

# Solar Operated Auto Timer Switch for Water Pump

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**Abstract:** *This project presents the design and implementation of a solar-operated auto timer switch for a water pump, specifically tailored for agricultural applications. The system automates the operation of a water pump by turning it on and off at pre-set times, thereby optimizing water usage and reducing energy costs. Powered by solar energy, the system ensures continuity of operation even during power outages, with an automatic restart feature to complete the intended irrigation cycle. The system employs an Arduino microcontroller, a relay module, an RTC module for timekeeping, and various other components integrated on a PCB for efficient operation.*

**Keywords:** solar-operated auto timer switch

