

## **Mech Tech Meet**

Season-8 March 3<sup>rd</sup>-4<sup>th</sup>, 2017



# ROBO-STRIKE (Its balloon time)

## INTRODUCTION

It invites you to test your controlling ability. Event will consist of two rounds and the bot having maximum points (round1+round2) will be the winner.

## **Problem statement**

Design and built a manually controlled wired or wireless robo which would have capability to burst balloons by adding pin(single or multiple pins can be added) "only on one side" of robo.

## Rules

#### \* Specification

- 1. The dimension of robot should not exceed 25x25x20 cm<sup>3</sup> (L\*B\*H), however the pin attached to the bot should not be more than "**3cm off-bot"**.
- 2. The potential difference between any two points on robot must not exceed 24 Volts (no current limit).
- 3. Both wired & wireless robots are allowed.
- 4. The bots can have either onboard or off board batteries or AC adaptors.
- 5. Use of any hot wire/electric means for bursting balloons is not permitted.

## Eligibility

- 1. Students from different institutes can make a team.
- 2. All regular students with a valid identity card of their respective educational institutes are eligible to participate in the event.



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## **GAME PLAY**

#### **ROUND 1**

This round consist of four chambers, you have to burst the balloons as specified.

- 1. In the first chamber you have to burst all four balloons, each balloon will give +5.
- 2. You will be allowed in second chamber only after bursting atleast two balloons.
- 3. In the second chamber there is a rotating disc in which bursting red or blue balloon will give +10 and on bursting green balloon 10 will be awarded.
- 4. You can enter to the third chamber directly from first but will not be permitted to return back.
- 5. In the third chamber you have to burst only the green balloons in the green area by shifting them with you bot which will give +20 otherwise bursting in any other area will give no '+/-' points .
- 6. In the third chamber bursting red and blue balloon will give -10.
- 7. Direct entry from 2<sup>nd</sup> to 4<sup>th</sup> chamber is allowed but once you entered you can't return back.
- 8. In the 4<sup>th</sup> chamber you will be awarded +20 for each green balloon and -5 for blue/red.
- 9. In the end if you have finished on the **FINISH** point you will get +5.
- 10. Each bot will get only 4min to perform.

#### Round-2

- 1. Two robots will be there in the arena together.
- 2. Two lives will be there of each robot in the form of balloon on their robots (will be stacked with tape).
- 3. Bursting the balloons provided in the opponent's area will give you +5.
- 4. After the match you will be awarded with +10 for each life on your bot.
- 5. In case of a tie, rematch will occur.
- 6. The robo which will kill the opponent's bot by bursting their lives (balloons) first will be qualified for winning zone.

#### Winning criteria

The TEAM from the winning teams of second round whose total score of Round1+Round 2 will be highest, will be the winner.



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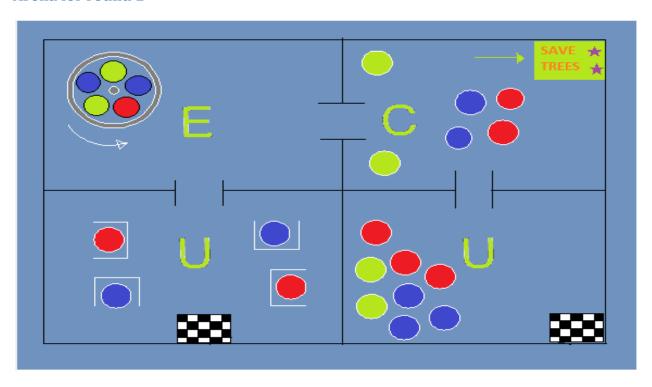
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## (IN CASE OF ANY TIE, REMATCH OF SECOND ROUND WILL TAKE PLACE)

## Arena

#### Arena for round 1



#### Arena for round 2

