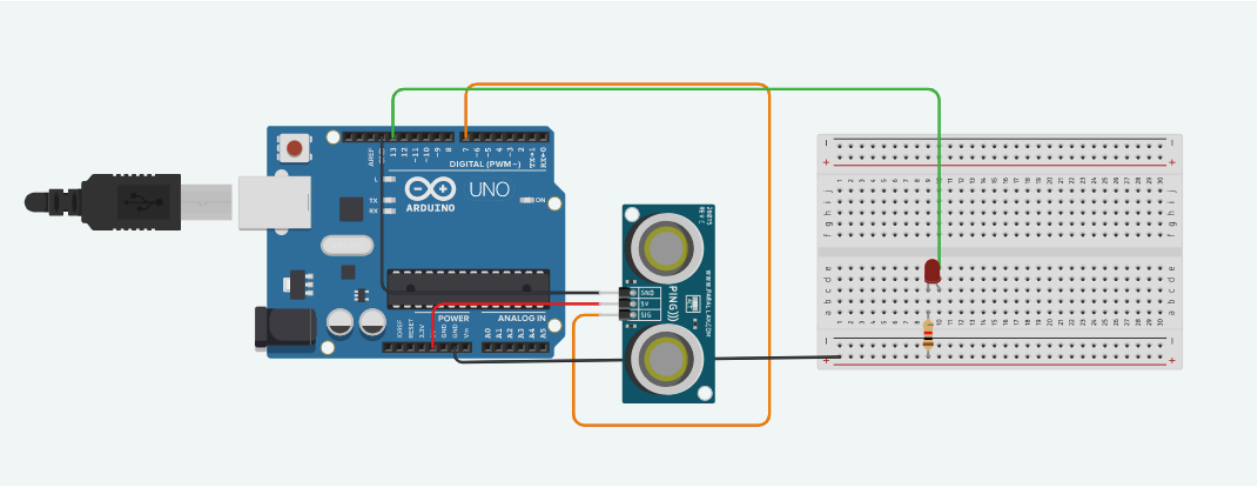
Exp. 6 obstacle

Circuit Diagram:



Theory:

Concept Used: Ultrasonic sensor is a device that can measure the distance to an object by using sound waves. It measures distance by sending out a sound wave at a specific frequency and listening for that sound wave to bounce back. By recording the elapsed time between the sound wave being generated and the sound wave bouncing back, it is possible to calculate the distance between the sonar sensor and the object.

Learning & Observations: through this experiment we learned about the working of ultrasonic sensor and how to measure distance using it.

Problems & Troubleshooting

1. Some errors in the circuit like connection of wires to the wrong ports were to be corrected in order to attain a working circuit.
2. Errors in the code for pin connections occurred that were resolved after some corrections.

Precautions

- Check every connection twice.
- Grounds should be connected, unless you know you want them separated.

- Don't plug in an LED without a current limiting resistor.
- Don't plug it into unknown circuit.

Learning Outcomes

- Familiar with Arduino environment and its applications.
- Getting familiar with the working of light sensor.
- Able to Design Smart systems applications.