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WIRELESS MOSQUITO REPELLER

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Abstract

As mosquitoes are one of fundamental source which prompts cause alarming infections. Lessening the mosquito individuals is progressively essential particularly in populated country. Different mosquitoes cause illness like intestinal difficulty, dengue, and so forth To execute these illnesses, individuals are utilizing different fixes like designed adversaries of experts which cause expansion in circulatory strain what's more mental crisis. As this design is innocuous to individuals as it produces ultrasonic sound waves. The recurrent degree of ultrasonic sound waves is in excess of 20 KHz which are ambiguous to people. The ultrasonic sound floods of rehash degree of 40 kHz are perceptible to mosquitoes and different bugs. Whenever mosquitoes and unmistakable startling little animals give, they persistently sense ultrasonic sound waves; they get bothered and are obliged to move far from that area. This framework can be sensibly used to trap and crush mosquitoes from different spots like home, schools, parks, grounds and affiliations. It is as of now basic to use distant mosquito enemies of specialists while going outside in Most of the waste zones. This endeavor is highlighted making on ultrasonic sensor which can give ultrasonic sounds to prevents mosquitos. Discard your risky compound enemies of specialists. The far off mosquito repeller is okay for pregnant woman and baby, Odorless, quiet and no radiation. Mosquito control uses ultrasonic repeat (18 to 30 KHz) sound waves to drive mosquitos. It isn't hard to pass on wherever

In 2008 there was a huge episode of Chikungunya fever in southern Thailand. Chikungunya fever is an arising infection which will in general influence elastic ranch and organic product plantation laborers more than other occupation. This investigation we considers the adequacy of utilizing mosquito repellent as an approach to forestall and control the spread of Chikungunya fever. The numerical model of the dynamic of this illness is proposed and investigated. Approach: A standard dynamical demonstrating technique was applied for investigation the dynamical model. The solidness of the model was controlled by utilizing Routh-Hurwitz measures.

1. DOMAIN INTRODUCTION

These days, most of diseases occurred due to mosquitos. In this present situations mosquitos are the main region for causing fearful diseases. For decrease the mosquitoes in this nation is much more important ,these causes several types of diseases like malaria, dengue, sickness etc.so as to control this disease peoples are using so many anti-bacteria's it causes so many defects to our body and makes our body weakness. Wireless is harmful to humans because it produces frequency according to distance it produce the frequency. The ultrasonic wave produce the 20khz.whenever the mosquitoes will appear to ultrasonic sensor it will move away from the locally this system can be destroy the mosquitoes from various place like drainage, ponds, canals, homes and many places.

2. WIRELESS MOSQUITO REPELLER USING ARDUINO

- In this we are going to show you how to build a mosquito repeller using an Arduino. The repeller is in the form of a shield that plugs into the Arduino board and the frequency of the repeller can be changed easily.
- This project is ideal if you are going camping or hiking outdoors, this device produces a

sound of 31 KHz Frequency.

- which acts as a mosquito repellent. The frequency of this device can be adjusted and at 23 KHz to 54 KHz it also acts as a dog whistle. Human ears are not sensitive to these frequency range.

2. 1. Mosquito repellents for malaria prevention

Marta Maia [2015] : Malaria is an important cause of illness and death a cross endemic regions . Considerable success against malaria has been achieved with in the past decade mainly through long lasting insecticide treated nets. However elimination of the device is proving difficult as current control methods do not protect against mosquito biting outdoors and when people are active .repellents may provide a personal solution during this times. And the main object of this project is to assess the impact of topical repellents, insecticide treated clothing, and spatial repellents on malaria transmission

2.2Iot based smart mosquito killing system

P .Vijay Kumar[2019]:This undertaking is utilized to diminish the number of inhabitants in mosqutioes by catching and slaughtering them is been illustrated. Also, here the segments are UV light, ultra sonic sensor, and electrified barrier with driver and used to murder the mosquito which creates the framework can be constrained by turning it on and off . This framework is for slaughtering mosquitoes is created to handle the issues present in the current frameworks utilized in our day by day life. This will assist you with staying away from the spreading of sicknesses like jungle fever, dengue, and so forth and keep everybody healthier.in the light of that reality mosquitoes which will actually want to specifically flip different units if any mosquito is caught.

2.3MOSQUITO REPELLENT CIRCUIT

Swetha[2021]:This project is used to reduce the population of mosqutioes by trapping and killing them is been demonstrated. And here the components are UV light, ultra sonic sensor, and electric fence with driver and used to kill the mosquito which makes the system can be controlled by switching it on and off . This system is for killing mosquitoes is developed to tackle the issues present in the current systems used in our daily life. This will help you to avoid the spreading of diseases like malaria, dengue, etc and keep everyone healthier.in the light of that fact mosquitoes which will be auditory senses of pets such as mosquitoes, rodents, avain and nocturnal insects by making them uncomfortable in their abode. However these frequencies do not affect the hearing ability of humans. This electronic mosquito repellent is based on the 555 timer IC is a simple ans generates an ultrasonic sound with a high output frequency 20-38 KHz that allows spreading mosquitoes with in a wide radius.

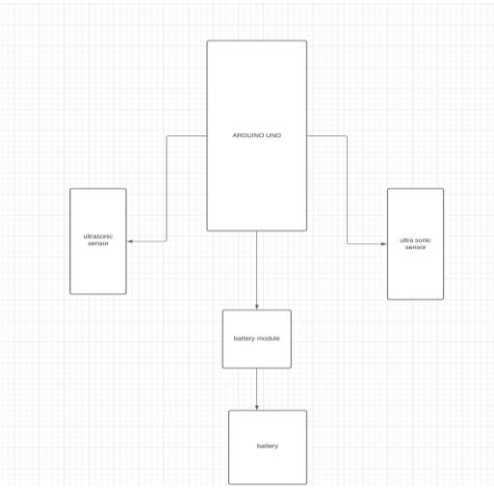

Fig-3.1 Block diagram

This is the block diagram for our project and this will be implementing in the form of prototype also so if we plan something definitely we should know what should be connected and where it should be connected so with the help of this our work process will be completed according to this. We will be providing the power supply to the arduino and the board come in to active stage to work and provide power supply to other components in the connected ultrasonic sensor is used to repells the mosquitoes around you.

3.1.1 ARDUINO

In this instructable we are telling the best way to deliver a mosquito re peller using an Arduino. The repeller is as a guarantee that accomplices with the Arduino board and the repeat of the repeller can be changed with no issue.

•This project is ideal a sound of 31KHz Frequency which goes no doubt as a mosquito repellent. The repeat of this contraption can be changed and at 23kHZ to 54 kHz it moreover goes apparently as a canine whistle. Human ears are not fragile to these

Fig-3.2 Arduino

3.1.2 ULTRASONIC SENSOR:

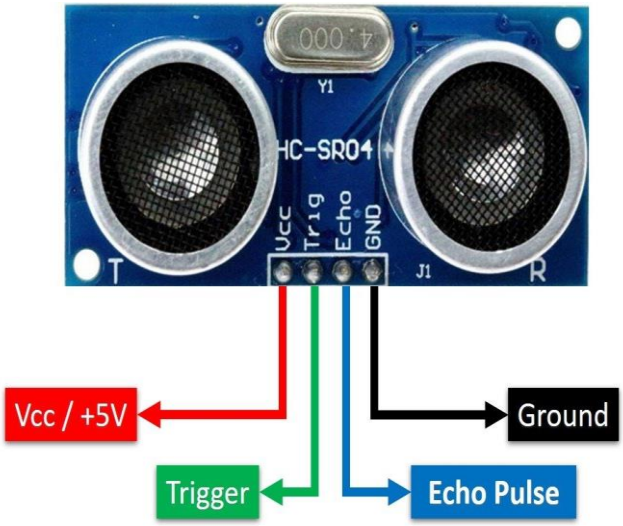

Fig-3.3 Ultrasonic sensor

Sound of any recurrence over 20 kHz is named as ultrasonic sound. A few creatures like felines, canines, creepy crawlies, .this ultrasonic sensor is used in this project is passes the ultrasonic frequency .to avoid the mosquitos in our Living area.

3.1.3 BATTERY MODULE:

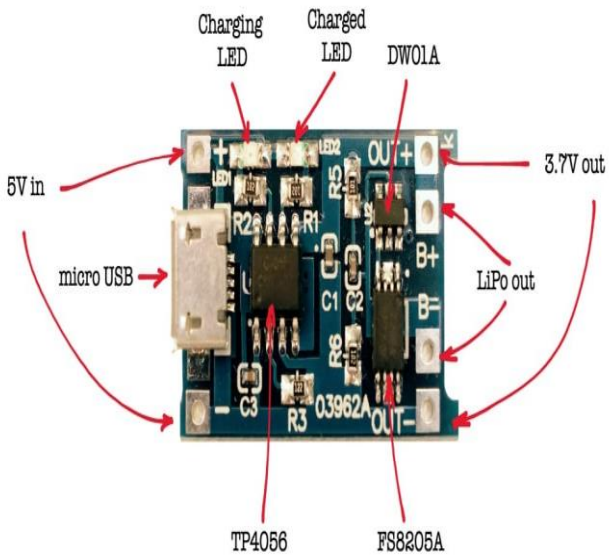

Fig-3.4 Battery Module

Lithium-Ion and Lithium-Polymer cells may detonate if a shorted, cheated, charged, or released with too high flows. TP4056 module is a mix of charger and security for single cell 3.7V lithium batteries. Thus this module will screen the voltage level of the lithium battery during charging and releasing

4. RESULT AND DISCUSSION

4.1 RESULT:

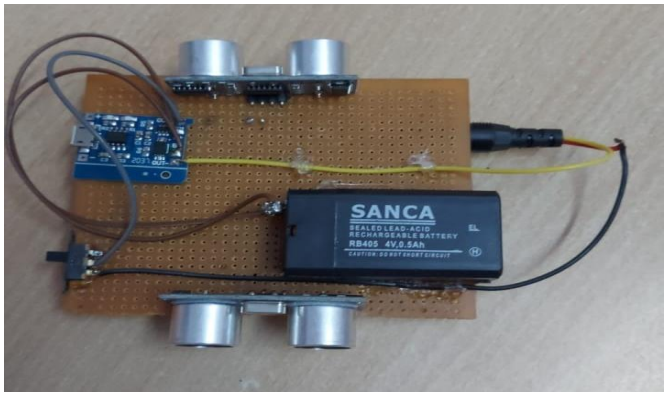

Fig- 4.1 Hardware setup

Once the device turned on with triggers ultrasonic waves at a frequency 30-40 KHz that repelles the mosquitoes. This device is user friendly and easy to carry by using this repeller we can prevent the mosquitoes. By avoiding the mosquito bites we can prevent the diseases like malaria, dengue etc.

4.2 DISCUSSION

We had proposed a system that prevent from the mosquitoes, which will Testing the device for many times and the evaluations showed that the sensors, Arduino and the ultrasonic sensors are giving a fast . The feature of the system is that the ultrasonic sensor can operate for longer duration and also can prevent from a 10 meters range as well. By using Arduino uno can be implemented in a smart city and villages. .by using this device we can prevent causing mosquito bites .we can avoid the diseases causing like malaria, dengue, etc. By avoiding mosquito bite.Values of frequency may raise or fall, this is based on the value on distance measure by the ultrasonic sensor.

5. CONCLUSION:

Once the battery device turned on the current supply will pass ,when the switch is on the current will pass through the battery module and triggers ultrasonic waves pass at a frequency 30-40 KHz that repelles the mosquitoes according to frequency it will emmits the frequency range . This device is user friendly and it can't cause any diseases mainly for pregnant women and children and easy to carry by anywhere using this repeller we can prevent the mosquitoes. By avoiding the mosquito bites we can prevent the diseases like malaria, dengue etc.

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