



Istanbul Technical University Robot Olympics 2019 Traffic Category Rules

Definition of the Task:

- In this competition, robots follow the directions on the traffic signs and try to finish the track.

Success Criteria:

- In this category, success criteria is to pass at least 5 signs in accordance with the regulations.

Robot Specifications:

- 1) The robots must be 20 cm in width, 20 cm in length and 30 cm in height in maximum.
- 2) There is no restrictions for the weight of the robots.

Competition:

- 3) The track is black stripe matte folio above the white dakota.
- 4) The roads are 30 cm wide and the line is in the middle of the road.
- 5) Every robot competes on its own turn.
- 6) Signboards are blue plexiglass.
- 7) Robots have 5 minutes to compete.
- 8) The robot which goes off the track will start from the previous checkpoint that it passed. Robots have 4 faults. The robot which make 4th fault will be disqualified.
- 9) There will be signs on the robots for the fulfillment of the assigned tasks.
- 10) The signs will be on the right side of the road. The shapes of the tablets are shown below.
- 11) Signboards will be 15-22 cm high.
- 12) The 3 cm area next to the tablets is a white line on black.
- 13) There is a waiting area in the track. In this section, the robot should understand the signs on the signboard and wait 10 seconds on that part.

- 14) Robots will reach the parking lot by following the signs correctly.
- 15) Turn right at the signposts, turn left, wait 10 seconds, go straight, there will be signs in the parking lot signifying empty place (as shown in Figure-1).
- 16) Signs and meanings in the tablets are available in the last 2 pages.
- 17) If there is no sign , robots must follow the line.
- 18) If robot comes a junction without see a signboard , must continue straight on its way.
- 19) Transition points are written once from each sign.
- 20) Robots which read the signs correctly and perform assigned tasks get points according to the difficulty of the task.
- 21) The robot which is get high point is in the top rank.

Points:

- 22) All correctly followed signs except the Car park and waiting area worth +10 points.
- 23) All signs except the Car Park and the waiting area that are followed incorrectly worth -10 points
- 24) Wait in waiting point is worth +30 points.
- 25) It is worth +60 points to enter the park in the parking lot.
- 26) Do not stop in the park or park at the wrong place in the parking lot is worth 20 points.