

# Semi - Automatic Robot : Boxing Robot

## Objective

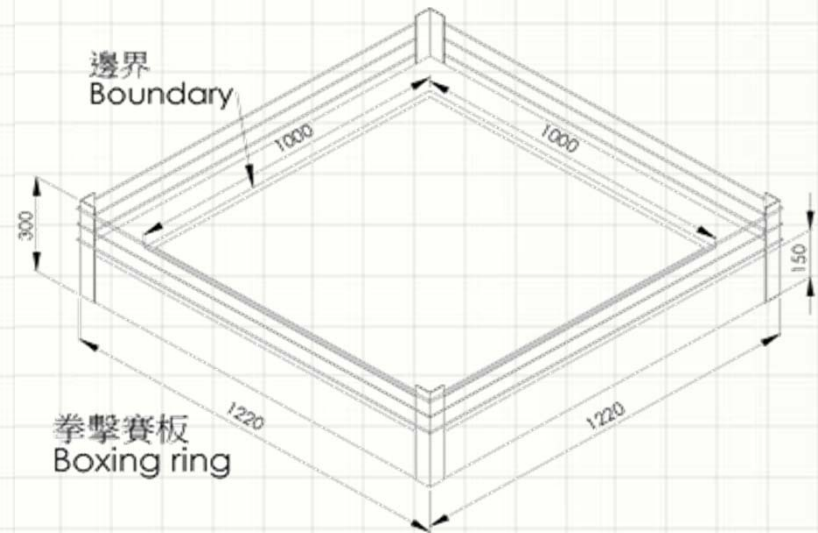
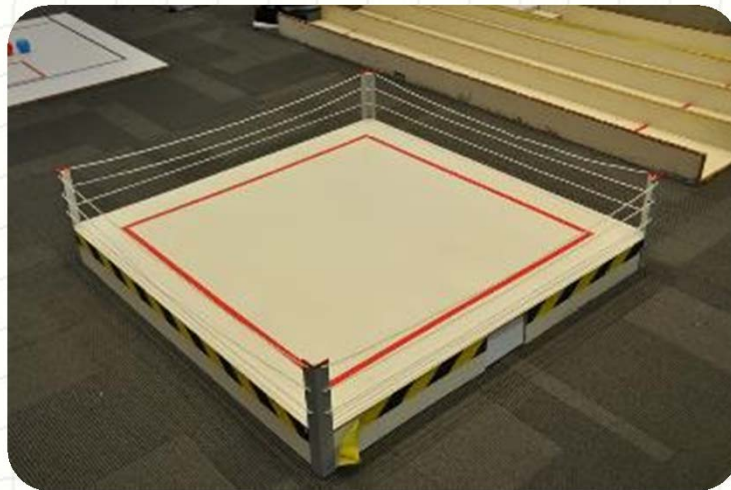
This game tests the power of the robot as well as players' control skill and team spirit. The team that knocks down the opponent with the highest scores within the time limit wins the game.



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## Game Field Specification

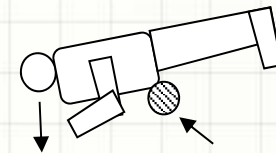
The boxing ring is 1220 mm long, 1220mm wide and 300 mm tall.



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## Robot Dimensions

- The robot may employ up to 4 sets of gear boxes, in which 2 sets for walking and 2 sets for boxing. The robot must have a head and two hands in boxing gloves.
- **The robots are controlled by wireless controller approved by the Organizer. All wireless installations must be able to alter frequency channels. Transmitters found interfering must be immediately changed channel, otherwise it would be disqualified for the competition. A 2.4 G wireless remote control device is recommended.**
- The bottom of the robot cannot exceed 120x120 mm. The overall height and weight of the robot cannot exceed 250 mm and 1.5 kg respectively.



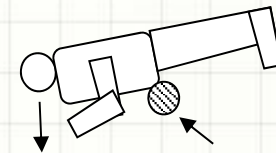
Centre of gravity

cylindrical pole

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## Robot Dimensions

- The robot must pass through the centre of gravity test. The robot is placed horizontally on a cylindrical pole with its centre of gravity must be at the upper part of its body. That is the upper part of the robot's body slants down (see diagram below).
- The wire of the robot must be long enough for the robot to move around.



Centre of gravity

cylindrical pole

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## Game Rules

- Each team assigns one robot for the competition. The robot is controlled by one member.
- The robots are placed at the corner opposite to each other. The judge checks the robots to ensure that there is no movable dangerous mechanism in the design before game start.
- The winner is determined in a 2-minute match. One point is scored for each successful knock down the opponent. No score if the opponent falls down itself. The robot with the highest scores wins.
- If the winner is unable to determined at the end of the game, the lighter weight robot wins the game.

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## Game Rules

- The judge will warn the team that continually dodges the opponent and refuses to attack. The team will be disqualified after receiving the second warning.
- The robots stop combat if a robot falls down and will continue after the judge has put up the fell down robot. If the robot fails to move or fight anymore, the opponent will become winner.
- There is a red line along the boundaries of the boxing ring. A warning will be served when the robot steps outside of the red boundary line. The opponent will score one point after 5 warnings are served.
- The Panel judges' decision is final.