Lab Report-2

Group: 02

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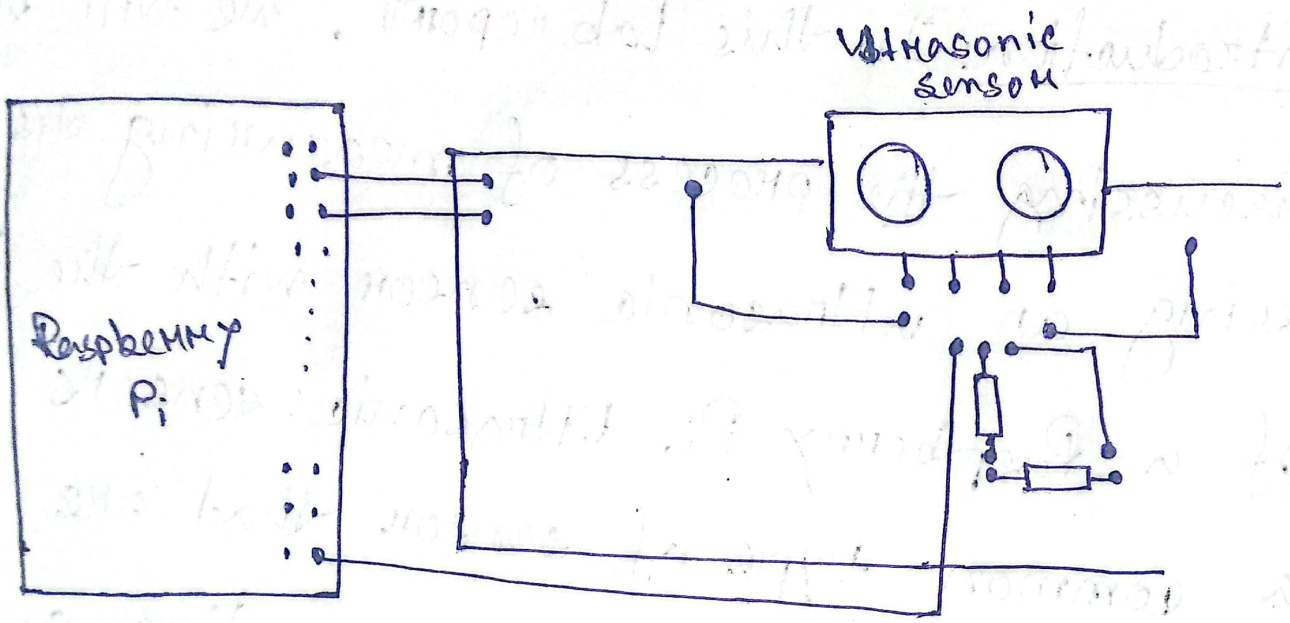
Title: Measuring Distance Using Ultrasonic Sensor..

Introduction: In this lab report, we will be discussing the process of measuring distance using an ultrasonic sensor with the help of a Raspberry Pi. Ultrasonic sensors are a common type of sensor that are used for measuring distances by sending out sound waves and measuring the time it takes for them to bounce back. The aim of this lab is to demonstrate how to use an ultrasonic sensor with Raspberry Pi to measure distance accurately.

Circuit Diagram:



Result: After applying the python code the ultrasonic sensor is able to output the distance of any object from the sensor to the object accurately in c.m.

Answer: In this lab, we have used two resistors 1K and 1.5K.
Here the LED has a forward voltage and forward current rating. To prevent the LED from drawing too much current and potentially getting damaged, a current limiting registores are used with the Led.

Conclusion: This lab is a proper demonstration of measuring distance of a object using ultrasonic sensor and raspberry pi. It also includes the basics of ultrasonic sensor and how it can be used.