



TECHNOVANZA

Taking Technology To Society



ROBOMAZE

INTRODUCTION:

There is no one who don't know what E-Commerce is. It has become a necessity for our day to day life let it be online auctions, payment gateways, online ticketing, internet banking and yes, last but not the least the very popular ONLINE SHOPPING. The current COVID-19 pandemic had stopped everything but it couldn't stop Online Shopping.

We at Technovanza will take you to the amazing world of Online Shopping.

You are a delivery person who carries the parcels and deliver them to their respective locations. But while travelling you have to take care and select the path which has least exposure to COVID-19 in minimum time possible.





OBJECTIVE:

The objective is to complete the task assigned to you in minimum time taking care of your safety. You have to get out of the maze completing the task. Your main aim is to find the safest path in the maze for your task and collect maximum points within the given time constraint.

TEAM SPECIFICATION:

- 1) Any team can participate in RoboMaze.
- 2) A team may consist of only one member.

CERTIFICATE POLICY:

- 1) Certificate of participation will be awarded to all the teams and certificate of excellence will be given to the top three teams.
- 2) Disqualified teams will not be considered for any certificate.

ARENA SPECIFICATIONS:

Maze size-

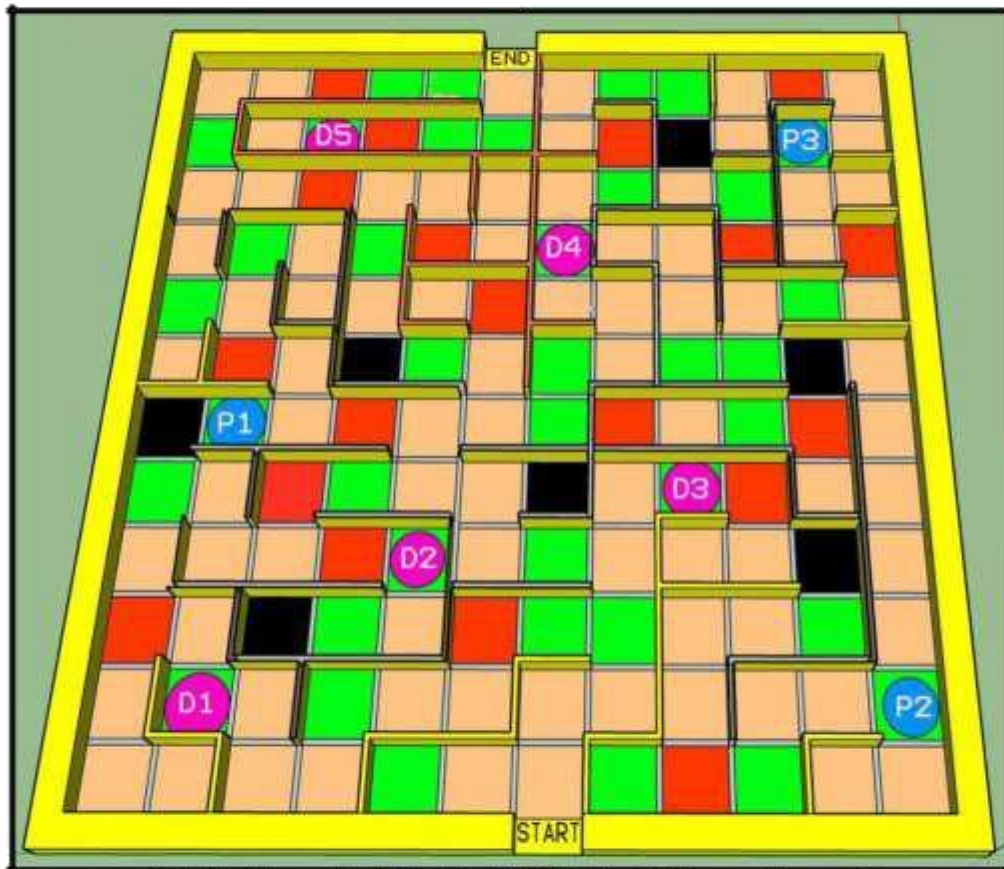
- 1) 15 feet * 15 feet (containing 12*12 grid). (For Round 1)
- 2) 20 feet * 20 feet (containing 16*16 grid). (For Round 2)
- 3) 40 feet * 20 feet (containing 32*16 grid). (For Round 3)

GAMEPLAY:

- 1) The maze base is designed considering the COVID-19 situation i.e. it has four regions in it marked with different colours.

ZONE	POINTS
GREEN	+100
ORANGE	0
RED	-100
CONTAINMENT	-120
PICK UP POINT	50
DESTINATION POINT	150

1. **Green Zone:** The Safest zone. The zone will give you +100 points.
2. **Orange Zone:** This Zone will give you no points. (0 points).
3. **Red Zone:** This Zone will deduct your score by -100 points.
4. **Containment Zone:** This Zone is marked with Black colour and will deduct your score by -120 points.
5. **Pick Up Point:** You have to pick up your items from this point. (You will gain 50 points.)
6. **Destination Point:** You have to put the parcels at this point. (You will gain 150 points.)



- 2) Check points: There are two types of checkpoints. One is pick up point from where you have to take the parcels and the other is destination which will be the location for delivery.

E.g.: Pick up cell will be marked as P1, P2... etc. and Destination cells as D1, D2... etc.
Note-All the checkpoints will be in the green zone.

- 3) The main motive of your's is to complete the given task.

- 4) You will be starting from the start position (which will be marked in the maze). There is no restriction for the order of completion of task, you can complete any task first, but at a time can do only one Task. And all the tasks need to be completed. Let's take an example for better understanding.

E.g.: Task 1: P1-D2, D4 Task 2: P3-D1, D5

Here 2 tasks are given. (It will be you choice to select which task is to done first) Let us complete task 1 first.

- A) Task 1-From Starting point go to the pickup cell P1, from P1 you can either go to destination cell D2 or D4 depending on the strategy to complete it within less time. Assume that you completed the task 2 and you position is D2.

- B) Task 1-From D2 go to the Pickup cell P3 (no need to go back to starting position)



C) After completing all the tasks escape the maze and reach the end position.

6) In total 3 rounds will be conducted with increasing difficulties and a greater number of tasks.

Round 1- Qualifier Round (Any team can participate)

Round 2- Quarter Final (Top 50% teams will be allowed based on the overall performance)

Round 3- Final Round (Top 10 teams) They will compete against each other in real time in a 32X16 sized maze.

7) In Round 1 and Round 2 you have to solve the maze and gain maximum points within given time constraint according to the rules mentioned. In Round 2 the maze will change

8) In Round 3 you have to solve the maze in an environment where you can see your opposition's progress simultaneously.

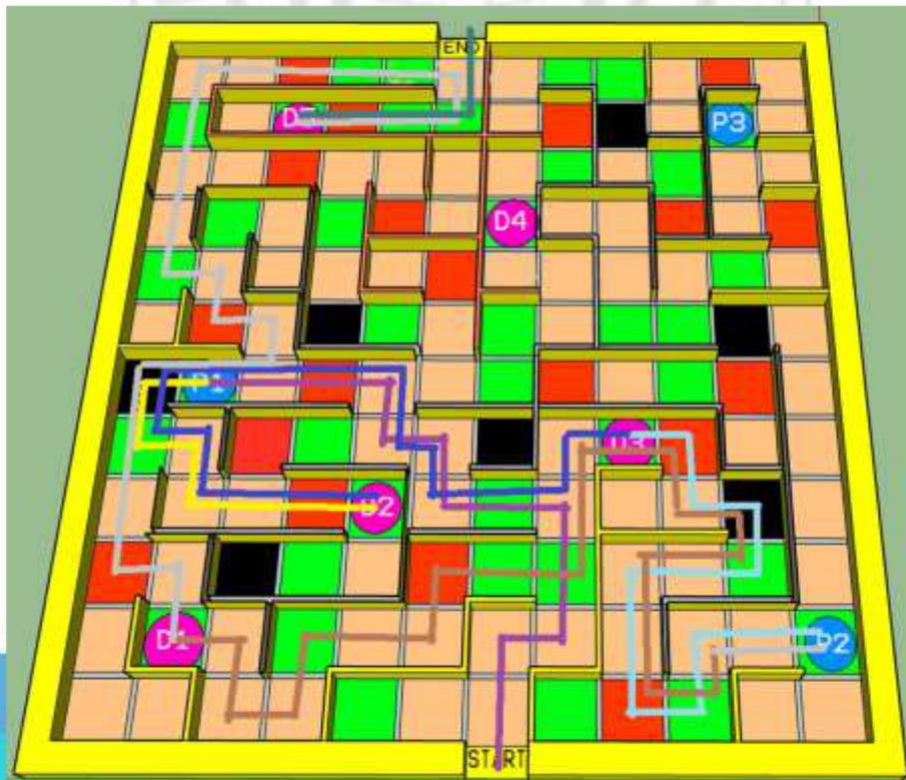
9) Teams will be judged according to the points evaluation scheme explained below.

10) In case of tie team with higher points (path points) will be considered. If teams have the exact same points then time of submission will be considered (team submitting the solution first will be qualified)

11) During any round the maze will be closed on participant's display after a certain maximum time which will be informed before maze starts.

POINTS EVALUATION:

During the point evaluation **note that** once we pass over a **green cell**, it will be converted into **orange** for **next 5 secs**, so that participant won't keep on gaining the points passing on green cell and the max time limit is designed according to that.





Task 1: Start to P1: $0+0+0+100+0+100+0+0+0+0-100+0+100 = +200$

P1 to D2: $-120+100-100+100 = -20$

D2 to D3: $-100+100-120+100-100+100+100 = +80$

Task 2: D3 to P2: $-100-120+100-100+100+100 = -20$

P2 to D1: $+100-100+100-120-100+100+100+100-100+100+100 = +180$

D1 to D5: $-100+100-120+100-100+100+100-100+100+100+100-100+100 = +380$

D5 to End: $-100+100+100 = +100$

Total points = $200-20+80-20+180+380+100 = 900$.

Sets will be made according to the allotted tasks in each round and points of participants will be compared according to those task group only, so that competition will be even. When two participants are having same points the point to be taken into consideration is the time taken to complete maze from start to end.

MODE OF CONDUCTION:

Online on the Technovanza website.

The participants will have to solve the maze game uploaded on the site with virtual bot. Both PC and mobile users are allowed.

GENERAL INSTRUCTIONS:

1) Layout of rounds can be changed by the organizers of events at any point of time.

2) No rash behavior with the organizers will be tolerated.

3) While solving the maze, make sure you are well connected to internet as no complaints regarding low internet speed or poor connections will be entertained and time period given for the particular round will be followed strictly.

4) Organizers decision will be final decision.

5) Maze design will change after every round.



VJTI Presents

TECHNOVANZA

2020-21

NOTE: Rules mentioned above are subject to change anytime. Participants should check for the latest updated PDF on official website of TECHNOVANZA'19. However, this draft is to be followed as the latest version. Technovanza reserves all rights regarding rules and regulations.

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