

# TOPBOT

Robotics Event, APAROKSHA'19

**PRIZES WORTH - ₹ 20,000**

There will be Two tracks in TopBot-

- Line Follower
- Obstacle Avoider

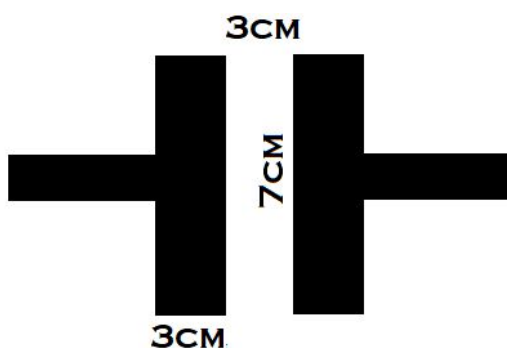
## Line Follower :-

Participants will have to make an autonomous bot whose aim will be to follow path mark by black line of width '3 cm' over white background. They are not allowed to use IR module.

There will be checkpoints along the track crossing which will fetch points. In case of tie, the bot with least time will be declared winner.

There will be certain disruptions along the normal track which may include (and not be limited to) following:

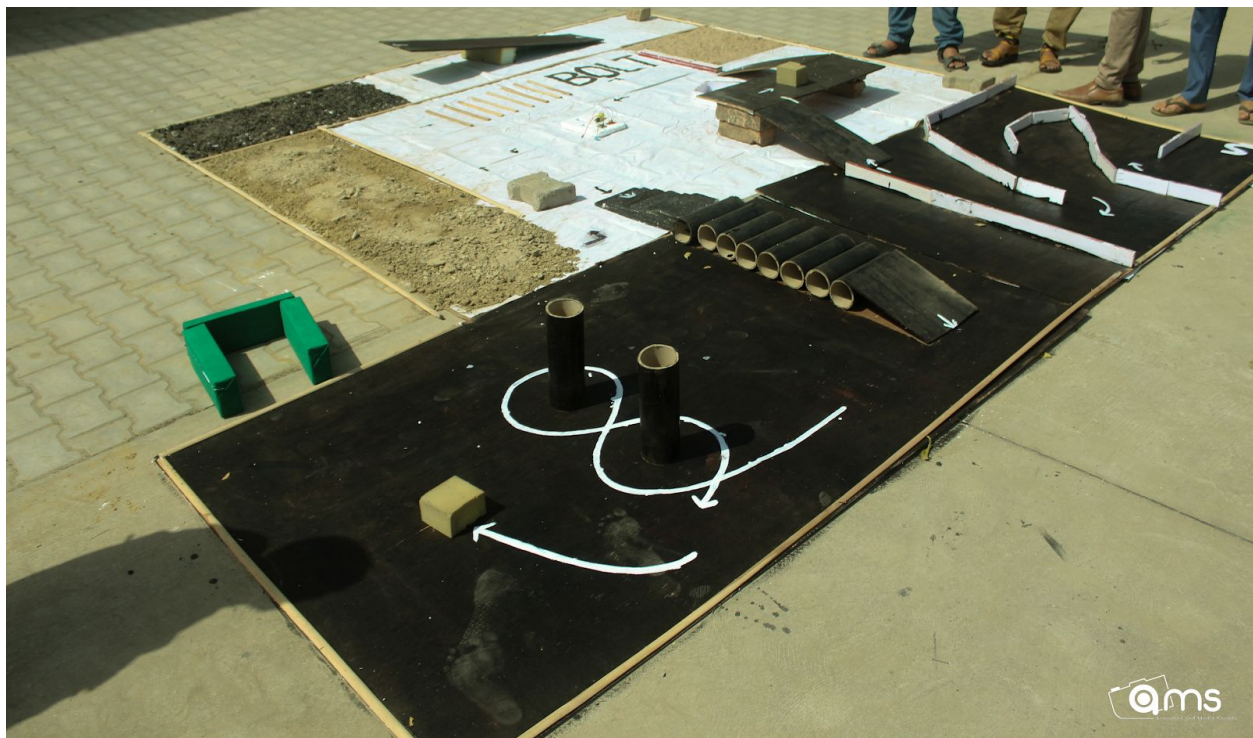
- Certain sections of track where line is thinner (2cm) than usual
- Certain sections of track where line is thicker (4cm) than usual
- Strike-through on path
- Dashed Lines - Spaces between dashes may be from 2cm to 4cm
- Paths with disruptions as shown



## **Obstacle Avider-**

Participants will have to make a bot to be controlled wirelessly using any microcontroller of choice. They will have to control the bot to follow a specific path made by organizers which may include (and not be limited to) rough terrain. There will be checkpoints along the path crossing which will fetch points. Time taken to complete the course will also contribute to the points. In case participant has to 'touch' bot, points will be deducted.

For reference, participants may have a look at the given image. This was the track for TopBot 3.0



## **Rules-**

- Participants are free to use their own kits, any other components of choice unless they violate rules mentioned
- Use of Microcontroller or Microprocessor is compulsory
- Bot must be wireless i.e. No kind of tethering is allowed, for controlling as well as for powering
- Bot Dimensions (max) - 25cmX15cm
- Maximum time of 20 minutes will be allowed for completion of track.
- Teams of max 2 participants is allowed per track.
- A team may take part in one or both events.

## **Entry Fee-**

Without Kits-

For Line Follower- Rs 150 per team

For Obstacle Avoider- Rs 200 per team

With Kits (To be returned after event)-

For Line Follower- Rs 250 per team

For Obstacle Avoider- Rs 300 per team

Kits include Chassis, Arduino, Bluetooth module (for Obstacle Avoider), LDR and LED (7 pairs for Line Follower), Motor Driver, Motors and wheels only

## **Organizing Team**

1. Dr. Suneel Yadav, Coordinator DIC, SPOKE-IIITA
2. Pulkit Goel - IEC2017019 -8920970945
3. Manish Jagnani - IIT2017503 - 9113789552
4. Anshul Agarwal - IWM2017008 - 8279862680

# Event will be organised on Right side of Auditorium.

# Event will be held from 29 to 31 March