OBSTACLE AVOIDANCE WITH BLUETOOTH AND VOICE CONTROL

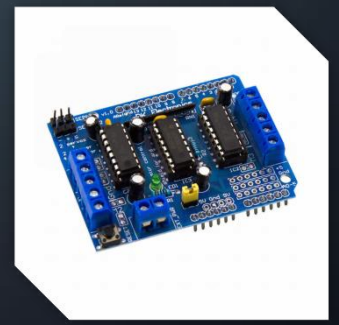
INNOVATIVE NAVIGATION TECHNOLOGY

OVERVIEW :

Our DIY, which can avoid obstacle using Arduino UNO through Bluetooth and voice control is a method that employs technology to navigate and steer a device or system around physical obstacles. This implementation which gives emergency stop mechanisms or fail safes to prevent collisions.

SETUP COMPONENTS :

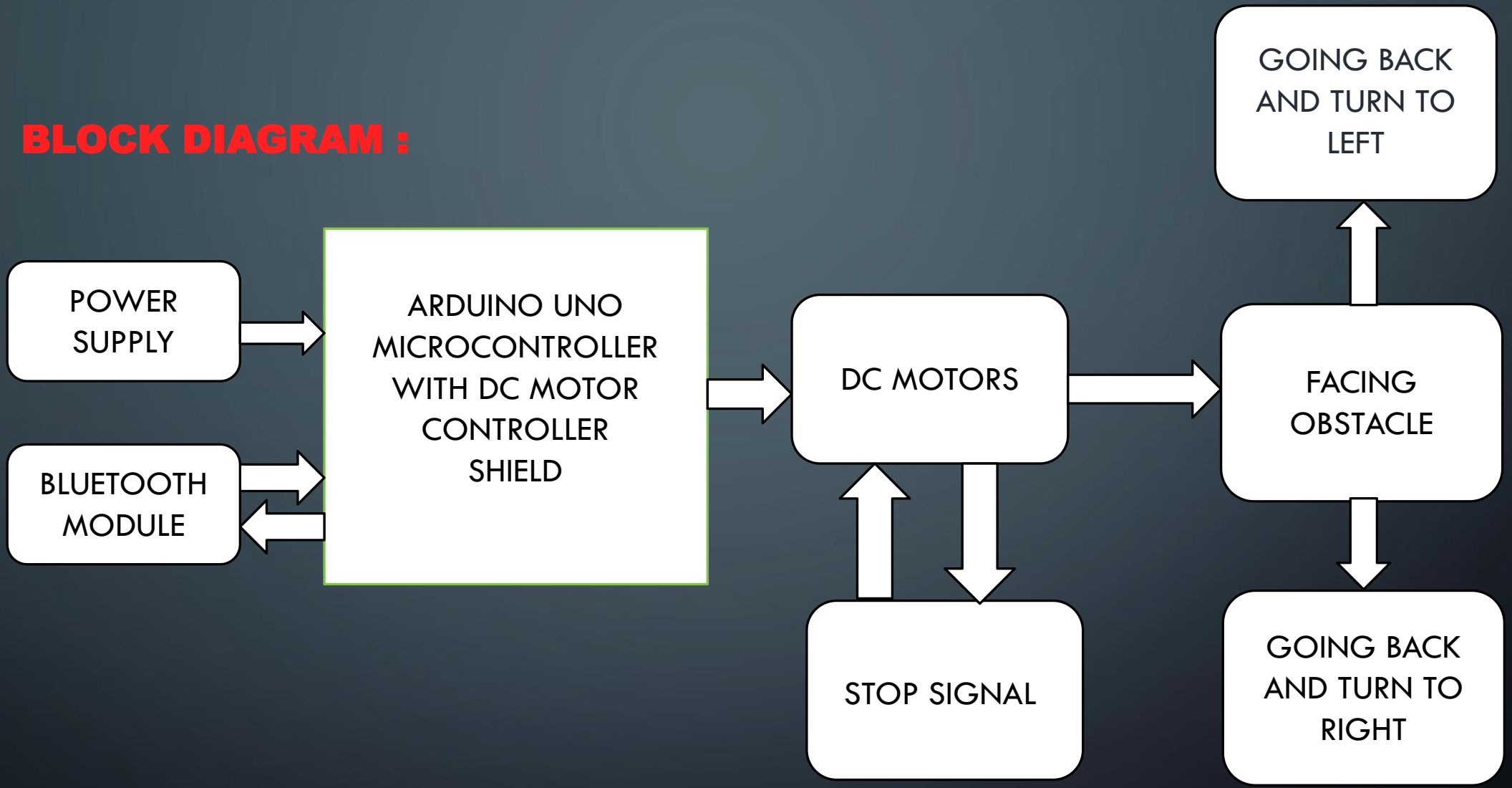
1) Arduino UNO R3
2) Ultrasonic sensor
3) Servo motor
4) Gear motor
5) Motor driver L298D
6) Bluetooth module



SETUP PROCEDURE :

1) Place a base of DIY with dimensions(24x18)cms using foam board and make base connections with gear motor jointed on wheels as per diagram mentioned in next slide.
2) With the help of a batteries give supply to the wheels jointed with gear motors and connect them with Motor driver L298D and Bluetooth module through jumper wires.
3) Now connect our DIY module with Arduino and insert Bluetooth module in it.
4) With help of Arduino Bluetooth control software we can access the DIY module and make sure that software connected with Bluetooth module .
5) Finish setup by following these procedures.

BLOCK DIAGRAM :



BENEFITS :

1. SAFETY & EFFICIENCY – Prevents careless accidents and manual tasks.
2. IoT INTEGRATION – Seamless connectivity and control in the Internet of Things.
3. COST SAVINGS – Reduced maintenance and workload.

REAL TIME APPLICATIONS :

1) Autonomous vehicle.
2) Easy to ship very large scale goods and services.