Folkrace rules

CONTENTS

1. Description
2. Discipline classification
3. Competition rules
4. Robot
5. Arena or track
6. Qualification and competition

1. Description

Folkrace competition is an imitation of an autonomous car on a circular track with obstacles. On the track the robot must be able to complete as many laps as possible in the specified direction and time. The track has several curves and various types of obstacles that the robot must be able to overcome. In addition to the obstacles, there are also opponent robots that the robot must be able to drive around or avoid. The winner is the fastest, most manoeuvrable robot, the one most capable of orienting itself.

2. Discipline classification

The Folkrace discipline is divided into two categories:

- LEGO®
- Free construction or electronics

3. Competition rules

3.1. The competition format, division, and round duration are determined by the competition organizer.

3.2. Robots are placed in the competition arena parallel to the track walls and to each other, no less than 5 cm away from the track walls and from each other.

3.3. The competition begins and ends with the referee's signal.

3.4. A robot is allowed to start moving 5 seconds after the referee's command.

3.5. A robot that makes an early start will have 1 point deducted and will receive a warning. In the case of a repeated early start, the robot will be disqualified.

3.6. Points are counted for completing one lap of the track in the correct direction. The start and end point of the lap is the starting line.

3.7. For completing a lap in the correct direction, 1 point is added.

3.8. For completing a lap in the wrong direction, the number of points is **not** changed.

3.9. The robot operator has the right to place their robot on the starting line, resulting in the deduction of 1 point.

3.10. If the robot gets stuck or drives against the specified direction, the robot operator has the right to:

- Leave the robot in its current state.
- Use point 9.

3.11. If the robot has stopped completely and cannot continue the race, the robot operator has the right to:

- Leave the robot in its current state.
- Remove their robot from the track, deducting 1 point.
- Use point 9.

3.12. If multiple robots become entangled, they may be released with mutual agreement and continue the race from the entanglement point, or point 9 may be used.

3.13. If multiple robots have the same number of points, an additional round is held between them, in which the winner is the robot that completes the first lap in the shortest time.

3.14. An infrared remote control may be used for remote robot start.
After the race begins, the remote control must be placed aside.

3.15. The use of any external remote control or robot control devices will be considered a violation of the rules and will result in the robot's disqualification.

3.16. **NB!** The LEGO® robot construction may consist only of parts available in LEGO® kits.

4. Robot

4.1. The robot must be fully autonomous.

4.2. The robot's maximum size and weight:

Length (cm)	Width (cm)	Height (cm)	Weight (g)
20	15	Unlimited	1000

Table 1. Folkrace robot's maximum parameters

4.3. The robot must be able to be started and stopped using built-in button(s), switch(es) or a remote control.

4.4. Robots must be marked with number stickers in a clearly visible location. The stickers are provided by the competition organizers. If necessary, the same number marks will be attached not only to the robots but also to the participants' clothing.

4.5. The robot must not:

- Change its configuration or appearance.
- Damage the track surface and/or pose a threat to spectators.
- Emit any gaseous, powder, or liquid substances.
- Actively block or damage other robots.
- Use other robots to move.

5. Arena or track

5.1. The track is physically enclosed by borders and is not marked with optical, magnetic, visual, or other means.

5.2. The track surface (covering) has a uniform colour.

5.3. The borders are uniformly coloured and at least 10 cm high.

5.4. The track width is 100±10 cm.

5.5. The track has a closed trajectory 3 – 15 m in length.

5.6. Obstacles that may be present on the track:

- Hills with a slope of up to 40 degrees.
- Depressions or elevations up to 2 cm.
- Uneven surfaces.
- Barriers or other objects creating additional curves and/or narrowing sections.
- Other obstacles not specifically described here.

6. Qualification and competition

6.1. During the technical inspection, the robot performs a qualification run. One robot completes one full lap of the track, with the time being recorded.

6.2. The lap must be completed within 2 minutes. A robot that cannot do this does not qualify for the competition.

6.3. 3 attempts are allowed to improve the lap time.

6.4. The competition follows the format set by the competition organizers.