Gara e Robotikës "Kosova Makers League"

INSTRUCTIONS — Second Challenge

Announcement Date: 03.12.2018

Unlike the KML Open: First Round that has been a physical round where all schools have traveled to the regional centers and all happenings have taken place simultaneously, now Round Two is online round and brings these changes:

- • All school teams will perform at their school premises
- • All school teams have time to complete the race from December 15 to December 22, according to team preference, during one day or several days
- • All mentors evaluate their teams and send the form to the organizers not later than December 22
- • All school teams need to record their video performance and upload them no later than December 22 at the Robotics Database in the Vimeo platform.
- • Any arrivals after 23:59 on December 22 will not be evaluated
- • From December 15 to December 22, the BONEVET Foundation mentors will check the preliminary results as well as the video footage and at the end of that week will announce the final results for the Second Round, which will again have 48 hours of appeal time
- • Second Round winners will be invited to the last week of December to accept the prizes.

1. The robot has to be placed before the START line and its launch should be made by pressing the button on the robot. If the robot is properly launched, the competitor wins 20 points as the rating table shows. If the robot is powered in any other way, the competitor does not win 20 points, but can continue the race.

2. After the button is pressed, the robot must turn on the RGB LED in green, and start moving forward across the map (the robot must light the RGB LED in the green color throughout its motion forward). If the RGB diode is lit in green, the contestant wins 10 points. If the diode is not lit in green, is not lit at all, or is lit in any other color, the contestant does not earn 10 points but can continue the race.

3. After completing the movement forward, the robot should turn to the right side, turn on the RGB red light (and stop the diode after the curve is completed), and proceed to the path by lightening the RGB diode in green. If the RGB diode is lit in red, the contestant wins 10 points. If the diode is not lit in red, is not lit at all, or is lit in any other color, the contestant does not earn 10 points but can continue the race. Also, if the RGB diode is lit in green on the right path, the contestant wins 10 points. If the diode is not lit in green, is not lit at all, or is lit in any other color, the contestant does not earn 10 points but can continue the race.

4. After finishing the movement forward, the robot should turn on the right side, turn on the RGB color light in the purple (and stop the diode after the curve is completed), and continue on the path by lightening the RGB diode in green . If the RGB diode is lit in purple color, the contestant wins 10 points. If the diode is not turned on in purple color, is not lit at all, or is lit in any other color, the contestant does not earn 10 points but can continue the race. Also, if the RGB diode is lit in green on the right path, the contestant wins 10 points. If the diode is not lit in green, is not lit at all, or is lit in any other color, the contestant does not earn 10 points but can continue the race.

5. Other points are gained by having the robot move forward through the trail. At the end of the path, the robot must stop the RGB diodes and detect the obstacle, which will be located at the end of the path. If the robot detects the obstacle, the competitor wins 10 points. If the robot does not detect the obstacle, the competitor wins the points accumulated until then.

6. Once the robot detects the obstacle, it must turn 180 degrees, while turning on the two RGB diodes (left - yellow and right - red). At the end the diodes should be stopped together with the robot. If the robot is turned 180 degrees and stops, the contestant will win 30 points. If the robot is not turned 180 degrees or has not returned at all, the competitor does not win 30 points. If the robot ignites and stops the diodes mentioned, the competitor wins 10 points. If the diodes have not been turned on and stopped in red and yellow, are not lit at all, or are lit in any other color, the contestant does not win 10 points.

7. Each school team can appoint one or more mentors to complete the evaluation, after the race the responsible mentor has the duty to email to the organizers within the 1 week period that the Round will be held.

8. The BONEVET mentors will watch the videos taken and the evaluations from the mentors, and then make their assessment.

9. The robot has to follow a path that will be placed on a large white bin rail (line), where for each track the robot passes, the relevant participant wins points.

10. If the robot comes out of the track before the end, the participant wins the points accumulated until then. The robot is considered 'out of the track' if at least one of the three robot wheels come out of the line.

11. Time measurement starts when the participant presses the button in the robot, and stops when the robot reaches the target. If the robot fails to reach the end, then the timer stops when the robot gets out of the track.

12. Teams are evaluated from the points earning by tracking the path, while the duration of the robot is only to make the difference between teams with the same points. For example, if Team X collected 200 points and completed the race for an average of 35 seconds, while Team Y has also collected 200 points, but has completed the race for an average of 40 seconds, Team X will be in the first place. While in the same case if Team X collected 180 points and finished the race for 35 seconds, while Team Y has collected 200 points and finished the race for 40 seconds then Team Y will be in the first place, track scores will be the main criterion of the evaluation.

Instructions on the video-recording:

Since the KML Open Second Round is an online round all teams have to record and send the video materials via the Vimeo online platform, here you can find detailed instructions on how to do it.

1. Registration on Vimeo —

The platform you will use to upload video materials from the competition is Vimeo, visit the website: https://vimeo.com/ and if you do not already have an account, click Join and fill in the information you requested. After filling in the information on the next page, select "Continue Basic" to select the basic, free version of Vimeo. After that you will see the basic page with your profile. Before you go on, you need to verify your email address. Open your email account and you will see a message saying "Welcome to Vimeo - please confirm your account". Open a message and click on the "Complete your registration" button. After that, a new website will be opened in your browser - the Vimeo home page. Enter your registration information here and click on the "Log in" button in your Vimeo profile.

2. Membership in the KML group

Within Vimeo there are groups in which users can put their video materials. We opened one such group for the 2nd round of the league. In the upper right corner of the search engine, type "Kosova Makers League (KML) – Raundi I Dyte" and after the results appear on the left, select "Groups". Then select the group in the middle section. After the selection, the cover of the group with the video clips in the group opens. Select "Join this group" to become a member of the group.

3. Recording video material at a competition

At the competition itself, it is necessary to record the running of each competitor's robot. You can record videos using a cell phone, digital camera, or camera. Make sure you do not set the resolution to the maximum as the video will be too large. In your camera settings, select a slightly lower resolution to make the files up to 20 MB in size.

Take a ride from the bird's eye and at any time of the shoot, let's see the entire path on which the robot moves. Watch the trail always be the same, do not watch the robot with the camera. Do not shoot competitors, just robots and paths. Additionally, while driving an individual competitor on the additional paper that you can put on the bottom of the track, write your region, school name, and student number. The full number of students must match the ordinal number in the Excel table where you will return the results of the competition.

After recording the video, make sure the video is of the appropriate size. If the records are too large, reduce the recording quality and try again. We recommend that you make a few trial videos before the competition and see if their size is correct so that you do not have a problem when shooting a real race.

4. Upload the video

Once you've successfully recorded all the contestants and typed their results into the Excel delivery table, it's time to upload the video material to Vimeo. Switch the video material from the device on which you recorded it on your computer.

Open the Vimeo page and if you are not already logged in with your user information. In the upper right corner click on "Upload ". On the upload page, click "Choose files to upload" and select the video file to upload. During the upload process, you can enter the title and other video information.

You create the title of the video as follows: City — School Name — Educational Level — Student Name and Number. For example, for the school "Fazli Greicevci" in Mitrovica who compete with a team of lower educational level students, the title would be "Mitrovice - Fazli Greicevci– Lower Educational Level – 1. John Smith". The number before the student name must be identical to the Excel list where you will send us the evaluation results form the round of your school. In the "Description" field you do not have to enter anything.
In the "Tags" box type: KosovaMakers, KosovaMakersLeague, KMLOpen#2, KML18

After the upload has finished, select Save to save video and descriptions. Immediately after that, click on "Edit settings" to add the video to the KM League 2nd round group. In the menu, select "Collections," and after the Groups, place the check mark near the "KM League 2. Round" and click on "Save changes".

After that, click on the thumbnail of your video from the page to view the video. In your web browser, copy the web address of the video and paste it into the Excel spreadsheet with results near the appropriate student.

5. Browse the group and determine whether it is seen there

After uploading all the video materials, visit the website that we see groups of KM League 2nd round at https://vimeo.com/groups/559077 and make sure all your video materials are there and have the correct name.

In case you have uncertainties or technical difficulties, please feel free to contact us in our Facebook page https://www.facebook.com/KOSOVAMAKERSLEAGUE/ or the mentor group https://www.facebook.com/groups/KMLSchoolMentors/ or phone number:049 729 900