YetiBorg Qualification Challenge

Tuesday 10-3 2020

14.15 – 16.00

During the YetiBorg Qualification Challenge one YetiBorg will be placed on the track just before the blue line with its camera headed in the direction of the blue arrow (See Figure 1.). After a start signal is given one remote command is allowed, after which the YetiBorg should automatically complete one full round in the direction of the blue arrow. It should always keep at least 2 wheels completely within the area between the inner single orange line and the outer single white line.

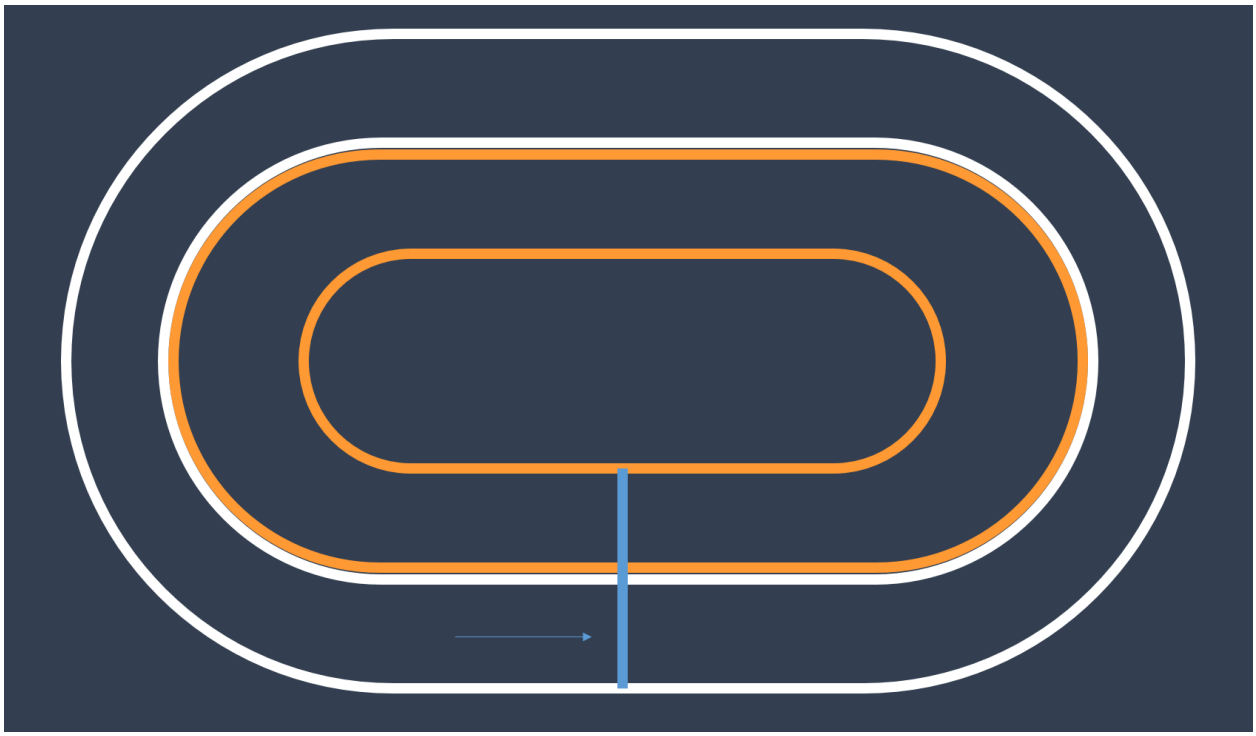

Figure 1. An example of the YetiBorg Racetrack. The YetiBorg should drive within the inner orange line and the outer white line, and should complete one full round in the direction of the blue arrow. It should always keep at least 2 wheels completely within the area between the inner single orange line and the outer single white line.

Some characteristics of the track:

- The lines are ~3 cm wide and are always made of the same materials as used for the test-track in the Robotics Lab (Room 404). Example strips that you can obtain on request. They will not be completely smooth.
- The background color will be light grey to dark blue. If other surfaces will have to be used this will be announced.
- The blue Start-/Finish-Line can be less than 3cm wide.
- The width of the track can vary from 50 cm to 80 cm.
- The length of the bounding box of the track can vary from 1.5 m to 4 m.
- During the Qualification Challenge the shape of the track will be close to an oval, during the race it can have a much more random form.

Note:

- The team with the fastest time for completing one full round does not have to compete in the first round of the final race.
- All teams have to pass the challenge.
- Passing the challenge results in a grade ≥ 6 for this part of the course (= 20% of the final grade).