ROBOMANIA 2019
MIND YOUR PATH

Introduction

In 1971, Roger and Carolyn Perron move into a dilapidated farmhouse in Harrisville, Rhode island with their five daughters Andrea, Nancy, Christine, Cindy, and April. Their dog Sadie refuses to enter the house, and one of the children, while playing a game of "hide and clap", finds a boarded-up entrance to a cellar.

Paranormal events occur within the first few nights: all of the clocks stop at exactly 3:07 AM, birds are flying into their windows, and Sadie is found dead in the backyard. One night in bed, Christine encounters a malevolent spirit only she can see, prompting her to claim that the spirit wants her family dead. Another night, Carolyn hears clapping in the hallway. When she goes to investigate, following the noises, she gets trapped in the basement by the spirit.

Roger decides to contact demonologists Ed and Lorraine Warren, who have recently investigated a possessed doll called Annabelle. The Warrens agree to take on the case. They conduct an investigation and conclude that Carolyn is possessed by Bathsheba. The Warrens found the path leading to Carolyn in the basement, but the path is very dangerous .

So Warrens come to you for help, since you are the famous engineer in Harrisville.
So to keep up to your pride you are required to design an autonomous vehicle following the path to find Carolyn so that Ed can complete the exorcism ,saving Carolyn and lifting Bathsheba's curse forever.

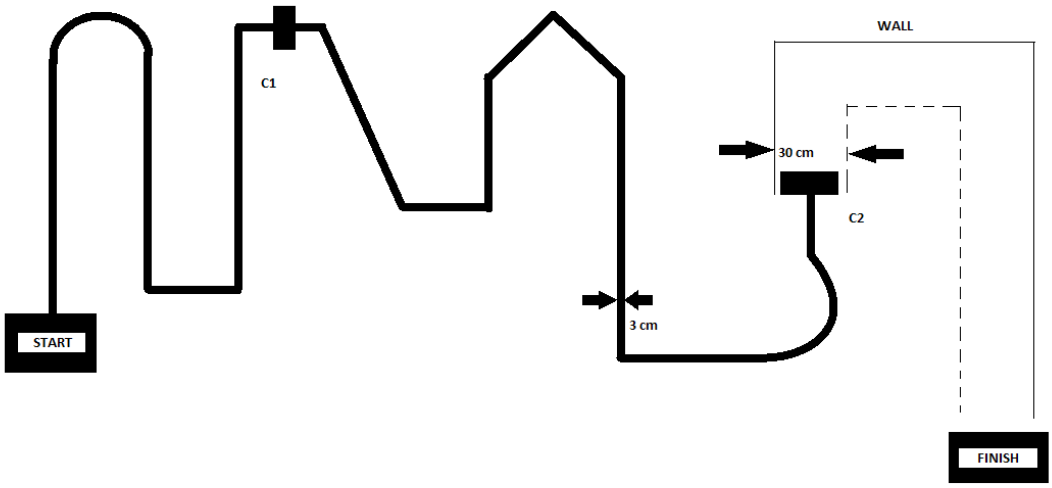
If the vehicle isn't build properly you shall be possessed by Bathsheba.
GOOD LUCK.

Rules and Regulations

1. A team can't have members from different colleges.
2. A team can have maximum 4 members and minimum 2 members.
3. Judges' decision will be final and binding to all.
4. You will be provided with 220V 50 HZ AC power.

5. You can’t supply more than 120W power to your robot.
6. Voltage must not be more than 24V between any two points.
7. If robot is supplied with AC power, RMS voltage between any two points can’t be greater than 24V.
8. Your Code should not be hard-coded.
9. Organizers reserve the right to change any rules or make new as they deem fit.
10. Robot must fit into a box of dimension 25 cm x20 cm x20 cm however it can expand later during gameplay.
11. Robots must not weigh more than 5Kg.
12. You are allowed to use readymade sensors.
13. Maximum number of trials allowed are four.

Arena Design



Sample Arena Design

Game Play

1. All the teams have to submit their robot for design testing.
2. Your robot has to traverse the whole arena from start to end.
3. There are three checkpoints in the whole arena along with the start point.
4. After clearing any checkpoint, if any timeout required then robot has to restart the journey from the last cleared checkpoint.

Scoring Criteria

1. Clearing checkpoint 1 += 300 points.
2. Clearing checkpoint 2 += 500 points.
3. Clearing checkpoint 3 += 600 points.
4. Robot design and structure based += 200 points (max)
5. Algorithm design += 200 points (max)
6. Points for time taken to traverse the arena = total points scored – (time in seconds)*0.5
7. For each time out taken by robot (90 seconds) = -70 points.

Event Format

Round 1: Bot Review Round

The bots built would be reviewed by the event coordinators to gauge the progress.

Final Round:

Teams selected for final round will be playing during “Avishkar 2019” as stated above in gameplay.

Contacts

Santanu Banerjee : +91-7392882161, +91-9431163082
Ritwik Singh : +91-9125419149
Manali Gupta : +91-8279871919
Facebook Page : www.facebook.com/avishkar.robotics/