

# 16 CHANNEL IR REMOTE CONTROL FOR ELECTRICAL APPLIANCES

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## ABSTRACT

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This project paper is about the 16 channel IR remote control for electrical appliances, its construction, its theory behind it and the possible outcomes that it can produce. Advantages and disadvantages of this remote control system include.

The 16 channel IR remote control for electrical appliances consists of 2 circuits: Infrared transmitter circuit and infrared receiver circuit. It can control 16 different devices. The infrared transmitter circuit consists of 16 switch keypad, 16-key keyboard encoder, synchronous up/down dual clock counter, 7555 timer, high power transistor and two infrared LED. The main responsibility for the hardware is remote controlling the operation of electronic equipments.

The infrared receiver circuit consists of a phototransistor, operational amplifier, hex inverter, synchronous up/down dual clock counter, dual monostable multivibrator, monostable/astable multivibrator and 4-to-16 lines decoder. The main responsibility for the hardware are detect, count and decode the signal to perform the operations such as turn on/off the light,, fan and sound.