



DEVOLS TRIAL

General Guidelines / Rules:

The delegates are required to **bring their own kits** and it is their responsibility to keep their kits safe, the category heads nor the management will be responsible for any damages or losses whereas if the delegates want they can leave their kits in the hall exclusive for the EV3 category in their designated stations.

Prior construction would be accepted but construction of this robot to some degree is required to be done on site. The delegates are required to have all the appropriate softwares downloaded on their device beforehand since there will be no guarantee of a Wifi connection on the day of the event.

Lego Mindstorm: <https://education.lego.com/enus/downloads/mindstorms-ev3/software/>

Round 1: Rescue Mission

- **Delegate cap:** 3 - 4
- **Duration:** Tentative; 2hrs
- Delegates will be allowed to enter the arena after the opening ceremony before the round starts to code/build/test-run their robots according to the arena

Scenario: An interstellar mission has gone wrong, and alien life pods are stranded across different planets. Your mission is to retrieve the pods while avoiding decoy pods that could be traps.

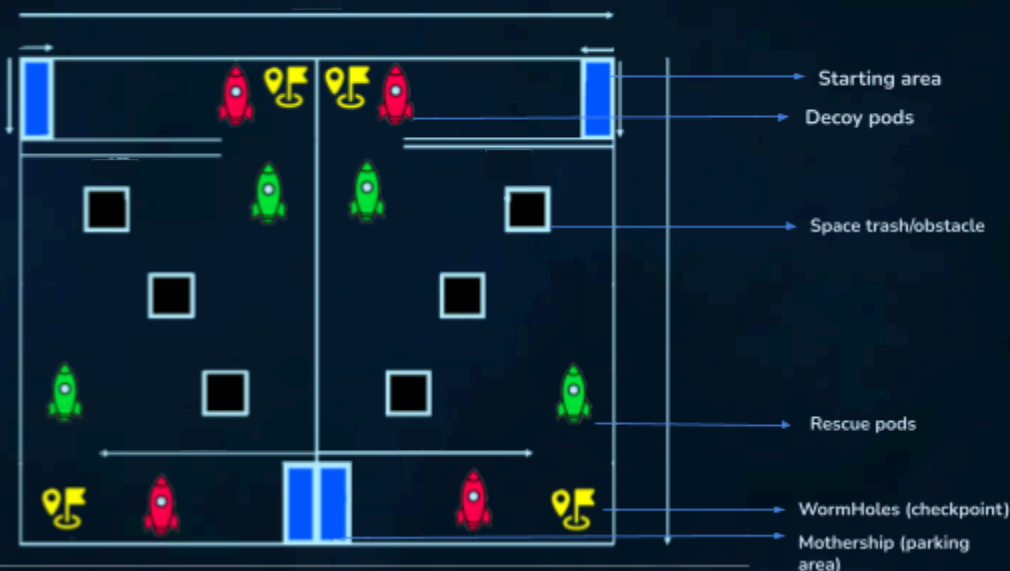
Objective:

- ★ Retrieve the alien pods and return them to the mothership (parking area).
- ★ Avoid decoy pods and space trash (obstacles) at all costs.
- ★ Pass through "wormholes" (checkpoints) for faster travel (more points)

1 min setup time and as many retries possible allowed within the set 3 minutes.

Note: *the participants will be notified timely about the dimensions of the arena, closer to the event to avoid any issues .*

Note: the pods are set to be hung 10-12 inches above the ground



Round 2:

Race to Rescue

Delegate cap: 3 - 4

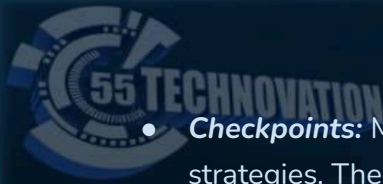
- **Duration:** Tentative; 2hrs
- Same Arena, Judging criteria and round logistics as round 1
- Teams will be racing against each other, sides assigned based on coin toss.

Round 3: An a(MAZE)ing surprise

Racing Through the Cosmos: Navigate Through the Asteroid Belt

Participants will face the ultimate space challenge: navigating their EV3 robots through a hazardous asteroid belt maze to reach a designated safe space. The maze will feature unpredictable routes, simulating the dangers of space navigation.

- **Delegate cap:** 3 - 4
- **Duration:** Tentative; 3hrs
- **Maze Design Release:** The layout of the asteroid belt will be revealed at the end of round 2 when the teams qualified for round 3 have been decided. Participants can also enter the arena at the start of day 3, before the round, to program their robots as well as the rest of day 2 after round 2 is done.
- **Competitive Format:** Two entrances to the maze will be available, giving participants strategic starting choices.



- **Checkpoints:** Multiple paths with varying checkpoints will offer diverse navigation strategies. The path chosen will influence the difficulty and efficiency of the journey.

Important Rules:

- **Starting Side:** A coin toss will determine which side of the maze each participant starts from.
- **Code Upload:** Participants will have 3-4 minutes to upload their code before the race begins.
- **Timing:** The race will be timed but only used to break ties at the judges' discretion.

Winning Conditions: The robot that reaches the center of the maze first, while navigating most efficiently, wins

Note: Delegates must make sure that their EV3 bots do not exceed 11 inches in width as the pathways are set to be 12 inches wide, any damage to the arena and teams will be given penalties.