

PAC RUNNER

RULEBOOK



EVENT DETAILS:

A “Pacrunner” is a line follower bot competition. An autonomous robot must follow the line. The team with maximum score will be the winner.



EVENT STRUCTURE:

ARENA:

- Bot should fit in a box of dimensions 250mm x 250mm x 250mm.
- All dimensions are in mm.
- The maximum size of the arena will be 11x11 ft.
- The width of the track will be 3 cm.
- There may be changes in main arena.



TASK:

- Teams must build an autonomous robot that can follow lines.
- Arena consists of 5 checkpoints and a finishing zone.
- The bot must follow the given path on its own.
- The task will end after completing all the required checkpoints.



RULES:

- Each team will be given 2 minutes as a dry run on the arena.
- In the dry run, teams can calibrate sensors and explore the entire arena.
- After a dry run, the programming of the robot is not allowed.
- Only one team member is allowed to handle the bot.



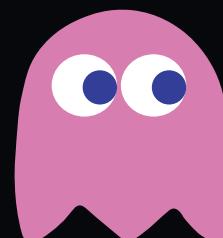
CHECKPOINTS:

The arena will have multiple checkpoints. A checkpoint will be considered as cleared only when the entire robot crosses through it.



GENERAL RULES:

- Only one member of the team is allowed to handle the robot.



- Participants are not allowed to keep anything inside the arena other than their autonomous robots.
- Electronics devices are not allowed near the arena.
- The time measured by the organizers will be final and will be used for scoring the teams.
- A robot should not damage the arena.
- Each team will get only one attempt.
- The operator must wear socks.



PENALTIES:

- If a member touches the robot during a run this will be considered as a hand touch and the robot must be put back at the last checkpoint crossed. For each hand touch 5 points will be deducted.
- If the bot damages arena then the team will be disqualified



SCORING SYSTEM:

- Each checkpoint carries 30 points.
- In case of a tie in scores between two teams, Teams will be given preference based on following criteria:
 - The minimum time taken by robots to cross all the checkpoints.
 - The minimum number of hand touches and on judgement of referee.



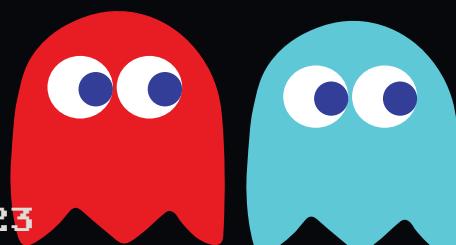
TEAM SPECIFICATIONS:

- A team may consist of 2 to maximum of 4 members.
- Students from Shri Guru Gobind Singhji Institute Of Engineering & Technology and only students from invited colleges can participate in the competition.
(with valid students identity card)



NOTE:

- Required equipment kits will be provided by the organisers. You can also use your own upgraded components unless or until you are not violating the rules.
- If the components from the kit get damaged by participants, the team will be responsible and will have to pay for it.
- The whole kit will be taken back from teams by organisers.



PAC RUNNER

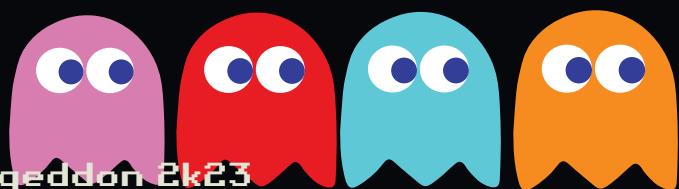
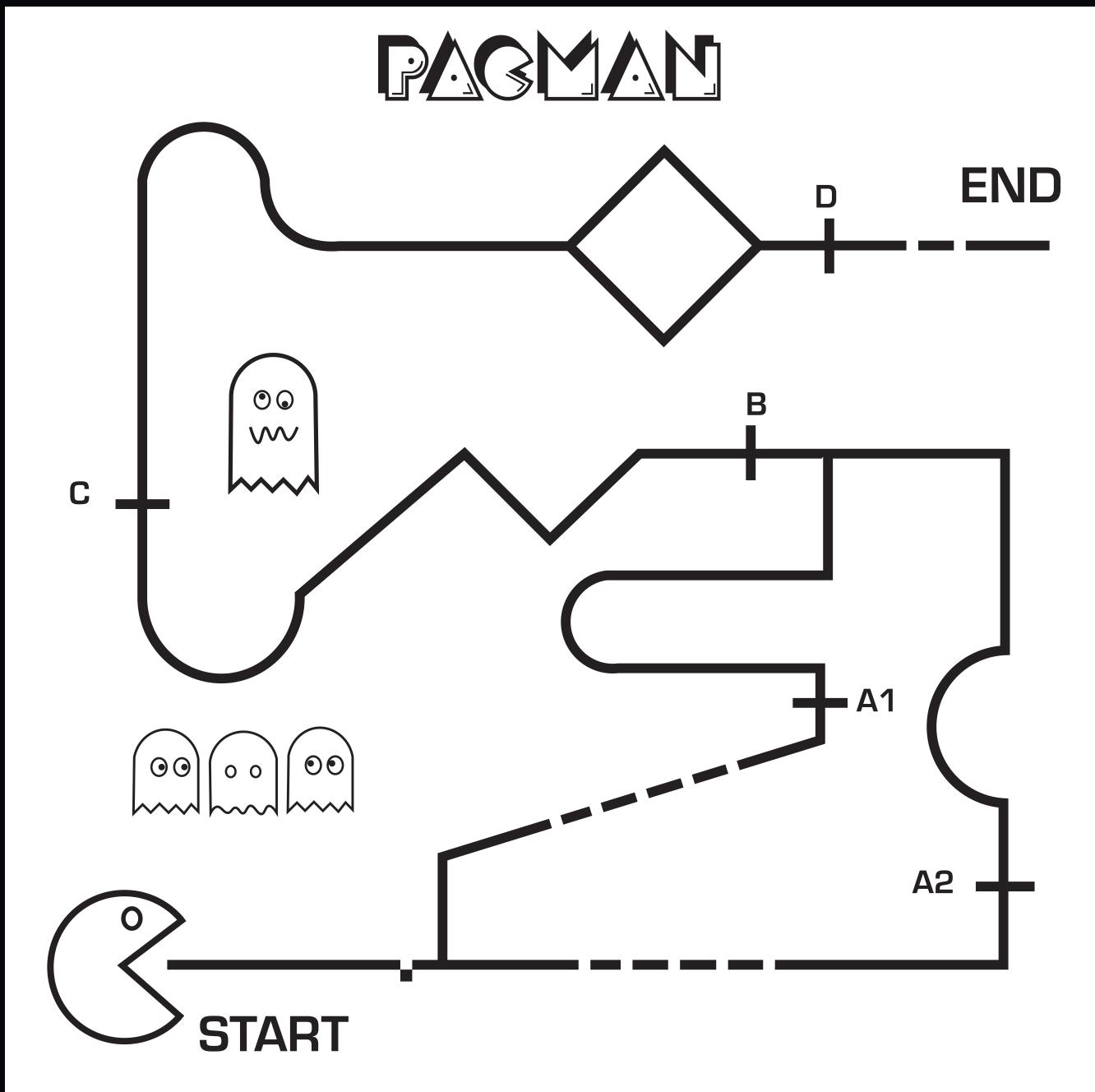
GAMEPLAY

- The first part is the DRY RUN which is of 2 minutes to test the bot.
- Second part is the ACTUAL RUN which is 3 minutes long. The bot must start from the ‘START’ mark.
- The bot has to follow the line and has to arrive at the checkpoints.
- At a particular node, the main path will be divided into two paths, where the bot has to follow the path which is mentioned in the rule book.
- At first there are two paths START-A1-B and START-A2-B, the team will get extra 20 points if it travels through START-A2-B.
- Each checkpoint carries 30 point.
- The bot has to cross a minimum of 4 checkpoints and has to reach the END point.
- After the run the winner will be decided according to the score achieved and the time taken to complete the arena.
- In case of any disputes/discrepancies, the organisers' decision will be final and binding.
- The organisers reserve the rights to change any or all of the above rules as they deem fit. Change in rules, if any, will be highlighted on the website and notified to the registered teams.





ARENA:



RNXG | Rmageddon 2k23