Innovative Projects- Arduino Using Embedded ‘C’ (CSE1002)

Phase –II Review Presentation

SMART BOT DETECTOR USING ULTRASONIC SENSOR

Submitted to the Presidency University, Bengaluru in partial fulfillment of the requirements for the Innovative Project- Arduino Using Embedded ‘C’

By

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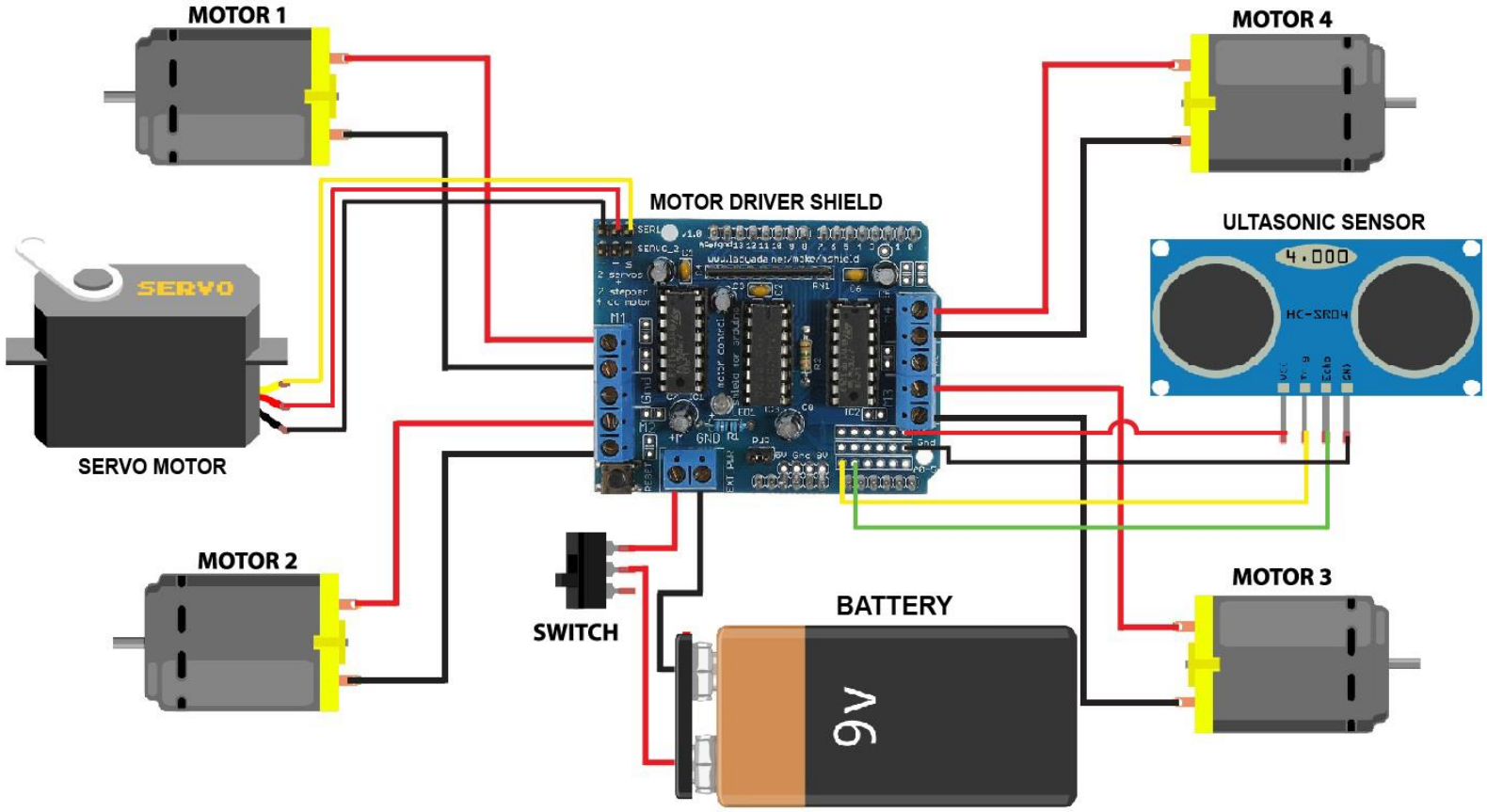
Project Brief Summery

- **Overview:**
- We proposed a robot that avoids the obstacle which comes in its path and navigates in unknown environment by avoiding collisions. Obstacle avoiding robot or Smart Bot senses obstacles in the path, avoids it and resumes its running.
- **Objective:**
- The aim of this project is to implement an obstacle avoiding robot using ultrasonic sensor and Arduino. As the project is based on Arduino, the programming is very easy and can be easily modified. The robot would have the capacity to detect obstacles in its path based on a predetermined threshold distance.After obstacle detection, the robot would change its course to a relatively open path by making autonomous decision.
- **Outcome:**
- The robot is fully autonomous and after the initial loading of the code, it requires no user intervention during its operation. The work done in this project can act as a base for further improvements to increase accuracy and adaptability of obstacle detection in diverse environments.

Challenges Faced in Project

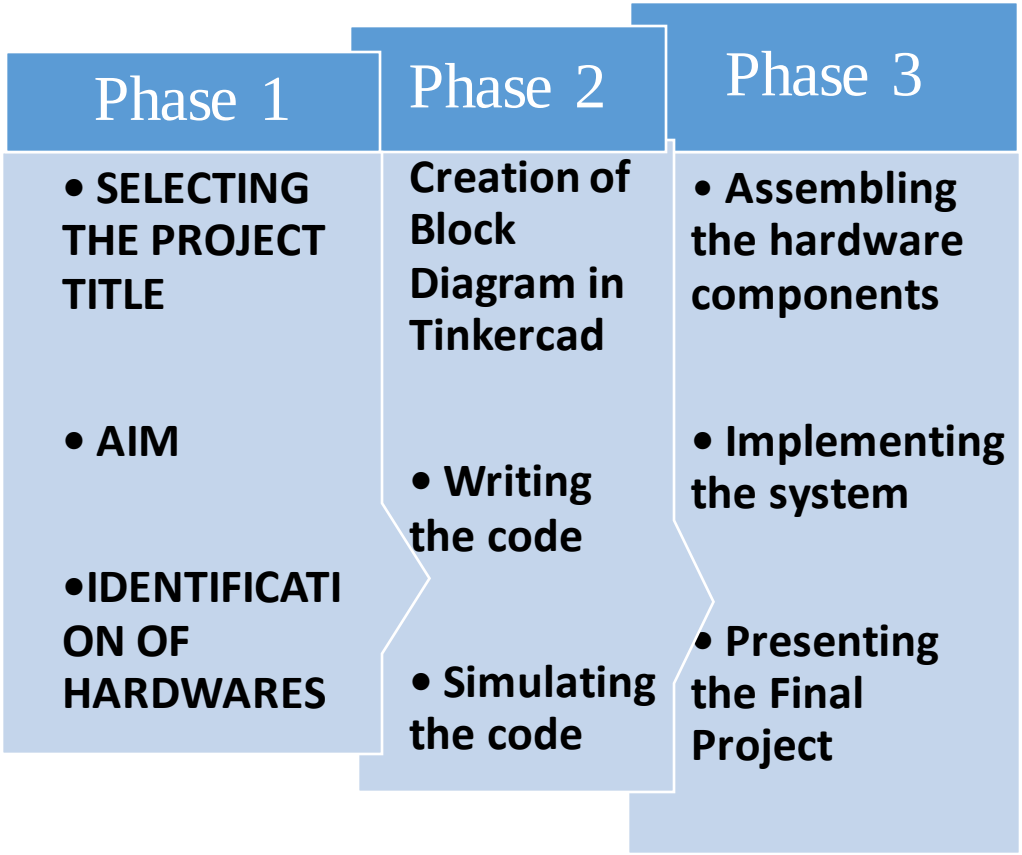
- Due to the wide range of ultrasonic distance sensors, selecting a particular application was difficult.
- Keeping in mind the budget of our team, choosing hardware based on their advantages proved to be difficult.
- While identifying a fault in the project, there are lots of variables to consider. This may include loose or misplaced components.
- Managing time has proved to be the most difficult of all, from putting our free time whenever we had, to staying after-class for the preparation of the project.

Circuit/Block Diagram



Obtained Results.

Project Timeline



Q&A

Thank you !!