Robotic Group Project -Term 1 Challenge

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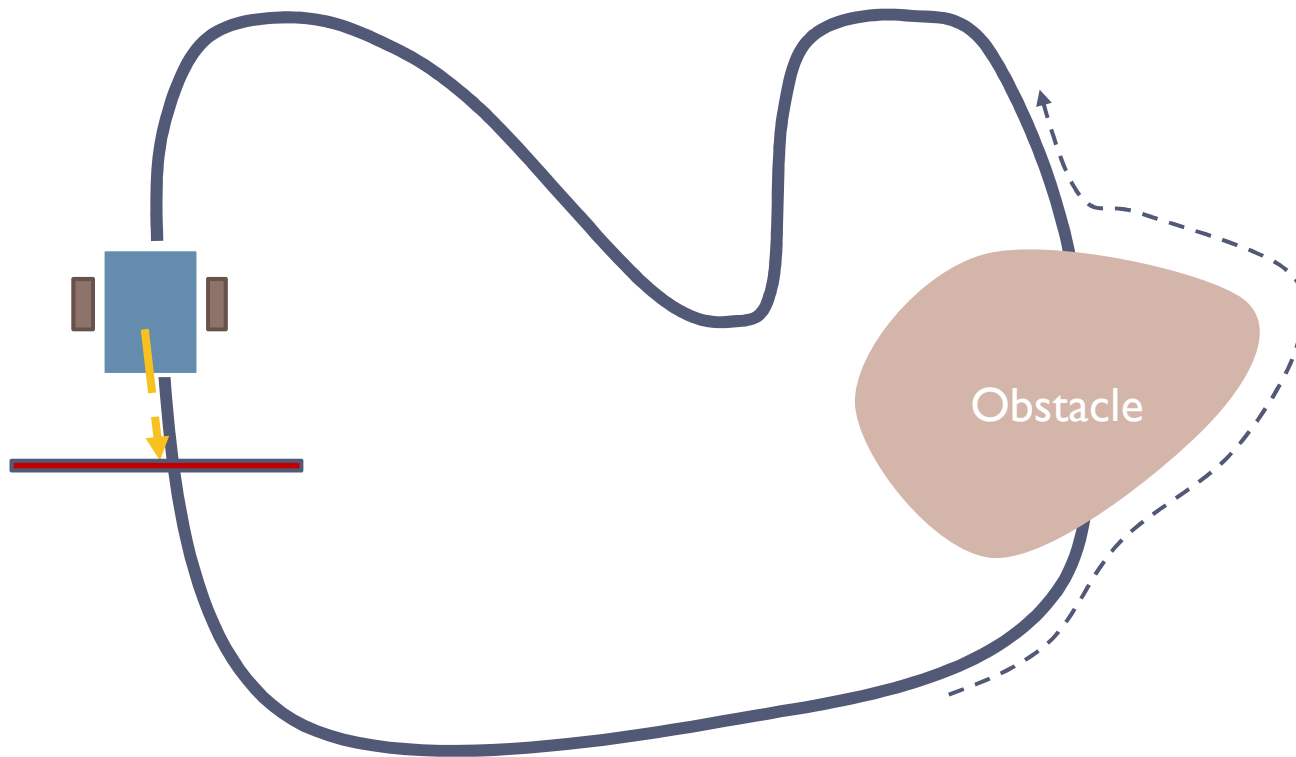
Time and dates

- For Groups with Wednesday Practical Sessions

  7 December 1000-1200

- For Groups with Friday Practical Sessions

  9 December 1500-1700

Line following + obstacle avoidance

Obstacle

Task 1

- The robot will start the line following when the "curtain" is lifted

- One obstacle with **defined geometry** will be placed at a **known location**

- The robot needs to travel around the obstacle and reach the track again accurately (< 10 cm away the obstacle, the closer the better without contact; hitting the obstacle will make this unsuccessful).

- The robot need to stop at the curtain

- Each group has three attempts

Task 2

▸ The robot will start the line following when the "curtain" is lifted

▸ One obstacle with **undefined geometry** will be placed at an **unknown location**

▸ The robot needs to detect and follow around the obstacle and reach the track again (< 10 cm away the obstacle, the closer the better without contact; hitting the obstacle will make this unsuccessful).

▸ The robot need to stop at the curtain

▸ Each group has three attempts

Marking scheme

- Complete one lap for task1-25%
- Complete one lap for task2 –25%
- Robustness (success rate) - 25%
- Speed - 25%

Code submission

Each group need to submit the code to TA 12 hours before the exam

Video Recording within 24 hours after your exam- capped at 50%