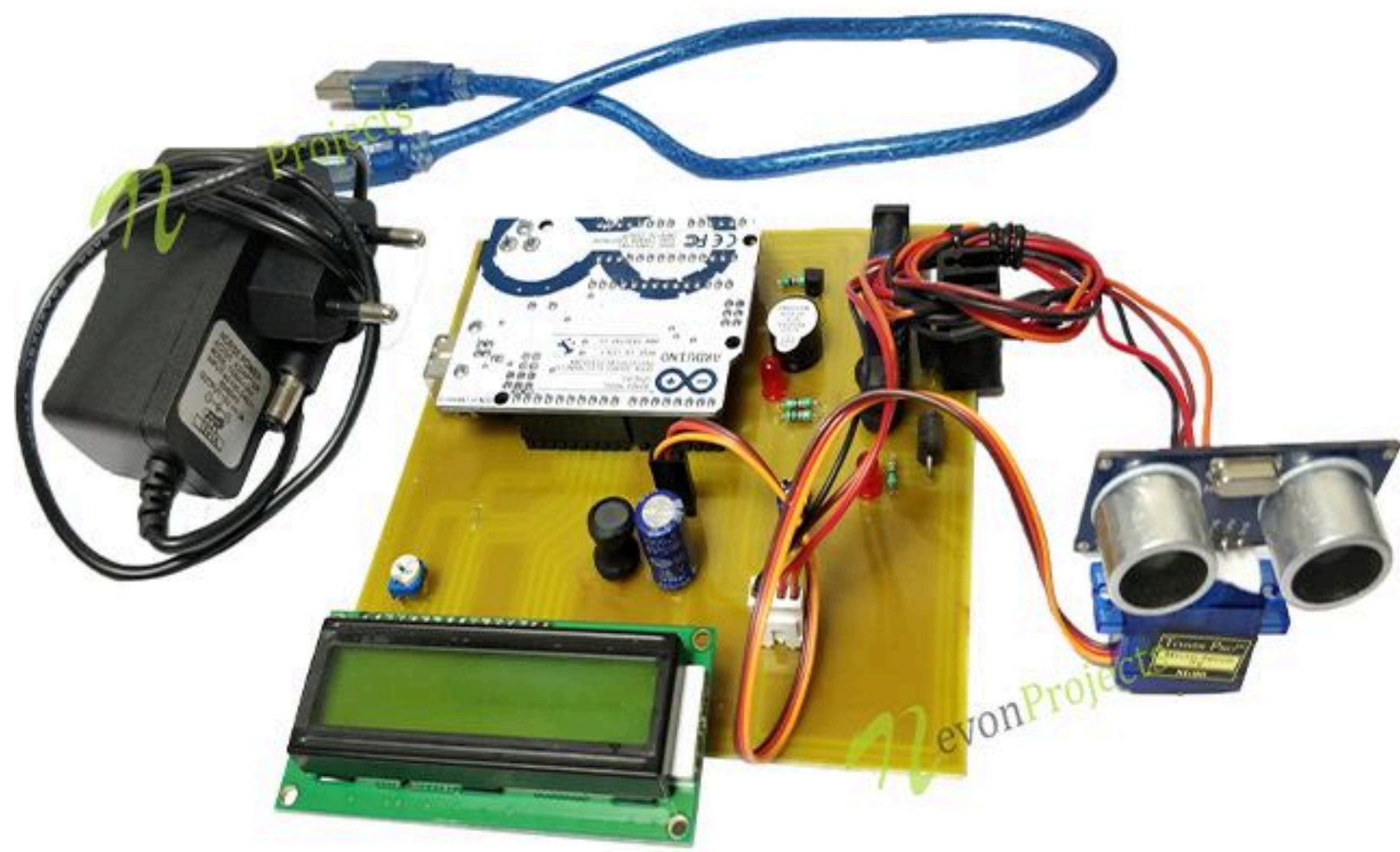


Aurdino ultrasonic sonar/radar monitor project



Step 1: Gather Materials

Collect all necessary components such as an Arduino board, ultrasonic sensor (HC-SR04), display (LCD or OLED), jumper wires, breadboard, and resistors.

Step 2: Connect the Ultrasonic Sensor

Wire the ultrasonic sensor (HC-SR04) to the Arduino board. Connect the VCC and GND pins, and then connect the Trig and Echo pins to the respective digital pins on the Arduino.

Step 3: Connect the Display

Wire the display (LCD/OLED) to the Arduino board. Ensure proper connection of the VCC, GND, SDA, and SCL pins for communication between the Arduino and the display module.

Step 4: Write and Upload Code

Write an Arduino program to trigger the ultrasonic sensor, measure the time it takes for the echo to return, and calculate the distance. Display the distance on the connected display.

Step 5: Test the System

Upload the code to the Arduino and test the setup. Point the ultrasonic sensor at objects and observe the distance readings on the display. Make sure the sensor detects objects within range.

Step 6: Optimize the System

Adjust the sensitivity or range of the sensor and calibrate the display output. Ensure the system functions smoothly in different environments.

Step 7: Add Radar Effect (Optional)

To enhance the radar effect, you can add a rotating motor to rotate the sensor and continuously scan the surrounding area. Update the code to handle the scanning logic and display radar-like visualization.

Step 8: Final Assembly

Mount the ultrasonic sensor on a rotating base or fixed position and secure the display. Connect everything in a compact and safe enclosure for a finished working radar monitor.