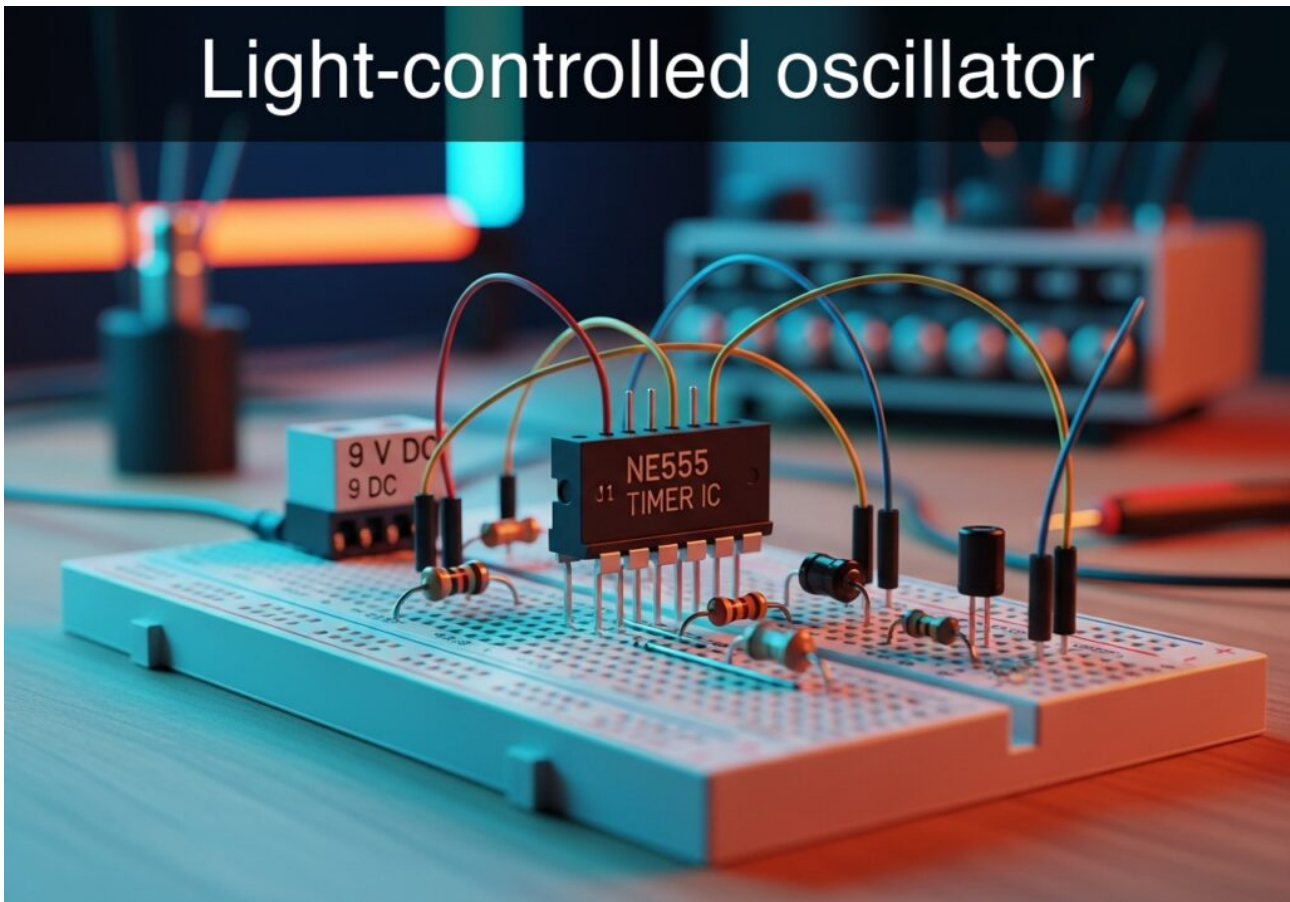


Practical case: Light-controlled oscillator



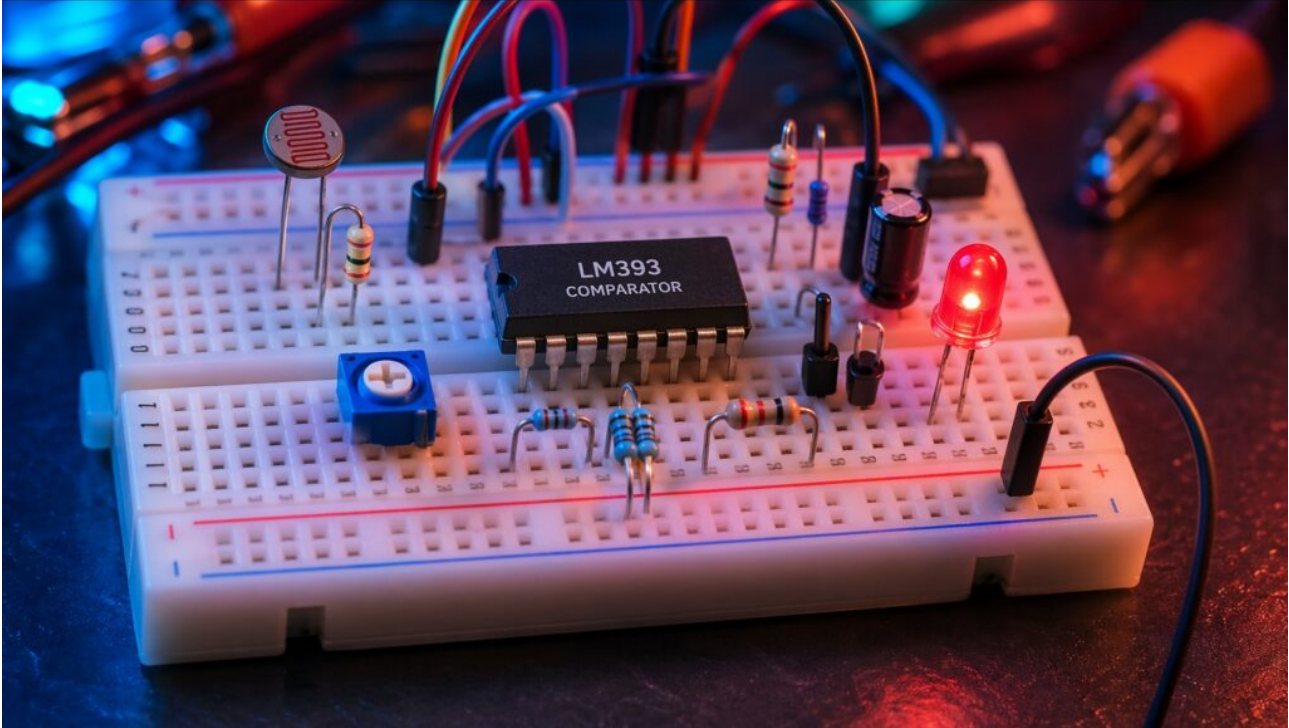
Level: Medium. Design an astable NE555 oscillator where an LDR modulates the output frequency based on ambient light.

Objective and use case

In this...

Practical case: Shadow detector for visual alert

Shadow detector for visual alert



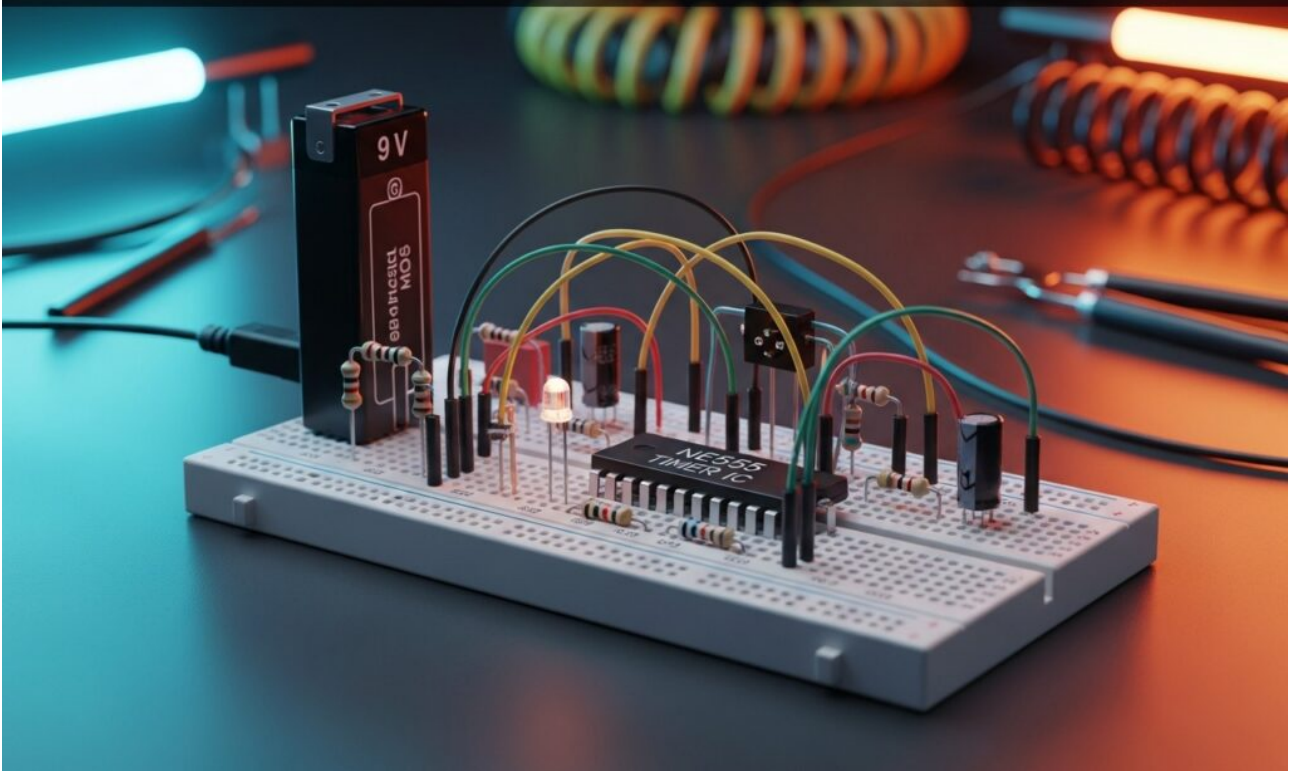
Level: Medium — Build a stable shadow detector with visual indication and low false triggering.

Objective and use case

You will build a...

Practical case: Adaptive Screen Brightness Regulator

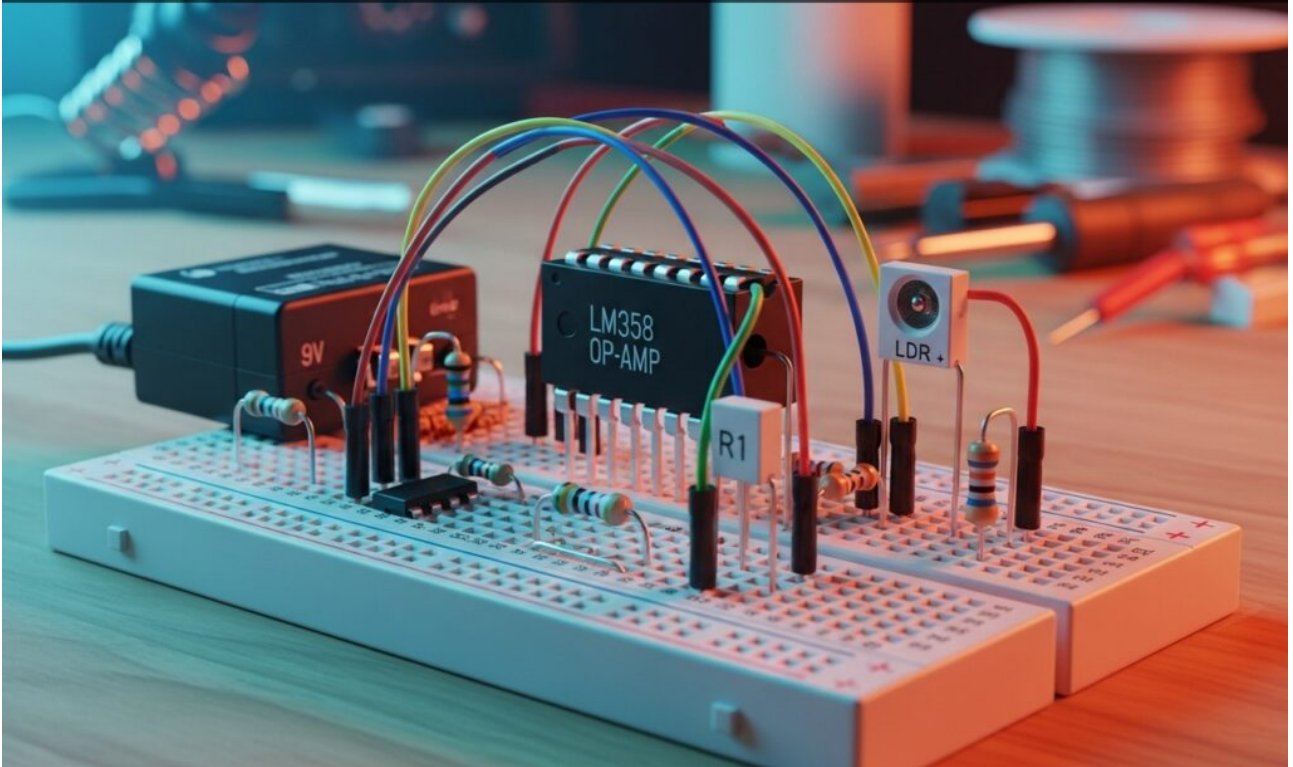
Adaptive Screen Brightness Regulator



Master Analog Electronics by building a smart dimmer. Use a Photoresistor and 555 timer to auto-adjust LED brightness via PWM based on ambient light levels.

Practical case: Single-axis solar tracker

Single-axis solar tracker



Master Analog Electronics by building a sun seeker circuit. Use a Photoresistor pair to drive a motor that actively tracks the brightest light source.