# Flying Golf:

## Introduction

The world is moving ahead at a rapid rate. Machines are replacing man in every field and reducing our efforts. The sports are also not left out. Let’s make our creation entertain and play for us. This time it’s GOLF, Flying Golf. The bots will kick off the balls to score goals and win for u.

## Problem Statement

Make a bot which can kick or shoot the balls into holes as in golf.

## Rules & Specification:

1. The team can consist of a maximum of 5 members. All the team members must contain valid id of their institute.
2. The dimension of the bot should fit in a box of 45cm X 30cm X 30 cm at the initial position (including shooting mechanism).
3. The maximum dimension of the bot during any time in the event must not exceed 60cm X 30cm X 30cm. 70 negative points will be awarded for breaking this rule or rule before.
4. The maximum voltage between any two points on the bot must not exceed 12V.
5. The shooting mechanism may be automatic (electrical or pneumatic or other means where you don’t have to touch the mechanism repeatedly) or mechanical. The bot with mechanical mechanism should be single point trigger mechanism only.
6. The bot with automatic shooting mechanism will be awarded 40 bonus points.
7. The bot can be touched for only 3 times only if there are some technical problems in the bot. Each time the bot is touched the points will be deducted from total. If still the problem exists, the bot will be disqualified.
8. The final arena of the golf will be disclosed on the spot. Though the sample arenas will be uploaded here. The bot will have to climb a gradual hill and use skills to score points in higher levels.
9. There will be 3 levels in this event. After successfully completing one event only, the bot will be allowed to go to next level.
10. If at any moment, the team feels that the ball has been trapped, then they can restart with the same ball. But the ball will be positioned back to its original point of start. The team will be allowed a maximum of 2 restarts. More restarts will result in negative points.
11. The maximum points awarded per hole in the first level will be 10, second level will be 25 and third level will be 50. There will be 3 holes in 1st level, 2 holes in 2nd level and 1 hole in 3rd event.
12. The total time allowed per team will be 10 minutes officially. Taking extra time for completion will result in negative points. Time more than 15 minutes will not be given to any team under any condition.
13. The bot is expected to shoot balls into holes in two shots only. Taking more shots will result in negative marking.
14. The marking scheme will be as follows:  
    Total points = L1 + L2 + L3 + (0.33)TL – (0.33)ET + B – (2)ES – (2)RS - NP,

L1, L2, L3 are the points scored in level 1, 2 & 3 respectively,  
TL is time left in seconds from 10 minutes in seconds and ET is the extra time in seconds taken by bot to complete after 10 minutes,  
B is the bonus points awarded to bot,  
ES is the extra shots per hole made by bot,  
RS is the extra number of restarts made by bot,  
NP is the negative points awarded for extra size.

# Survival of Fittest:

## Introduction

There have been many situations in an engineer’s life wherein he has to take correct decisions so as to complete the task assigned to him. He is also expected to act responsibly and stay prepared for new challenges. If you believe you are one of them, then this event is for you.

## Problem Statement

It is an on the spot informal event comprising of three levels.

## Rules

1. A maximum of 3 members per team will be allowed for the event with their valid id of respective institutes.
2. The 1st level comprises of an on the spot mechanical aptitude test, wherein the team will be given two or three industrial scenario with some problem. The team has to suggest solutions for it. The top 12 teams will be advanced to next level.
3. The other 2 levels are a surprise and will be told on the spot only.