



# Grid-o-Grinder



## INTRODUCTION

If you want to showcase your talent, this is the right place. Grid-o-Grinder is a perfect platform to display your robotic adroitness.

The robot should be autonomous and should have flexible functionality.

The purpose of this contest is to create an autonomous robot which is a line follower as well as an obstacle detector.

## USP

- Autonomous traversal and Line Follower
- Automatic obstacle detector

## PROBLEM STATEMENT

Design and fabricate an autonomous vehicle capable of navigating efficiently through guided black lines on a white floor for the first round. The vehicle must be able to effectively follow the guiding path.

In the second round, the robot has to travel through a **maze detecting obstacle walls**.

The robots will be tested on speed and accuracy of path following.

## GENERAL RULES

- The teams shall be given ample chance for trials in designated slots. No requests for trials shall be entertained after that.
- The teams are required to strictly abide by the rules of the competition, the specifications of the robot, the handling of the same, the power source specifications and other general rules at all point of time failing which they stand disqualified.
- All teams must be present before the commencement of an event. Teams will be disqualified if they do not turn up during the slot allotted to them.
- The team can comprise of a maximum of 4 students from the same institute or different institutes as well. Register your team at [www.blitzschlag.org](http://www.blitzschlag.org)
- The organizers reserve all rights to change any or all of the above rules. Change in rules, if any, will be highlighted on the website.
- All rounds of the event will be held at MNIT Jaipur during Blitzschlag '17.
- Judges' decisions on any matter will be considered final and shall not be argued upon in any case, though the teams are definitely allowed to complain against any irregularity in the event.

- While one Team member is at the arena, other members of the team are not allowed to come inside the arena.

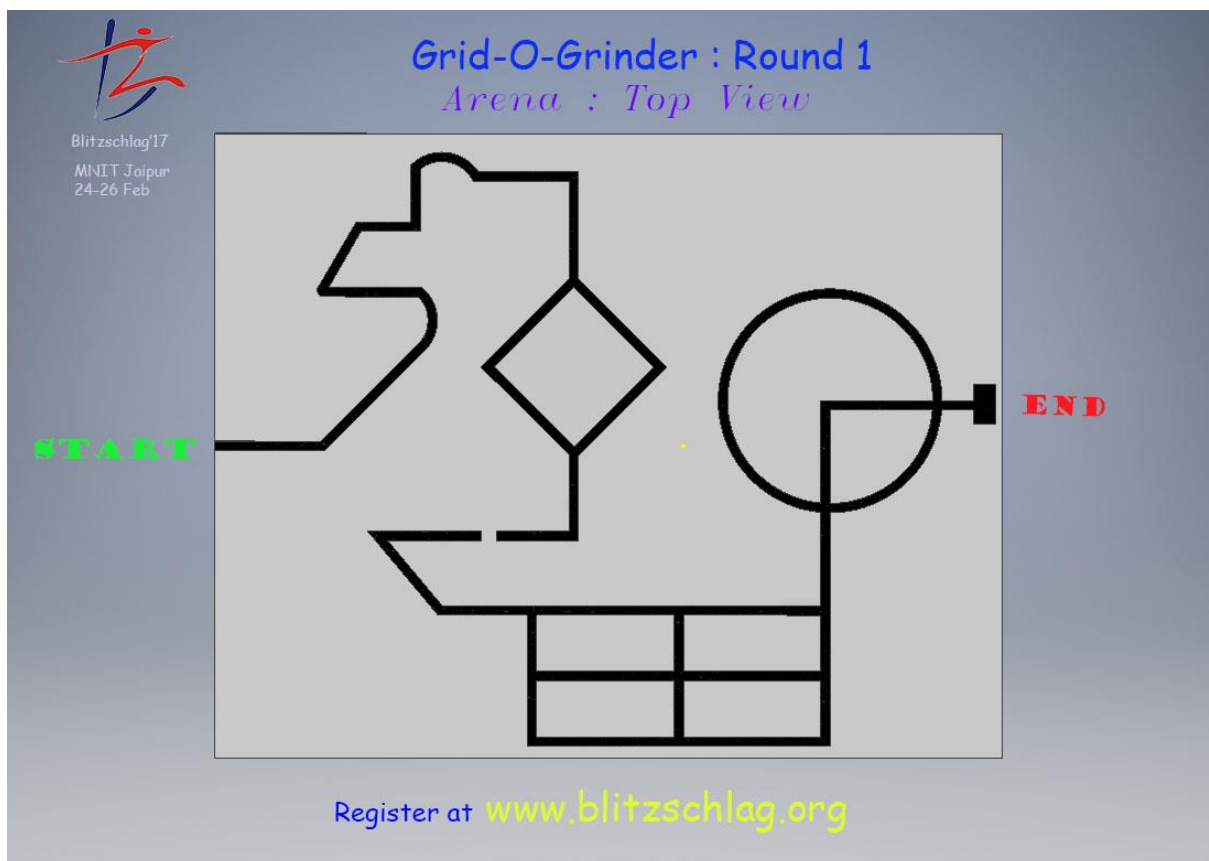
## EVENT RULES

- If required, AC power supply of 220 V will be provided for charging the battery.
- The robot has to remain within the arena throughout the event
- Maximum restarts : 2
- Maximum time outs : 2

## BOT SPECIFICATIONS

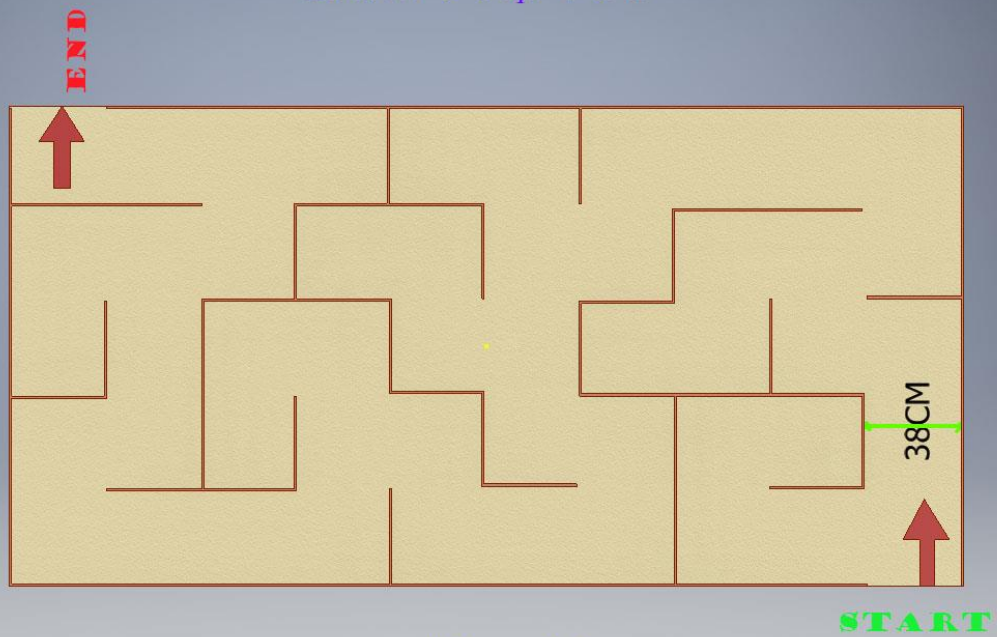
- The machine should fit in a box of dimension 20cm x20cm x 20cm (l x b x h) at any given point during the match. The external device used to control the machine or any external tank is not included in the size constraint.

## SAMPLE ARENA



## Grid-O-Grinder : Round 2

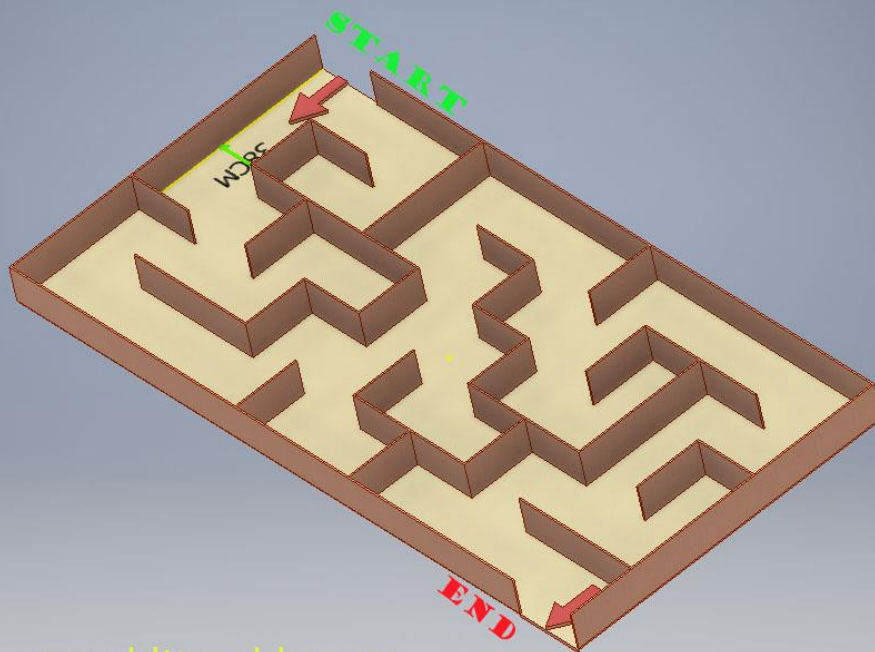
*Arena : Top View*



Register at [www.blitzschlag.org](http://www.blitzschlag.org)

## Grid-O-Grinder : Round 2

*Arena : Top View*



Register at [www.blitzschlag.org](http://www.blitzschlag.org)

For 3-D view of the above designs, follow these links-<http://a360.co/2klq5rn> , <http://a360.co/2kl90hu>

## Prizes

Prizes worth **15000** INR

## Coordinators

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## Schedule

Will be updated on our website: [www.blitzschlag.org](http://www.blitzschlag.org)