# RULES FOR COMPETITION «SUMO»
# REQUIREMENTS FOR ROBOTS MATERIALS

*Version **1.2** of July 9 2019.*

## 1.    General rules

This annex to the rules for «Sumo» sets the requirements for materials, which should be provided by each team, that participate in selection for «RoboFinist» festival in «Sumo» category.

These materials should be provided in order to demonstrate working capacity of the robots that are going to participate in this competition. The materials should be provided during the registration. The team, which hasn't provided these materials won't be able to participate in the competition. An application that has the materials which don't meet the requirements of this annex can be declined by the competition organizers.

The list of materials that should be provided to take part in selection:
- photo;
- description;
- video clip.

The selection criteria for «Lego Sumo», «Mini Sumo» and «Micro Sumo» is to kick the passive weight out of the ring in the shortest time. For «Humanoid Sumo» selection criteria is to show wrestling skills.

## 2.    Photo requirements

A real robot should be placed in the center of the photo. It should be in focus and take the major part of the photo.

## 3.    Content description requirements

The robot description should be no less than 500 symbols. It should be notified in the description which platform was used to build a robot. The construction of the robot also needs description, as well as a list of all the sensors. In the conclusion the uniqueness of the robot and its purpose should be clarified.

## 4.    Video clip content requirements

Here are tasks which must be shown in a video clip:
- Robot's ability to track the competitor while turning from side to side in the direction of moving by the arm weight.
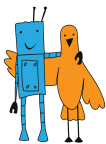
- One round of a match, which meets the requirements of the rules, with a passive weight on the ring, which also meets the requirements of the rules. Robot needs to find and kick the weight out of the ring. The passives weight must have mass and dimension which correspond to the maximum mass and dimension of the robot for the category Sumo robot is going to participate. The robot and the weight must be measured and weighed right in the video clip.

The weight must be steady and mustn't glide or roll on the ring surface. It should be demonstrated right in the video clip while turning to an angle 30 degrees from the horizontal. The angle must be shown, e.g. with the protractor.

Robot and the weight need to be placed on the ring as it shown on Pic. 1. Direction of the robot in the start position should be that way, when in horizontal projection the line between center of the weight and the center of the robot is perpendicular to the vector of robot's movement, while wheels or tracks are in neutral position.

In the video clip the robot, which meets the requirements of the rules, needs to demonstrate the ability to track the competitor on the ring. Robot has to track down and kick the weight out of the ring during the interval no more than 30 sec.
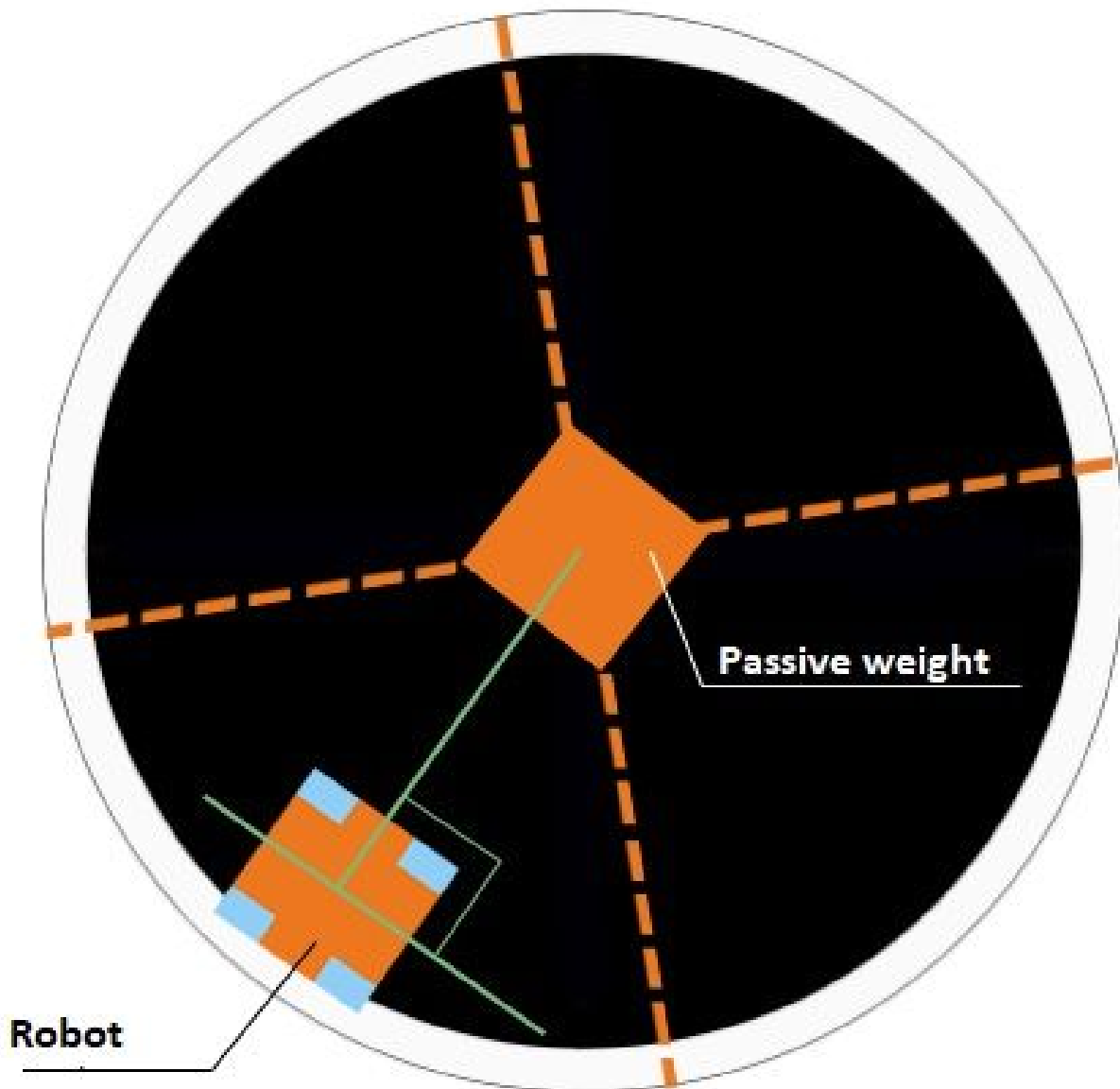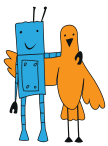
*Pic. 1. Robot and weight placement*

No cutting (montage) is permitted in the video clip (there is only one exception, described in 5th issue of this annex). There has to be an A4 piece of paper with clearly written name of the team and date of shooting.

All team members should be presented in a shot. The length of the video clip should be no longer than 2 minutes.
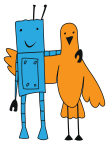
## 5.    Several disciplines registration

If one robot participates in several competitions, it is possible to assemble together a few clips. But all time stamps should be pointed out in the description of an application, so it would be easier to find the right clip for a right competition.
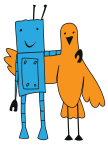
# 6. History of changes

| № | Version | Date | Note | Previous version | New version |
|---|---------|------|------|------------------|-------------|
| 1. | 1.1 | 02.09 | | | |
| 2. | 1.2 | 09.07. 2019 | the task was added; placing of the robot and the passive weight was changed | | |
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