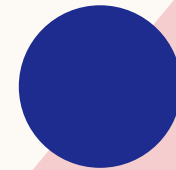# DRIVE RITE SPEED MANAGEMENT

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AGENDA

- ❖ Project Objective Statement
- ❖ Community Partner Description
- ❖ Project Scope
- ❖ User Need List
- ❖ Advantages
- ❖ Disadvantages
- ❖ Maintenance
- ❖ Environment Factors
- ❖ Specialization List
- ❖ Concept Generation

PROJECT OBJECTIVE STATEMENT

- Making the roads safer for every person in the world.

- For controlling the irresponsible and reckless driving of the vehicle drivers.

- To make the vehicles operated at selected zones in limited speed.

- To control the speed of vehicles which tends to minimize the accidents at school, hospital zones and U-turns or bend roads and many other place.

Haryana roads most fatal but UP tops in number of deaths

In 2018, India saw **4.61 lakh** road accidents — against **4.65 lakh** in 2017 — and nearly **1.49 lakh** deaths
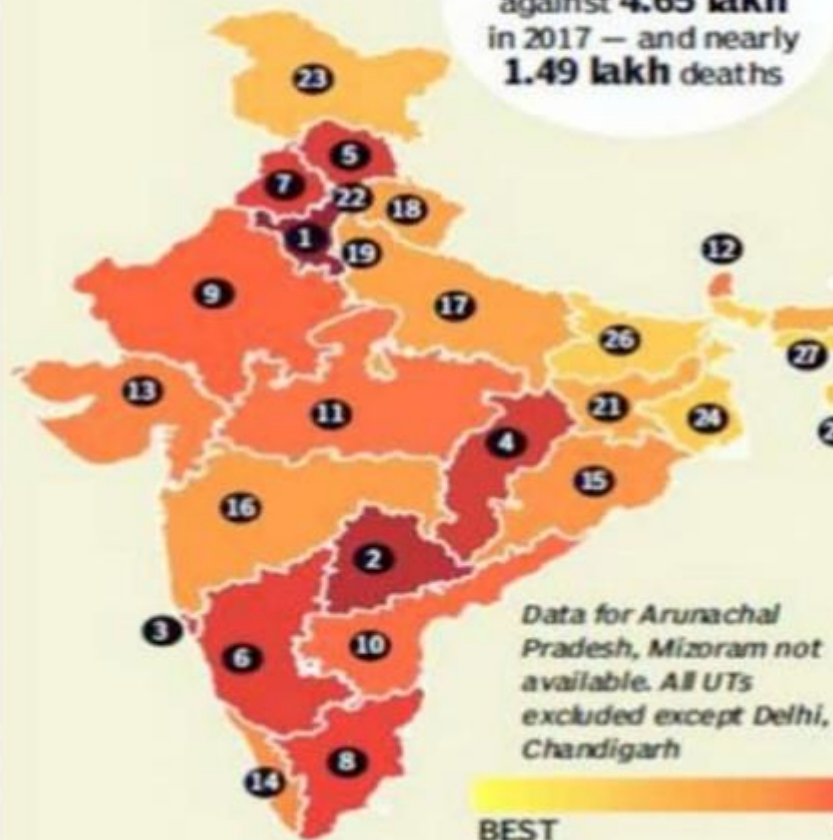
	Deaths per lakh popn in 2018 ▼	Total deaths in 2018 ▼
Haryana ①	20.2	5,118
Telangana ②	18.9	6,599
Goa ③	18.0	262
Chhattisgarh ④	17.8	4,557
Himachal Pradesh ⑤	17.6	1,206
Karnataka ⑥	17.4	10,654
Punjab ⑦	17.1	4,740
Tamil Nadu ⑧	16.9	12,216
Rajasthan ⑨	15.1	10,320
Andhra Pradesh ⑩	14.9	7,416
Madhya Pradesh ⑪	14.5	10,525
Sikkim ⑫	13.9	85
Gujarat ⑬	13.2	7,974
Kerala ⑭	12.9	4,296
Odisha ⑮	12.7	5,315
Maharashtra ⑯	11.6	13,085
Uttar Pradesh ⑰	11.1	22,256
Uttarakhand ⑱	10.4	1,047
Delhi ⑲	10.1	1,690
Assam ⑳	9.5	2,966
Jharkhand ㉑	9.4	3,104
Chandigarh ㉒	9.3	98
Jammu & Kashmir ㉓	7.8	984
West Bengal ㉔	6.2	5,700
Tripura ㉕	5.8	213
Bihar ㉖	5.7	5,908
Meghalaya ㉗	5.6	165
Manipur ㉘	4.7	134
Nagaland ㉙	3.2	64

Data for Arunachal Pradesh, Mizoram not available. All UTs excluded except Delhi, Chandigarh

BEST ———— WORST

PROJECT SCOPE

This project has very use in future because now electric vehicles are introduced, if we installed in the vehicles then we can control the speed of the vehicle. All people are encouraged to use electric vehicles to protect the environment from the pollution. If we introduce the speed control in upcoming electric vehicles with high Radio Frequency signals to reach the speed control at maximum range distance.

USER NEED LIST

Need #	Stakeholder	User Need
1	driver's	*Should be alert of the buzzer as that the vehicle speed is reducing.*
2	Automobile manufacturer	*Should design and sell our pre-designed vehicle which is having a receiver.*
3	traffic government authorities	*Should help us in keeping the transmitter at special zones.*

ADVANTAGES

❑ It minimizes the loss of property and life.

❑ The accidents will be reduced on a larger rate.

❑ We can restrict the speed of vehicle.

❑ To avoid the collision of vehicle due to its over speed in the speed restricted zones by automatically.

❑ Driver alertness will be more.

❑ Low power transmitter is enough for operation.

:

DISADVANTAGES

✓ It is miss used in such a case like making sound of buzzer aloud up to transmission regions far from the receiver.

✓ If in case RF Transmitter connection is OFF there is no use of it alse.IN such cases if driver is still waiting for buzzer , it may prone to accidents also.

MAINTENANCE

- Automobile companies will maintain our project further.

- Our project can be exposed to the public or children who can't make any type of damage to it.

- Mainly security is needed for the RF transmitter which is placed in public zones.

- There is durability for our project until the Rf transmitter or RF receiver is damaged.

ENVIRONMENTAL CONDITIONS

➢ Our project can be exposed to rain or sun same as e normal vehicle but we should be little more careful in the time of floods , if we are going to use in 2-wheeler

IN THIS SITUATION THE TRANSMITTER MAY GET EFFECTED

SPECIALIZATION LIST

➢ Software requirement for our project is NI-MULTISIM.

Hardware Requirements:

1.RF Transmitter and Receiver

2.Motor Driver

3.DC Motor

4.Bread Board

5.Arduino UNO

6.Jumper Cables

7.Switches

8.Buzzer

9.Batteries

10.Model of car

11.Single strand wire

12.Double side tape

OVERVIEW OF COMPONENTS

1. Arduino

The Uno is a microcontroller board based on the ATmega328P. It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz quartz crystal, a USB connection, a power jack, an ICSP header and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with an AC-to-DC adapter or battery to get started. Differences with other boards: The Uno differs from all preceding boards in that it does not use the FTDI USB-to-serial driver chip. Instead, it features the Atmega16U2 (Atmega8U2 up to version R2) programmed as a USB-to-serial converter.
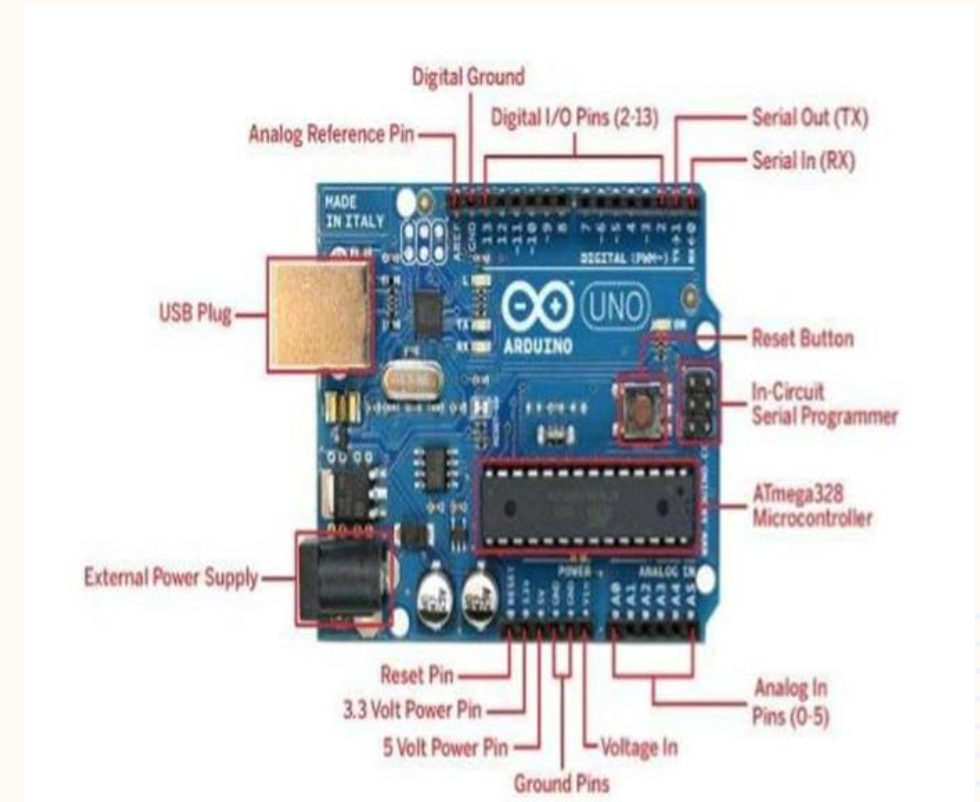
2. L293D MOTOR DRIVE MODULE

L293D IC is a typical Motor Driver IC which allows the DC motor to drive on any direction. This IC consists of 16-pins which are used to control a set of two DC motors instantaneously in any direction. It means, by using a L293D IC we can control two DC motors. As well, this IC can drive small and quiet big motors.

Common DC gear head motors needcurrent above 250mA. There are many integrated circuits like ATmega16 Microcontroller, 555 timer IC. But, IC 74 series cannot supply this amount of current. When the motor is directly connected to the o/p of the above Ics then, they might damaged. To overcome this problem, a motor control circuit is required, which can act as a bridge between the above motors and Ics (integrated circuits).
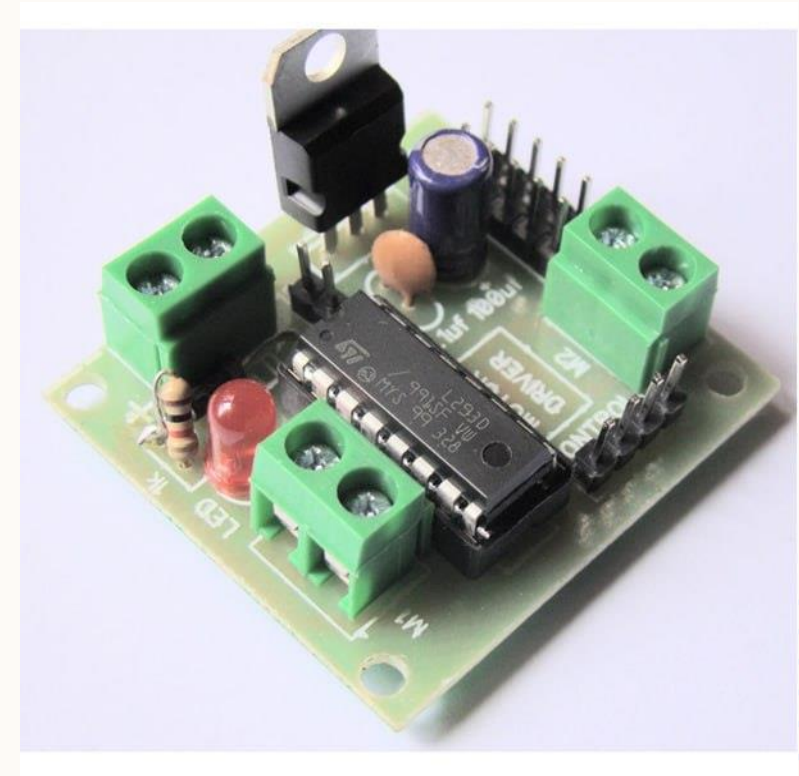
3. RF TRANSMITTER

RF tranamitter 433Mhz,This hybrid RF Transceiver Module provides a complete RF transmitter and receiver module solution which can be used to transmit data at up to 3KHz from any standard CMOS/TTL source.

The RF Transmitter Receiver Module is an effective low-cost solution for using 433 MHz. The TX-ASK is an ASK hybrid transmitter module. TX-ASK is designed by the saw resonator, with an effective low cost, small size and simple to use for designing

4. RF RECIEVER

An RF Receiver module receives the modulated RF signal, and demodulates it.
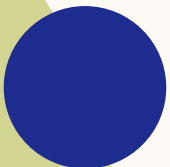
There are two types of RF receiver modules: supernheterodyne receivers and super-regenerative receivers.

Super-regenerative modules are usually low cost and low power designs using a series of amplifiers to extract modulated data from a carrier wave. Super-regenerative modules are generally imprecise as their frequency of operation
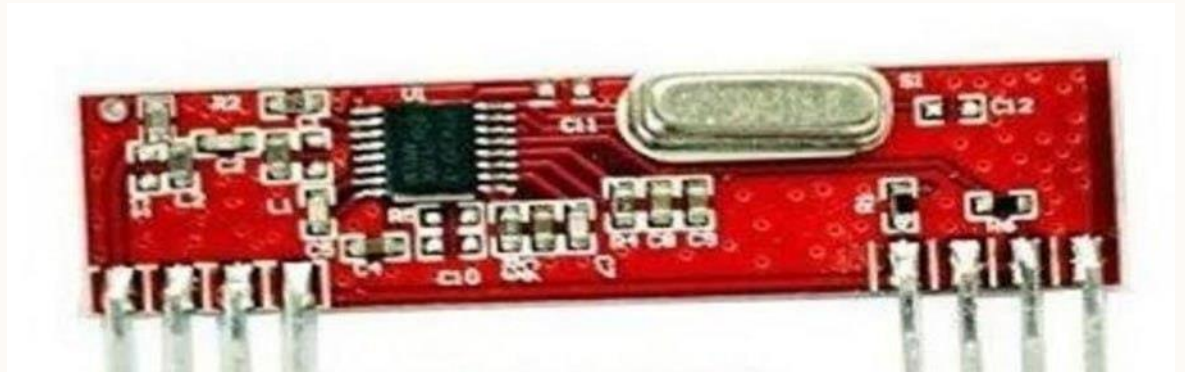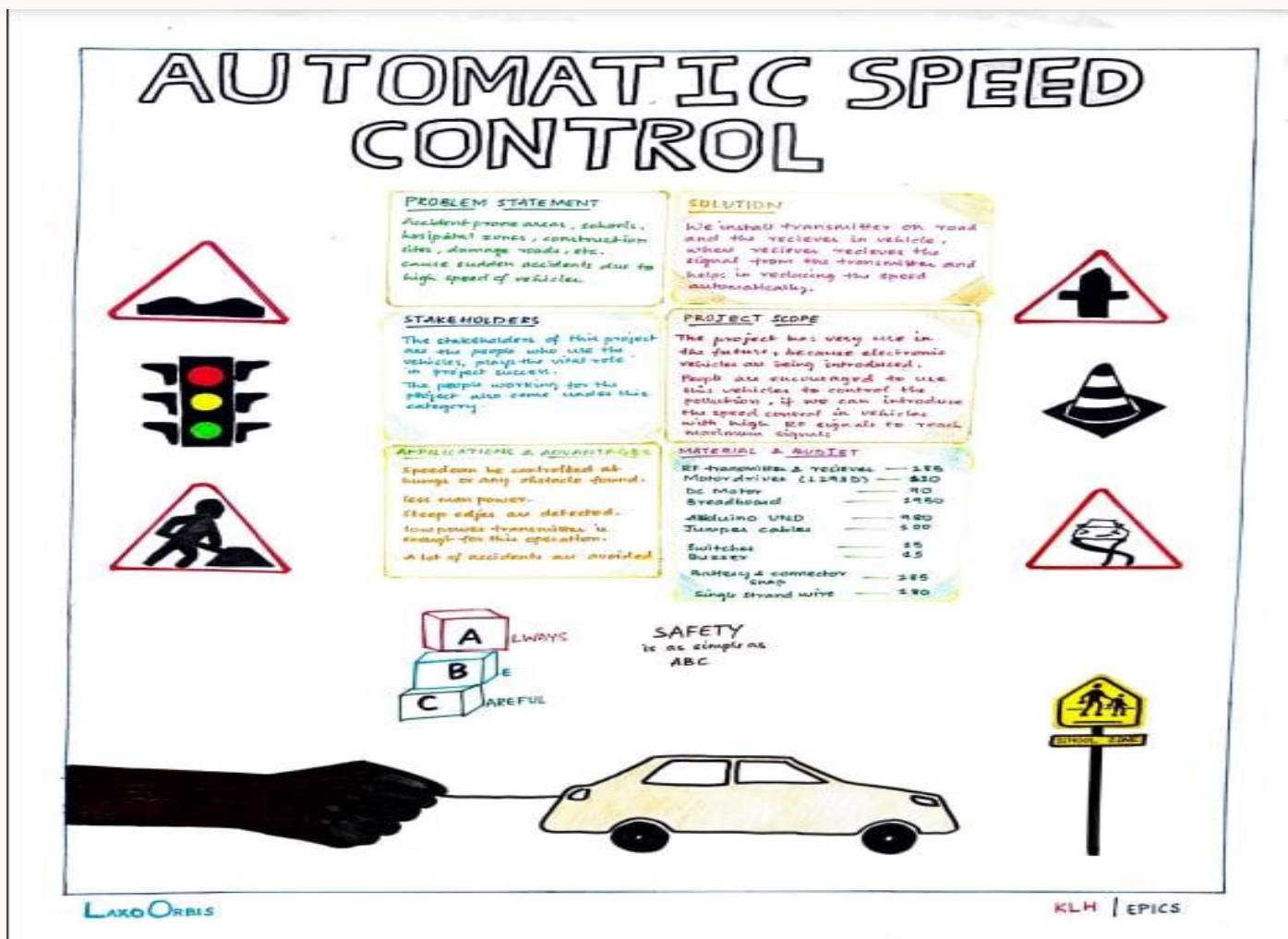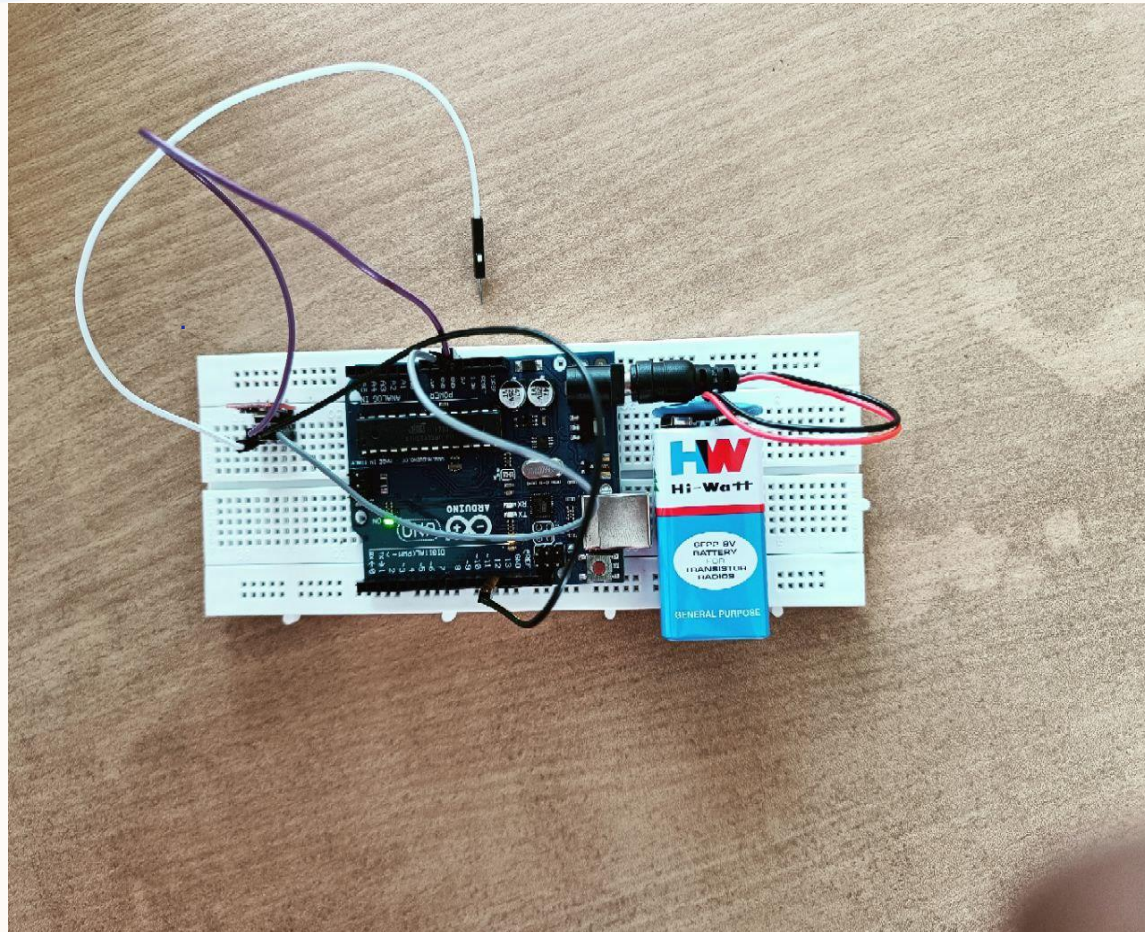
WORKING MECHANISM OF THE PROJECT

1) Switch ON the supply given to the Arduino UNO

2) Switch ON the supply given to the motor driver module

3) Place the transmitter at the zone

4) Switch ON the supply given to the transmitter

5) Lets leave the car model to go trough the zone

6) Whenever the car(receiver) enters into the accident zone that is the transmitter zone the speed of the car gradually reduces to limited speed that was set in the code

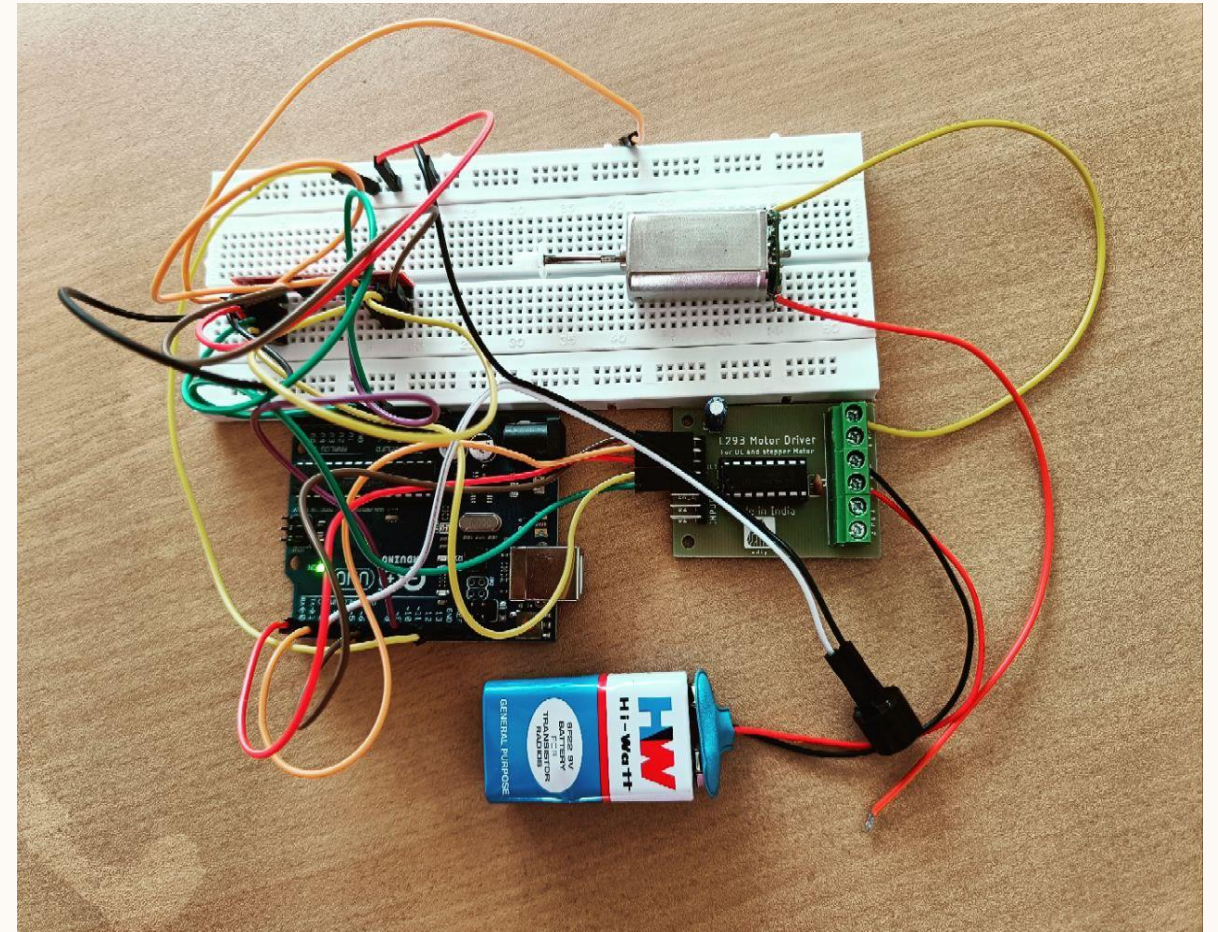7) Whenever the car leaves the zone the car automatically speed up to normal Speed.
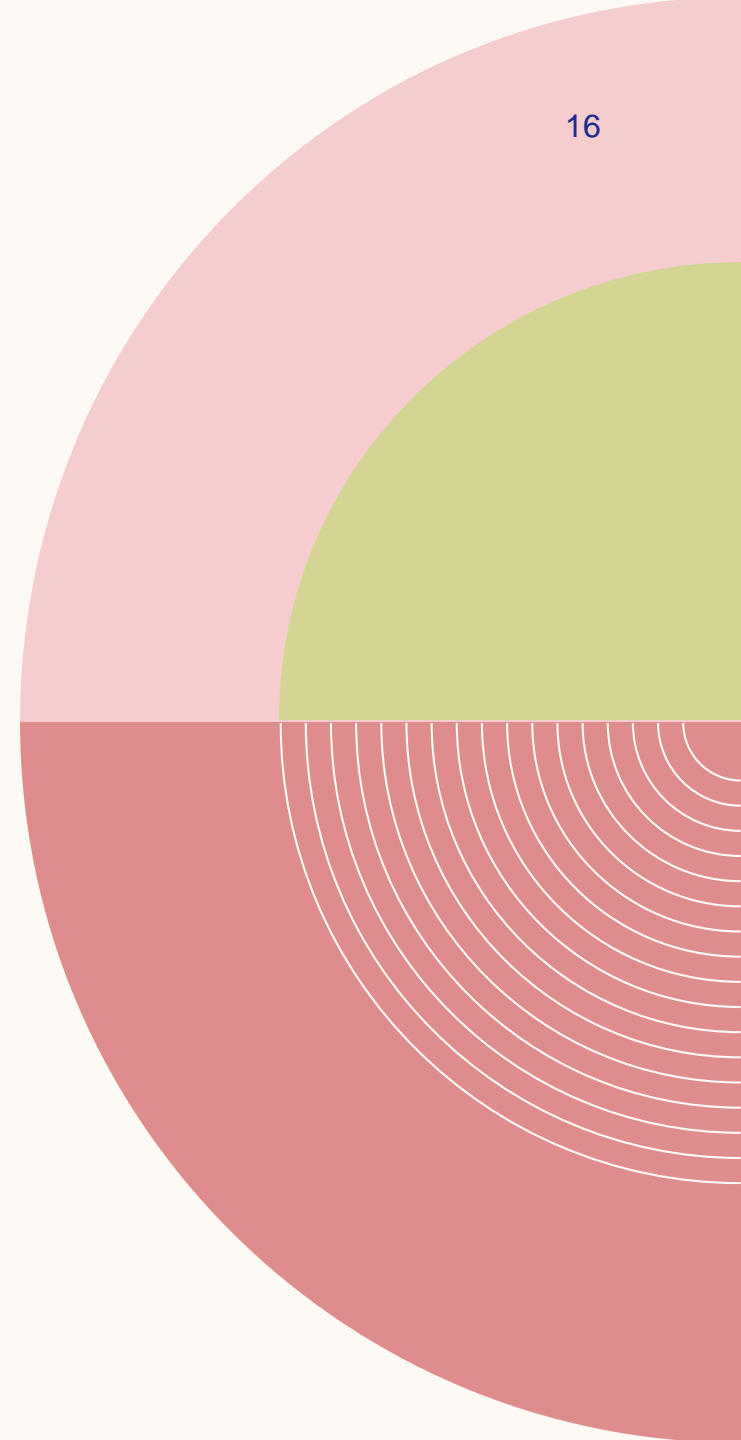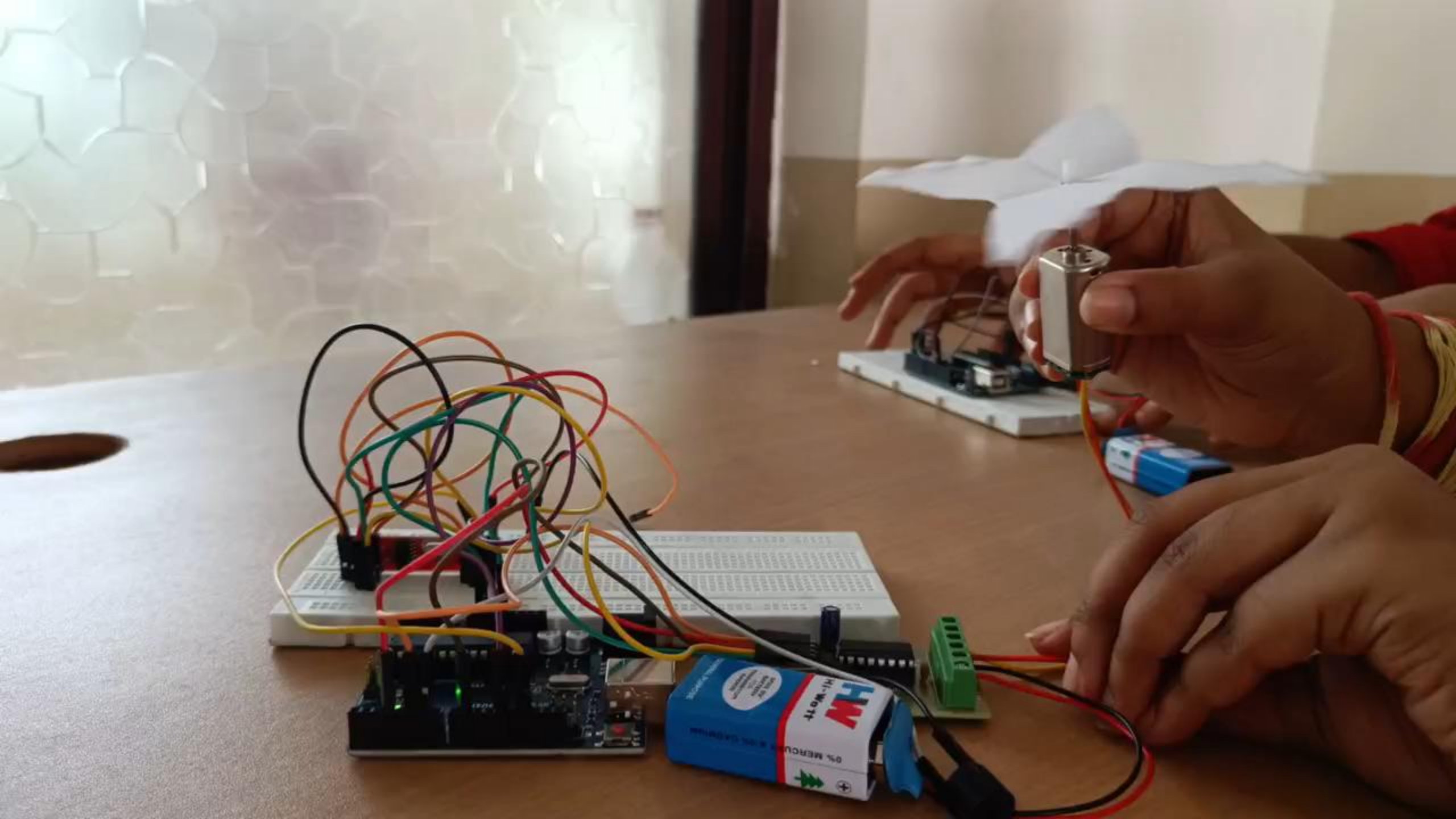
CONCEPT GENERATION

RF TRANSMITTER

RF RECIEVER

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Thank You