Run and Roll journey

## Do you enjoy a ride on roller coaster? Felt curious how they worked ? And do you love designing new machines? Here’s your chance to give your grey matters a kick start.

## ****PROBLEM STATEMENT****

 Make a purely mechanical bot that can traverse over a metallic pipe.

**e to give your grey matters a kick start.**

## ****RULES & SPECIFICATION****

The team can comprise of maximum 5 and minimum 2 members.

 The team members must have a valid id of their respective institute..

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 The bot must be purely mechanical. This means that bot should in no way be electrically powered. But the bot may use hydraulics, pneumatics or any other form of energy which is mechanical and safe.

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 The bot can also be powered by muscular force by efficient use of ropes, pulleys and gears. But the team will have to convince the judges that they are not pulling the bot with their hand. A video will be updated on the website in few days explaining the examples of such mechanism. Efficient use of this kind of design will earn the team bonus points.

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 Though the original track will be disclosed on the day of event, but sample of pipe sections will be uploaded on the website.



 There will be 3 checkpoints. The points will be given as per the number of checkpoints passed.

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 The bot will have to traverse pipes which will be horizontal, inclined down, inclined up, semi circularly horizontal and perfectly vertical. The level of difficulty will increase gradually.

 The friction offered by the rod will be sufficient enough for the bot to traverse on it.

 A maximum of 2 restarts will be provided per checkpoint. Hence a total of 6 restarts will be provided. Whenever the team asks for a restart the bot will have to start from the last checkpoint. No extra time will be given for restarts.

 The total time in which the event should be completed will be declared on the day of the event.

 The points will be given as per the scheme below

Points = C1 + C2 + C3 + ET + B

C1, C2, C3 are the points awarded for passing through checkpoints 1, 2 ,3

C1= 30

C2= 50

C3= 100

 ET is the extra time saved or taken by the bot, w.r.t. given time to complete the event.

 B is the bonus points awarded.

 The decision of the judges will be final.