AOAR

AUTOMATIC OBSTACLE AVOID ROBOT

PREPARED BY:

KISHAN RAJPUT (156170311097)

SHYAMSUNADAR PATEL (156170311084)

PRIYAMJIT PAUL (156170311087)

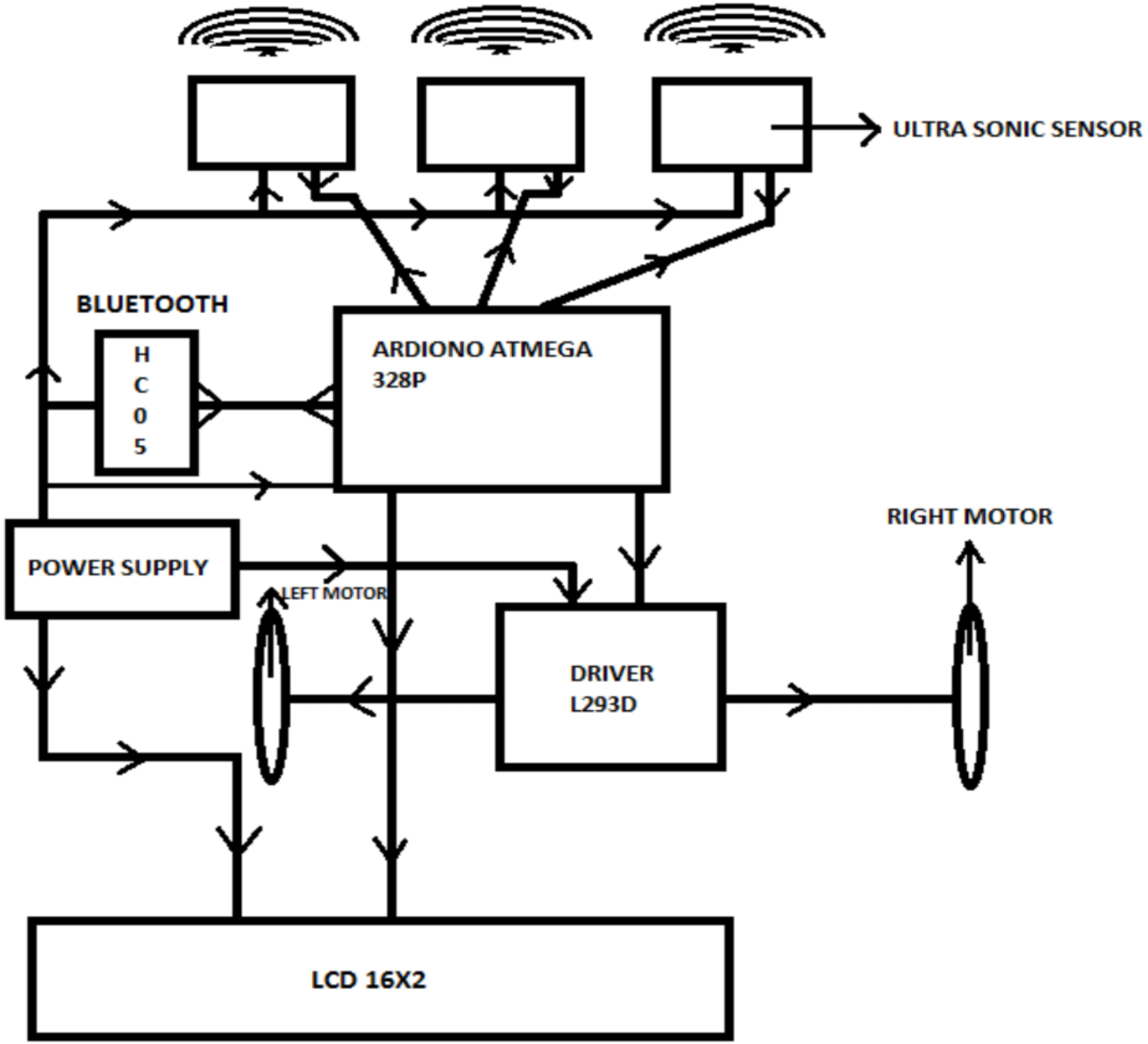
GUIDED BY:

MS. J. A. CHAUHAN

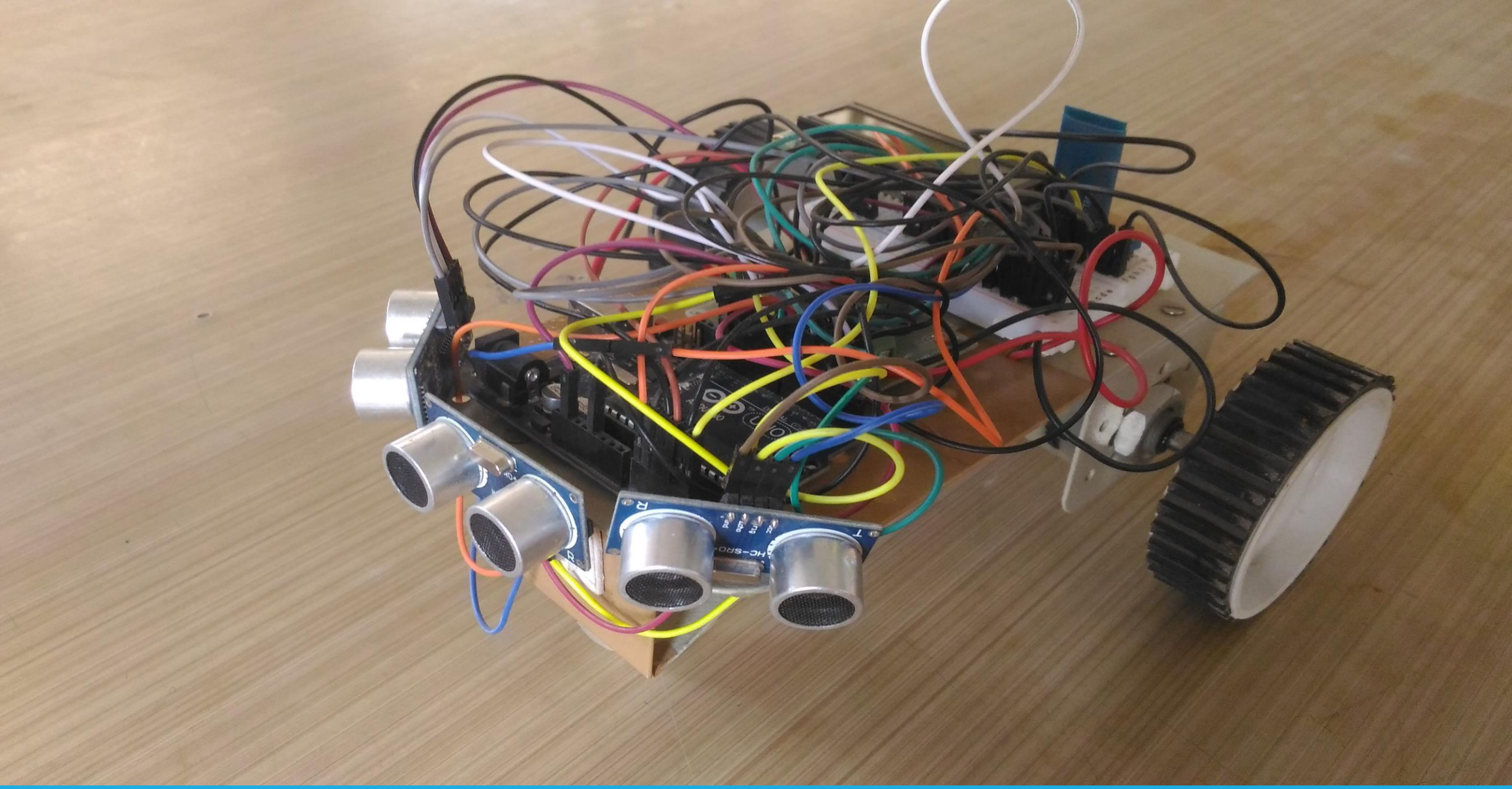
INTRODUCTION

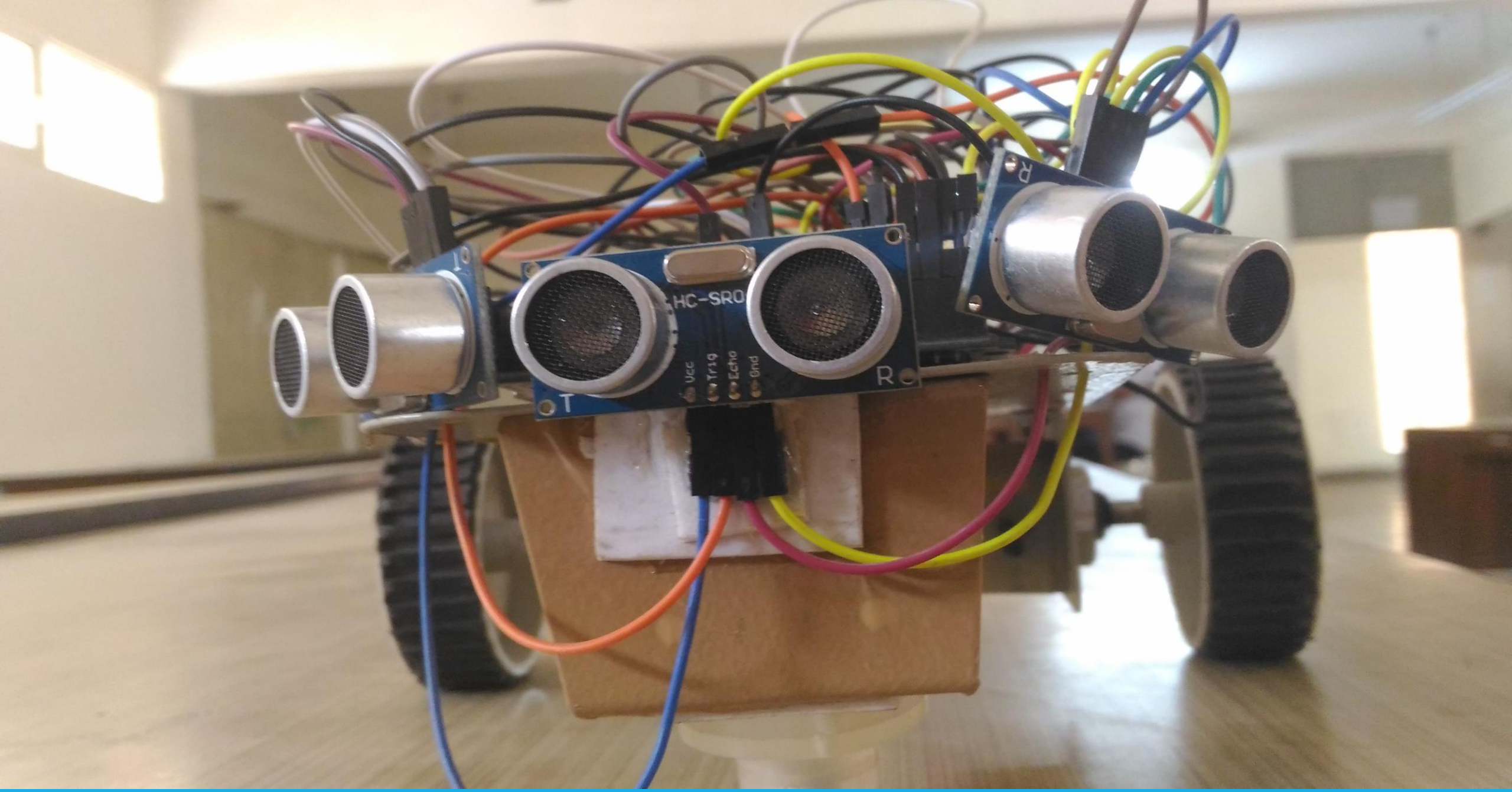
- This is an **A**utomatic **O**bstacle **A**void **R**obot.
- Includes
  - 3 sensors
  - Bluetooth
  - 16x2 LCD
  - 2 Geared Motor
  - Arduino
- It's just a simple robot which moves in two mode AUTOMATIC and MANUAL.
- In MANUAL mode it is controlled by android app.
- In AUTOMATIC MODE it moves automatically just by taking values from ULTRASONC SENSOR.

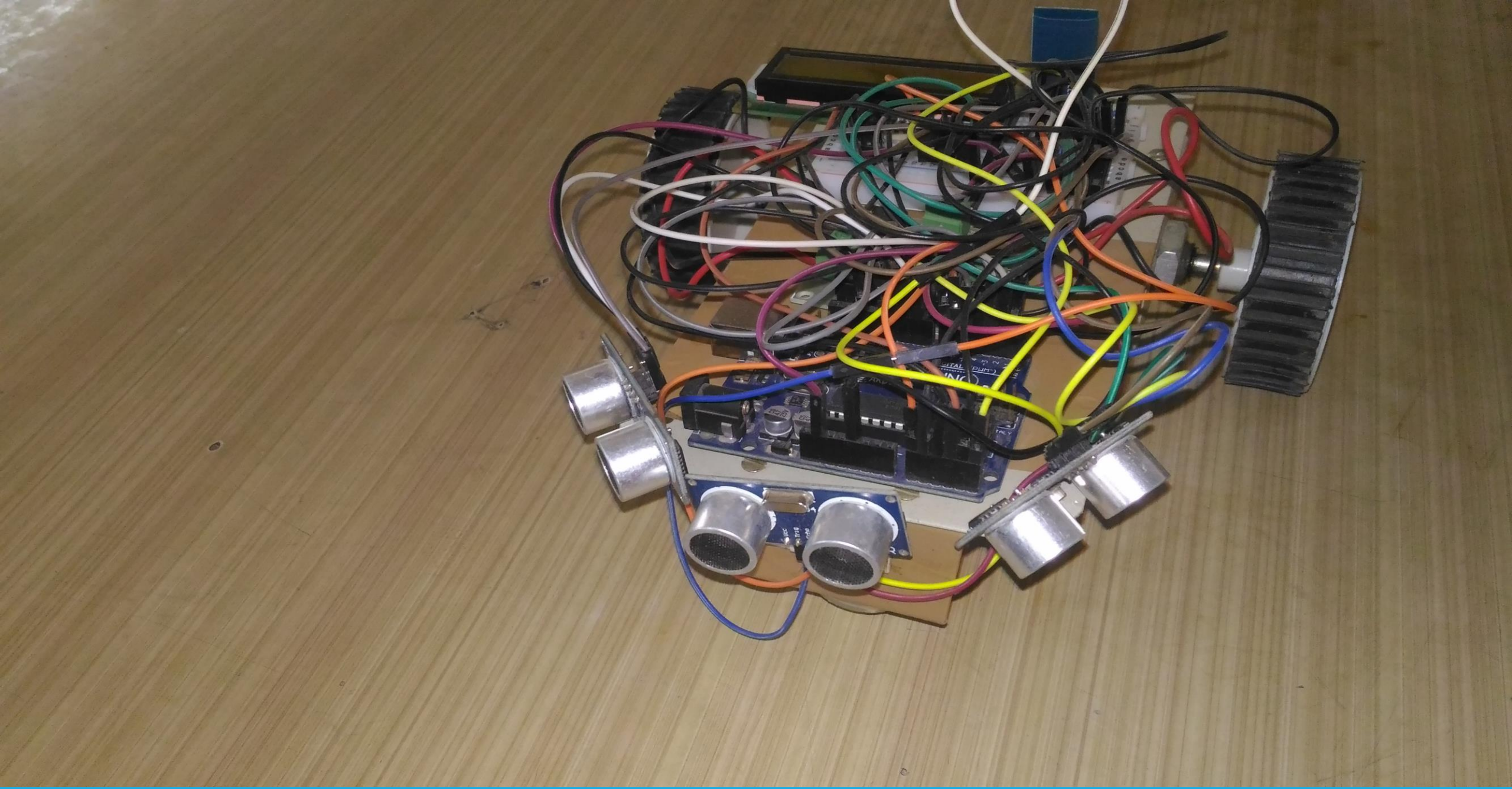
BLOCK DIAGRAM


ULTRA SONIC SENSOR
BLUETOOTH
H
C
0
5
ARDIONO ATMEGA
328P
RIGHT MOTOR
POWER SUPPLY
LEFT MOTOR
DRIVER
L293D
LCD 16X2

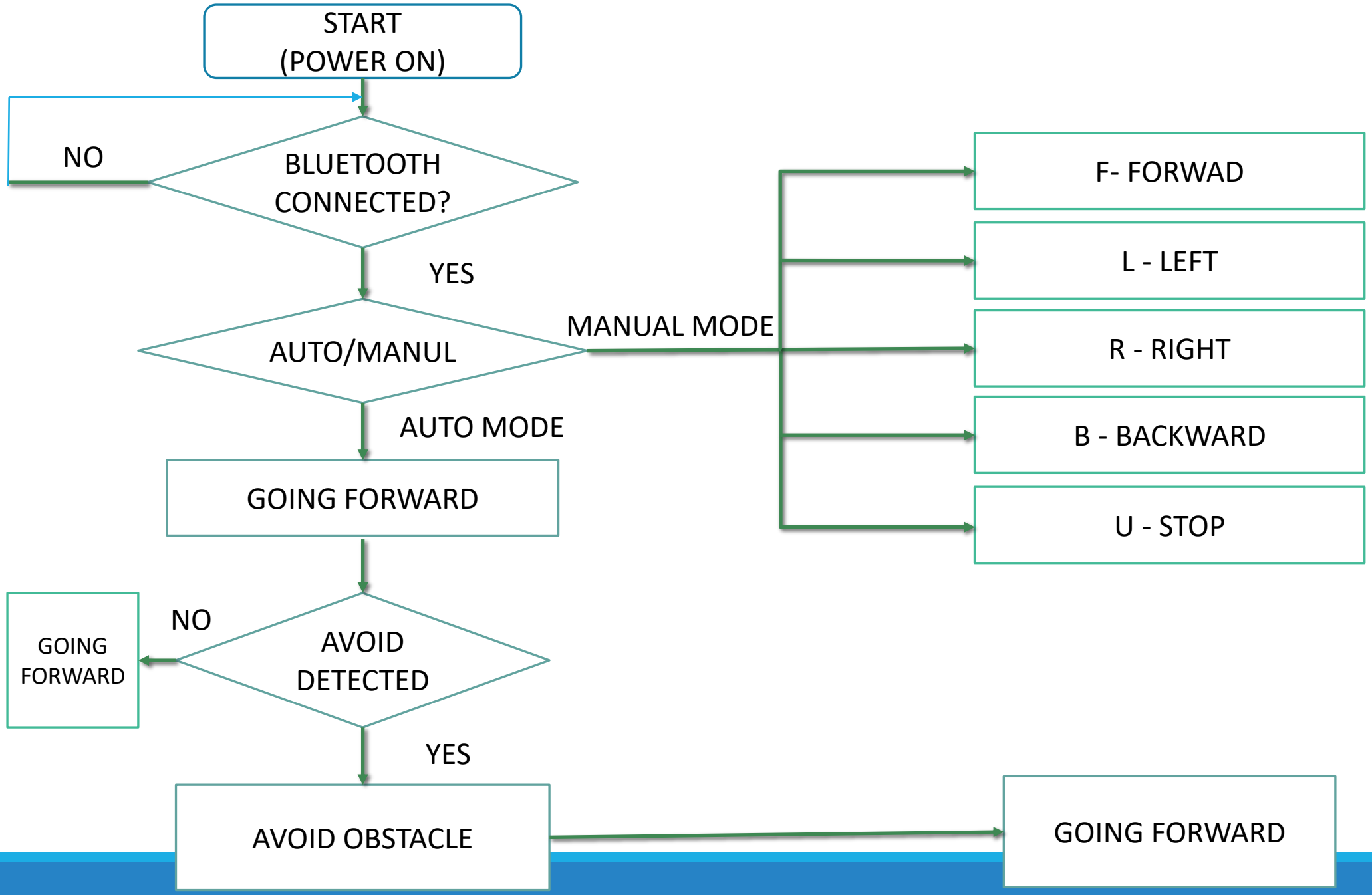
Photographs




HC-SR0
Vcc
Trig
Echo
Gnd
T
R



FLOW CHART


START
(POWER ON)
NO
BLUETOOTH
CONNECTED?
YES
AUTO/MANUL
MANUAL MODE
F- FORWAD
L - LEFT
R - RIGHT
B - BACKWARD
U - STOP
AUTO MODE
GOING FORWARD
NO
GOING
FORWARD
AVOID
DETECTED
YES
AVOID OBSTACLE
GOING FORWARD

Applications

- IN RESCUE.
- To LOCOMOTE HEAVY INSTRUMENT.
- AUTOMATIC GUIDED VEHICLE.
- AS A TOY:)

Future expansion

- Can interface a GPS.
- Can interface a CAMERA.
- Back SENSOR can be installed in advanced version of ARDUINO
- Can use it as a AUTOMATIC GUIDED OBSTALE AIR VEHICLE.

thank you!

QUESTION

Your Logo