



Organized by
Team Aavishkar, NIT Durgapur



Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020

Street Fury

“Beyond All Limits”

Problem Statement:

Design a manual robot having a hook and strong gripping hand mechanism and take it to the epic battlefield. Compete against others and test your skills in the fire of passion and emerge as the champion.

Game Play:

The objective of this event is to cover maximum number of checkpoints in the minimum amount of time while negotiating a path full of obstacles.

➤ Two teams A and B have to start simultaneously at the point marked “START” on the arena.



Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD



Organized by
Team Aavishkar, NIT Durgapur



Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020

- The teams must complete a lap around the course in the minimum possible time while overcoming all the obstacles and going through all checkpoints.
- Points will be awarded or deducted on the basis of the robot's performance in the arena. The "Scoring Scheme" is given later in this document.
- The team with the highest scores would be declared as winner.

The Arena:

The arena will have exactly the same arena as its mirror image by its side.



Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD

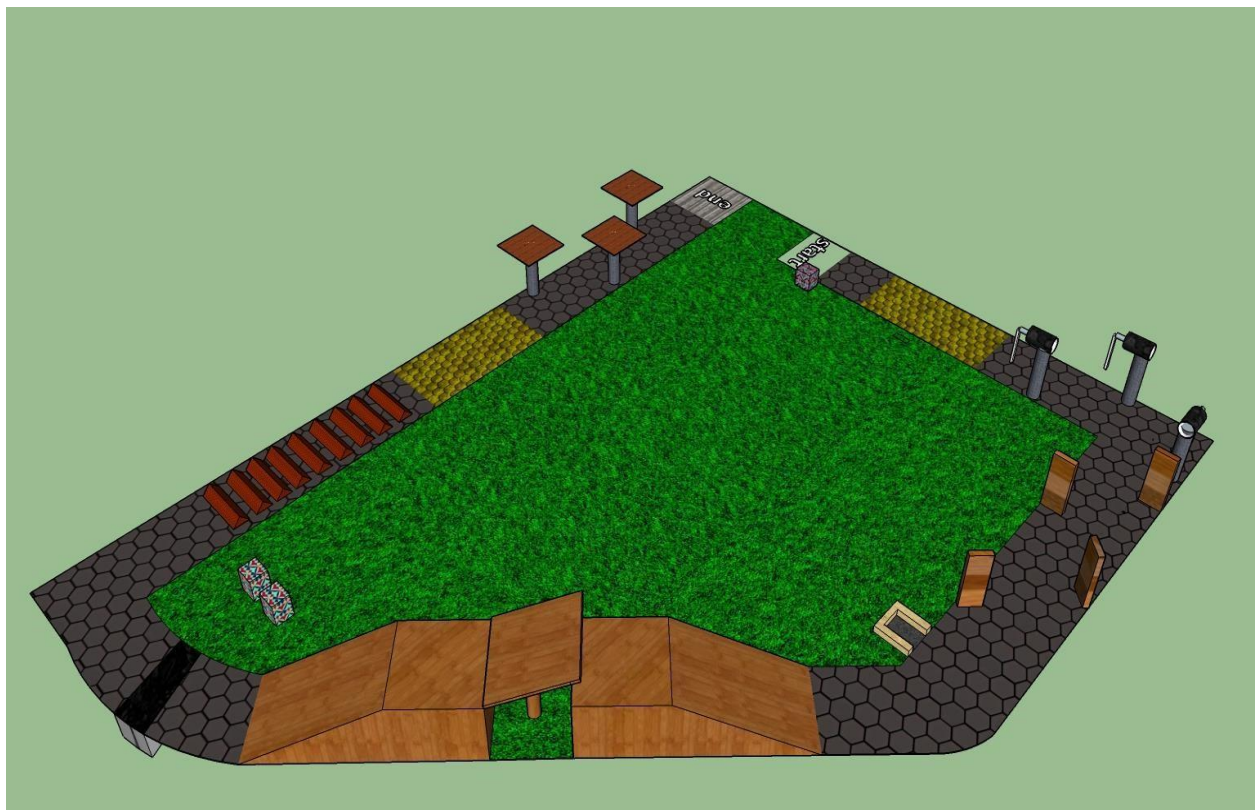


Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020

Organized by
Team Aavishkar, NIT Durgapur



Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD

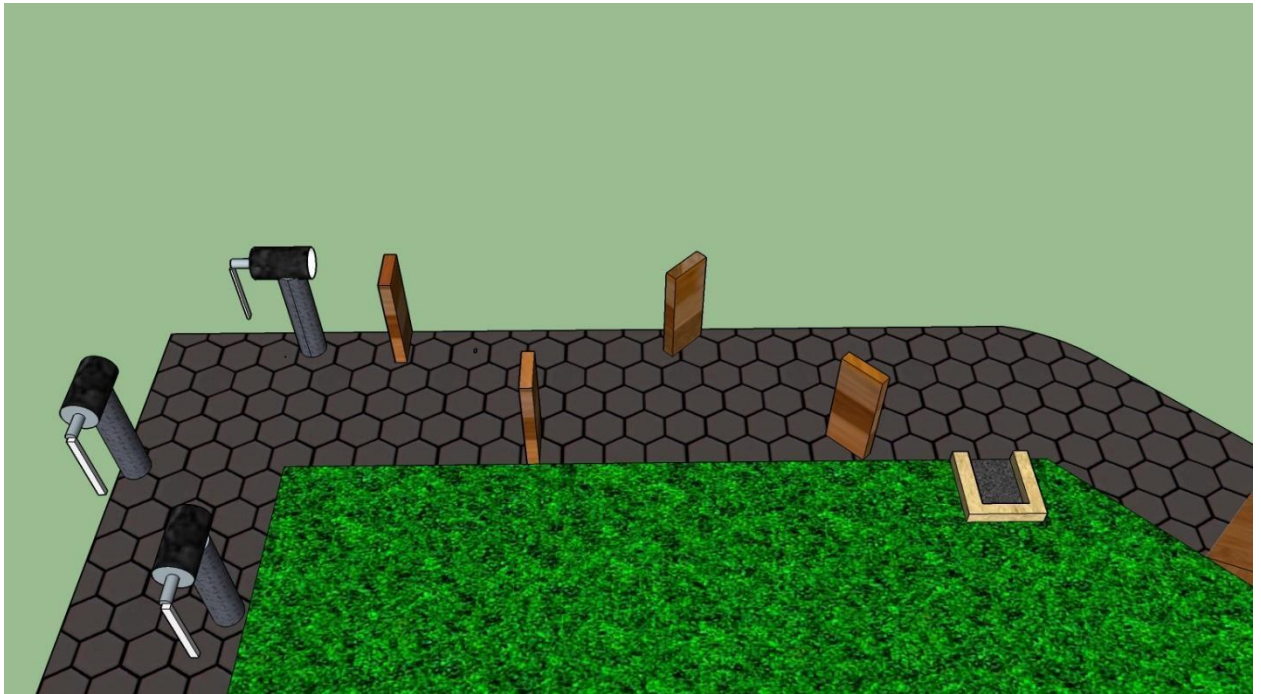
Description of Hurdles:

- ✦ The bot has to start from the position marked as “start”.



- ✦ Then the bot has to pick the block placed at start and move through a surface of gravels and sand to reach your first hurdle.
- ✦ Now, it's time to show your maneuver skills. There are three rotating arm placed adjacent to each other. Drive safe to avoid contact with the arm.

- ✦ Then there are some wooden towers through which you have to pass. Any contact with arm or tower will result in deduction of marks.



- ✦ There is a container after tower in which u have to place the block.



Organized by
Team Aavishkar, NIT Durgapur



Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020

- ✦ Time to leave the ground, ride over the incline and use your hand mechanism to push down the board and create path to move forward.
- ✦ **Hurray! Checkpoint 1.**



Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD



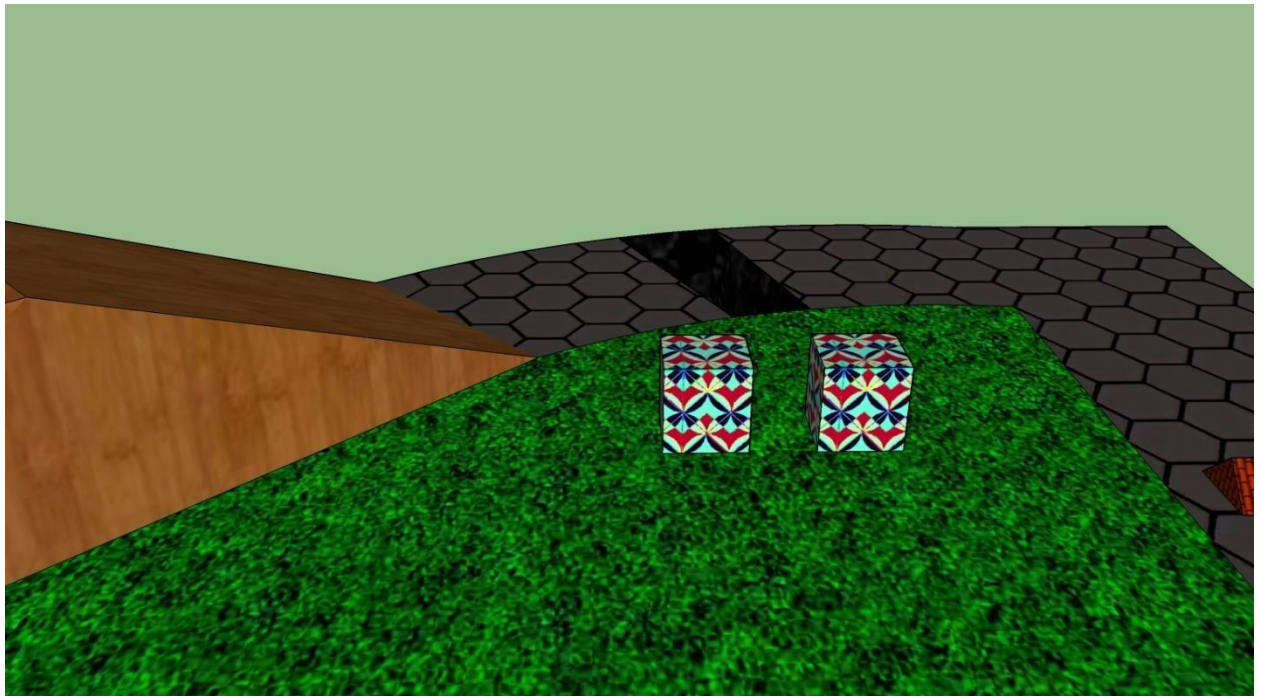
Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020

Organized by
Team Aavishkar, NIT Durgapur

- ✦ Then there is a trench. Move the blocks inside the trench and go ahead.



- ✦ Next there are iron wedges. You have to pass over them.



Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD



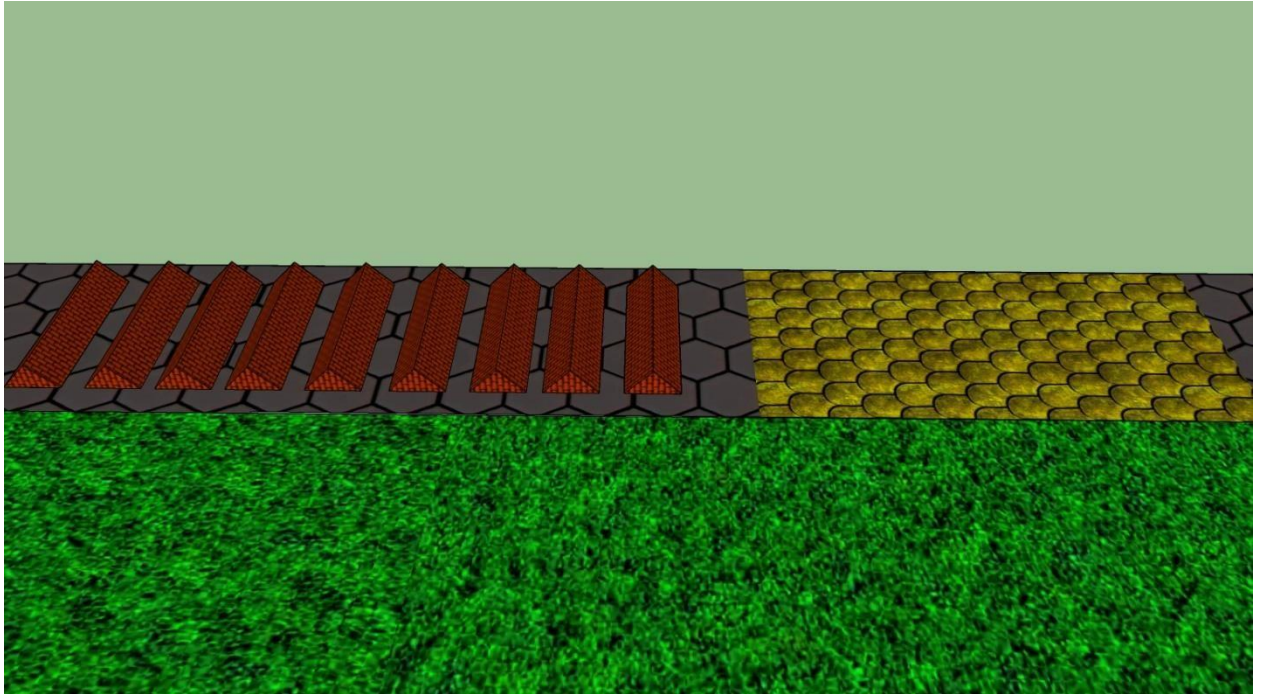
Organized by
Team Aavishkar, NIT Durgapur



Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020



Look's easy, is it? But not so!!



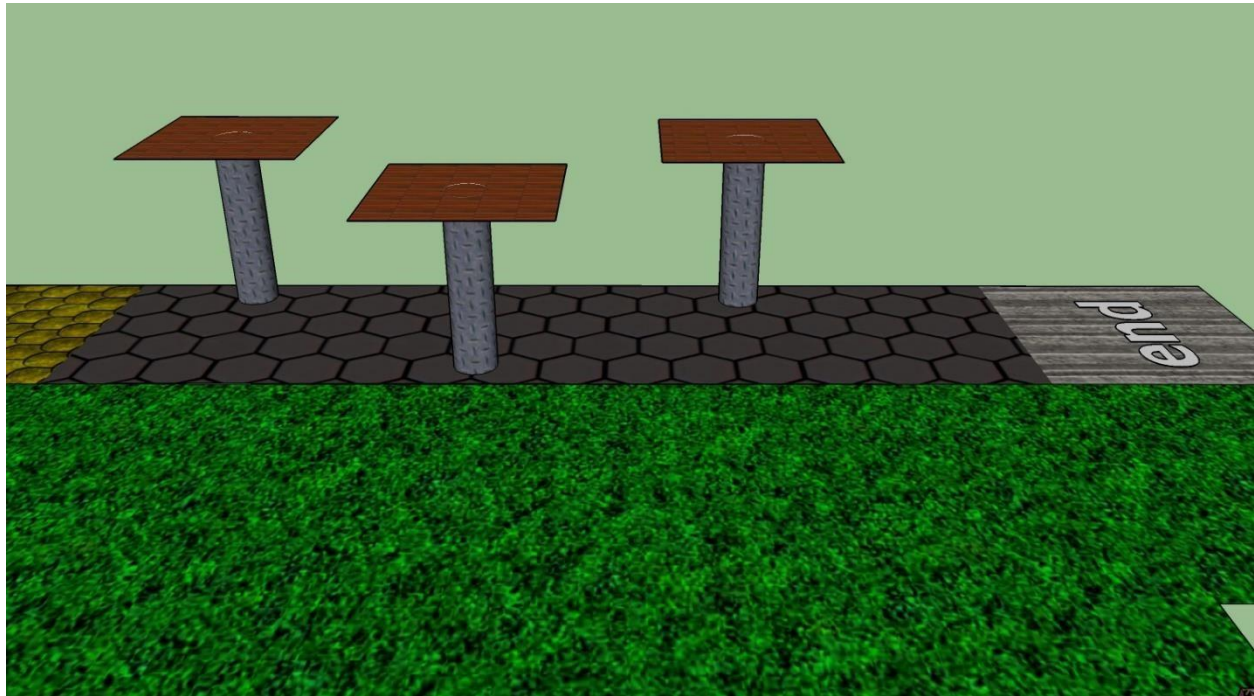
Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD



- ✦ Then, there are some pipes with cardboard over them, drive safely and finish the game.
- ✦ For the final round there is a twist, this event is divided into two parts. The team who will reach first to the checkpoint will get extra marks. Then they have to wait for the other team to come and a race will start.

Scoring Scheme:

- ✦ Initially, all teams start with **500** points.



Organized by
Team Aavishkar, NIT Durgapur



Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020

- ✦ **20** points will be deducted each time when the bot deviates from the track.
- ✦ **50** points will be deducted when manual assistance is provided to bot (In case it is struck somewhere or toppled).
- ✦ Each obstacle when skipped manually will cost **150** points.
- ✦ **50** points will be awarded for crossing the zone containing gravel.
- ✦ **50** points will be awarded for crossing the 3 rotating arm.
- ✦ **50** points will be awarded for crossing wooden tower.
- ✦ **10** points will be deducted each time bot touches rotating arm, wooden tower.
- ✦ **50** points for balancing the bot over the incline.
- ✦ **25** points will be deducted if block falls from hand mechanism
- ✦ **50** points for placing the blocks in the cavity.
- ✦ **50** points for crossing iron wedges.
- ✦ **50** points for crossing the pipes.
- ✦ **100** points will be awarded to team who reach checkpoint first.
- ✦ **200 BONUS** points will be awarded to the team who reaches the finish first.



Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD



Organized by
Team Aavishkar, NIT Durgapur



Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020

- ✦ The time, t taken in seconds, will be deducted from the final score. However the total time for completion of the event is **900 seconds**.

General Rules and Specification of the Bot:

- ✦ The dimensions of the bot must be $30\text{cm} \times 25\text{cm} \times 25\text{cm}$ ($l \times b \times h$) throughout the event. It should not weigh more than 1.25kg. If a bot does not adhere to these, it will be disqualified.
- ✦ Changing any bot parts during event is not allowed.
- ✦ A team can consist of maximum four members out of which only two can step inside the arena.
- ✦ The bot must have a strong hand mechanism for gripping objects as well as a hook attached to it.
- ✦ The maximum power input to the bot will be 18V. The wire of bot should be slack at all times.
- ✦ A 220V supply will be provided at the arena.
- ✦ Two timeouts of 1 minute each will be available to each team to fix any technical issues. The bot must not leave the arena for debugging. Primary tools will be made



Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD



Organized by
Team Aavishkar, NIT Durgapur



Under the patronage of the
Ministry of Electronics and
Information Technology
Government of India



7 8 9 10 February 2020

available by the organizers; however, the participants may bring their own tools and equipment.

- ✦ The organizers can change the arena or scoring scheme as they see fit. The decision will be final and binding.
- ✦ In case of any dispute, decision of organizers would be final and binding.
- ✦ No damage should be caused to the arena or other competing bots. This will result in instant disqualification. .

CONTACT:

Swapnil Chatterjee- 9474414420

Suborno Gupta- 7047263695



Visit us at:
www.arhn.co.in



Get Social:
[@arhn.nitd](https://www.instagram.com/arhn.nitd)



Watch our videos:
www.youtube.com/arhnNITD