MOSQUITO REPELLENT USING ULTRASONIC

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ABSRACT

First of all, this report is to state clearly about the project made which is the Prototype Mosquito Repellent using Ultrasonic. This project is made in order to fulfil the objectives that been made which are to develop and study the effectiveness of ultrasonic towards mosquito for repellent. Significantly, this project able to study the repellent device as mosquito using different range of frequency. The main component of this project is the Decade Counter IC CD4017, D flip-flop IC CD4013, Ultrasonic Transmitter Transducer and Ultrasonic Receiver. These transmitter components will be connected decade counter and D Flip-flop, gives the input signal from the user and the Ultrasonic receiver act as mosquito linked together with the decade counter CD4017 will get the signal and the buzzer will on. The circuit will connected directly with the power supply which is battery so that the design of the transmitter and receiver is flexible enough for user to use this prototype. Therefore, if this project is success, it will able to ease people with improved technology than the old traditional mosquito recoil.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

Nowadays human beings are always complaining about their life that getting bite with annoying mosquito or insect. Why it was a beautifully simple idea. No more need for smelly lotions, chemical gases, smoke or rolled-up newspapers, what to do to beat mosquitoes is to stick close to electronic mosquito repellent.

This project is to create an electronic mosquito repellent using ultrasonic sound. The electronic mosquito repellent circuit board will produce an ultrasonic sound. Ultrasonic sound are used to keep away from mosquito. Human beings can hear sound in the range of 20 Hz to 20 kHz. Sound of any frequency above 20 kHz is termed as ultrasonic sound. Several animals like cats, dogs, insects, mosquitoes have the feature of being able to hear this ultrasonic sound.

In mosquitoes, this feature is attributed to the presence of sensory structures in their antennae. The ultrasonic produces a stress on the antennae of the mosquitoes and repels them away. In other words, a simple circuit is designed which can produce ultrasonic in the frequency range of 20 kHz to 40 kHz, which can scare away mosquitoes.