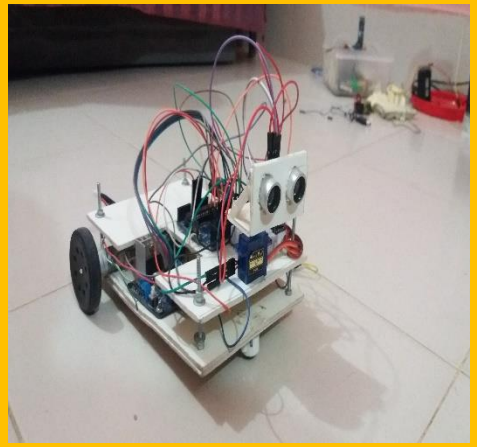

WELCOME TO OUR PRESENTATION

ON

OUR PROJECT

"Android Controlled Obstacle Avoiding Robot"

Project Supervisor:

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Lecturer, Dept. Of ECE

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Presented By:

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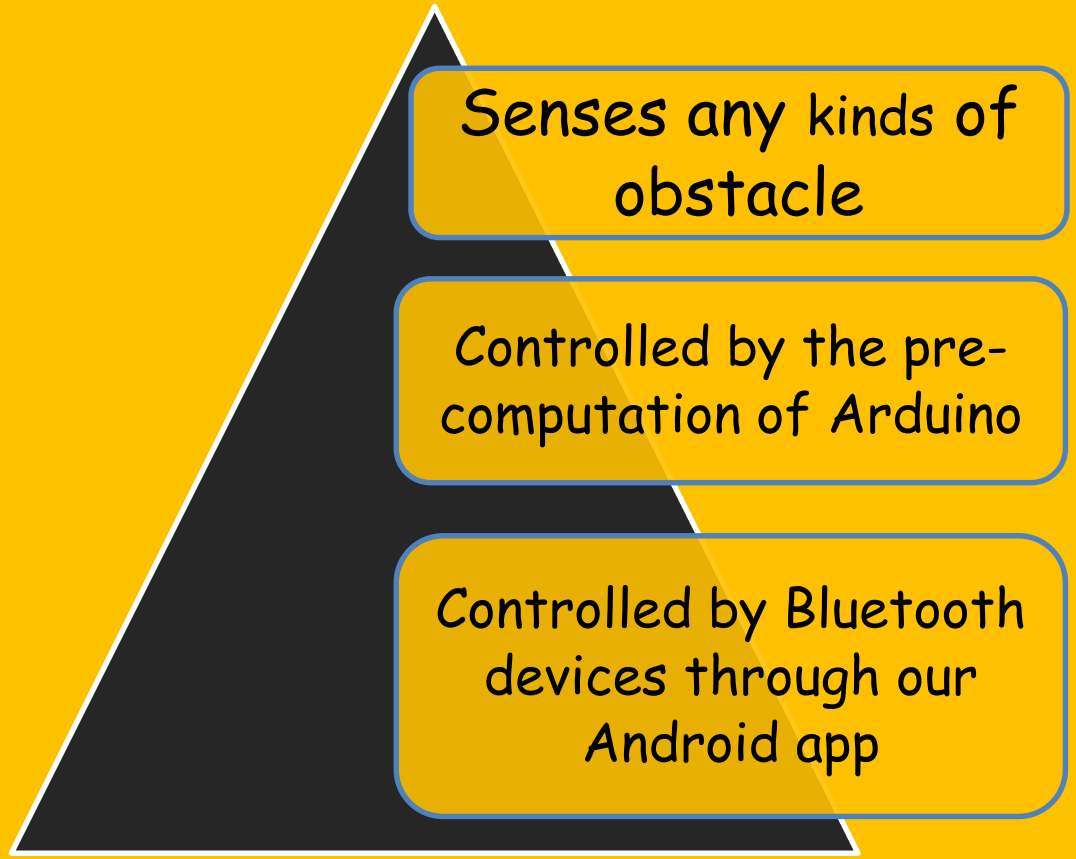
  Roll:1510019
- Md. Noor Nabi Afnan
  Roll:1510020
- Pallab Chowdhury
  Roll:1510029

Features Of Our Robot



Hardware Required

- ❑ Arduino Board(Based On Atmega -328 Microcontroller)
- ❑ L298N H-Bridge Motor driver
- ❑ HC-SR04 Ultrasonic Sensor
- ❑ HC-05 Bluetooth Module
- ❑ SG90 Servo
- ❑ DC Motors and Wheel
- ❑ Chasis
- ❑ HC-SR04 Bracket
- ❑ Pololu Ball Caster (Model : ROB-00006)
- ❑ Mini Breadboard
- ❑ Jumper Wires(female-female, male-male, male-female)
- ❑ 9V Battery,11.1V Lipo Battery
- ❑ Android Device(BluControl App)

Arduino Uno R3

- Arduino Uno is a microcontroller board based on the ATmega328 P (datasheet).
- It has 14 digital input/output pin s (of which 6 can be used as PW M outputs)

HC-SR04 Ultrasonic Sensor

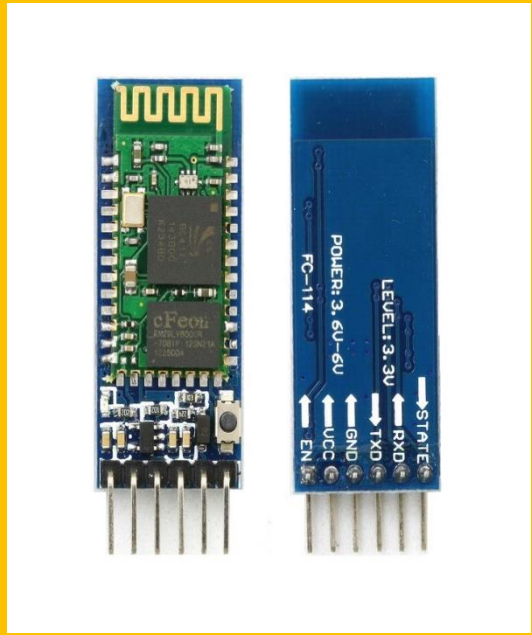
- Uses sonar to determine distance to an object
- Non-contact range detection with high accuracy and stable readings

L298N Motor driver

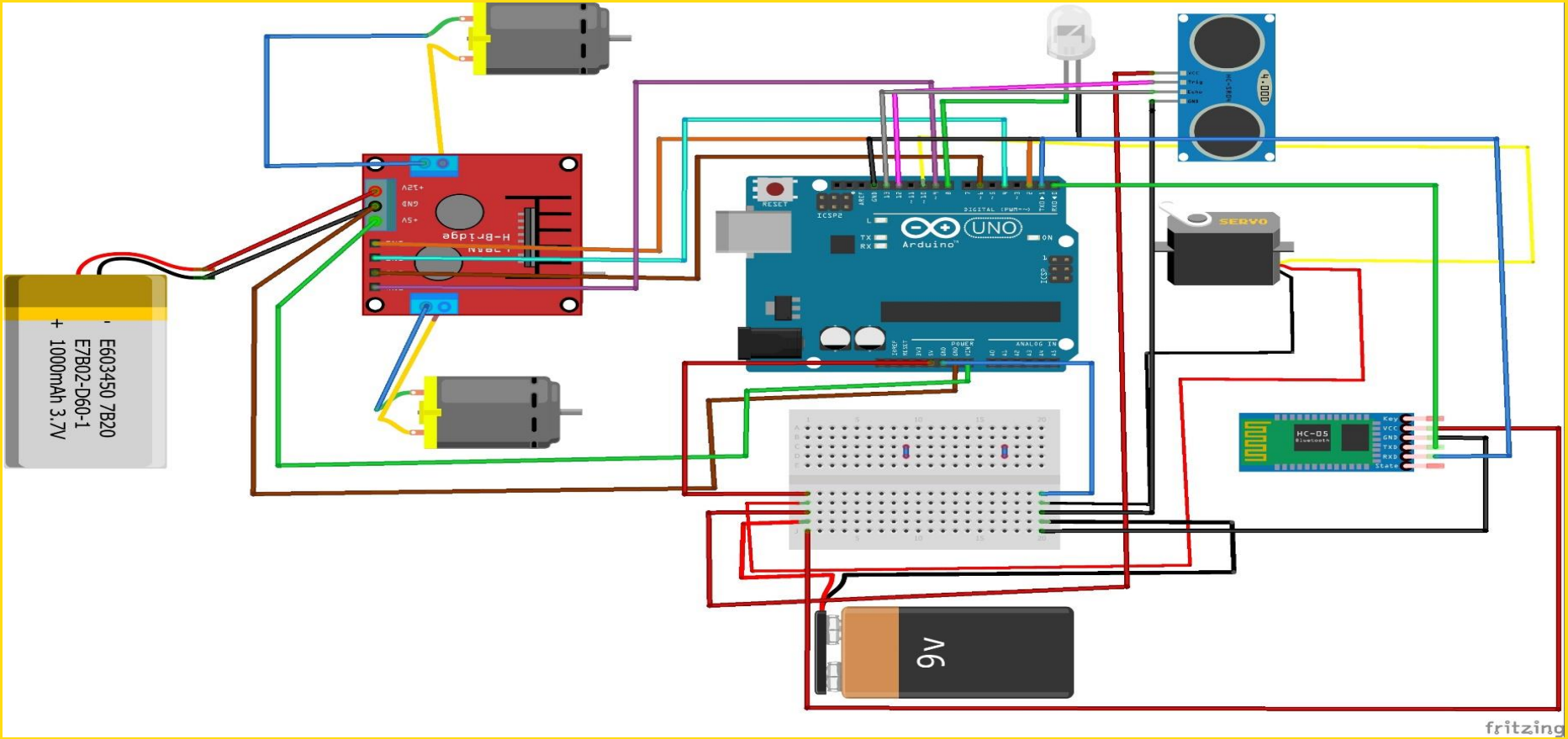
- The L298N is an integrated circuit
- It is a high voltage, high current dual full-bridge driver
- Operating supply voltage up to 46V and Total DC current up to 4A.

HC-05 Bluetooth Module

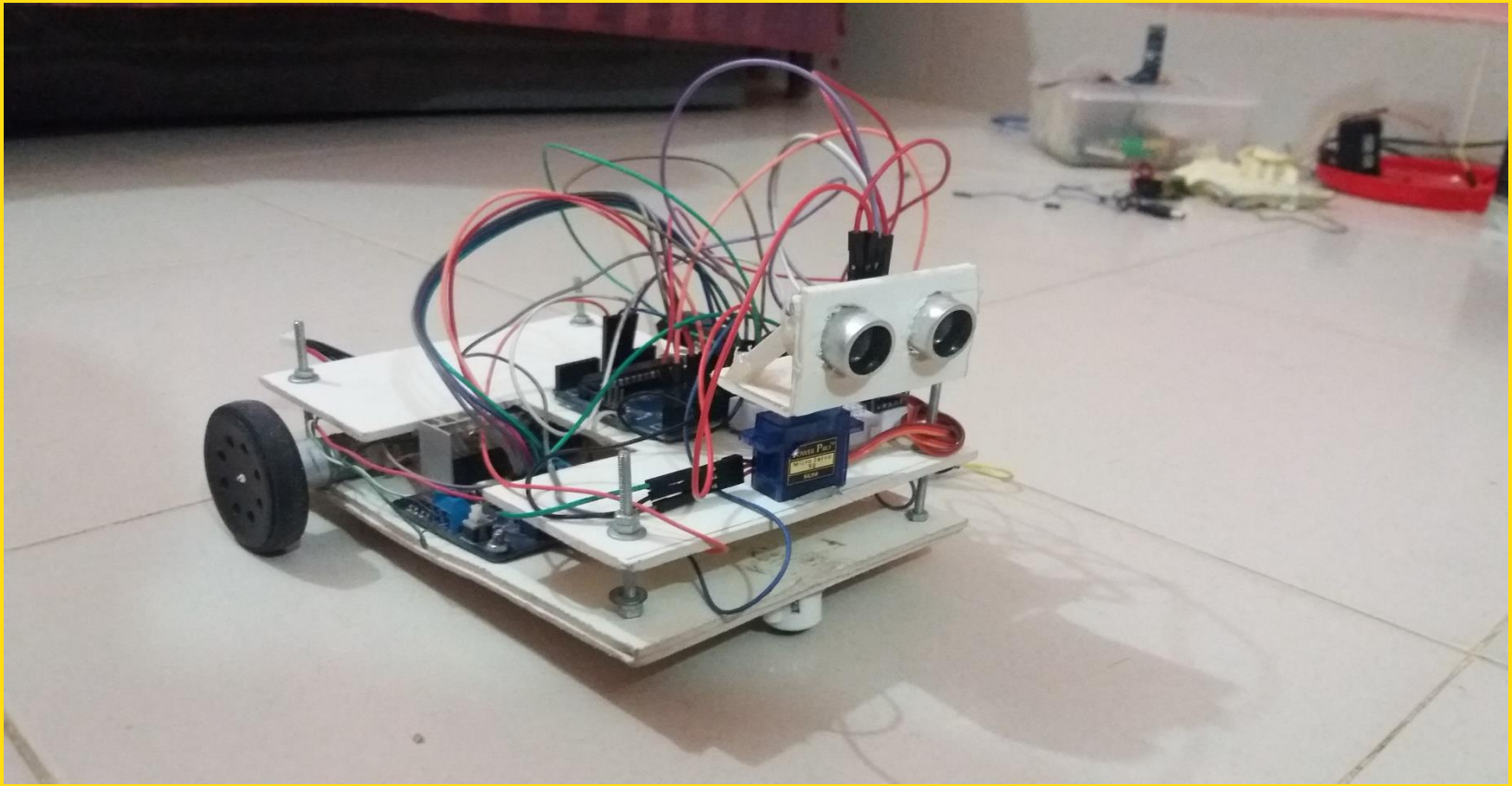
- An easy to use Bluetooth SPP(Serial Port Protocol) module
- Designed for transparent wireless seral connection setup
- Bluetooth V2.0+EDR (Enhanced Data Rate)



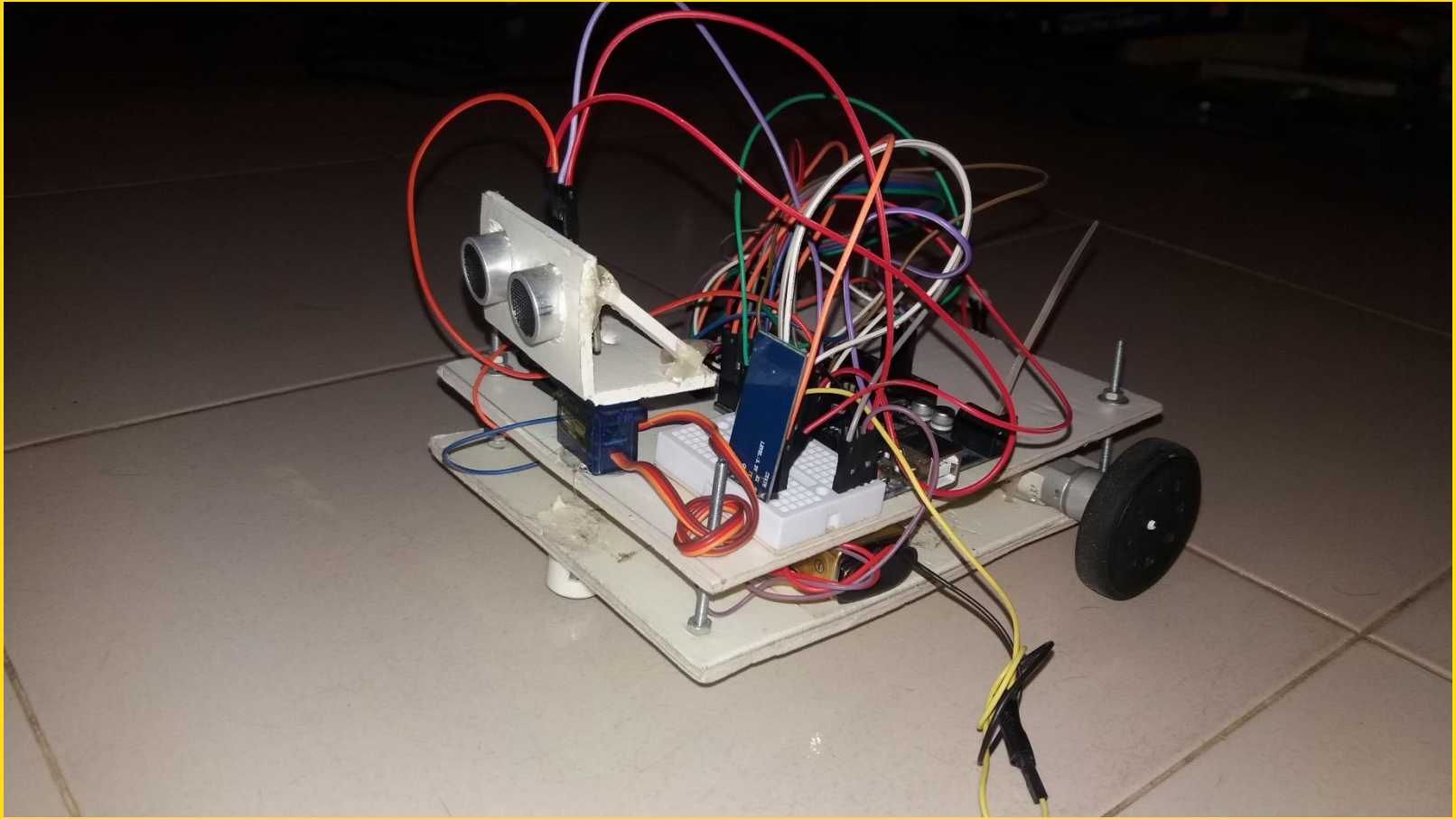
Circuit Program Fritzing



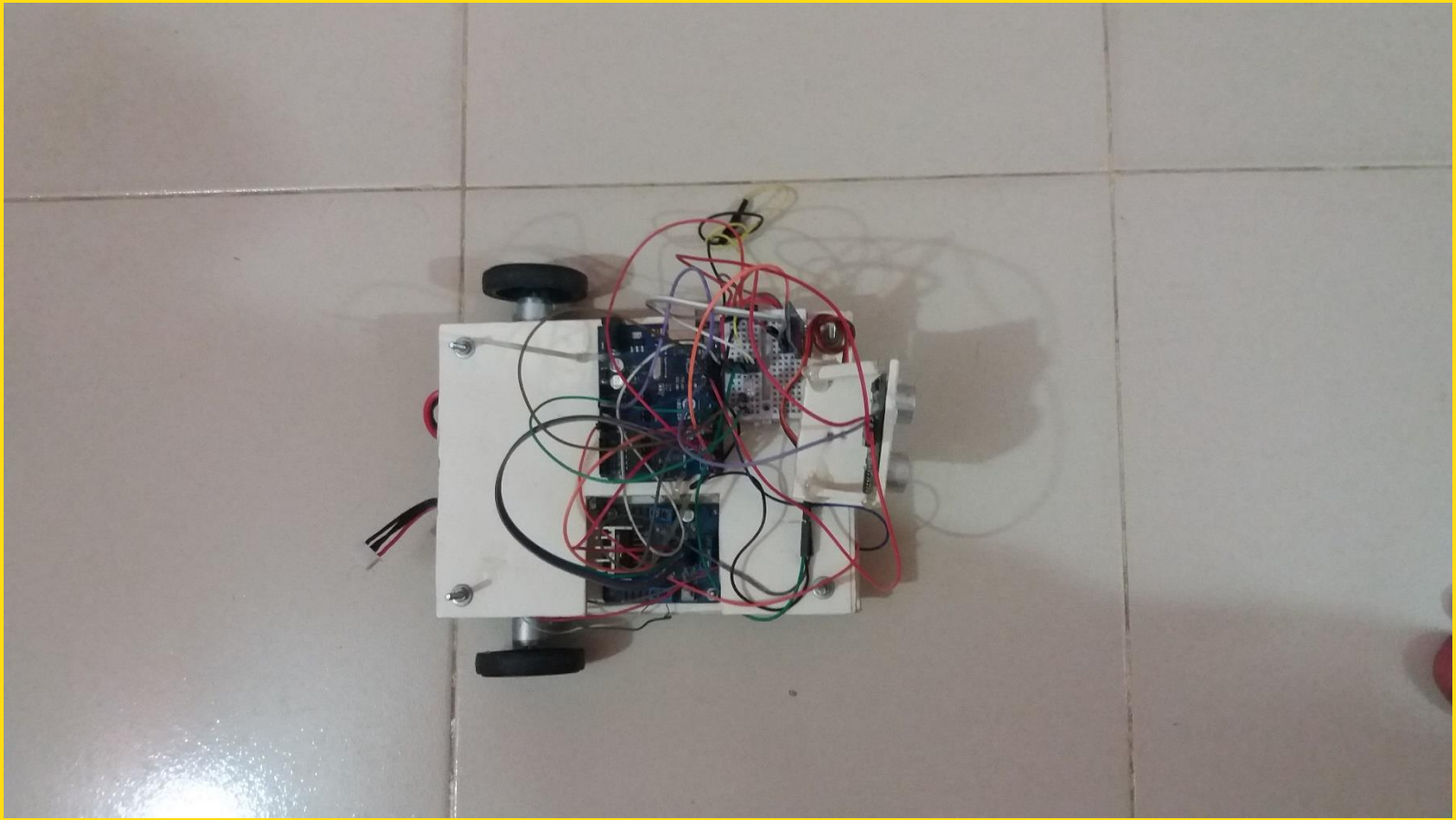
FRONT VIEW



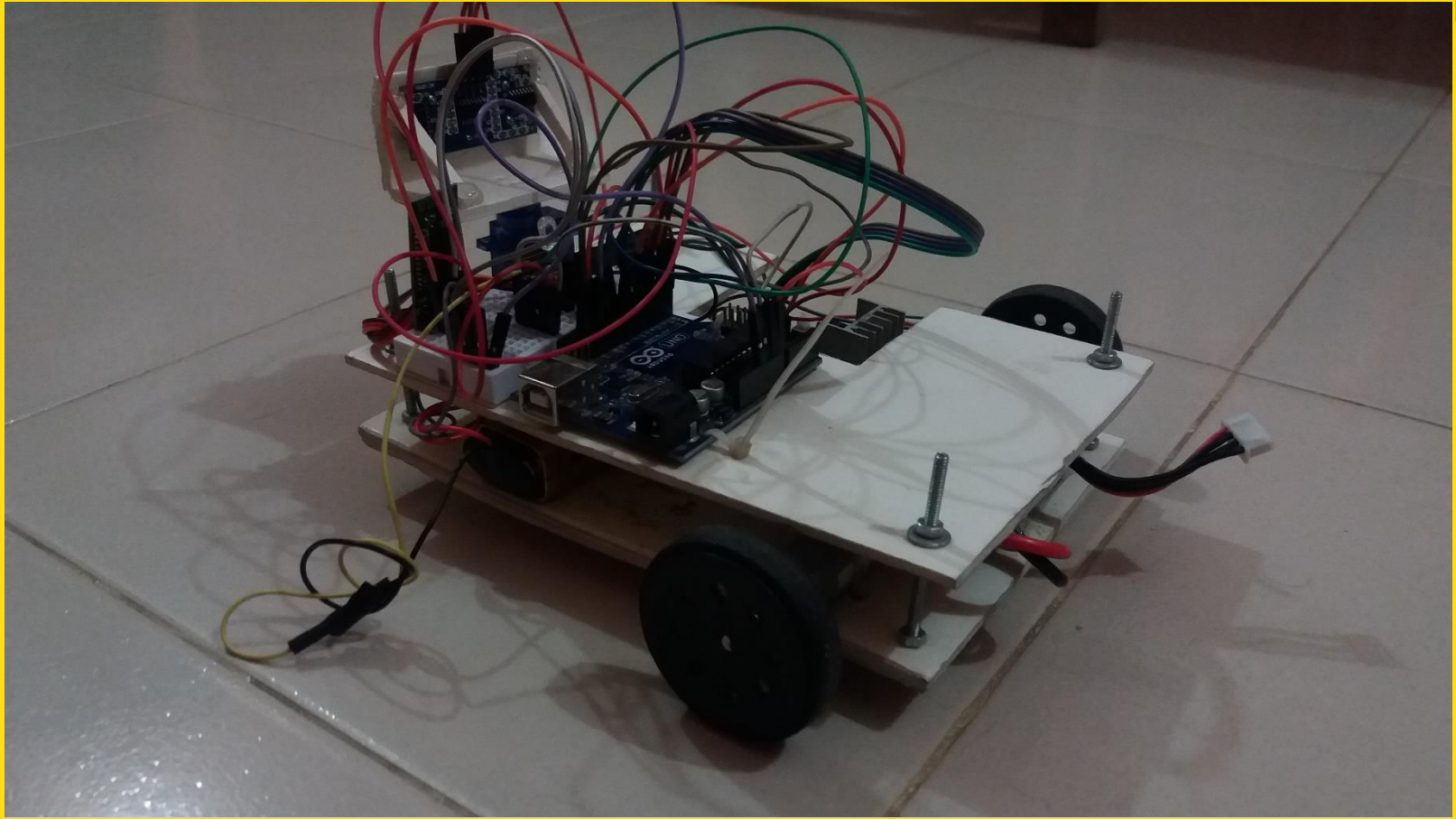
SIDE VIEW



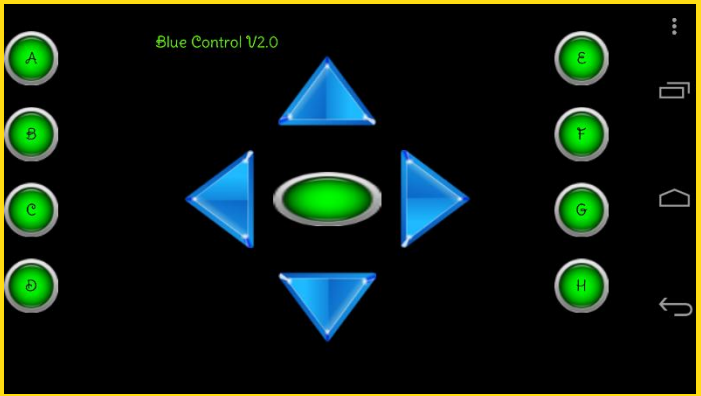
DRONE VIEW



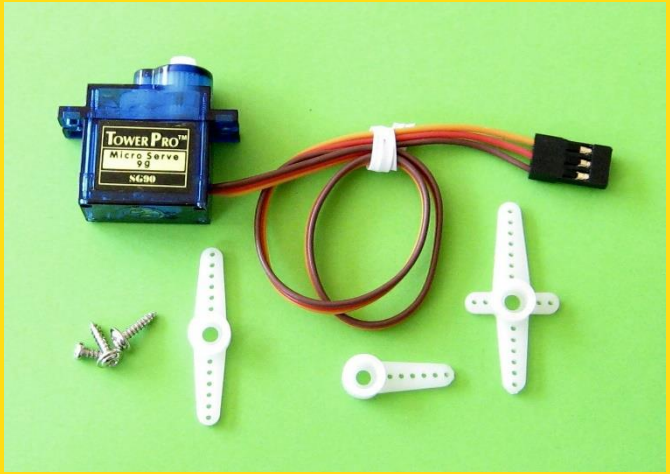
REAR VIEW



Special Feature

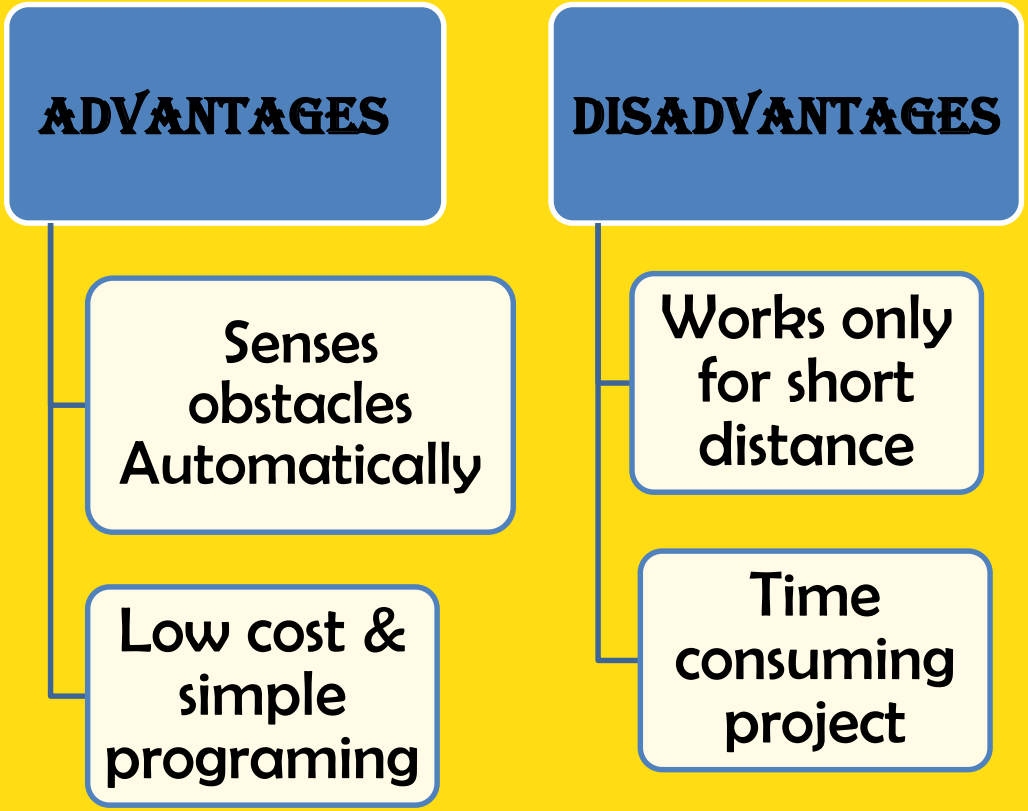


Android Control Through Bluetooth By Our Android App



Servo Motor Detecting Obstacles At Every Direction(180 Degree)

Advantages & Disadvantages



Future Development

ARTIFICIAL INTELLIGENCE

- Machine learning
- Voice & Image recognition

DIFFERENT ALGORITHMS

- Color Image Domain
- Detect & Track Object

SENSORS

- Accelerometer, GPS
- Pattern Recognition

THANK YOU EVERYONE!

Any Question?