



اَللّٰهُمَّ صَلِّ وَسَلِّمْ عَلٰى نَبِيِّنَا مُحَمَّدٍ

KEU 380 PROJECT II

ULTRASONIC SWITCH

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ABSTRACT

My project is about ultrasonic switch. This circuit functions with inaudible (ultrasonic) sound. As with any other remote control system, this circuit too comprises a mini transmitter and a receiver circuit. The ultrasonic transmitter uses a 555. while the ultrasonic receiver used CA 3140.

The output from receiver is connected to the electrical appliances such as lamp and etc. to activated that equipment. In my project, I using a LED to display the produced the output.

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1.0 INTRODUCTION

My project is about ultrasonic switch. This circuit functions with inaudible (ultrasonic) sound. This circuit described generates ultrasonic sound of frequency between 40 – 50kHz. As with any remote control system, this circuit too comprises a mini transmitter and receiver circuit.

Transmitter generates ultrasonic sound and the receiver senses ultrasonic sound from transmitter and switches on the relay.

The ultrasonic transmitter uses a 555 timer. An ultrasonic transmitter transducer is used here to transmit ultrasonic sound very effectively. While the ultrasonic receiver circuit uses an ultrasonic receiver transducer to sense ultrasonic signals. It also uses a two stage amplifier, a rectifier stage and an operational amplifier in inverting mode.

This circuit is always use to automatic gate controller and also use for control the fan because the function is same as a remote control.