



## MANOEUVRE

### General Rules:

- Each team can have a maximum of 5 participants and minimum of 2.
- 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 in case of any discrepancy.

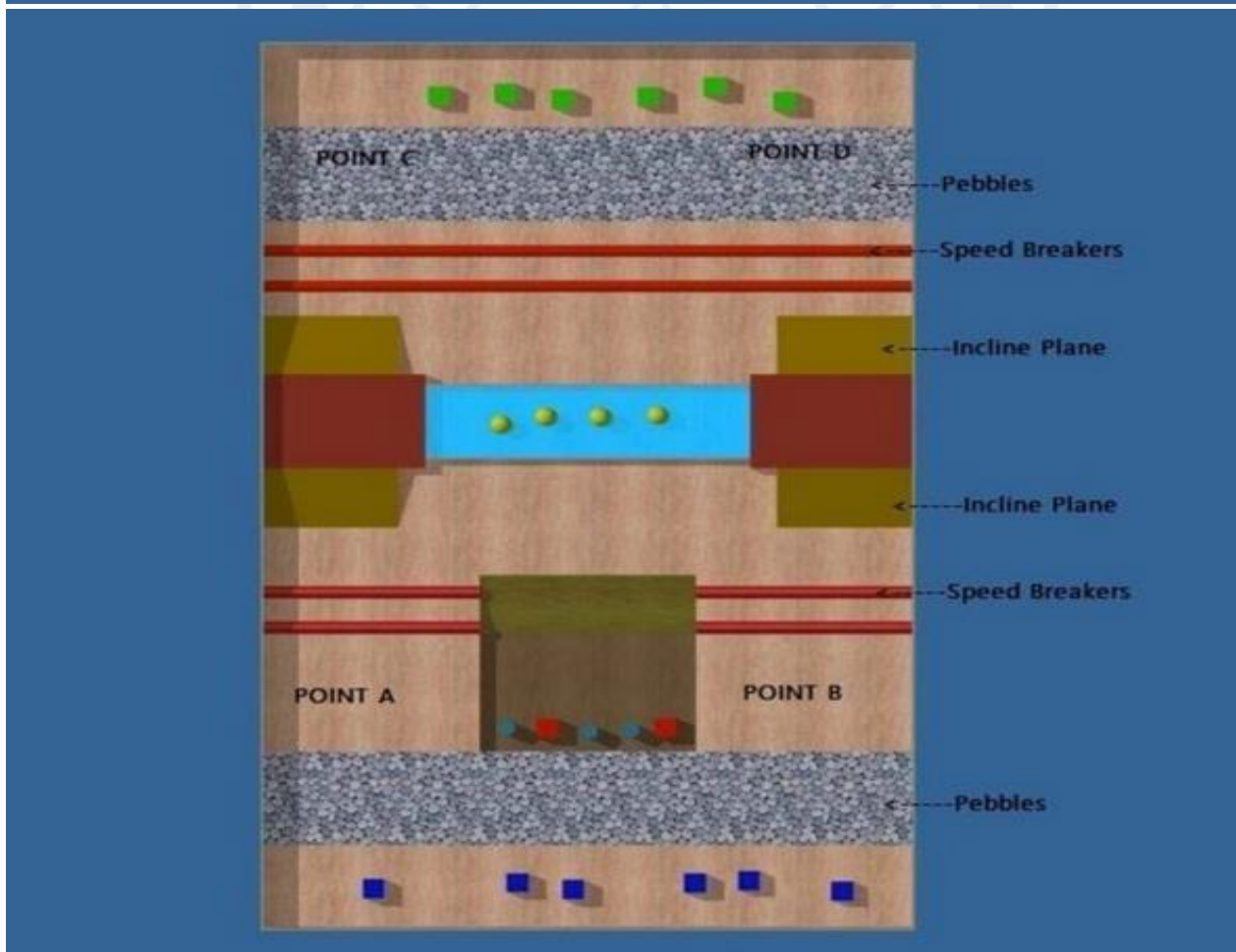
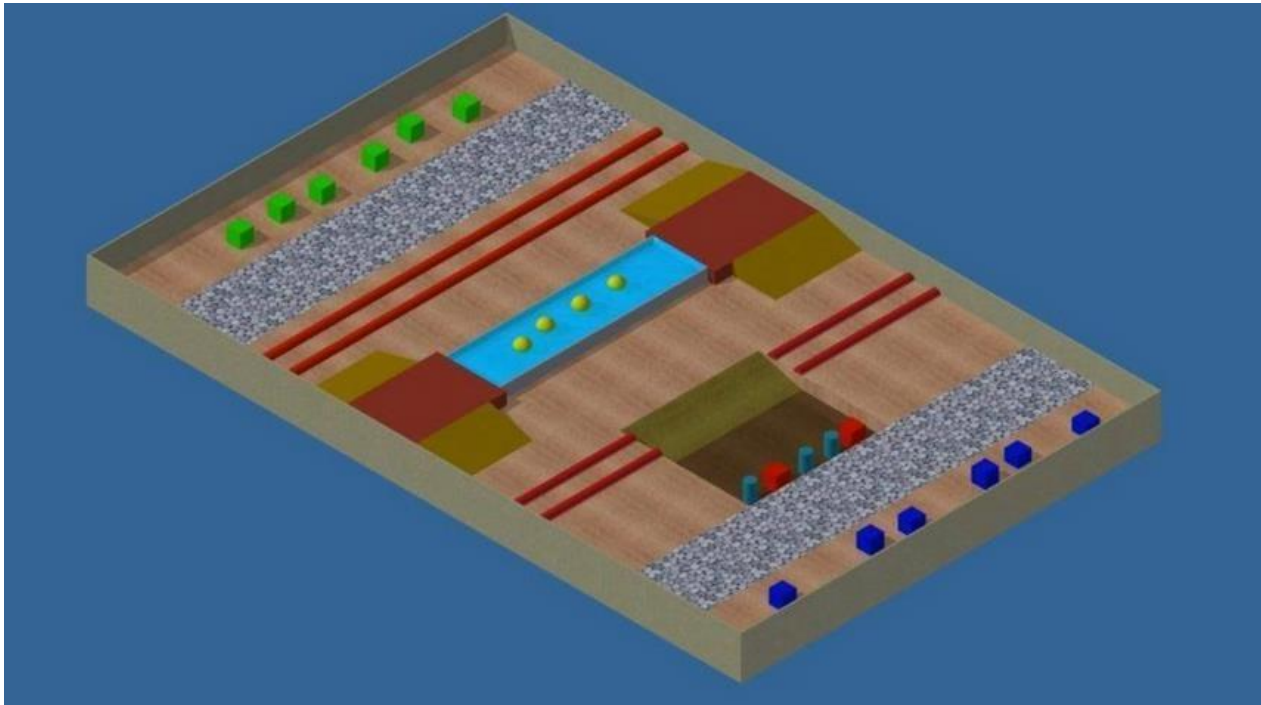
### Gameplay:

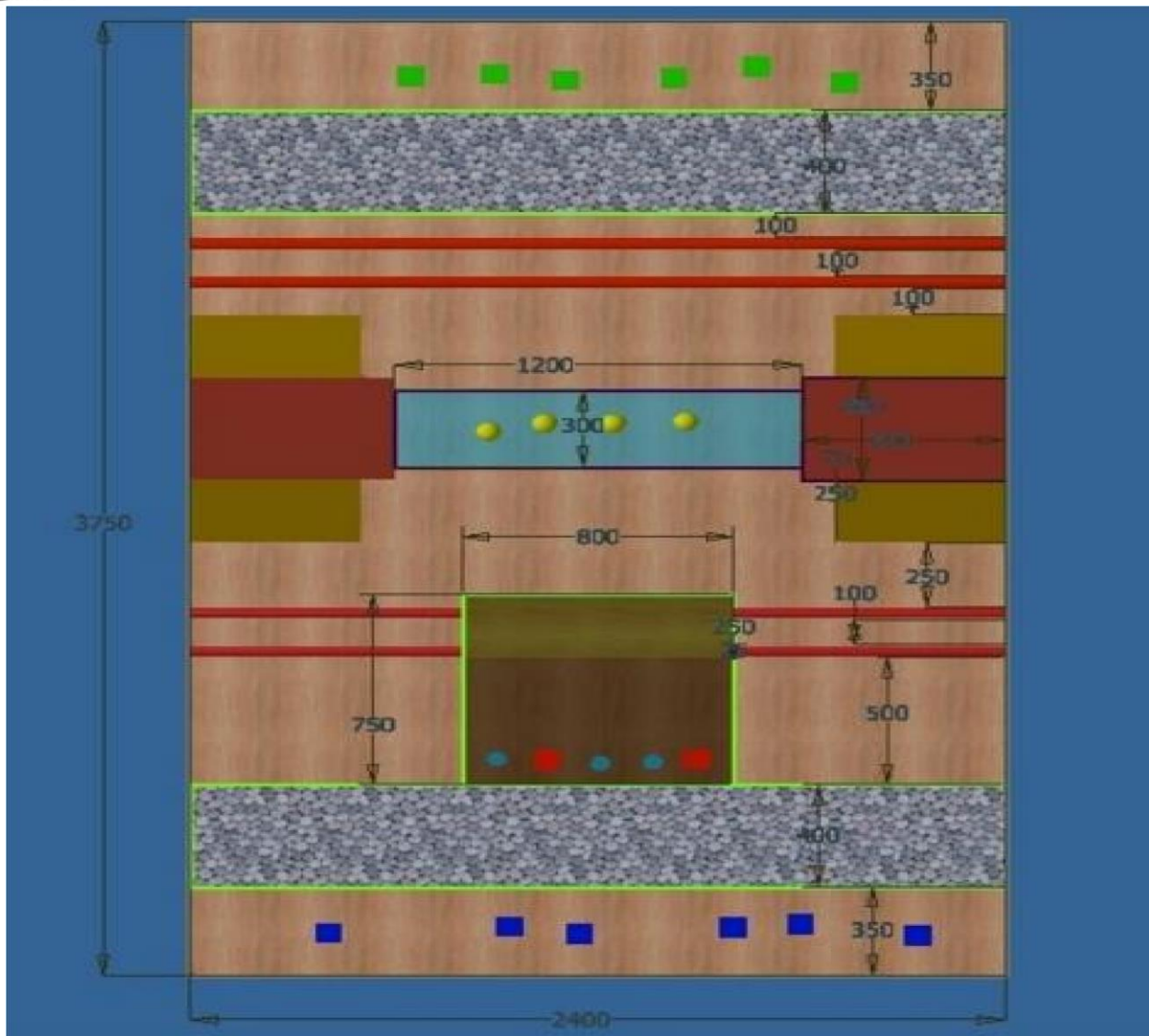
- The bots are initially placed in their starting points marked on the arena.
- As the game begins the teams have to move the blocks onto the other side. For example, bot from arena 1 shall lift the blue block and place it on the plane above the incline (the bot from arena 1 can ascend the incline and move on the plateau region but cannot enter arena 2).
- Bot from the arena 2 shall pick the block placed by the bot 1 on the incline and place it in the region where green blocks were kept initially.
- Similarly, the bot 2 has to pick the green blocks and place it over the plane above the incline and the bot 1 shall carry it and place it over the region where red blocks were placed initially, hence displacing the blocks.
- Also in the arena 1, there are some special blocks kept at a lower level from the arena. The bots can pick up those special blocks, place it over the higher region so that bot 2 can move those blocks to the region where the green blocks were kept.
- Special blocks shall be pursued only after the teams displace all the green and the blue blocks.
- Also, there are some spheres floating on the water; the teams can make an attempt in order to recover the spheres and place them in either positions (initial positions of the block). This can be attempted in between the game (or at any time).
- The participants should note that successful pursuit of these objects shall be awarded higher points.

### Robot Control:

- Bots can be wireless or wired.
- However, wire must not interfere with arena and it must be slack at every point of time.
- Both the bots should be able to grip, lift, carry and place boxes.
- Human Intervention is NOT allowed at any point during the game.

## Arena:





## Bot Specification:

- During the whole event both the bots must fit within a square of  $350 \times 350 \times 350$  (l×w×h). Dimensions in mm.
- Flippers, grippers and other mechanism (if any) should be well within the given dimensions.
- The Robot must be stable and able to move on its own. A Bot not fulfilling these criteria will be disqualified.
- A robot is NOT allowed to move multiple boxes simultaneously.
- A robot can move the block ONLY by gripping it.
- The robot cannot have any mechanism that can damage the arena in any manner.
- The robots shall be inspected before the event. Failing the inspection shall lead to disqualification.
- The wire used to power/feed the bot should remain slack at all times.
- Each team has to bring its own power supply for its robots.





- The voltage difference between any two points on the bot must not exceed 24 volts.
- Pneumatic/Hydraulic/Cutter/Projectile/Entanglement etc. mechanisms are NOT allowed.
- Wireless Control- If you are using a home built control system, or a control system not commercially available, you must first clear it with the Managers.
- The judges can ask for an explanation of any mechanism on the bot and there would be an immediate disqualification of defaulters of any kind.

## Point System:

- On moving the blocks from one end to center - 10 points per block. □ Moving the blocks from center to other end - 20 points per block.
- Moving the special objects from pit to center - 25 points per object.
- Moving the special objects from center to other end - 25 points per object.
- Moving the special objects from water to end - 40 points per object.
- Each penalty will cost 5 points.

You can buy components from [Sp Robotics](#)

