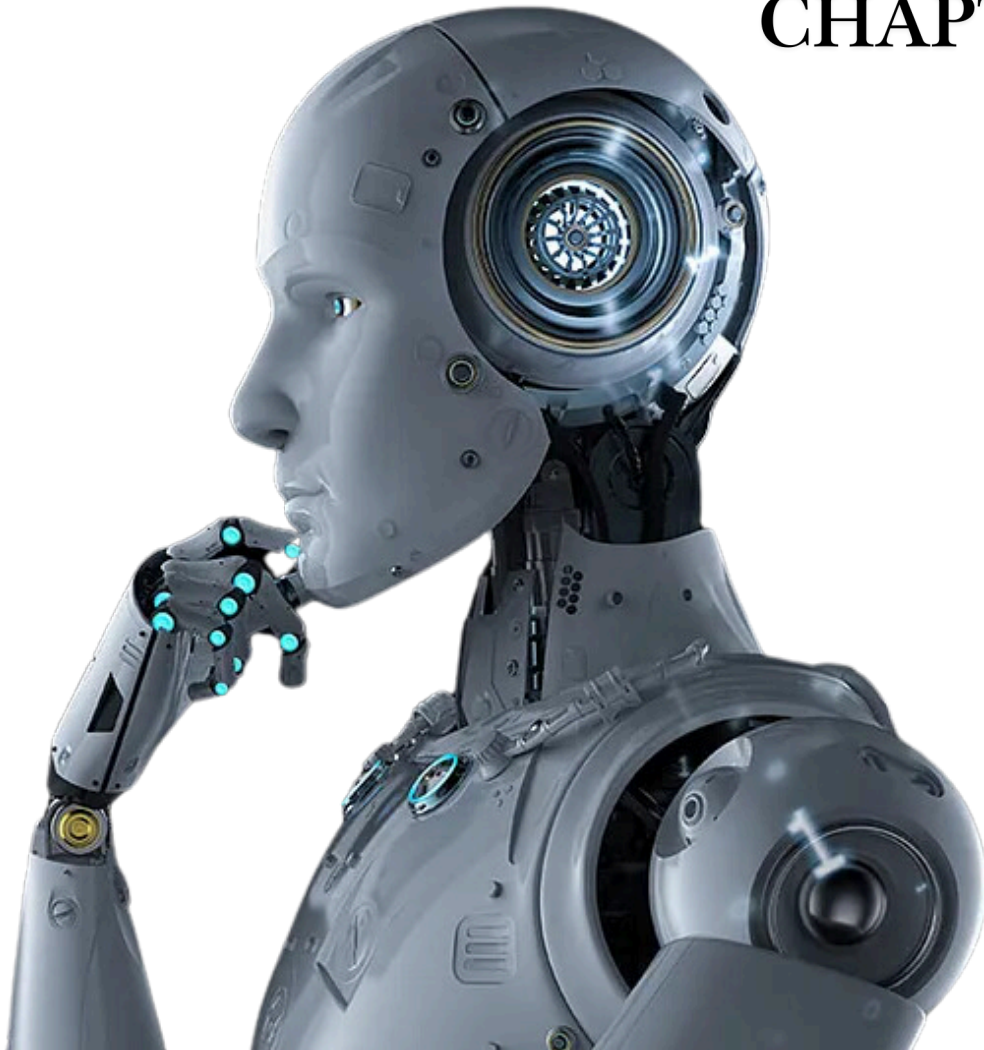


Robotics Club of GCET Presents

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CHAPTER 2



Circuit Chase Rule Book



CHAPTER 2

CIRCUIT CHASE RULES

THE CIRCUIT CHASE COMPETITION CHALLENGES PARTICIPANTS TO DESIGN AND PROGRAM ROBOTS CAPABLE OF FOLLOWING A PRE-DEFINED PATH WITH PRECISION AND SPEED. THE EVENT ENCOURAGES INNOVATION IN ROBOTICS AND TESTS PARTICIPANTS' SKILLS IN CONTROL ALGORITHMS, SENSORS, AND OBSTACLE HANDLING

GAME RULES

1. PARTICIPANTS MUST BUILD A MANUALLY OPERATED ROBOT CAPABLE OF FOLLOWING A BLACK OR WHITE LINE ON A CONTRASTING BACKGROUND WITHOUT HUMAN INTERFERENCE DURING THE RUN.
2. USE OF AUTO-STABILIZATION, PRE-BUILT MODULES, OR ANY EXTERNAL SUPPORT HARDWARE FOR GUIDANCE OR BALANCE IS STRICTLY PROHIBITED.
3. TEAMS CANNOT MAKE ADJUSTMENTS TO THEIR ROBOTS BETWEEN ROUNDS. ANY CHANGES AFTER INITIAL INSPECTION WILL RESULT IN DISQUALIFICATION.
4. THE ORGANIZERS ARE NOT RESPONSIBLE FOR ANY DAMAGE SUSTAINED BY ROBOTS WITHIN THE COMPETITION ARENA



CHAPTER 2

ROBO SPECIFICATIONS

1. THE ROBOT MUST FIT WITHIN A 30X30 CM FRAME.
2. THE ROBOT MAY USE LINE-TRACKING SENSORS; HOWEVER, THEY MUST BE LIMITED TO DETECTING THE LINE ONLY (INFRARED OR COLOR SENSORS ARE ACCEPTABLE).
3. THE ROBOT'S MAXIMUM SPEED SHOULD NOT EXCEED 1 METER PER SECOND.
4. MAXIMUM BATTERY WEIGHT ALLOWED IS 300 GRAMS, AND THE VOLTAGE MUST NOT EXCEED 12V.
5. ROBOTS WITH SHARP EDGES OR METAL COMPONENTS THAT COULD DAMAGE THE TRACK WILL NOT BE PERMITTED.

JUDGEMENT CRITERIA

1. THE ROBOT'S ABILITY TO STAY ON THE LINE, EVEN DURING SHARP TURNS OR COMPLEX PATHS.
2. THE TIME TAKEN TO COMPLETE THE TRACK WILL BE RECORDED AND USED AS A PRIMARY SCORE METRIC.
3. PENALTIES WILL BE INCURRED IF THE ROBOT LEAVES THE LINE OR REQUIRES REPOSITIONING. EACH PENALTY ADDS ADDITIONAL TIME TO THE ROBOT'S FINAL SCORE.
4. SUCCESSFULLY COMPLETING THE TRACK WITHOUT PENALTIES WILL EARN BONUS POINTS.

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CHAPTER 2

TEAMS

1. TEAM SIZE CAN BE 1-3 MEMBERS.
2. MEMBERS FROM DIFFERENT INSTITUTIONS ARE PERMITTED TO COLLABORATE AND FORM A TEAM.
3. ONLY TWO MEMBERS FROM A TEAM ARE ALLOWED TO REMAIN IN THE VICINITY

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