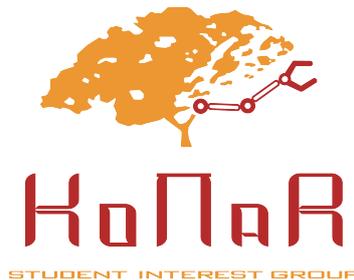


# RULES OF ROBOTIC TOURNAMENT

“ XIV Robotic Arena ”

RoboSprint

“KoNaR” Student Interest Group  
Faculty of Electronics, Photonics and Microsystems  
Wrocław University of Science and Technology



## Section I

### General

#### § 1

1. This document regulates rules of the tournament in category “RoboSprint”.
2. In case of 3 or less robots, the category is played as a demonstration and no prizes will be awarded for it.

## Section II

### Robot Specification

#### § 2

1. Robots can't be pre-built, commercial construction.
2. Width and length of a robot cannot exceed the width of a track.
3. Height of robots is not limited.
4. Weight of robots is not limited.
5. Robots can not emit exhaust flames.
6. Communication with robots during matches is forbidden except:
  - remotely enabling robot
  - remotely disabling robot

### § 3

1. Robots must be fully autonomous.
2. Robots must be designed in such way that it would be possible to activate it on judge's signal.
3. Robot during a race must use its limbs in such manner, that it's contact with the ground is limited to a series of separated tracks.
4. Limbs of a robot must be mechanically independent - e.g. legs cannot be attached to wheels.
5. Each leg of a robot must have at least 2 degrees of freedom.
6. Robot during a race cannot use any devices which purpose is to shorten robot's contact with the ground, such as wings, rotors, propellers, turbines, etc.
7. Robots functionality can not be susceptible to varying environment conditions during tournament, such as listed below:
  - lighting conditions
  - smoke
  - loud music
  - laser effects

## Section III Competition

### § 4

1. Competition will be conducted in two stages:
  - (a) Elimination phase,
  - (b) Finals.
2. Order of matches in elimination stage will be decided by judge.
3. In elimination phase, each robot has a right to unlimited number of the rides.
4. The referee decide about the finish of the elimination phase.
5. 6 best constructions from the elimination phase are promoted.
6. Gear sequence in the final phase is inversely proportional to the place occupied in the elimination phase.
7. In the final phase, each robot has three attempts.
8. Judge could decide whether only one final stage would be taking place, if it is the case than:
  - (a) Every robot that succesfully compleated registration process could participate in final stage.
  - (b) Matches in finals will be held based on the schedule given by the judge.
9. Each stage results will be announced only after the stage is finished.

### **§ 5**

1. Robots are placed in front of the starting line so that they don't touch the line.
2. The time is being stopped when a whole robot crosses the finishing line.
3. Maximal time of a race is 3 minutes. After exceeding this time the race is considered unfinished.
4. If the robot falls, it is given 10 seconds to stand up. After exceeding this time the trial is considered unfinished.

## **Section IV**

### **Winner Selection Rules**

### **§ 6**

1. Robots are started on the signal of the judge.
2. The false start takes place when robot crosses the start line before the judge's signal.
3. First false start restarts the race.
4. Second false start causes the race to be considered unfinished.
5. Race in which robot leaves the track is considered unfinished.

### **§ 7**

1. Time of a race is counted from the moment of passing the starting line to the moment of passing the finishing line.
2. Time is measured by the judge with a stopwatch.