



Team Tech-Fusion

Collision Avoidance System (CAS) For Motorbikes

Technology for **safe ride**

TEAM

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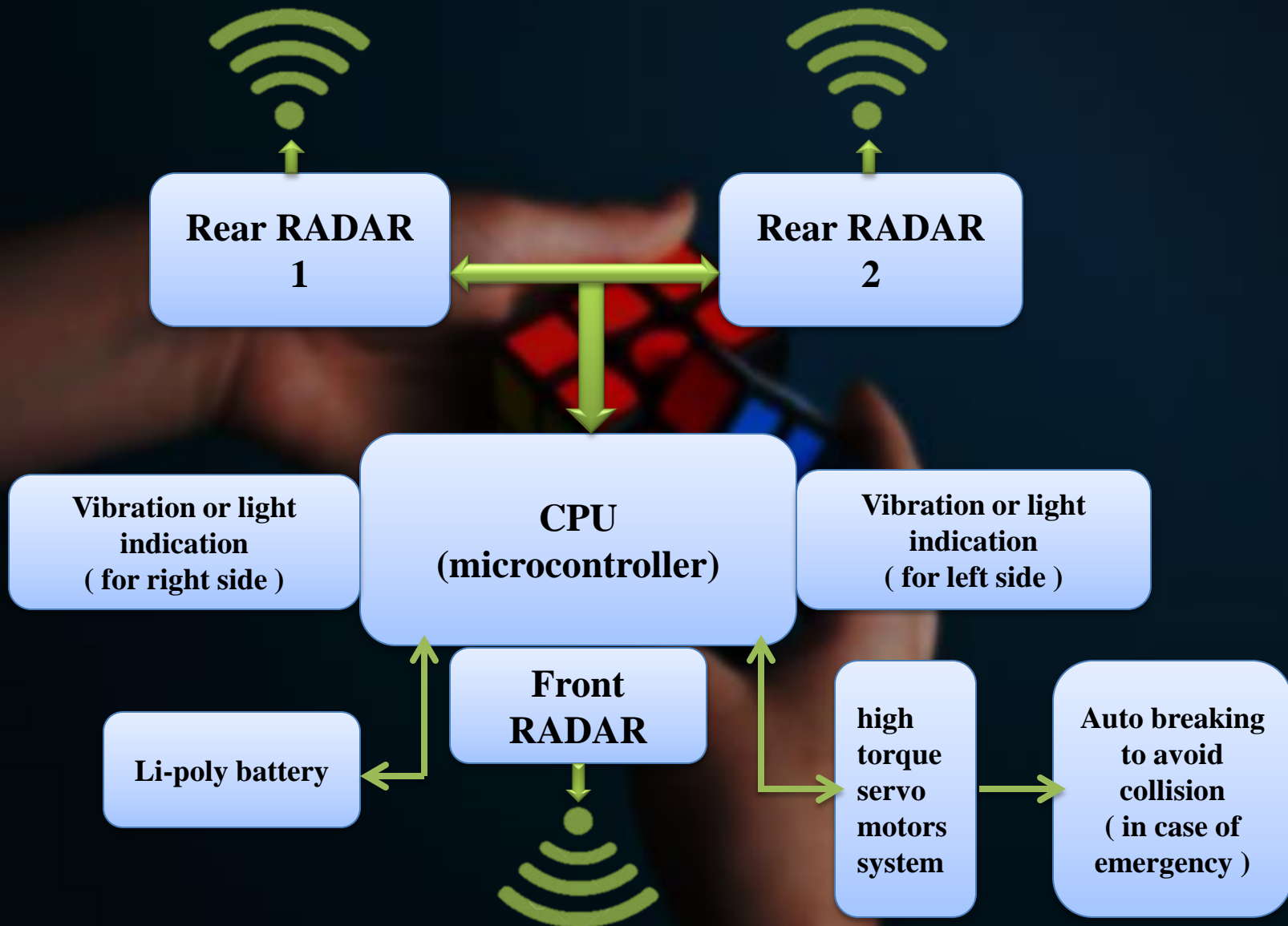
Problem

The chances of the **collision** of vehicles are increased and significantly the motorcycle riders are more prone to involvement. The motorcycle fatalities increased every year for 11 year with rate of **5000** accidents per year. The major cause of the motorcycle fatalities/accidents is the **blind spot** form at the **rear side** of the rider.

Solution for **Zero** motorcycle fatalities

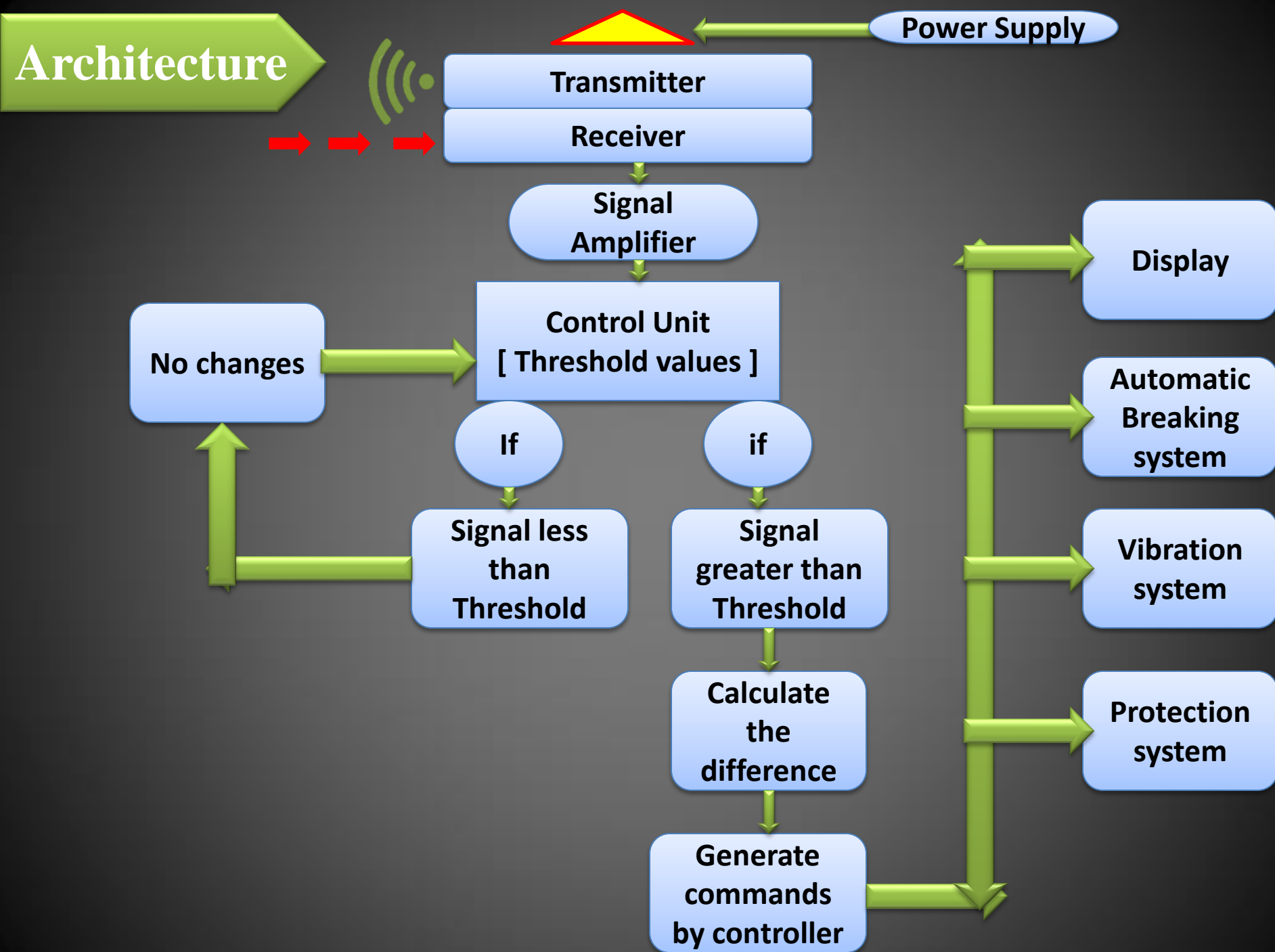
The ***Collision Avoidance system*** will alert the rider for the approaching vehicles from its blind spot and will also determine the direction from where its heading.

Solution



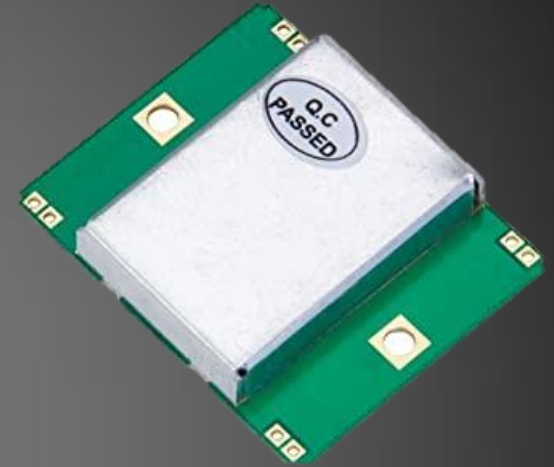
Uniqueness

- ☐ No complexity in the system.
- ☐ High range of Doppler RADAR.
- ☐ External Automatic Breaking System.
- ☐ Optimum and effective use of Battery.
- ☐ Low cost.



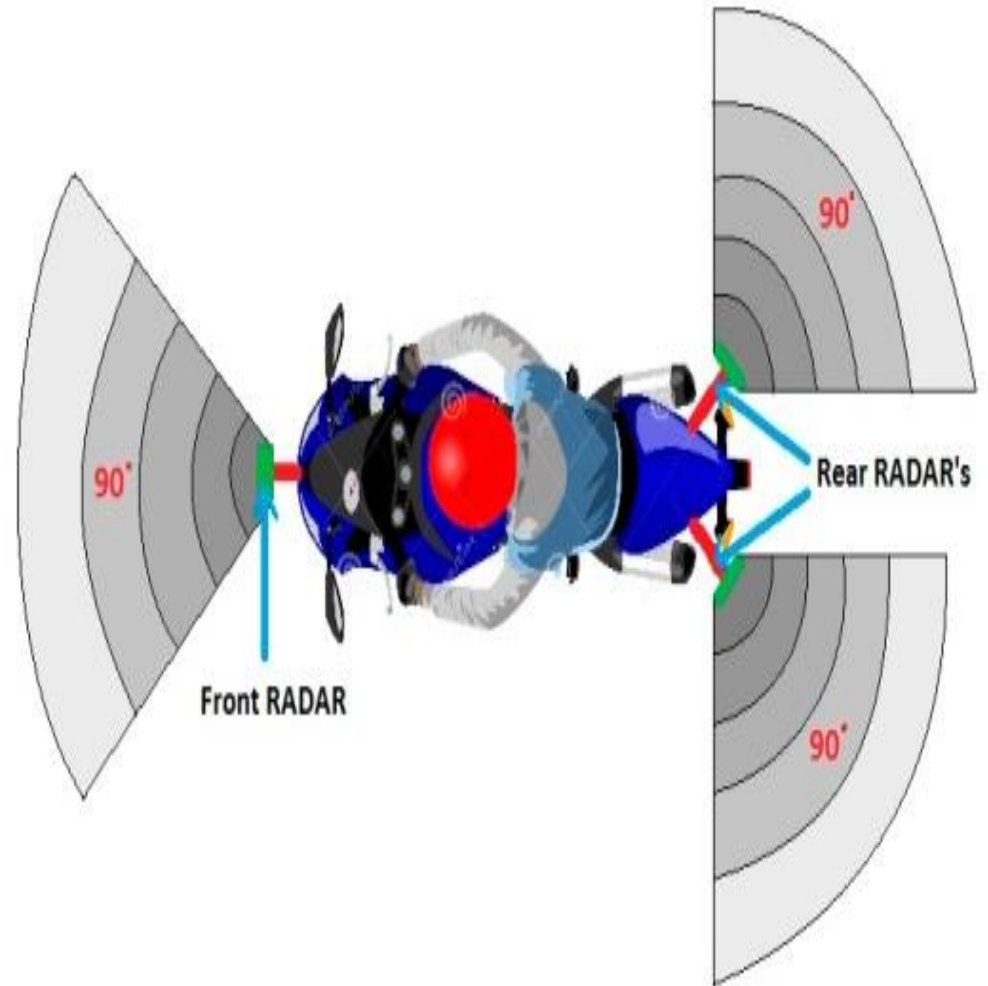
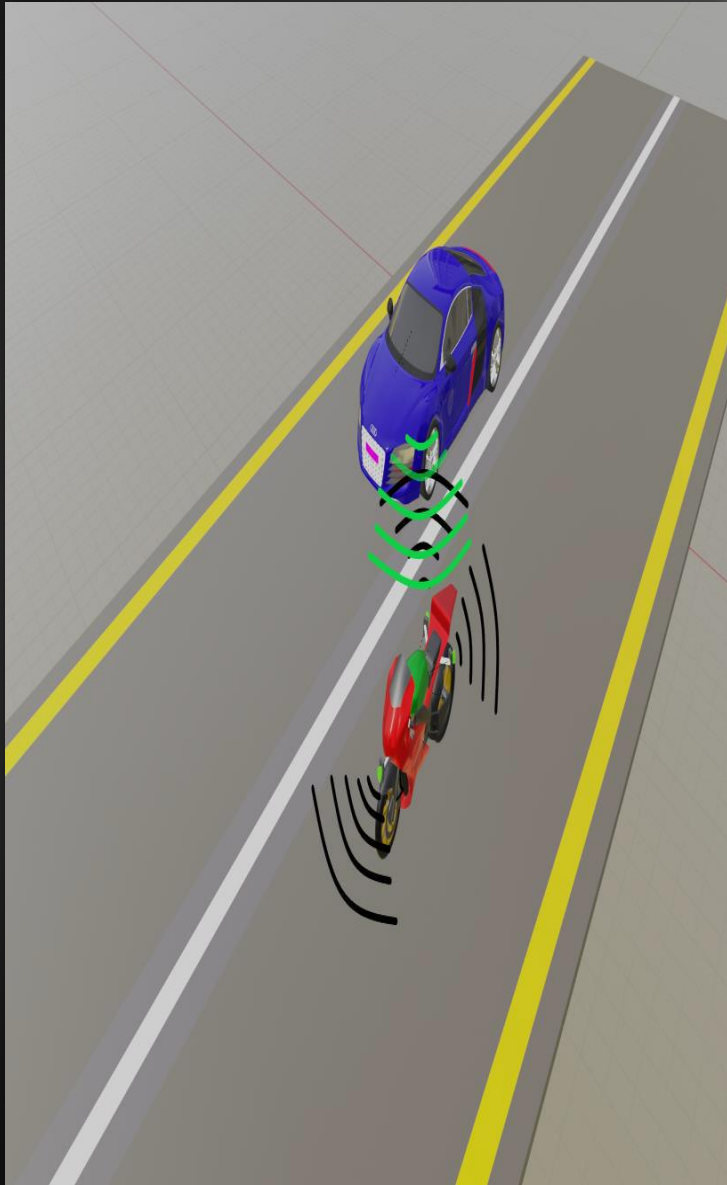
Tech Stack

- ❑ The controller [ATmega328P]
- ❑ RADAR Technology
- ❑ Doppler Effect
- ❑ Automatic Breaking System
- ❑ Wave Propagation.



RADAR

Design



Future Scope

- ❑ The range of the RADAR can be increased to operate system at high speed.
- ❑ The system further can be implemented in the electric bikes.
- ❑ The Accident protection system can be added.

The Collision Avoidance system using RADAR technology is the simplest and cheapest way of the building the effective solution to the crucial problem of bike Accidents.