

Automatic Fan Regulator

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Abstract: *In today's fast-paced world, convenience and energy efficiency go hand in hand. The Automatic Fan Regulator is a smart solution designed to adjust a fan's speed automatically based on the surrounding temperature. Instead of relying on manual control, this system uses a temperature sensor—typically a thermistor or digital temperature sensor—to continuously monitor room conditions. When the temperature rises, the fan speed increases to provide better cooling. Likewise, when the room cools down, the fan slows down, conserving energy and reducing wear on the motor.*

At the core of the system is a microcontroller (such as an Arduino or any basic embedded system), which processes real-time temperature data and adjusts the fan speed accordingly through a motor driver or triac-based circuit. This setup not only ensures consistent comfort but also promotes better power efficiency, especially in places where climate conditions fluctuate often.

The Automatic Fan Regulator can be applied in homes, offices, or industrial settings and can easily be integrated with other smart systems. It represents a step forward in automation and smart living by minimizing manual effort and maximizing user comfort with minimal energy waste...

Keywords: energy efficiency

