School of Mechanical Engineering
RoboDisarmer
EventID:MET1607

Robot will lead defence of every country in future to fight against enemies,to diffuse and disarm enemy weapons. A innovative design of robot is required to be designed by engineers to do so.This event will lead to curiosity and innovation of such design . Gameplay consist of one from each team to correctly diffuse the boxes and other important materials.

GENERAL RULES
► Each team can have a maximum of 5 participants and minimum of 3.
► A team may consist of students from different colleges.
► Certificates of Excellence will be awarded to the top three teams.
► No damage should be made by a bot to the arena or to other team's bots during the match in any manner.
► Bots should not be disassembled until the results are declared.
 ► The organizers reserve the right to change the rules and/or arena as they deem fit.
► When a team is called for match, they must report within five minutes.
► Judges/manager's decision will be final.
Gameplay:
    The bot will begin from the startline.
• Two bots ,one from each team are initially placed in their starting points marked on the arena. Arena will contain 8 block and 4 four balls floating in water.
 • As the game begins the teams have to move the blocks onto the other side .For doing so robot should fill the block in destination 1 to make a path and then reach to destination 2.robot can also travel the path through sand to reach destination 2.Both robot can put any block or ball to the any destination place as per gaming points.
Gamepoints:
1. 25 points for putting block to destination 1.
2. 35 points for putting ball to destination2.
3. 45 points for putting the block to first step strair.
4. 60 points for putting block to second step stair.
5. 75 points for putting ball from water to destination2
6. 100points for putting ball from water to first step stair.
7. 150 points for putting ball from water to second step stair.
8. 100 points extra for moving at least 6 items(atleast 4 block and 2 balls).
9. 10min will be provided to each team.
10. 25points will be awarded for each minute for completing the task for completing the task before time limit.
11. Any robot can't block other robot path for more then 10 seconds.In such case both robot will be placed to starting point.
12. A bot can't touch other bot at any point of time .Doing so will cause penalty score50.
13. Robot can be touched at maximum2 time during the whole match.Exceding more than two times will cause penalty of score50.
14. Two minute hold is allowed once during the whole match.After that timer will start .

BOT SPECIFICATIONS:
 1. The dimensions of the bot should be less than or equal to 450 mm X 350 mm X400mm at the start of the game failing which the team will be disqualified from the competition.
2. The bot must be controlled manually.
3. Teams can use both wired as well as wireless control mechanisms. In case of wired bots, the length of wire should be minimum 2 meters so that the wire remains slack at any instant of time.
4. The dimensions of the remote are not included in the size constraint of the bot.

5. The robot cannot have any mechanism that can damage the arena in any manner.

7. Irrespective of the mechanism used, at maximum two person will be allowed to control the bot.
 8. Failing to meet the above specifications will lead to immediate disqualification.
9. Participants are not supposed to use any readymade lego components or readymade gripping mechanism. However the participants are allowed to use readymade gear assemblies.
Violating this clause will lead to immediate disqualification of the team.
Power supply:
In case of an electric power supply, the voltage between any two points should be less than or equal to 24V DC at all times during the run.
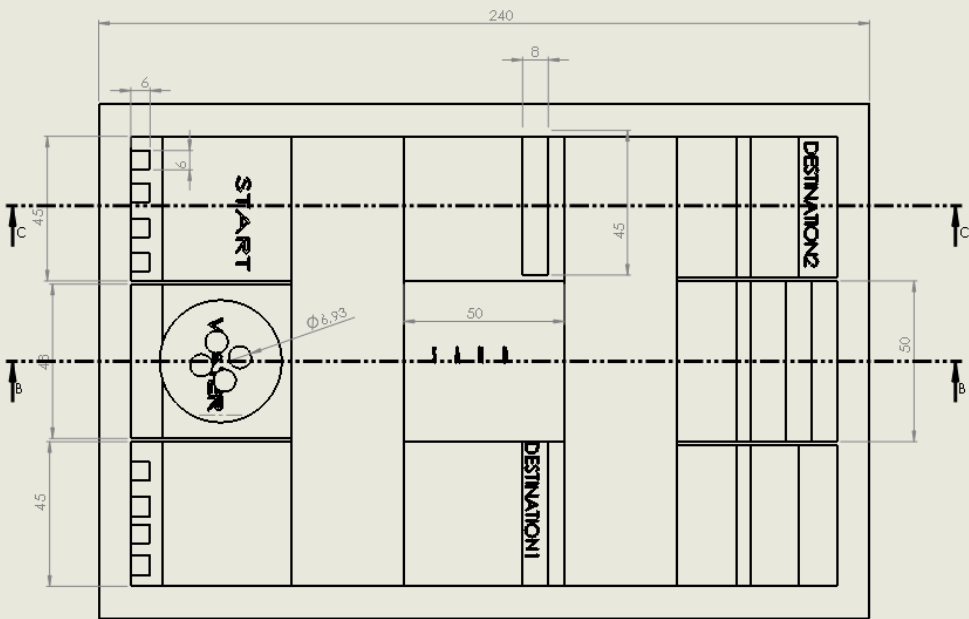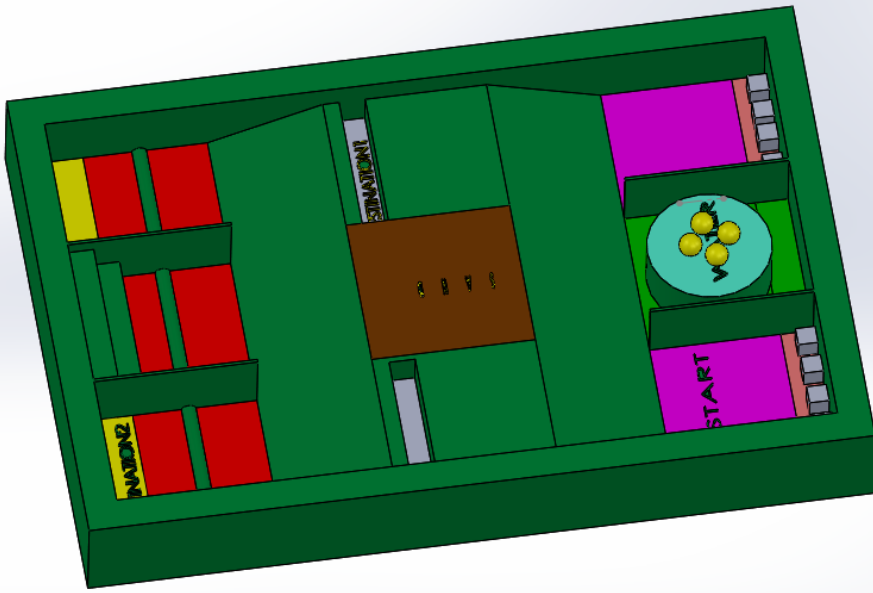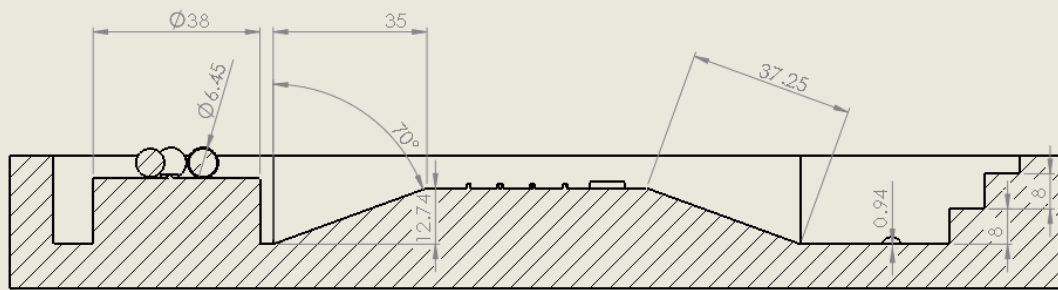AC power supply will be provided and can be used in the competition.
WINNING CRITERIA
Winning will be based on score .

ARENA
The arena design is given below

START

DESTINATION2

DESTINATION1

WORKER

240

8

6

6

45

45

45

48

50

50

Ø6.93

50

SECTION B-B

Coordinator:	phone no.
Abhishek kumar(14bme002)	7298350930
Amit kumar saw(14bme007)	7298918217
Ajit kumar (14bm005)	9858034256
Prashant pandey (14bme031)	7298914130
Avnish kumar (14bme013)	7298914137