

NOISELESS VEHICLE HORN SYSTEM



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CURRENT SCENARIO OF NOISE POLLUTION

“Noise must be recognized as a major threat on human being”

- Memory loss, depression
- Vehicle horn system a major role in noise pollution.
- The noise pollution is not a unique problem for developing countries like India only. In China, till third century B.C., instead of hanging men for dangerous crimes, noise was used for their torturing.
- Reports says that 16% of people in world are exposed to 40 dB or more of traffic noise around their environment.

Sources of noise

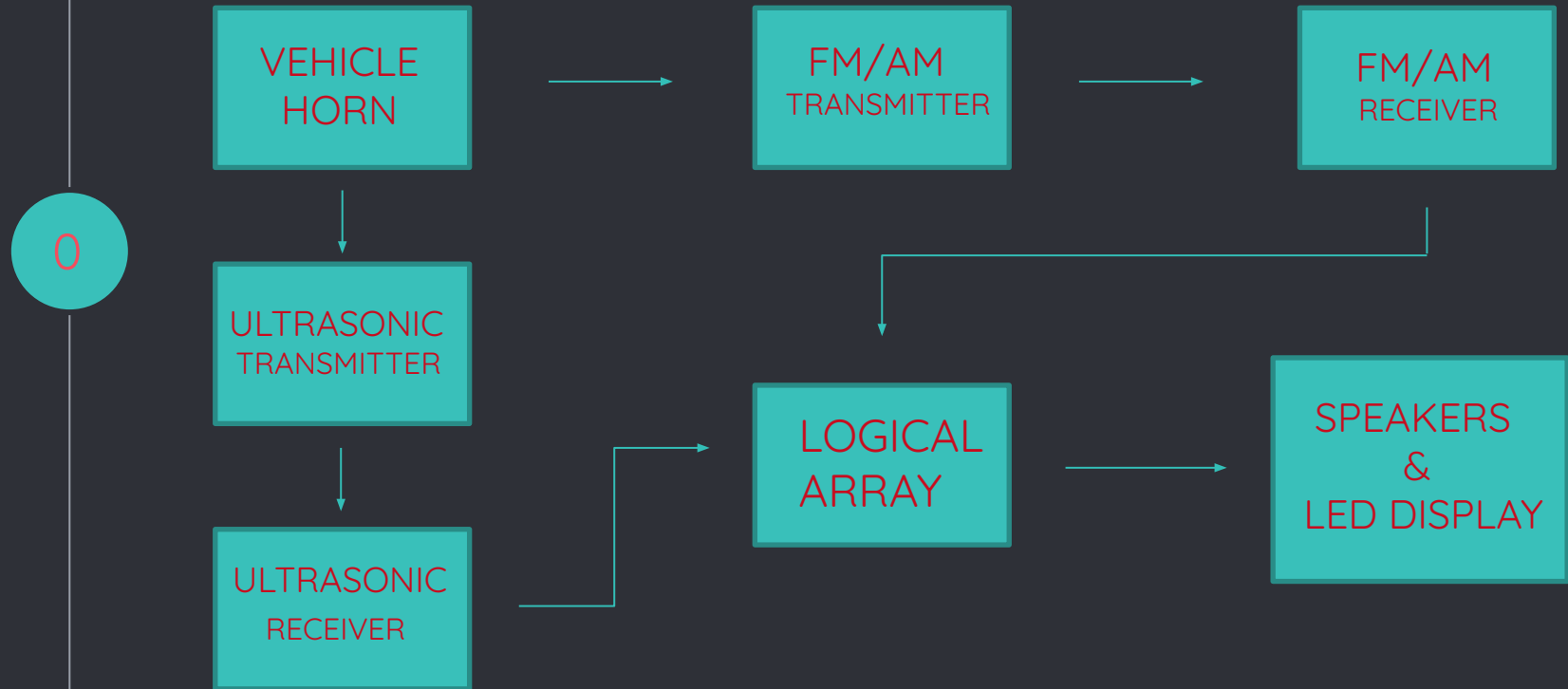
Source of noise	Pollution in percentage
Automobile Noise	60
Loud Speakers	30
Religious functions	10

• Abstract

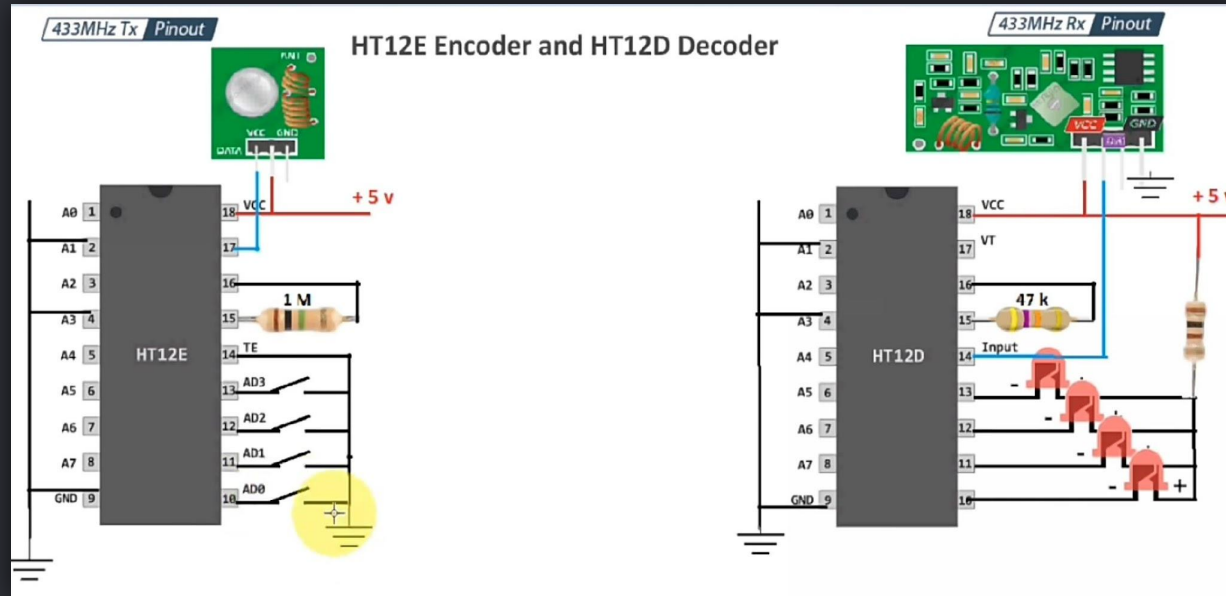


Our project is about noise control. As, noise pollution has been increased due to raise in demand of automobile industry. Noise of horn has become a major issue for human beings and wild life also, to overcome this our design of horn uses RF & Ultrasonic sensors that will blow horn inside a vehicle. So that reduction in noise pollution is around 30-40%. This smaller design would be a great for better world of tomorrow.

BLOCK DIAGRAM



RF CIRCUIT DIAGRAM

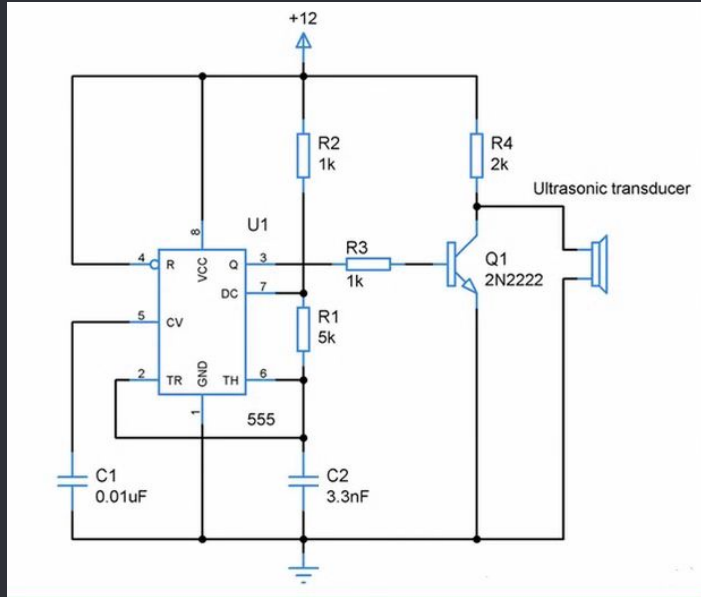


Components in use :-

- RF transmitter & receiver modules of 433khz
- HT12E encoder & HT12D decoder

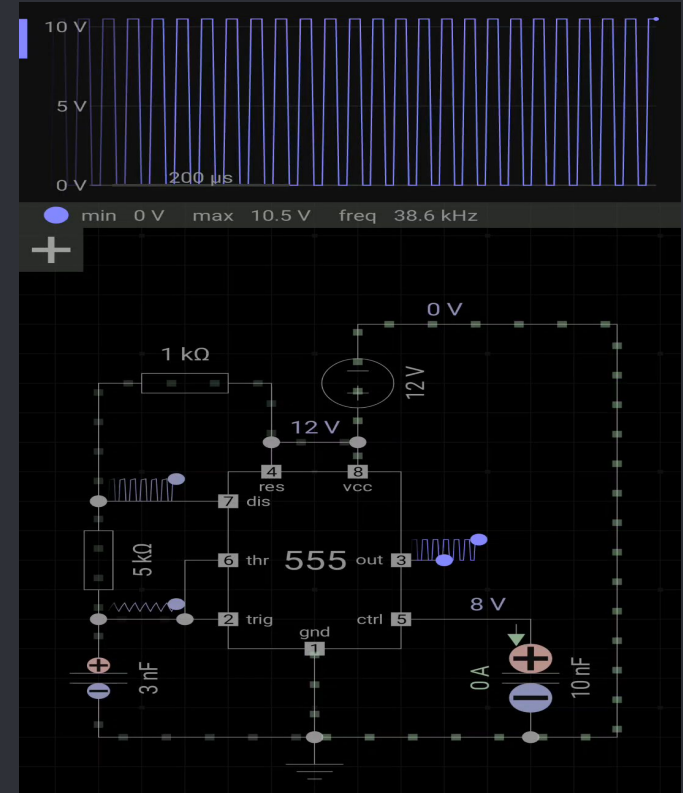
ULTRASONIC TRANSMITTER CIRCUIT DIAGRAM

2



Components in use :-

- ULTRASONIC transmitter
- 555 Timer [Astable Multivibrator 40KHz]

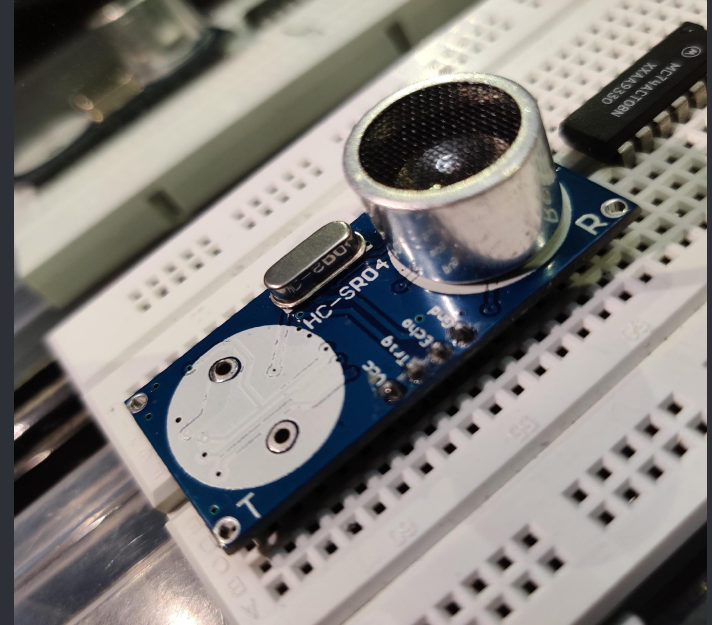


ULTRASONIC RECEIVER

HC-SR04 MODIFICATION

3

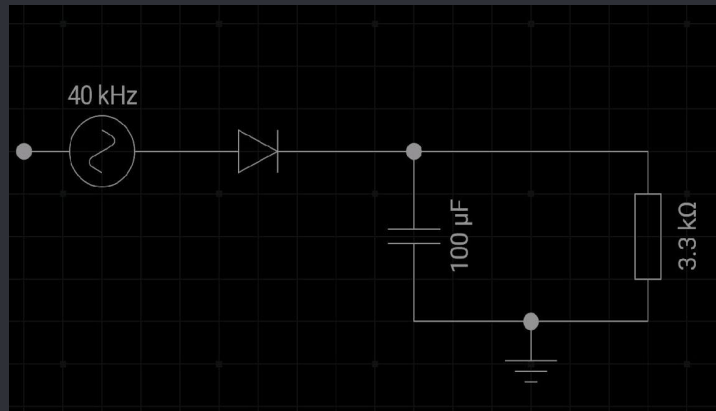
- Datasheet-working
- Desoldered Transmitter
- Use for Receiving
- Peak Detector





PEAK DETECTOR

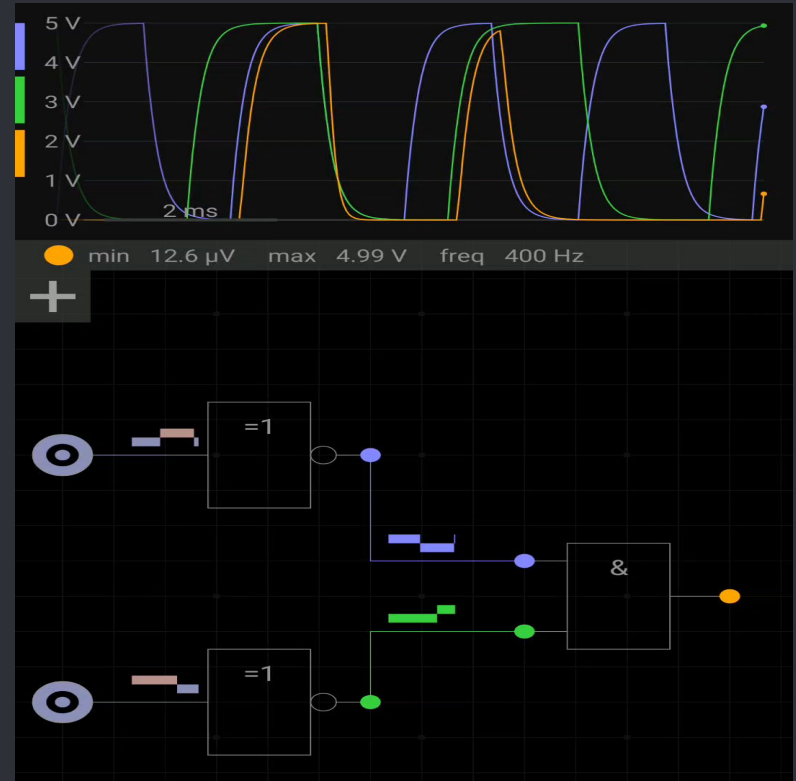
Convert Sinosoidal wave into DIGITAL
Logic level



LOGICAL ARRAY

4

- Active Low
- Not Gate
- And Gate
- Logic

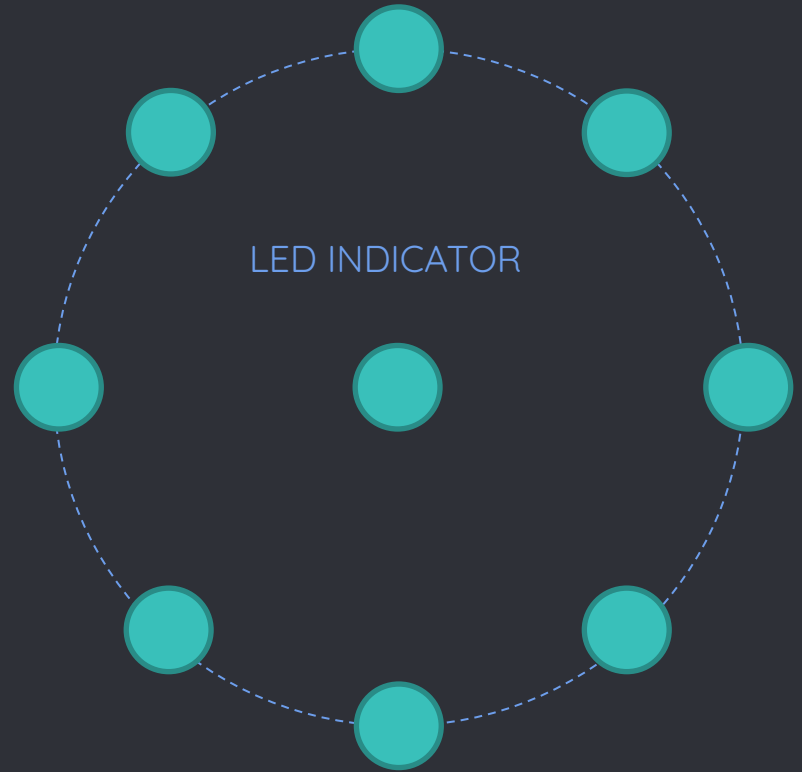


- WORKING



• INDICATOR

- Distance
- Direction
- Buzzer



Practicalities

Usefulness

- Reduce noise pollution upto 30-40%.
- Reduce noise in wild life areas.
- Reduction in accidents.
- Good for automobiles
- Cost Efficient

Disadvantages

- Should be necessary for every automobile.
- No use for pedestrian
- Applicable on highways only

- Estimated Cost

Ultrasonic Sensor Module	80x4
RF module	200x1
Integrated Circuits	100
Other Components	200
Total	820

- Datasheets

- 555 Timer
- Encoder
- Decoder
- RF module
- Ultrasonic module
- AND GATE
- NOT GATE

Thanks!

ANY QUESTIONS?

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