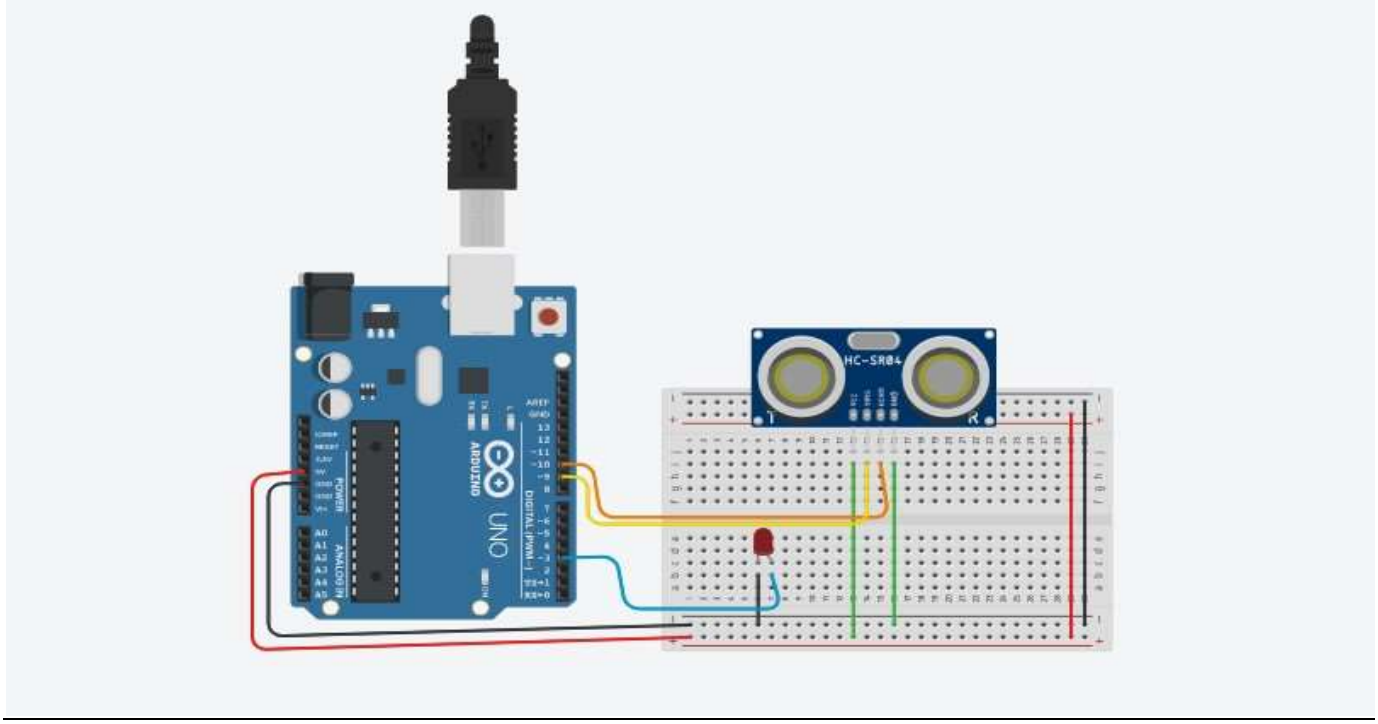
Obstacledetector and distance measuring device.



Concept Used :-

1) The obstacle detector works on the principle of transmitting and receiving the Ultrasonic signal, and calculating the distance by measuring the time between transmitting and receiving the signal.

2) VCC terminal of ultrasonic sensor is connected to the 5V supply to get voltage.

3) TRIG pin is connected to the 9 number digital pin and it produces ultrasonic wave.

4) ECHO pin is connected to the 10 number digital pin and it receives the reflected back wave.

5) If the distance is greater than 20cm then lED glows.

Learning and Observations :-

1. Connection between the arduino and Ultrasonic signal transmitter IC
2. Concept of calculation of distance on the basis of signal transmission and receiving.
3. Coding to be done for Arduino.
4. Basic understanding of Electrical Connections.
5. What's inside the Ultrasonic Signal Transmitter IC.

Problems and Troubleshooting:

- *Making a functional was a bit time taking as it becomes a bit confusing on arranging the wires.*
- *Minors errors showed up in the code during the test run, which was trouble shooted by the correcting the above.*

Precautions:-

1. Using multimeter to check whether the devices are damaged or not.

2. Correct sets Making correct connection

3. of instructions to be passed to successfully execute the experiment.

4. Port selection for Arduino.

Learning and Outcomes:

1)I have learnt to make circuits using breadboard, Arduino board and other equipment.
2)I have learnt to make other type of gadgets related to this concept.
3)I have learnt how we can use the Arduino board for doing various tasks.
4)I have learnt about the elements of Arduino board and its functions.