SMART OBSTACLE-AVOIDING ROBOT CHALLENGE

Challenge Phases:

Phase 1: Autonomous Navigation

- Your robot must move on its own, detect obstacles, and avoid them to complete the course.

Phase 2: Bluetooth-Controlled Navigation

- You will control your robot using Bluetooth to navigate the same course.

Goals:

- Build a robot that can navigate obstacles on its own.
- Learn how to control your robot with Bluetooth.
- Show your creativity and problem-solving skills!

Scoring System:

Phase 1: Autonomous Navigation

1. **Functionality** (How well the robot detects and avoids obstacles):
   - 40 points
2. **Efficiency** (Time taken to complete the course):
   - 30 points
3. **Accuracy** (Number of collisions or near-misses with obstacles):
   - 30 points

Total for Phase 1: 100 points

Phase 2: Bluetooth-Controlled Navigation

1. **Control Responsiveness** (How smoothly and responsively the robot responds to Bluetooth commands):
   - 40 points
2. **Navigation Efficiency** (Time taken to complete the course using manual control):
   - 30 points
3. **Accuracy** (Number of collisions or near-misses with obstacles while manually controlling the robot):
   - 30 points

Total for Phase 2: 100 points

Overall Total Possible Points: 200 points