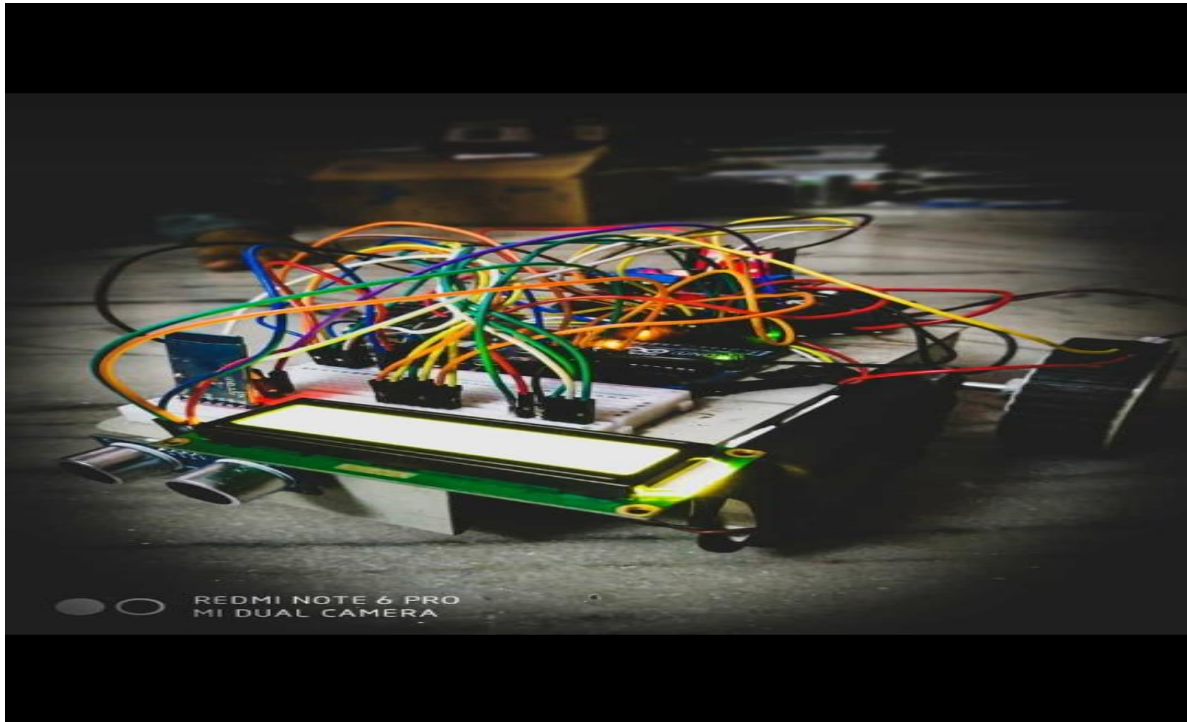


Bluetooth Contrlled Obstacle Avider

With LCD Display

As the name indicates, a Bluetooth controlled obstacle avoider is an automated device/bot that detects any obstacle in a pre defined range . Not only detects but



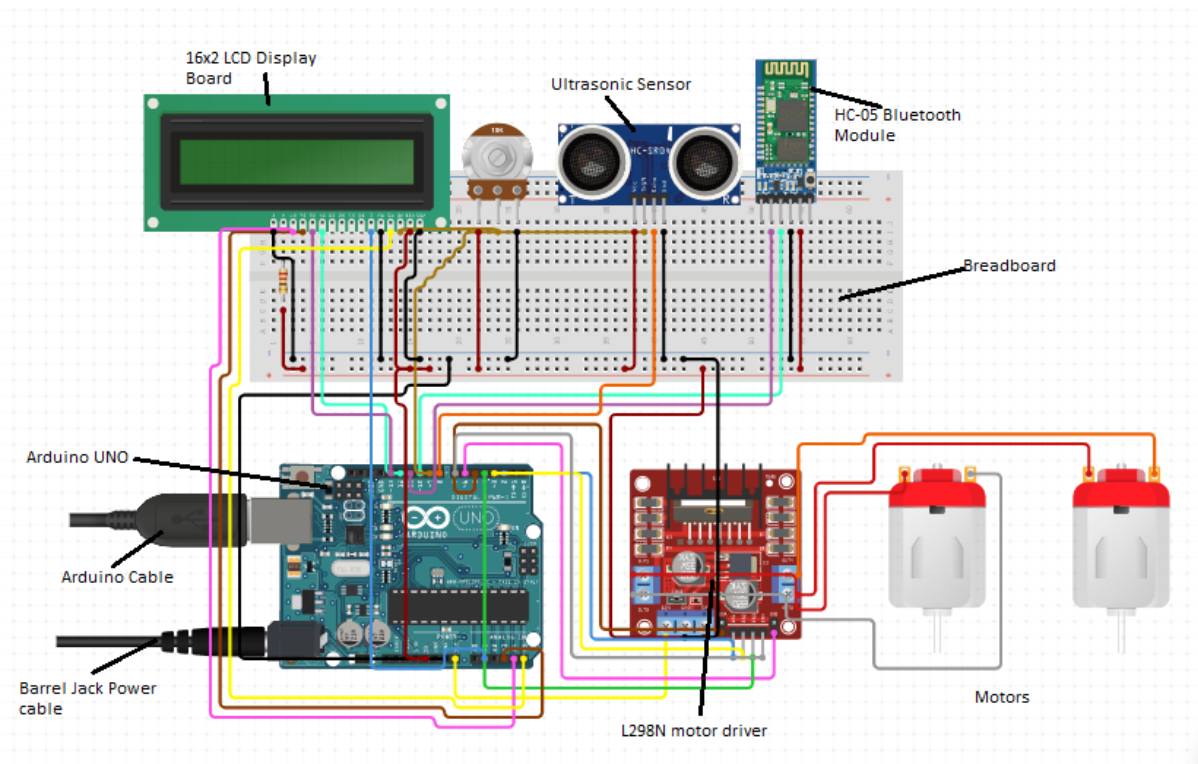
It also avoids and chooses another path to proceed. So here the algorithm used is quite tricky. At first lets take a look at the hardwares used.

Hardwares:

1. Arduino UNO (most needed :P)
2. Ultrasonic sensors
3. L298N motor driver
4. 16 x 2 LCD display board
5. HC-05 Bluetooth Module

Ok, so these were the hardwares needed. Another essentials are:

1. Two 12v 300rpm motors
2. Jumper wires
3. Chasis
4. Wheels
5. Breadboards
6. Two 12v Rechargeable battery



Working:

As I've shown the circuit connections, the main function of the Bluetooth module is to manually control the bot from any smartphone or any other device. It connects the arduino with controller. The ultrasonic sensor detects the distance of any obstacle from the bot, and displays it on the LCD board. If the distance is less than the specified distance, then it shows a warning on the display. Simultaneously the motor driver gets the input from the arduino and drives the motors according to the controller.

Now let's take a quick look at the algorithm.

Algorithm:

Step1: Measure the distance of the nearest obstacle.

Step2: Is the distance greater than the specified distance?:

Yes: Take another path

No: Keep Going

Step3: Is "stop" button pressed?

Yes: Halt

No: Go to step1

You can find the code at :

<https://github.com/RDUnstable/C-C-pros/blob/master/distance.ino>

So, after uploading the code to the arduino through the cable, you can control the bot yourself. Make sure that all the connections are well made and the RX and TX pins of Arduino must be kept open while uploading. You have to install an arduino controller app from Google play store to control it.

Precautions to be taken:

Here are some precaution you must be aware about:-----

1. Maintain the polarity of the battery while connecting to motor driver. Otherwise burnout may happen.
2. RX and TX must be opened while uploading the code.
3. Avoid the battery terminals from touching each other.
4. Jumper wires must be handled carefully to avoid breaking of pins.