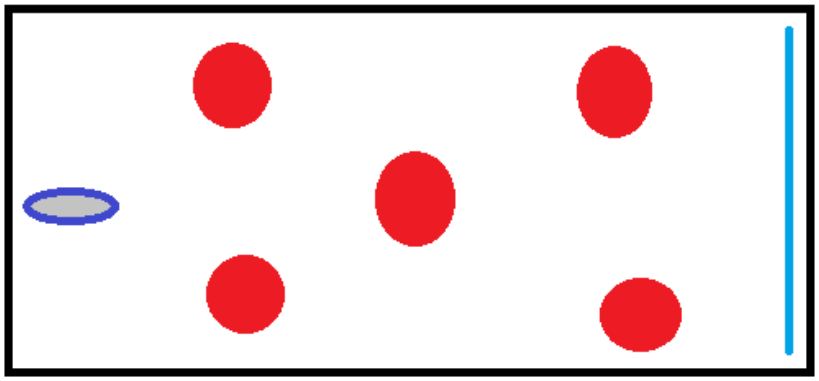
AUTONOMOUS WATER CRAFT EVENT 2016

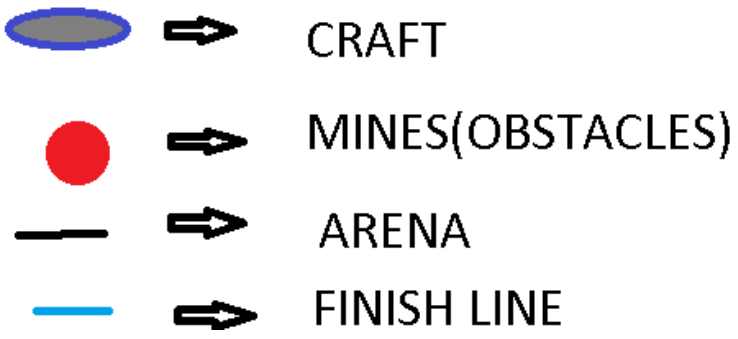
1.INTRODUCTION:

An exciting problem has been designed to develop and test your skill in Arduino and robotics.

ARENA:

The arena is 2.7m wide ,50 cm deep and 5m long .





MISSION:

The mission is extreamly sportive and interesting as it will involve the participants in not just making the bot but also in making it dodge the obstacles.

- Two participants will stand on either side,one each of the Arena and will control the bot Using Torch light.
- LDR -Light dependent resistor or any other sensor can be used to detect light.
- The bot will turn to the side from which light is shined or the move away from light either mechanism can be used to control the bot.(eg,To move to the left the person on the left will shine light on left LDR and vice versa.)
- The Bots have to cross the arena filled with mines(obstacles) at random without touching them.
- The position of mines will not be the same as shown above it may vary,the above figure is just to give an idea of the Problem Statement.
- The teams should try to cross the arena as fast as possible.

CRAFT REQUIRERMENT:

- Can have a maximum of two propellors.
- Bot should not be controlled by wire or remote,ie Autonomous
- Bot size -At max 30*30
- Can be controlled LDR sensor,(no restriction on no of sensors used).
- Electronics should be made water proof by keeping in a box.

SCORING CRITERIA:

The teams will be given initial 100 points.

Touching the mine(each) - 10 points detucted

Capsizing of craft will lead to penalty of 10 points

Capsizing more than three times will lead to disqualification.

In case of a Tie,Time will be taken as the criterion.

TEAM SIZE: 2- 6

VIOLATION:

- Craft staying in the areanafor more than thetime specified by the coordinator will be disqualified.
- Bot should not jump over obstacles,submerge under the obstacle.

8.FAQ:

- What will be the size of the team?

Ans: The maximum size of the team is restricted to 6 members

- Do all the team mates need to be from the same college?

Ans: NO, the team members can be from different colleges

- Is there any deadline for registration submissions?

Ans: Registration ends on 1st Mar 2016, 5 PM. Links are provided in the webpage. We cannot guarantee on the spot registrations. On spot registrations will be open only for limited number of teams.

- I am a student from a different stream and have no prior robotics experience. Can I participate?

Ans:No ,we would suggest you to attend Roboceana or RCbots events which are workshop cum event.

APROXIMATE COST OF MAKING BOT:

Component	Cost	Number
.arduino original/ freedino	1500/600	1
Bot Chasis	200	1
Motors	150	2
motor driver chip	50	1
Sensors-LDR	15	Depends
Battery	300	1
others(nuts,wires,tape etc)	300	

CONTACT US:

For any further clarifications please feel free to contact us.

*For any queries, please do forward a mail to

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Register at: http://wavez.org.in/
Mail us at: events@wavez.org.in

COORDINATOR'S DECISION IS FINAL.

NOTE:Teams are responsible for their Bot's safety.