

OMNI SOCCER MATCH



ENGG 1100 - FALL 2021



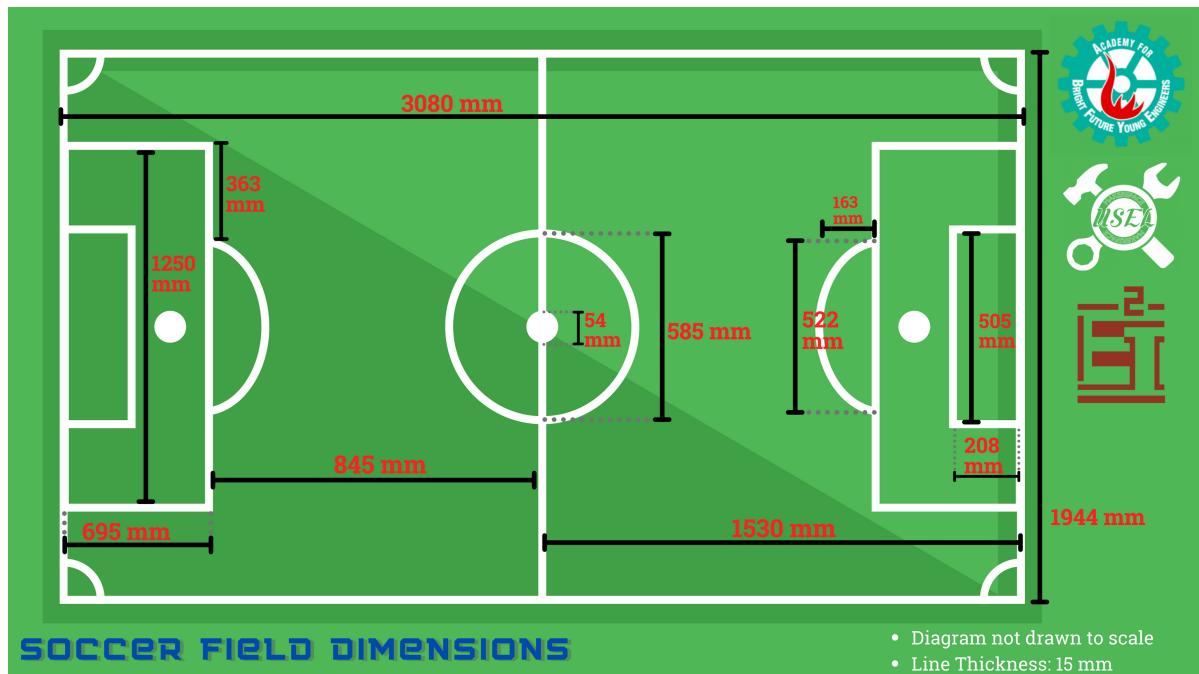
FINAL COMPETITION 2: OMNI SOCCER MATCH (25%)

GAME RULES



SECTION 1: PLAYING ENVIRONMENT

- **Dimension:**
 - 3.12m * 1.98m
- **Field Surface:**
 - The playing surface is a green carpet. The table under the carpet is flat and hard.'
- **Goals:**
 - The goal will be 1.25m wide and 0.18m high
 - Goals must be placed at the centre of each goal line.
 - Robots are not physically allowed to go through the base line
- **Ball:**
 - The ball is a 3D-Printed TPU football with a diameter of 0.055 meters.





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SECTION 2: ROBOT REQUIREMENTS

- A match is played by two teams, with each team consisting of not more than 3 robots.
- Each robot in the same team must have a similar colour pallet/ pattern/ uniform design.
- A robot must not pose any danger to other robots.
- It must not damage or modify the ball or the field.
- The referee may force a team to remove a robot from the field if he considers it a potential safety threat.
- All robots participating in the soccer match must pass a safety inspection by their team STA before the soccer match.
- Please refer to the Document: [Soccer Robot Requirement & Constraints](#).



SECTION 3: ROBOT HANDLER

- Each team should assign 1 student as the robot handler
- The robot handler will be responsible for calling a timeout during the match.
- Please refer to Section 5 for more details regarding timeouts.

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SECTION 4: GAME STAGES

FIRST HALF MATCH

- 120 SECONDS OF PLAYING TIME

HALF TIME BREAK

- 60 SECONDS OF PAUSE

SECOND HALF MATCH

- 120 SECONDS OF PLAYING TIME

- If the match is an elimination match (draw is not a possible outcome) and the score is even after the regular game time, the match goes into overtime and the following game stages are added.

PRE-OVERTIME BREAK

- 30 SECONDS OF PAUSE

OVERTIME MATCH

- 60 SECONDS OF PLAYING TIME

- The robot handler can replace one of the robots with another during the half time break and pre-overtime break.
- The replacement should pass the safety inspection beforehand.



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SECTION 5: TIMEOUTS

- The robot handler has to ask the referee for a timeout.
- Timeouts are handled like breaks, meaning that both teams are allowed to make modifications to their robot.
- Each team is allocated 3 timeouts at the beginning of the match.
- Each timeout will approximately take 30 seconds.
- Timeouts may only be taken during a game stoppage.
- During overtime, both teams can use 1 additional timeout with 30 seconds.



SECTION 6: REFEREE COMMANDS

- **Stop:**
 - The Stop command is used to pause the game after the ball crossed the field lines (including goals).
 - The ball will be placed at the centre before the match resume and all robots should not be inside the centre circle.
- **Halt:**
 - The Halt command is used to pause the game immediately in case of an emergency.
 - No robot is allowed to move or manipulate the ball at this time.



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SECTION 7: SANCTIONS

- **Red Card:**
 - Red cards are given by the referee to punish severe fouls or unsporting behaviours
 - Such behaviours include but are not limited to:
 - Damaging robots of the opposing team
 - Damaging the field or the ball
 - Showing lack of respect
 - Insulting the opponents, the referee, STAs or other persons holding an impartial role
 - Not obeying orders of the referee
- After receiving a Red card, the robot will be required to leave the match.
 - The robot may return to match after the half-time break or pre-overtime break.
- If there is no progress in the game or the ball is not touched for 90 seconds continuously, the game will be ended, and the 0 marks will be awarded to both teams.

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ROBOT**

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