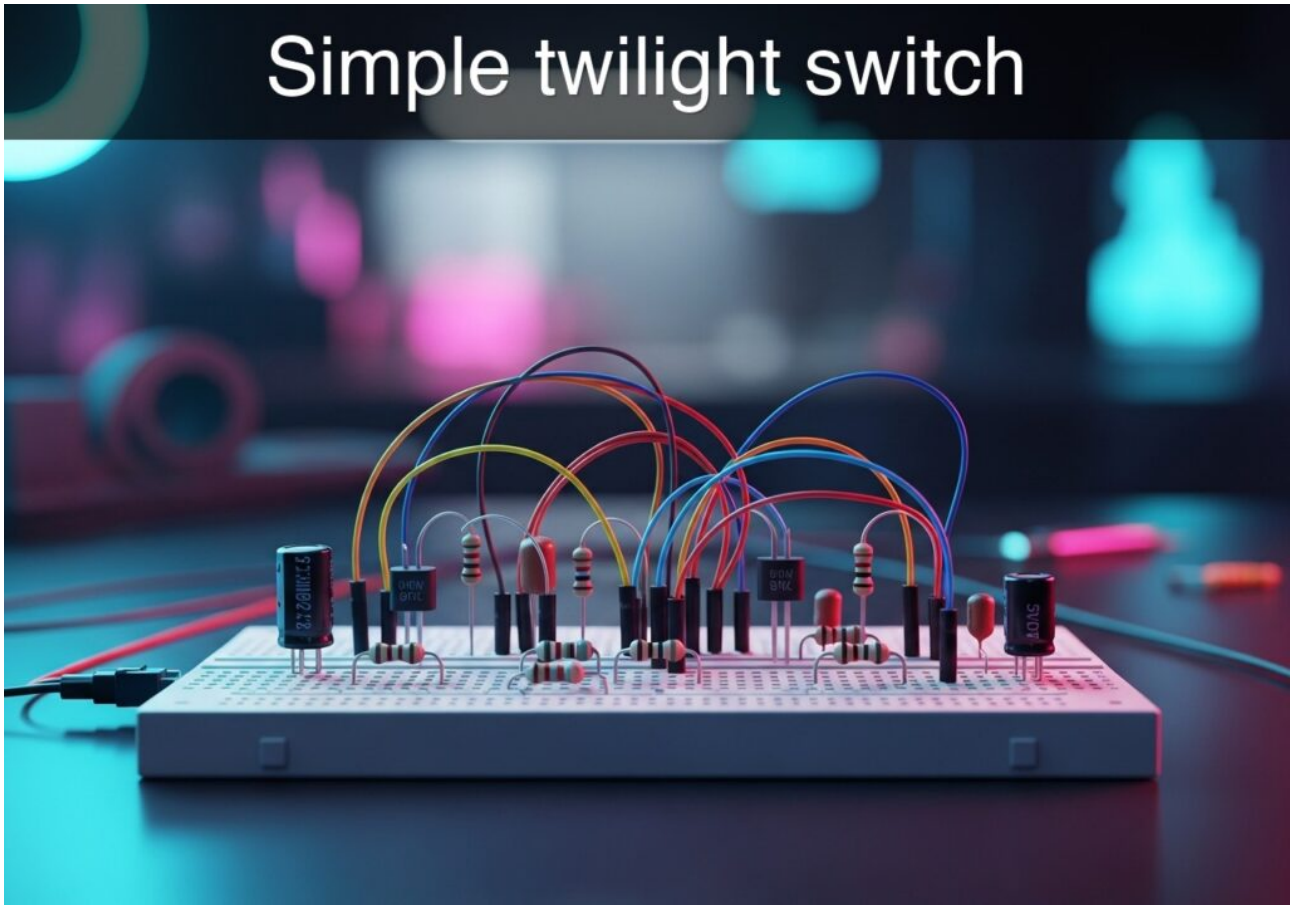
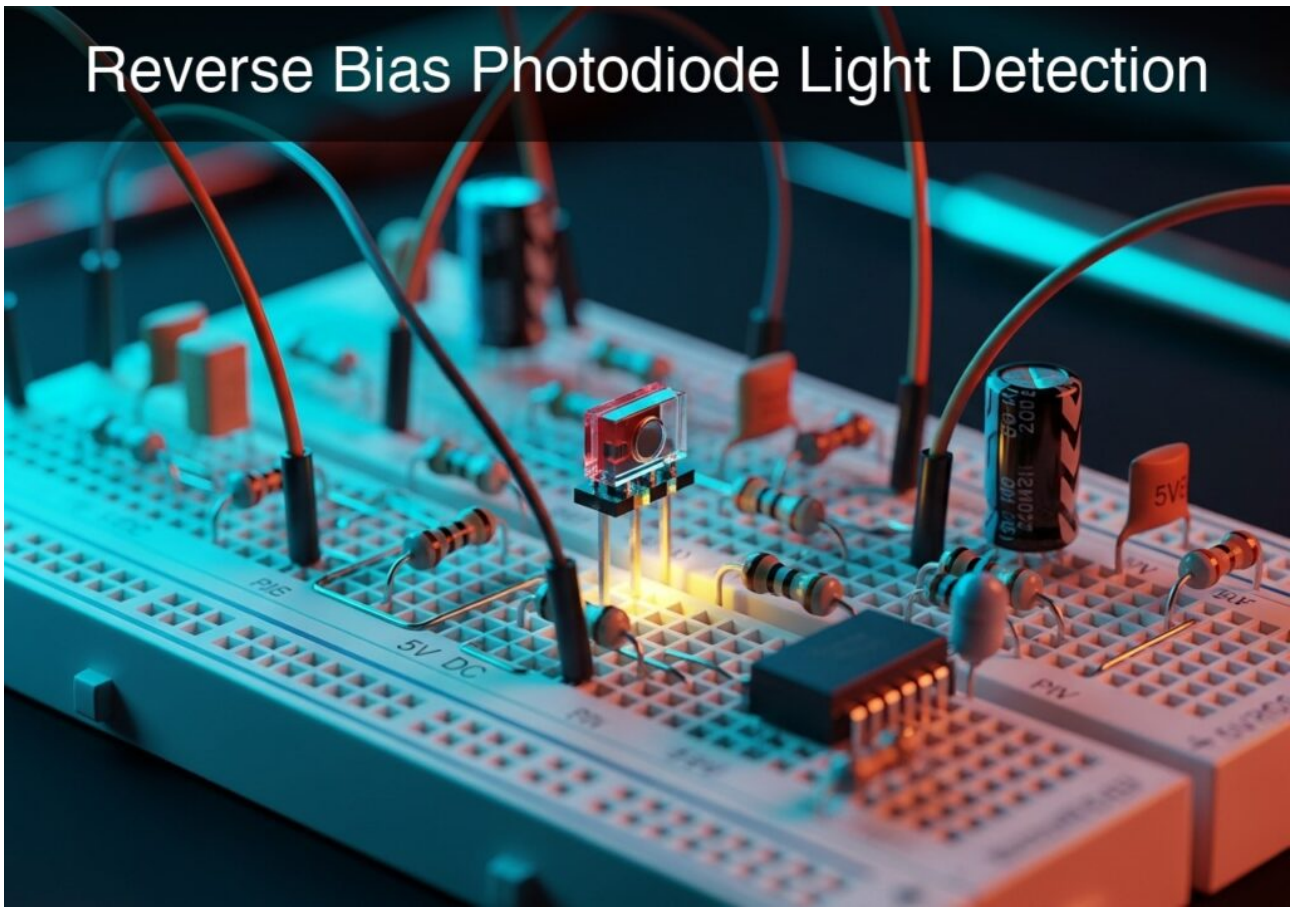
Practical case: Simple twilight switch



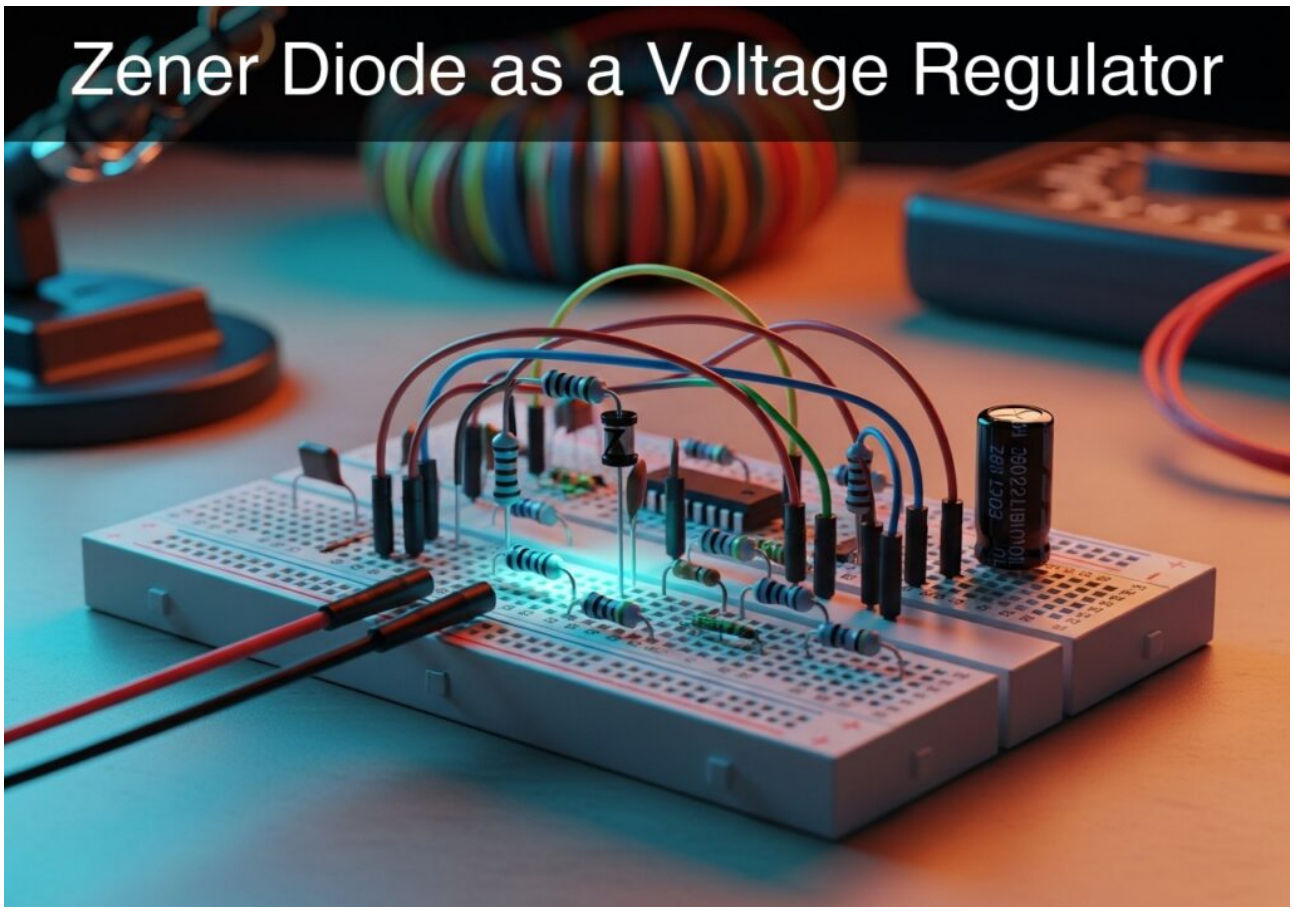
Learn Analog Electronics by building a dark sensor circuit. Use a Photodiode to switch an LED on when light drops, mastering transistor switching logic.

Practical case: Reverse Bias Photodiode Light Detection



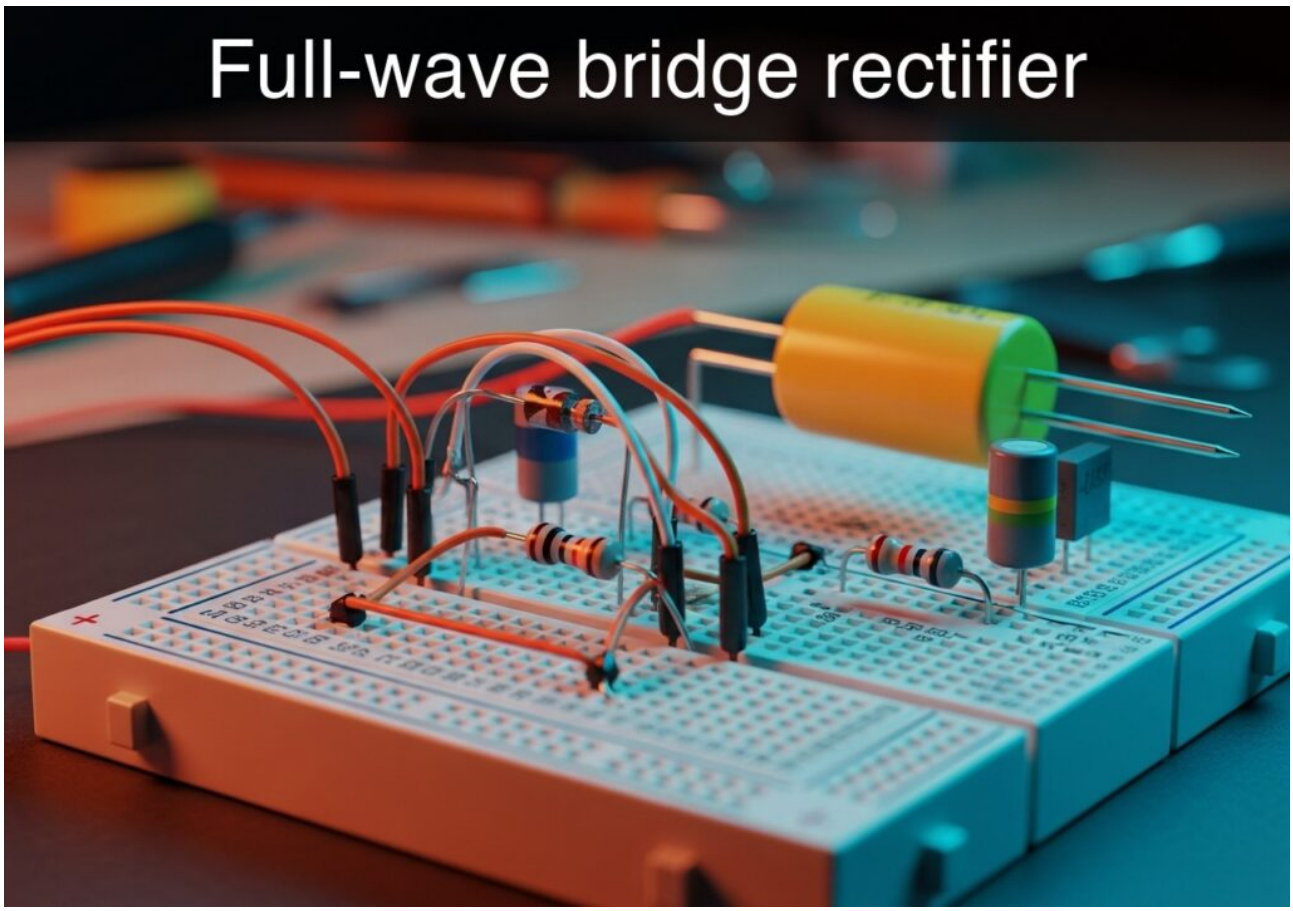
Master Analog Electronics by building a light sensor circuit using a reverse-biased Photodiode. Measure linear voltage changes based on light intensity.

Practical case: Zener Diode as a Voltage Regulator



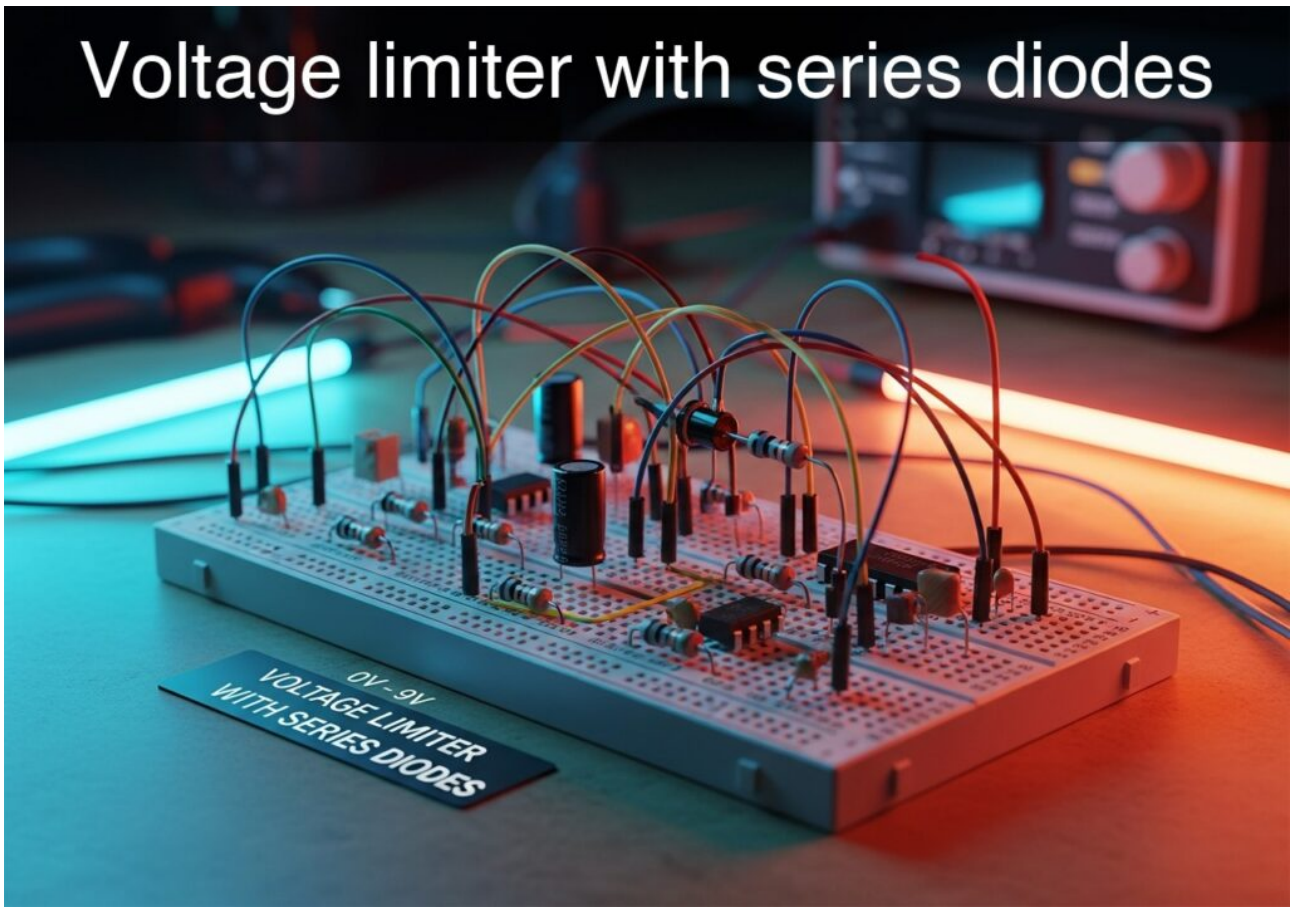
Master Analog Electronics by designing a Zener Diode voltage stabilizer. Build a circuit to clamp output at 5.1V and protect loads from voltage spikes.

Practical case: Full-wave bridge rectifier



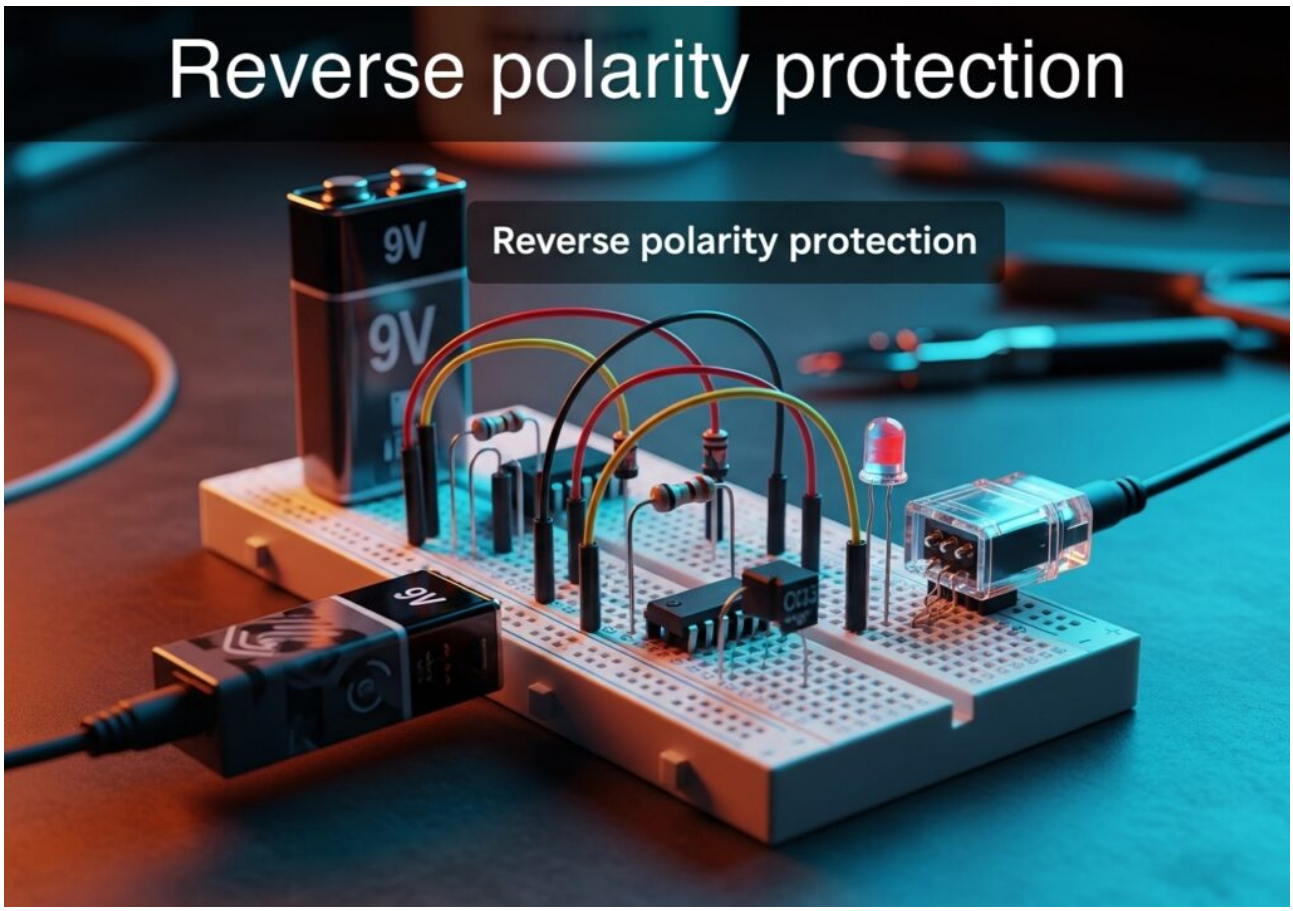
Master Analog Electronics by building a Diode Graetz bridge. Convert AC to pulsating DC, double the frequency to 120Hz, and measure real voltage drops.

Practical case: 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.

Practical case: 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.