

12. Latvia Robotics Championship

Linefollowing rules 2018

Description

In this competition an autonomous robot from start to finish must move following a black line and must do the distance in the least amount of time.

Competition rules

1. Competition is divided into electronics also known as free construction robots and LEGO robot categories. Competition organizers can divide the robots into groups, following the participant age, knowledge or any other form of participant level measurement.
2. To get a result, robot must do one full lap during the competition, which is set on the competition day depending on the registered robot count.
3. Each robot in this competition has 5 attempts. In each attempt the robot does 1 lap. The fastest lap time from those attempts is counted as the result.
4. Robot has 3 minutes to finish one lap. Robot, which does not fit into this time limit must be taken off the track.
5. Robot, which loses the line, can return only in that place, where it has lost it or any place it has already driven. If this rule is broken, the attempt is not counted.
6. During the competition, participants can not touch the robot or influence its operation with wireless devices.
7. If the referee has suspicion of cheating, for example, robot regulation or control during the competition, they can do an examination on the robot. Not allowing the referee to examine the robot or cheating revelation results into disqualification.
8. The winner will be the robot, which finishes the competition track in the least amount of time.

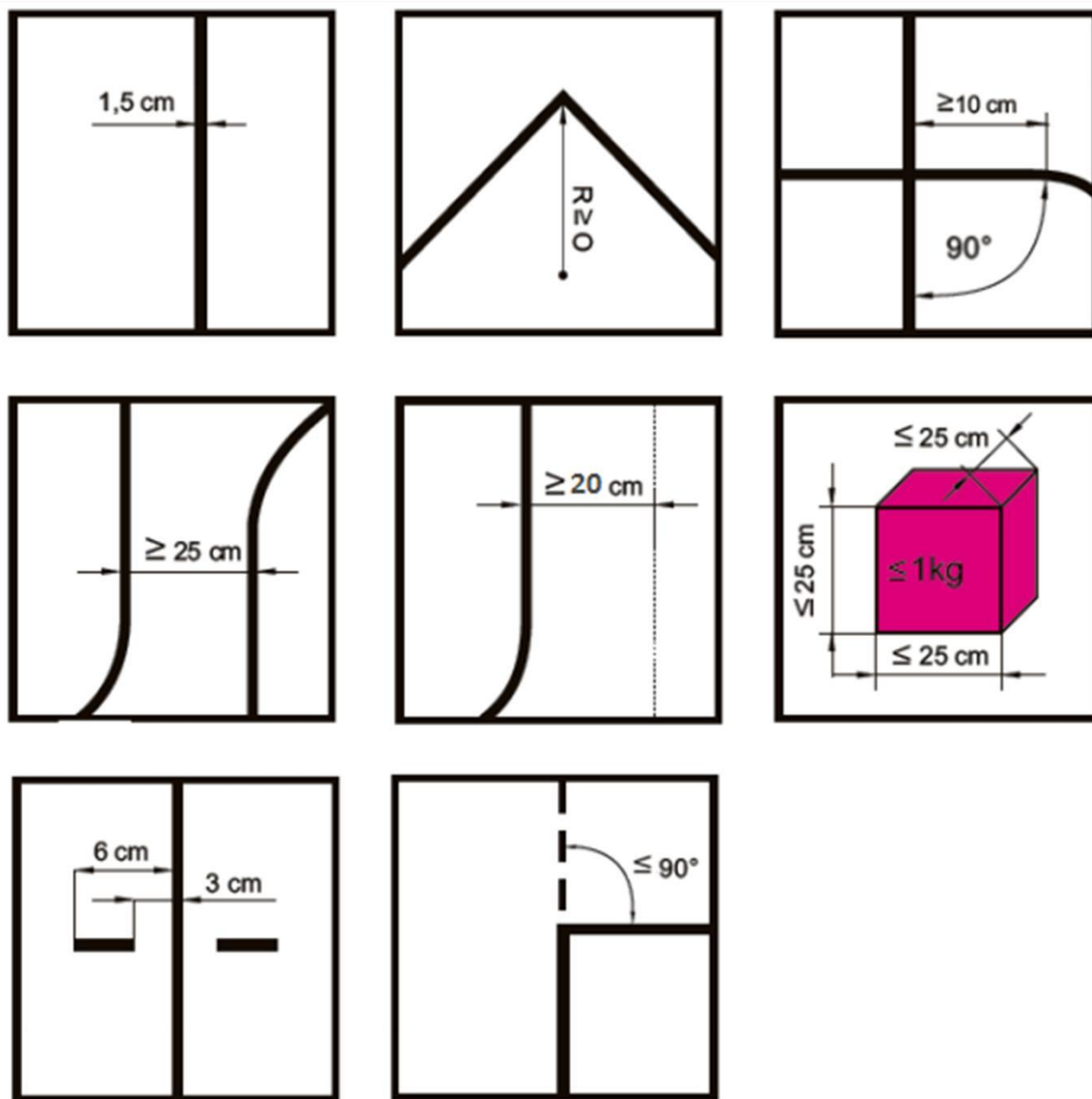
Track

1. Track line distance from the edge of the base is at least 25 cm.
2. Minimal distance between two lines in any track section is at least 25 cm.
3. Track is “infinite” - it means, that the robot doesn't have to find a finish point.
4. Track has one 90-degree cross section.
5. Track has multiple 90-degree turns.
6. The line width is 15 mm.
7. Track will have an automatic or semi-automatic timing mechanism.
8. The start position (same for every participant) will be chosen by the head referee during the competition.

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The competition will take place indoors in normal lighting. Possible sensor operation interference, which could occur due to the lightning, must be taken into consideration by the robot builder. Claims against these interferences will not be considered by the organizers.

Robot

Electronics also known as free construction robot maximal size is 25x25x25 (width, length, height), weight – no more than 1 kg. Robot must be autonomous. LEGO robot maximum size is 30x30 +- 1 cm (width, length), weight – no more than 1 kg. LEGO robot must contain parts which are only in LEGO sets. It is forbidden to use sticky and oily substances on the robot parts. It is forbidden to use other devices, which can damage the competition track.

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