Conclusion

Experiment - 1:

To control an RGB LED using an IR sensor and an IR remote, you need to program your Arduino to read the signal from the IR sensor and then change the color of the RGB LED based on the received signal. For example, you can program your infrared remote control to cause the RGB LED to change to a specific color when the button is pressed.

Experiment - 2:

To measure the distance to the problem using the ultrasonic sensor and put it on the meter, you need to program the Arduino to send a pulse through the ultrasonic sensor and measure the time it takes for the pulse to repeat. This time can be changed remotely and displayed on the monitor sequentially.

Experiment - 3:

To use the ultrasonic sensor to measure the distance to the problem and turn on the LED when the distance is less than 100cm, you first need to program the Arduino to measure the distance using the ultrasonic sensor. Arduino can turn on the LED if the measuring distance is less than 100cm.

In short, by following the steps below, you will be able to control RGB LEDs using the IR sensor and remote, measure the distance between objects using the ultrasonic sensor, and display the distance on the serial monitor. . Also, if the distance is less than 100cm, the LED will turn on.