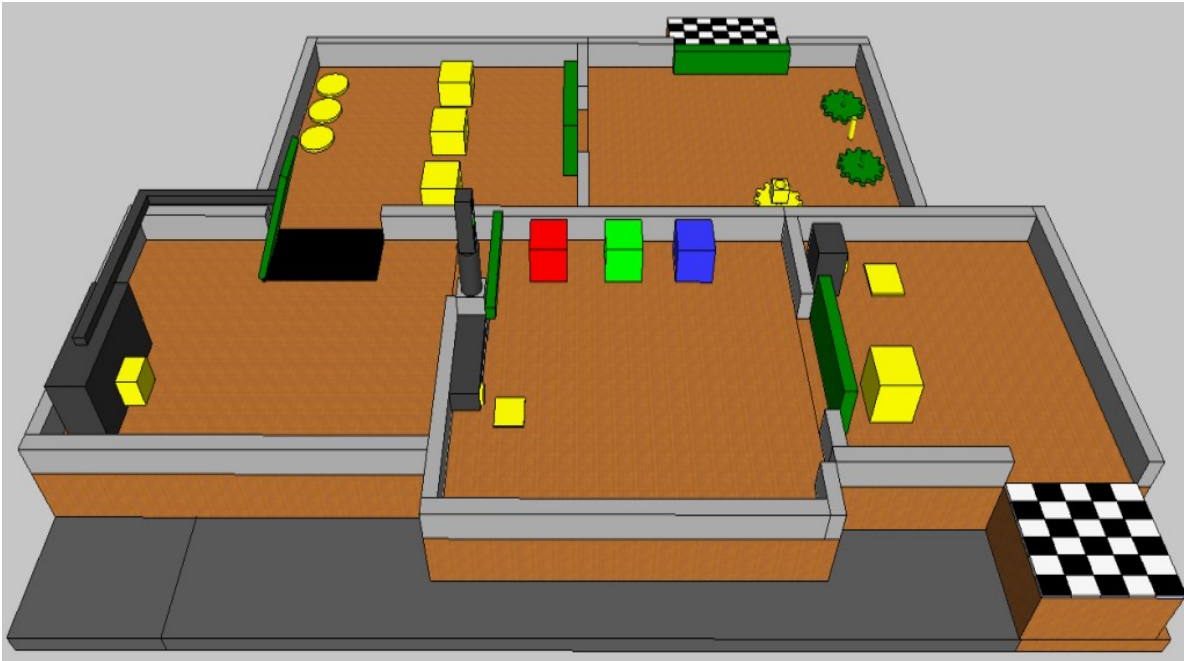# Palletizer

Introduction :

Robot has to go across 5 interlinked cabins to finish the game. You must complete a unique task at every cabin to unlock the path to the next cabin.

Problem Statement :

Build a manually controlled (wired or wireless) robot having a gripping mechanism capable of picking and placing a cube of maximum dimension of 7x7x7 cms.

Robot specification :

- The robot can be either wired or wireless.
- The maximum dimension of the bot must be 30cm x 30cm x 30cm, which will be checked before the event and violation of which will lead to the disqualification of the bot.
- The battery for each robot must be on-board. External power supply will not provided at any cause.
- The weight of the bot must not exceed 5kg.
- The wires (in case of wired robot) should be at least 4m long and should remain slack throughout the game.
- No part of the robot must damage the arena, violation of this could lead to disqualification

Tasks :

- The bot enters the first cabin where placing an object at a certain location. This will open the doors to the next cabin.

- You will face a traffic light that will have only one light turned on out of the three lights. Placing the same coloured block in a marked position will open the doors to the next level.

- You have to pull an object out of the cavity and as you pull the object out, the hinge bridge will open and you may pursue your journey to the next level.

- There will be positions that will be number from one to three. You must move each of identical blocks over the marked positions in the ascending order.

- Two gears are separated by a shaft. The first gear is rotating and the third one is still. Pick the 2nd from first to third to open the doors to exit. gear and place it on the shaft to start transmission.

Rounds :

It is a single lap race. There will be no specific rounds. If you fail to accomplish with the best time you can try it again through re-entry into the event. The bot with the best time shall be declared winners.

Rules :

- The permissible team size is between 2 to 4 members.
- All students with a valid identity card of their respective educational institutes are eligible to participate.
- Number of robot handlings allowed: 3 (when robots get stuck/fall, wires tangle etc)
- Hopping, jumping and destruction inside the arena will not be tolerated.
- 220V AC Power supply will be provided. The participating teams must bring own extension board, adaptors/eliminators of the required voltage rating.
- The Game rules are subject to change by organizers as and when required and will be notified to the participants.
- All the judgments by the judges/referees will be final.

Video :

Link to video : https://www.youtube.com/watch?v=6GcXI8sXJOI