Robo Aquatics

TASK:

1) To design a wirelessly controlled machine which has to take the balls placed in water into the team's goal through a zigzag path.

2)The teams must do this task in minimum possible time.

GAME PROCEDURE:

1) There will be two rounds-:

a) In the first round the teams have to simply reach the finish line. First 8 teams qualify for the next round based on time taken to reach the finish line.

b) In the second round, the teams have to gather the balls placed in the path and reach the finish line. The team that gathers maximum balls wins. If two teams gather equal number of balls, the time taken to reach the finish line will be considered.

ARENA:

1) The arena is of rectangular shape of the size 180cm X 90 cm.

2) There will be a obstruction at a distance 30cm

3) The arena is shown in figure 1.
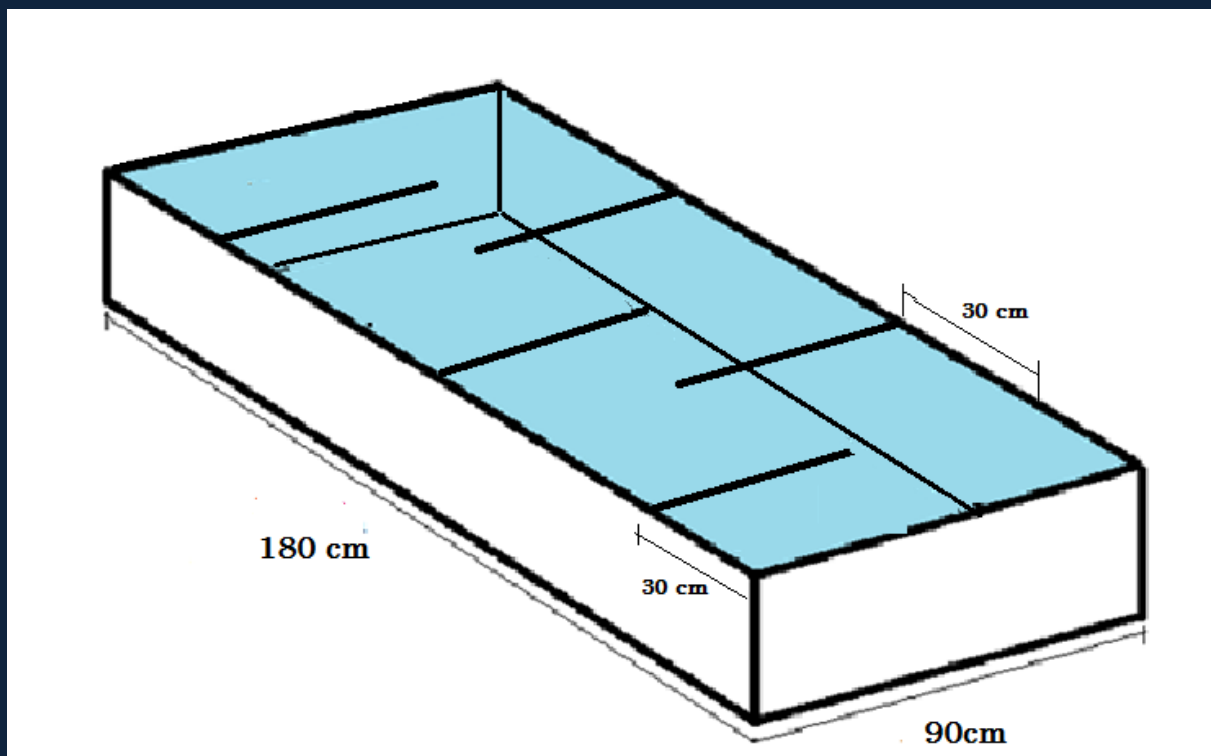
MACHINE SPECIFICATION:

1) The machine should fit in a box of 25cmx25cmx25cm (lxbxh) at any instant of time.
2) The machine always has to be controlled wirelessly.
3) Each team should be able to control their machine through at least two different sets of frequencies so as to avoid any interference in the frequencies with other teams. Teams failing to do so will be disqualified.
4) Each team can have only one machine. The machine should not be built by readymade Lego kits or any other readymade assemblies. Readymade chassis are also not allowed. Any machine found damaging the arena or any other machine will be disqualified.

POWER SUPPLY:

1) The power supply has to be on the machine. The maximum potential difference should not exceed 24V DC between any two points on the machine.
2) Only electrical energy can be used for propulsion. No form of chemical energy is allowed.

RULES:

1) In the elimination round, the machine has to be placed at the start line and the game should start at the blow of whistle.
2) In the finals, there will be table tennis balls placed in the water all along the path. The machine has to gather the balls and take it to the finish line.

GENERAL RULES:

1) Any team not ready at the specified time will be disqualified.
2) The machines will be checked for safety before run and will be discarded if found unsafe.
3) Organiser's decision will be final and binding to all.
4) Organisers reserve the right to change any or all of the above rules as they deem fit.Any change in the rules will be highlighted on the
Website and shall be notified to the registered participants.
5) All students with a valid identity card from their respective educational institutions are eligible to participate.

TEAM: A team can consist a maximum of 3 members.