

BALKAN JUNIOR 2018 COMPETITION CONDITIONS

Each team consists of two students.

In the theoretical part of the competition each student competes alone, while in the practical part of the competition both students compete as a team.

Overall competition results are team results.

Theoretical part of the competition

Knowledge is tested using a computer programme.*

The test consists of 50 questions and lasts for 90 minutes.

Computer programme generates the test by selecting random questions.

Every correct answer brings 1 point.

If there are multiple correct answers and the student chooses one wrong answer as well, the answer will not be correct and they will not get 1 point.

During the test the student is allowed to use a pen and a calculator.

**(In case of computer malfunction, the judging committee will provide a standard written test.)*

Practical part of the competition

The practical part of the competition consists of mobile robot wiring, programming and successfully finishing 4 laps on the track.

Mobile robot should be assembled following the beforehand instructions.

The programming of the microcontrollers should be done in programming language C.

The practical part of the competition lasts for 180 minutes. During that period the teams should wire and programme the mobile robot and practice driving on the track.

The first lap for all the teams can start before 180 minutes have elapsed.

The judging committee randomly determines the order in which teams will compete in every lap.

The dimensions of the track are 1345x2305 mm. Electronic gate's dimensions are 300x100x250 mm. The roadblock is a wooden cube with dimensions 100x100x100 mm.

The practical part of the „Balkan karić“ competition consists of 4 laps (rounds) as described in the task provided earlier.

The practical part of the competition will be scored by the rules set in the task. Points will be won for the finishing of the lap, as well as the time needed to finish the lap.

There are 200 points total.

On the day of the competition each team should provide their own computer, the assembled mobile robot (Balkan karić), 5 cubes (100x100x100), a measuring instrument and all the necessary tools and equipment.

Judging committees

Three members of the judging committee for the theoretical part and three members of the judging committee for the practical part of the competition will be chosen randomly. In the practical part of the competition one of the members will be a host mentor for an easier coordination of the competition.