

LANKA RELOADED



INTRODUCTION:

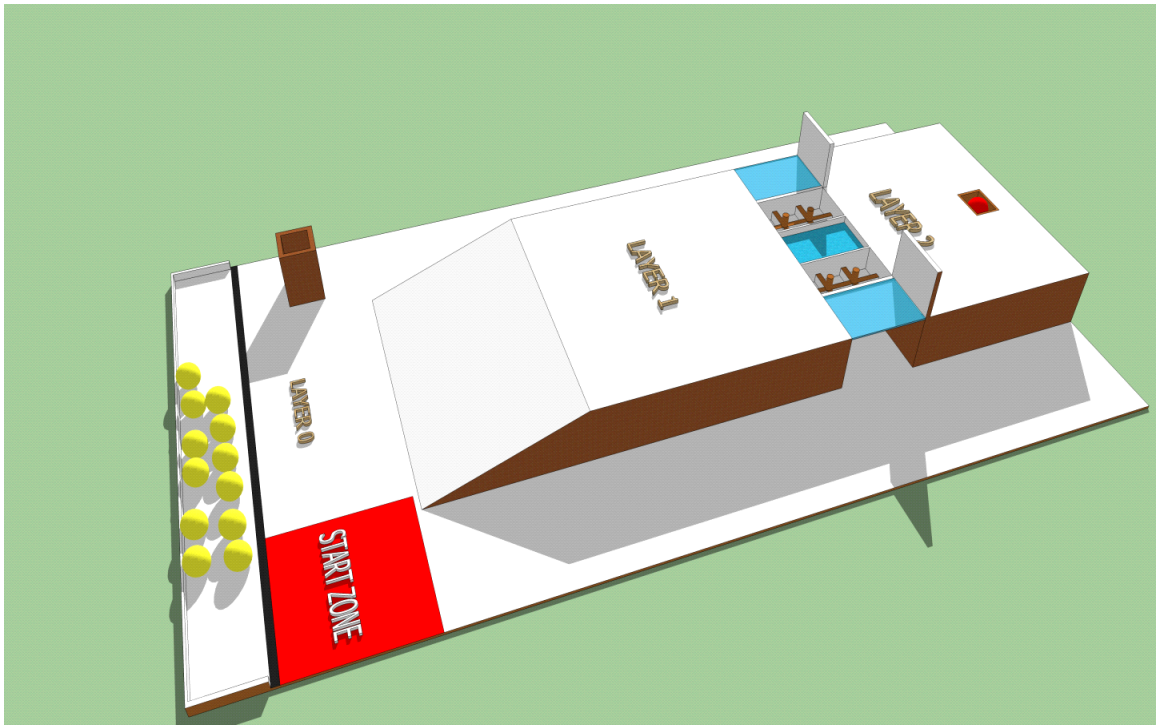
Years ago the great hero Rama led an expedition to the mystical land of Sri Lanka, to rescue his wife Sita from the clutches of the daemon king Ravana. On their journey they were faced by a great conundrum; of crossing a vast ocean, the Indian Ocean. Coveting for his wife Rama along with his army built a floating bridge across the ocean, the famous Ram Setu. We are all aware of the epic battle that took place between daemon king Ravana and Rama, resulting in Ravana's defeat and rescuing of Sita. We at Pragyani 12

give you an opportunity in rebuilding Ram Setu, to rescue Sita and be crowned a hero.

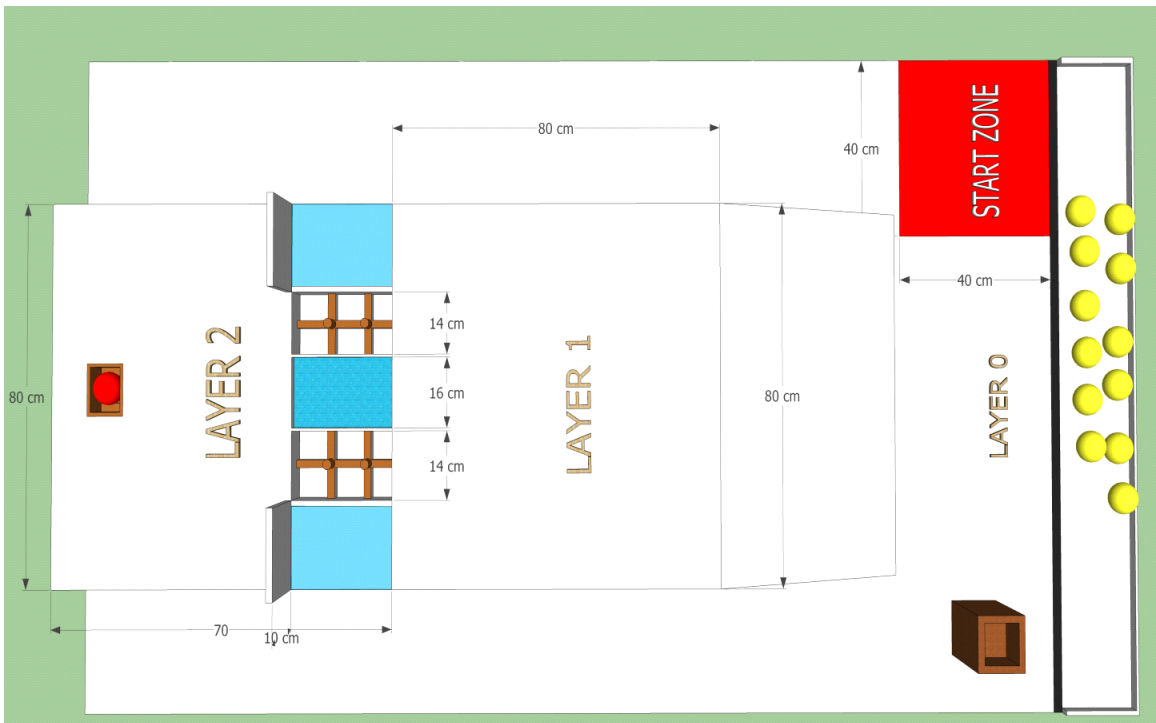
EVENT FORMAT:

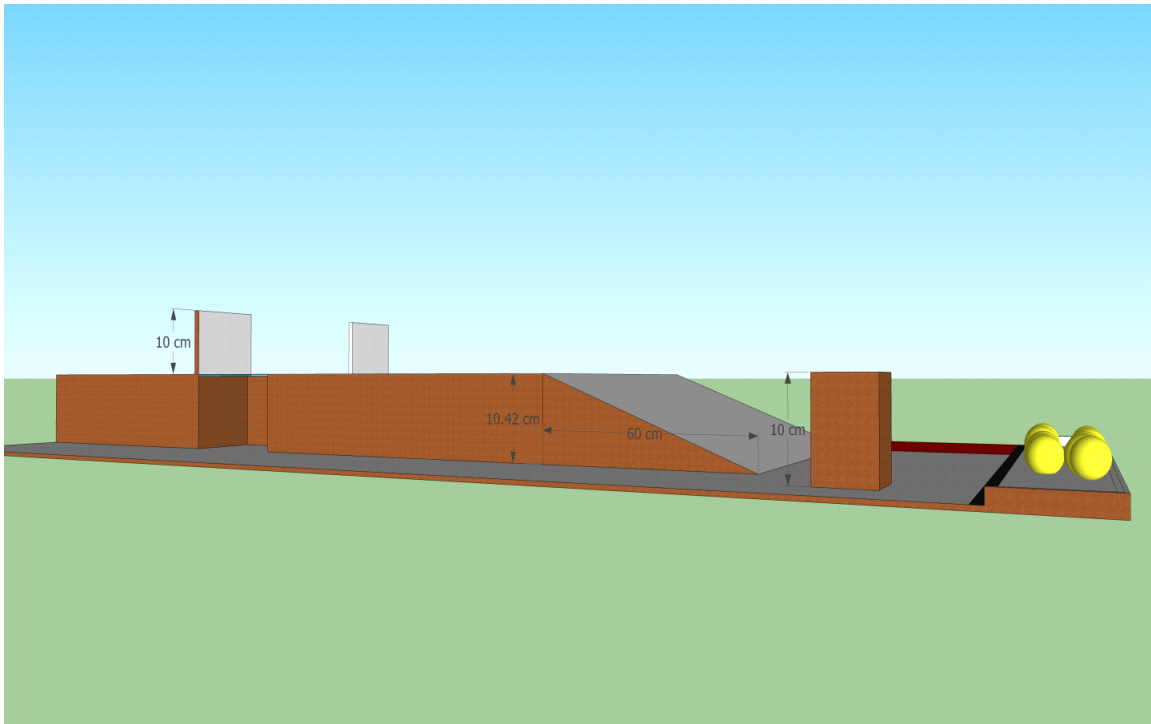
- Each team has to make a manual robot capable of picking and placing tennis balls.
- A team may consist of maximum four members.
- The arena is divided in to 3 regions layer 0, layer 1 and layer 2.
- The robot will start from layer 0 where it will be put on a red square 40x40 cm².
- The boulder region on layer 0 will have 12 balls. The robot can pick as many balls as it can.
- The robot has to climb a slope of 100 to reach layer 1.
- Layer 1 will be a 80x80 platform.
- Layer 1 and layer 2 will have a void bridge connecting them approximately 21cm long.
- The bridge will have 12 sockets on them for the boulders.
- The robot has to drop the balls in to each of the slots.on both side of the bridge there is a glass/acrylic sheet. The bot can travel on top of it when dropping the balls.
- The bridge will be completed only if all the 12 balls have been dropped in to the slots.
- The red ball (final ball) will come out when the bridge is complete.
- After the bridge is made the robot has to cross it and get the final ball (resembling sita) and bring it back to layer 0. Where it has to be put on top of the pedestal to complete the event.

Arena:



Dimensions:



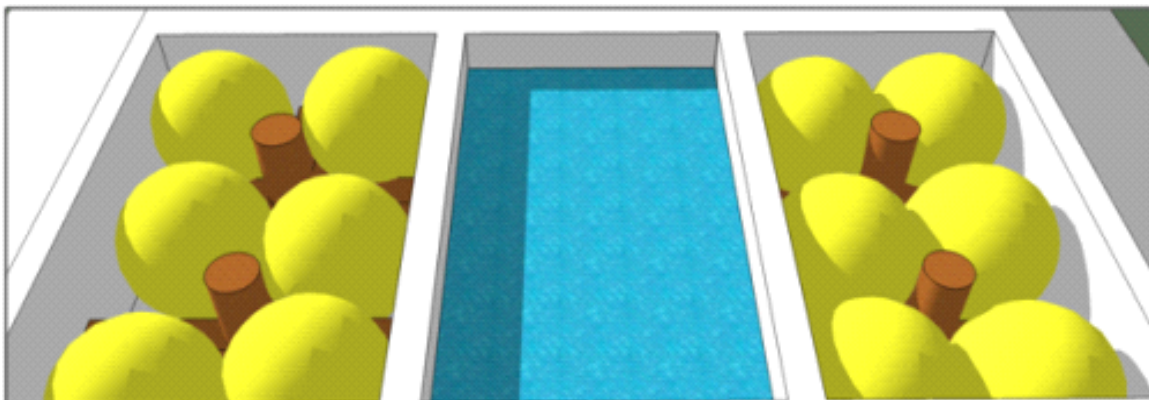
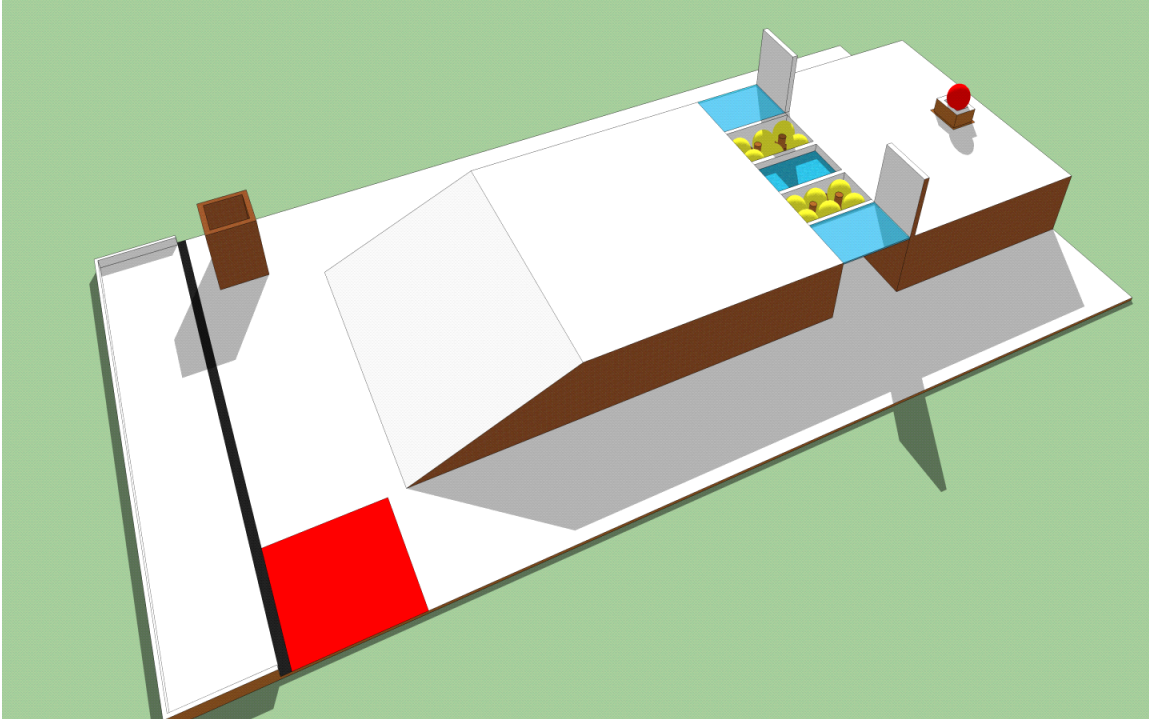


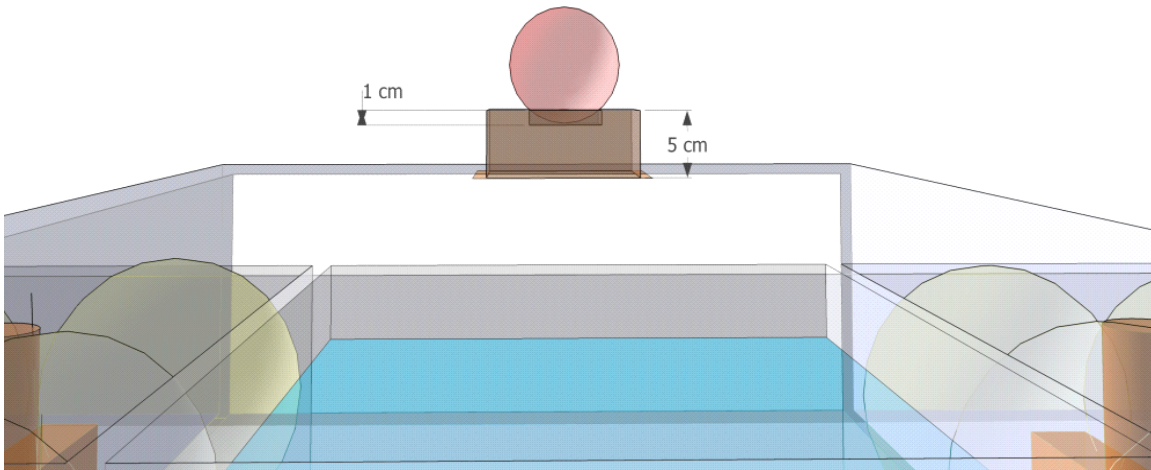
Arena description:

- Tennis balls will be randomly placed in the boulder region.
- the pedestal in layer-zero will be 10 cm high.
- the slope to layer-one is 60.9 cm (approx) long with a 100 inclination.
- layer one is 80x80 cm in size.
- the bridge connecting layer-one and layer-two has 16 cm wide void at the centre. the team will lose a trial if the bot falls into it.
- on both side of the void there is slots each of 14cm wide for the boulders.
- glass/acrylic platform on outer most sides as aid when dropping the ball. each of them is 18 cm wide.
- The red ball will come out only when the bridge is complete. the it will be standing on a 5cm high pedestal as shown in the pic.(see the red ball before and after completing the bridge)
- layer-two will be 70x80 cm in size.

- the whole arena will be made of plywood and will be painted.

After dropping all the balls:





Scoring:

- +20 for successfully placing each ball into the slot.
- -5 if the ball misses the slot and falls outside the arena.
- +30 for crossing the bridge.
- +40 for getting the final ball and putting it on the pedestal at level zero.
- Final score = total score + time left in seconds.

Game rules:

- Each team can have maximum 3 trials.
- Each round will be of 15 min.
- The team will lose a trial if the bot malfunctions during that trial.
- The team will lose a trial if the bot falls in to the centre void in the bridge.

- The team is not allowed to touch the bot or arena during a trial, doing so will lead to termination of the trial.
- If the ball misses the bridge slot and falls outside the ball will be put back to the boulder region.
- The bot can only cross the bridge after putting all the 12 balls into the slot.
- The best of the three trials will be considered for the final scoring.

Rules and regulation:

- Bot must fit into a square of 40cm x 40cm initially.
- The potential should not exceed 12V at any two points in the remote or the robot. How a tolerance of 2V will be considered for over charge.
- The bot can have wired or wireless remote controlling system. In case of wired remote the wires should be bundled and should remain slack throughout the event.
- Teams found taking advantage of the tension in the wire shall be immediately disqualified.
- Only one person is allowed to control the bot.
- Members are not allowed to step over/touch the arena.
- Damaging of the arena in any way will lead to the disqualification of team.
- Decision of the judge will be final

Caveat :

- Game field dimensions are subject to a tolerance of $\pm 5\%$. No tolerances will be given in case of maximum bot dimensions.
- The authenticity of any action not provided for in this rule book shall be subject to discretion of referees.
- Any addition or correction to this rule book will be updated in the site.

Contacts :

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