

ROBOTICS EVENT

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DISCRIPTION OF EVENT

**THERE ARE THREE PHASE OF
THIS EVENTS**

1- ROBO SOCCER

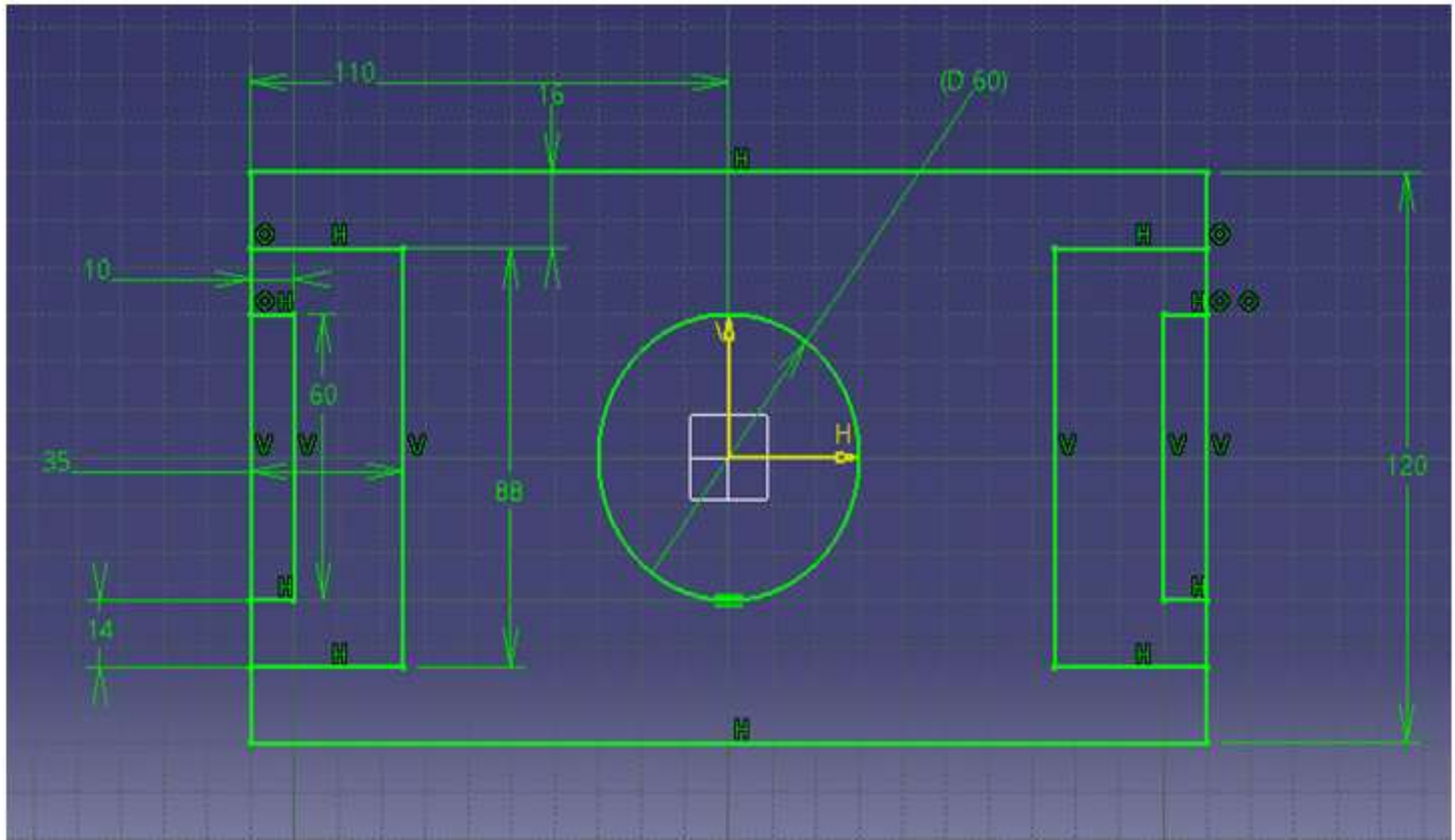
2- ROBO RACE

3- JUNGLE SAFARI

ROBO SOCCER

2018-19

DESIGN OF ROBO SOCCER ARENA



RULES FOR PARTICIPATION

- A team will consist of two members.
- Each team will register with their individual team name on first come first serve basis.
- Use of external equipment and sensors are prohibited.
- No other will operate the bot, other than team members.
- Event coordinator will give a small demo to run the bot. No other demo will be provided after that.
- One player can play only a single match. Re-entry in another match, or in a different team is strictly prohibited.
- The rules for the match will be displayed near the arena. No announcement for the rules for individual teams will be made.

RULES FOR MATCH

- The arena will be as shown in the figure. The actual arena might differ slightly in dimensions and appearance.
- Two bots will participate in the event simultaneously. Both the bots will start from their respective homes.
- At the centre of the arena will be kept a ball. The bots are required to make as many goals as possible in the opponent's goal post.
- A complete match will be divided into two rounds of 3 min & 3 min duration each. At the end of the match, the team having made the maximum number of goals will be declared as winner. In case of tie, a third round will be conducted.
- In a special case when each participating team fails to score any point then, Each team will be provided with a time duration of 1 min for a special* shoot out.
- During the match, if any there is any technical fault with any of the robots, the team can ask for a timeout of 1 min. A team can go for a MAXIMUM OF 1 TIMEOUT for each team.
- Arena will be having a boundary of 10 cm height.
- Participants should ensure that their wires do not tangle with each other or anywhere with the arena.
- In case the ball bounces off the arena, a timeout will be called by the coordinators. The ball will be placed at the centre, both the bots will be placed at their respective homes and the timer will continue from the point the timeout was called.
- In case of any dispute the decision of the Coordinators would be considered as final.

WINNING CRITERIA

- At the end of the match, the team having made the maximum number of goals will be declared the winner and will be provided with a prize to each participants of the team.

THE FINALE

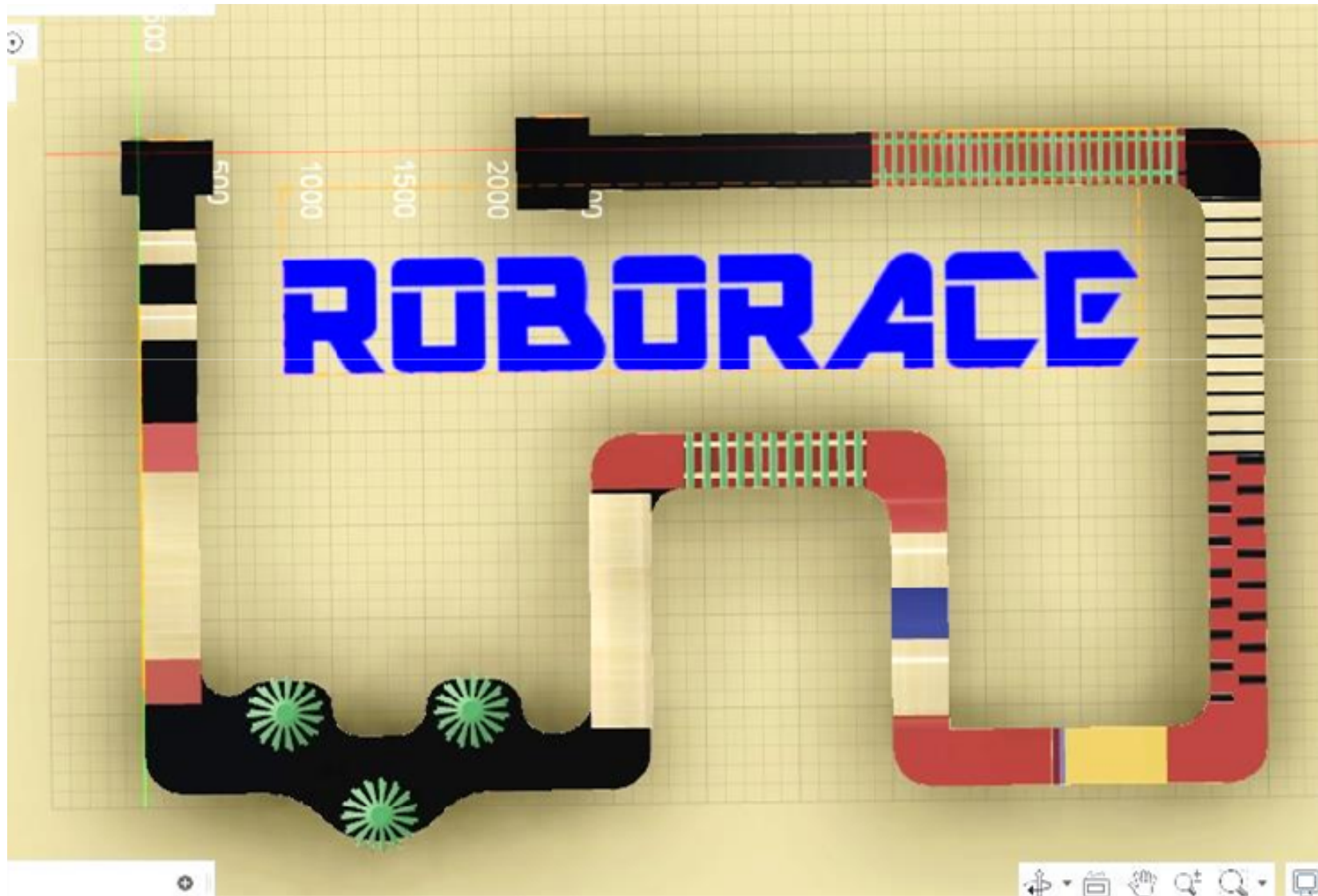
- Each team will be counted with their number of goals and the top 2 teams will fight for a final match.
- In case if two teams having equal no. of goals will fight in semi-finale for entry in final match.

PRIZE

- The winners of each match will be given on the spot prize.
- The winner& runner up team of the final round will be awarded with ONE trophy, each.

ROBO RACE

DESIGN OF ROBO RACE ARENA



RULES FOR PARTICIPATION

- A team will consist of two members.
- Each team will register with their individual team name on first come first serve basis.
- Use of external equipment and sensors are prohibited.
- No other will operate the bot, other than team members.
- Event coordinator will give a small demo to run the bot. No other demo will be provided after that.
- One participant can play only in one team. Participation in a different team is strictly prohibited.
- The rules for the race be displayed near the arena. No announcement for the rules for individual teams will be made.

RULES FOR ROBO RACE

- The arena will be as shown in the figure. The actual arena might differ slightly in dimensions and appear.
- This is racing event so fastest and most balanced robot will win.
- Robot should be as per the given specifications and the specifications will upload later.
- Each team can have maximum four members. Students from different institutes can form a team.
- Entry fee will disclose later.
- Each member of the team must contain the identity card of his/her respected institute.
- The robot should not damage the arena.
- The robot must not leave behind any of its parts during the run; else it will result in disqualification.
- Unethical behavior could lead to disqualification. Faculty-coordinators have all the rights to take final decision for any matter during the event.
- Judge's decision will be considered final.
- The half of participating team who will complete the race in shortest time they will go for second and final round of the race.

SPECIFICATION OF BOT

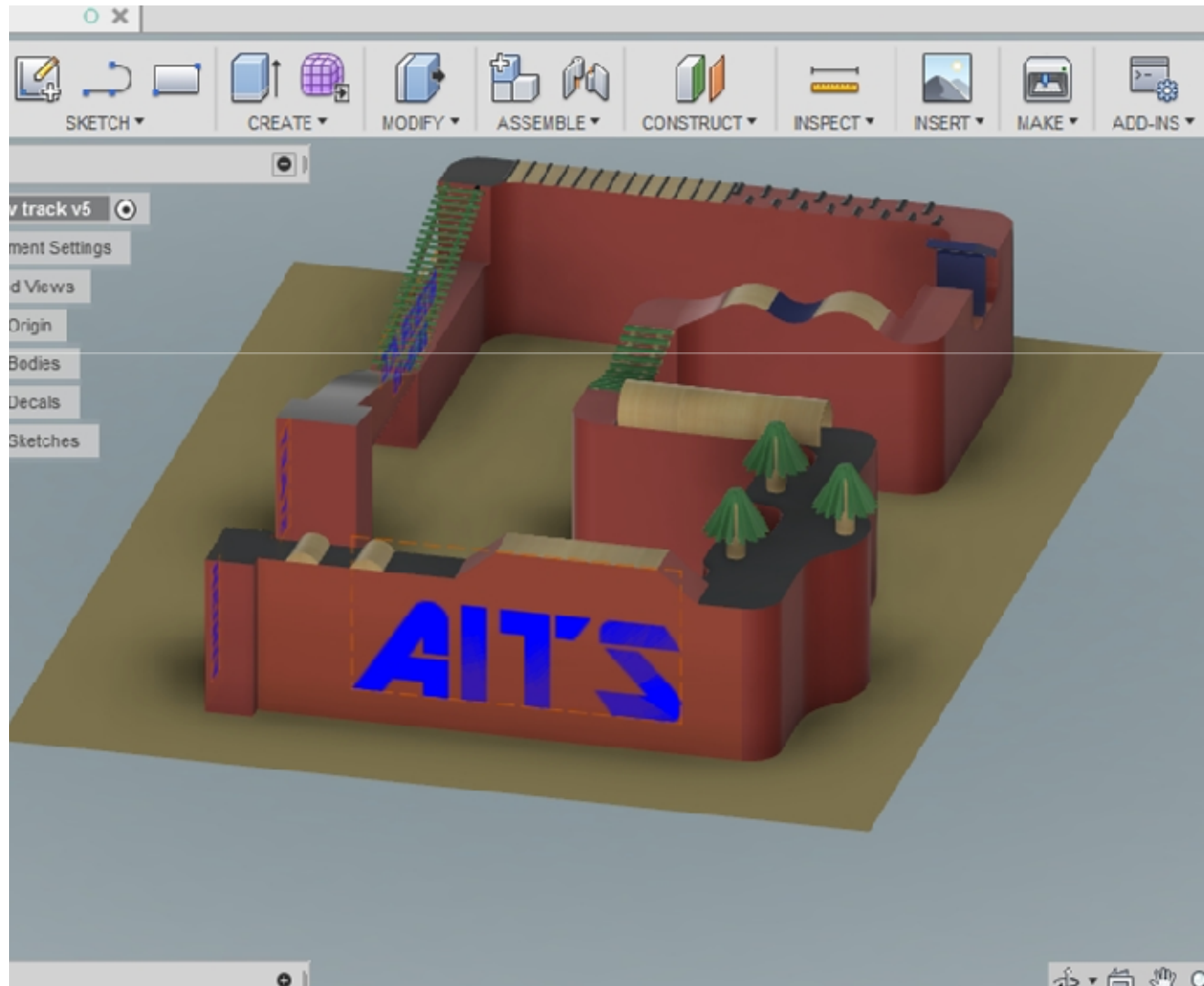
Technical specification

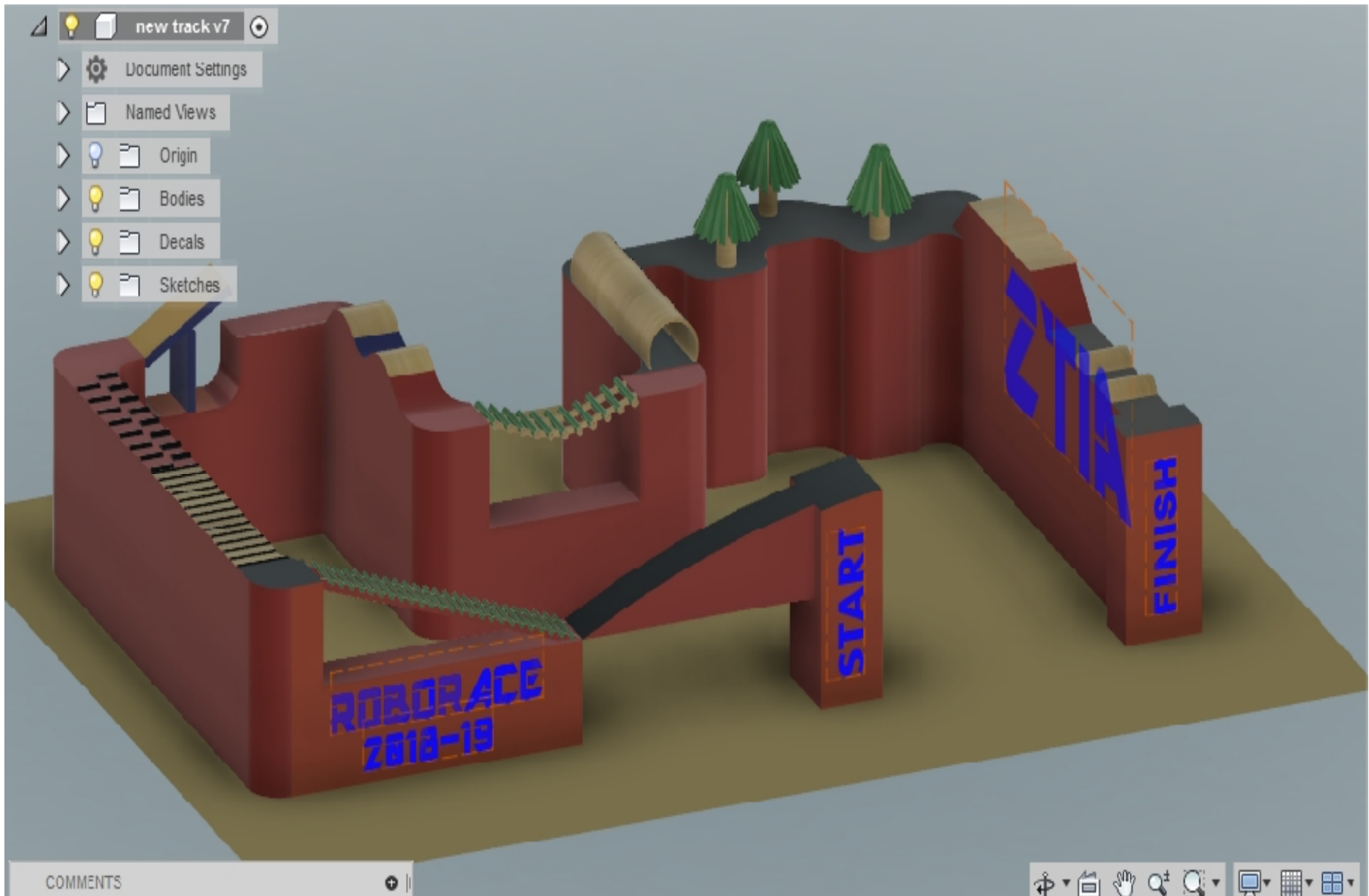
- Width – Track width of bot should be less than 80% of wheel base of Bot
- Length –Maximum 220mm.
- The Robot only manual.
- Maximum weight must not exceed 2.5kg
- **Power Source & Motor Propulsion**
- The robot must be powered by a DC 12 V power source.
- Amperage is not limited.
- Motor Can Be up to 250 Rpm , But Wheels Should be 2 inch in Diameter (5% Tolerance)
- **Bot Construction**
- Any robot kit or building material may be used, as long as the robot fits the above specifications and as long as the design and construction are primarily the original work of the team.
- Innovation Is separately awarded , and relaxation in points is given accordingly.

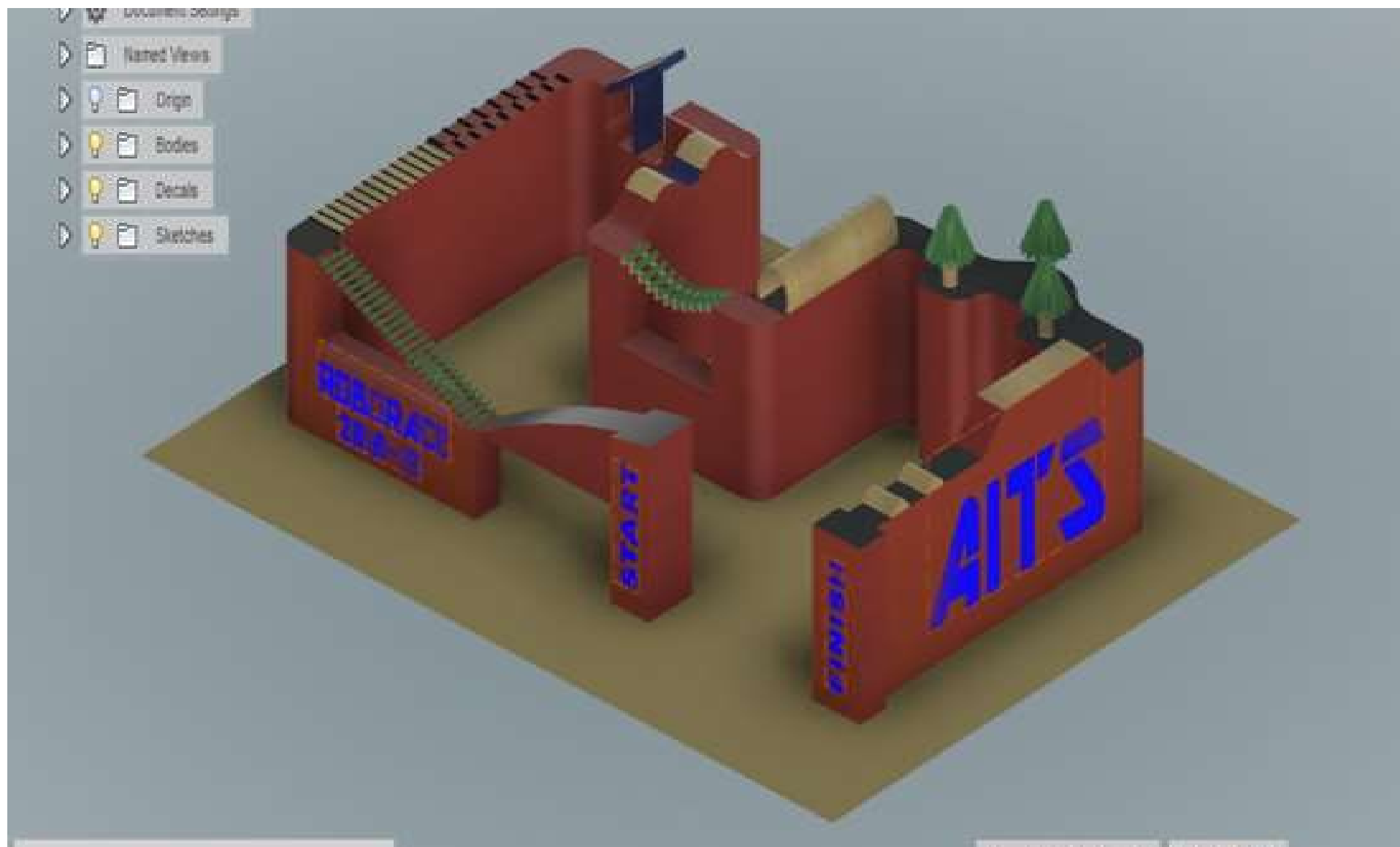
JUNGLE

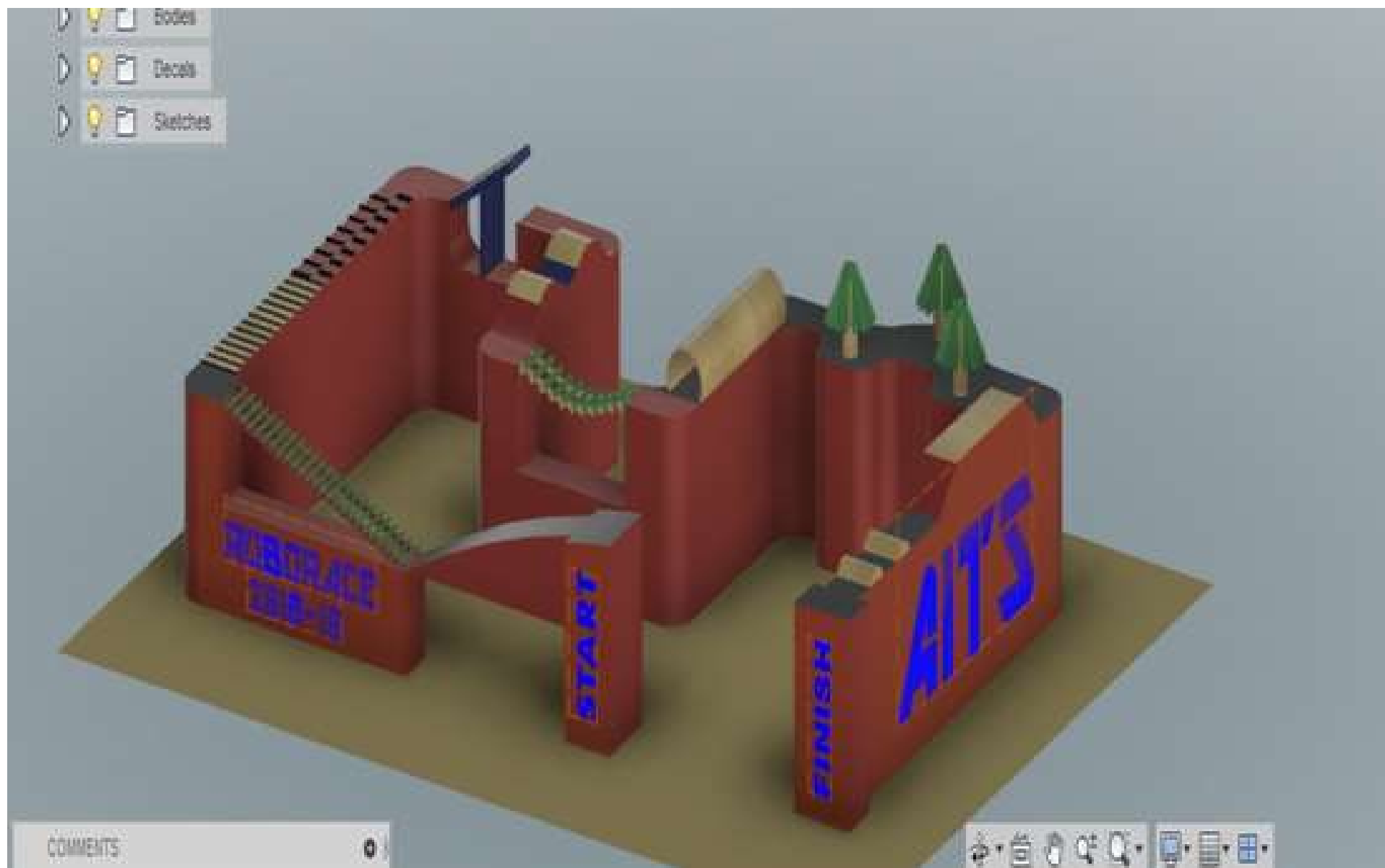
SAFARI

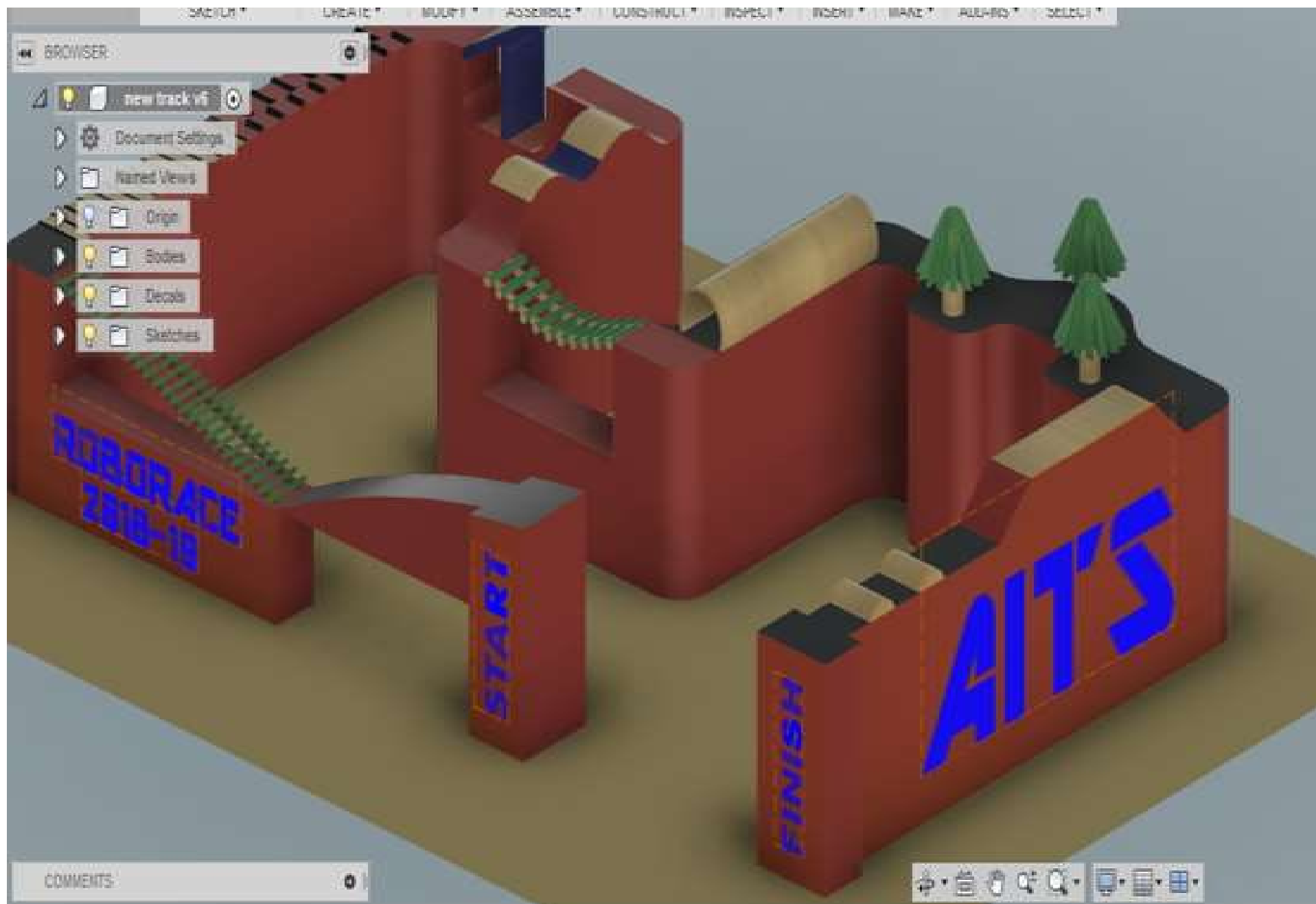
DESIGN OF ROBO SOCCER ARENA











RULES FOR JUNGLE SAFARI

- **10 to 20 Points:** will be awarded based on difficulty of each hurdle. Appx. 10 hurdles will be there at arena.
- **(- 5) Points :** For each human touch. After each human touch robot will start from previous “Reset Line” which is there before each hurdle.
- The COMPETITION FIELD consists of 35 cm Wide track.
- The track surface and course line may have Concrete and gravel texture.
- There will be certain obstacles in the race track which will try to slow down the robot, thus demanding performance.
- The design and size of the track may vary from that shown in the Layout pictures.
- Arena will consist of wood Bridge, Bi speed breakers, Gravel pit, Dissected valley, See- Saw platform, curve ramp down, Trees etc.
- Judge's decision will be considered final.
- Certificates will be given to all the participants.

THANKS